

**M-7679/M-7651A MODBUS
Communication Database
Rev. 15**



MODBUS – M-7679/M-7651A**Communication Data Base for M-7679 Recloser Control and M-7651A D-PAC****Device I.D. = 347 for M-7679****Device I.D. = 339 for M-7651A**

Specifications presented herein are thought to be accurate at the time of publication but are subject to change without notice.

NO WARRANTIES OF ANY KIND ARE IMPLIED ON THE INFORMATION CONTAINED IN THIS DOCUMENT.

Rev	00	04/2015 Initial Document Release (Phase 4)
Rev	01	06/2016 Update document for Phase 4.5, firmware version V03.11.14
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MODBUS COMMUNICATION PROTOCOL FOR M-7679/M-7651A

When the appropriate communication interface hardware is connected and the proper initialization of the communication options is complete, the data defined herein can be accessed and modified by remote communications.

This document describes the implementation of the MODBUS protocol as it relates to the M-76XX device.

The M-76XX may be programmed to support a subset of the MODBUS protocol. The following restrictions apply:

1. MODBUS protocol is supported on COM1, COM4 (rear RS232/RS485) and Ethernet.
2. Parity and Stop bits are supported, valid selections are [8,N,2], [8,N,1], [8,O,1] or [8,E,1].
3. Only RTU mode is implemented, ASCII mode is not supported.
4. Standard baud rates from 1200 to 115200 are supported.
5. Only the following 4 MODBUS commands are supported:
 - 1) Read Holding register (Function 03)
 - 2) Read Input register (Function 04)
 - 3) Preset Single Register (Function 06)
 - 4) Preset Multiple Registers (Function 16)

No more than 128 contiguous registers should be read with one request.

No more than 16 contiguous registers should be written with one request.

Read Holding Register (03) is identical to Read Input Register (04) and reads the same data.

Preset Single Register (06) or Preset Multiple Registers (16) is used to write to register(s) defined as writeable.

The following exception codes are implemented:

ILLEGAL FUNCTION	01
ILLEGAL DATA ADDRESS	02
ILLEGAL DATA VALUE	03

Register content is a two-byte data word and is transmitted and must be received most significant (high-order) byte first.

Communications is effectively half duplex in that a request packet is transmitted and a response packet received. Further requests should not be sent until the previous packet response is received.

FUNCTION RANGE TABLES

Function Range Tables are referenced in any applicable Registers, and are located at the end of the function table. When a Register lists Scale Factor, Units, Range/Increment that are **variable**, based on a hardware option or a setting in a different Register, the user will be directed to a corresponding Range Table for that Register. The Register Value is based on the hardware option or related setting (e.g., Inverse Time Curve selection). This value is described in the Range Table and the corresponding row shows the applicable Scale Factor, Units, Range/Increment for that Register Value.

The following definitions apply to the data tables in this specification:

REGISTER	Register is used in the protocol to refer to the variable listed. ■ NOTE: This protocol document uses Register Notation (one-based). ■ NOTE: Unless otherwise noted in the description the Registers are Unsigned.
SCALE FACTOR	The Raw Value of the Register is <i>divided</i> by this value to obtain the Final Value.
UNITS	Unit of measure for the described data point.
RD/W	RD/W is the READ-ONLY and WRITE/READ indicator.
NOT USED	All points defined as NOT USED can be read and will return 0 for data.
RD (READ-ONLY)	If not listed otherwise, a point is READ-ONLY .
W (WRITE/READ)	W indicates a point that may be altered by a WRITE command, or read by a READ command. All points defined as Write can also be Read.
RANGE/INCREMENT	Range – the allowable range of the point. Increment – the Raw Value of the Register is <i>multiplied</i> by this value to obtain the Final Value. <i>Example:</i> If the Increment = 0.1, Scale Factor = 10, Raw Value = 314, then Final Value = $(314 \times 0.1) / 10 = 3.14$
DESCRIPTION	Description of the communication point.

■ CYBER SECURITY NOTE:

When Cyber Security is enabled, access to any feature described in this document is subject to the Access Permissions Policy as designated by the Security Policy Administrator.

■ NOTES:

This protocol document uses Register Notation (one-based).

Multipoint writes are supported.

Multipoint reads are supported.

Reading a NOT USED point which is within the defined range of a type will return 0 for data with no error.

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Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
20	1	—	W	0-7/1	Active Profile 0 – Profile 1 1 – Profile 2 2 – Profile 3 3 – Profile 4 4 – Profile 5 5 – Profile 6 6 – Profile 7 7 – Profile 8
6360	1	—	W	1-8/1	Maximum Number of Profiles 1 – Profile 1 is available 2 – Profiles 1 & 2 are available 3 – Profiles 1 to 3 are available 4 – Profiles 1 to 4 are available 5 – Profiles 1 to 5 are available 6 – Profiles 1 to 6 are available 7 – Profiles 1 to 7 are available 8 – All 8 Profiles are available
6361-6370	1	—	W	0-65535/1	Profile 1 Label 2 ASCII characters of 20 character Example: "Beckwith Electric P1" Now 'B' and 'e' ASCII values are stored in 6361 register, 'c' and 'k' in 6362 and so on until 'P' and '1' in 6370. User should make sure that all 10 registers are written at the same time to get the correct string.
6371-6380	1	—	W	0-65535/1	Profile 2 Label Same as 6361-6370
6381-6390	1	—	W	0-65535/1	Profile 3 Label Same as 6361-6370
6391-6400	1	—	W	0-65535/1	Profile 4 Label Same as 6361-6370
6401-6410	1	—	W	0-65535/1	Profile 5 Label Same as 6361-6370
6411-6420	1	—	W	0-65535/1	Profile 6 Label Same as 6361-6370
6421-6430	1	—	W	0-65535/1	Profile 7 Label Same as 6361-6370
6431-6440	1	—	W	0-65535/1	Profile 8 Label Same as 6361-6370
21	1	—	W	1-10000/1	Phase CT Ratio
22	1	—	W	1-10000/1	Ground CT Ratio
23	1	—	W	1-10000/1	Phase PT Ratio

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
24	1	—	W	0-2 0-0/1 = Point is Disabled, Three Phase Ganged ONLY 0-1/1 = Independent Phase Option	Breaker Operation Type Range of this point is based on Independent Phase purchase option. 0-0 = Point is Disabled (Independent Phase Option is not purchased) 0-1 = Independent Phase Option is purchased Bit 0 – Three Phase Ganged Bit 1 – Single Phase (Independent Phase) 2=Single phase/Two Phase (DA Package)
25	1	—	W	0-11/1	V.T Configuration Bit 0 – Wye or Line to Ground Bit 1 – Line-To-Line Bit 2 – LG-To-LL Bit 3 – Phantom Wye A Bit 4 – Phantom Wye B Bit 5 – Phantom Wye C Bit 6 – Phantom Wye AB Bit 7 – Phantom Wye BC Bit 8 – Phantom Wye CA Bit 9 – Open Delta AB Bit 10 – Open Delta BC Bit 11 – Open Delta CA
26	1	—	W	0-7/1	Default Active Setting Group 0 – Profile 1 1 – Profile 2 2 – Profile 3 3 – Profile 4 4 – Profile 5 5 – Profile 6 6 – Profile 7 7 – Profile 8
27	1	—	W	0-1/1	Phase Rotation Bit 0 – ABC Bit 1 – ACB
28	1	—	W	0-1/1	Configuration Unit
29	100	V l-g	W	5000-30000/0.01	Nominal Voltage
30	100	Amps	W	1-1000/0.01	Nominal Current
31	1	Hz	RD	0-1/1	Nominal Frequency Bit 0 – 50HZ Bit 1 – 60HZ
32	1	--	RD	0-2/1	C.T Secondary Rating 0 – 1A 1 – 5A 2 – 5mA
33	1	—	W	0-9/1	TERMSET.I1
34	1	—	W	0-9/1	TERMSET.I2

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
35	1	–	W	0-9/1	TERMSET.I3
36	1	–	W	0-9/1	TERMSET.Ig
37	1	–	W	0-9/1	TERMSET.V1
38	1	–	W	0-9/1	TERMSET.V2
39	1	–	W	0-9/1	TERMSET.V3
45	1	–	W	0-9/1	TERMSET.V4
46	1	–	W	0-9/1	TERMSET.V5
40	1	–	W	0-9/1	TERMSET.Vx
41	1	–	W	0-1/1	Neutral Operating Current
42	1	–	W	0-1/1	Neutral Operating Voltage
43	1	–	W	20-40/1	LCD Contrast
44	1	–	W	0-5/1	Bushing Assignment or Phase Assignment for Y side 0 – ABC 1 – ACB 2 – BAC 3 – BCA 4 – CAB 5 – CBA
63	1	–	W	0-5/1	Bushing Assignment or Phase Assignment for Z side 0 – ABC 1 – ACB 2 – BAC 3 – BCA 4 – CAB 5 – CBA This register is only available when the Voltage input option is LEA L6, H6 or X6.
0	1	-	W	0-7/1	Edit Profile (Note: This point is CM type)
64	1	–	W	0-1/1	69 Lock out operation Bit 0 – Single phase Bit 1 – Three Phase Ganged
65	1	–	W	0-1/1	Reset Before Close This option allows the user to choose whether to send a Reset command before sending a Close command or send a Close command that can reset the unit and then send a close automatically. 0 – Sending Close command will reset the unit and then sends a close 1 – Before Sending Close Command the user should manually send a reset.

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
66	1	—	W	0-7/1	Profile to Edit 0 – Profile 1 1 – Profile 2 2 – Profile 3 3 – Profile 4 4 – Profile 5 5 – Profile 6 6 – Profile 7 7 – Profile 8
79	1	—	W	0-2/1	Adapter Chassis
47	1	V ,pri	W	2000-40000/1	LEA Primary Nominal Voltage
48	1000	V	W	100-12000/0.01	LEA Y Side Phase A Output Voltage Scale Factor/Range/Increment of this register changes based on the Voltage Input Option (VT, L4, H4, X4, L6, H6, X6) (See Table 1-A at the end of Configuration)
49	1000	V	W	100-12000/0.01	LEA Y Side Phase A output voltage.H
50	1000	V	W	100-12000/0.01	LEA Z Side Phase A Output Voltage Scale Factor/Range/Increment of this register changes based on the Voltage Input Option (VT, L4, H4, X4, L6, H6, X6) (See Table 1-B at the end of Configuration)
51	1000	V	W	100-12000/0.01	LEA_Z Side Phase A output voltage.H
52	1000	V	W	100-12000/0.01	LEA Y Side Phase B Output Voltage Scale Factor/Range/Increment of this register changes based on the Voltage Input Option (VT, L4, H4, X4, L6, H6, X6) (See Table 1-A at the end of Configuration)
53	1000	V	W	100-12000/0.01	LEA Y Side Phase B output voltage.H
54	1000	V	W	100-12000/0.01	LEA Z Side Phase B Output Voltage Scale Factor/Range/Increment of this register changes based on the Voltage Input Option (VT, L4, H4, X4, L6, H6, X6) (See Table 1-B at the end of Configuration)
55	1000	V	W	100-12000/0.01	LEA_Z Side Phase B output voltage.H
56	1000	V	W	100-12000/0.01	LEA Y Side Phase C Output Voltage Scale Factor/Range/Increment of this register changes based on the Voltage Input Option (VT, L4, H4, X4, L6, H6, X6) (See Table 1-A at the end of Configuration)
57	1000	V	W	100-12000/0.01	LEA Y Side Phase C output voltage.H

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
58	1000	V	W	100-12000/0.01	LEA Z Side Phase C Output Voltage Scale Factor/Range/Increment of this register changes based on the Voltage Input Option (VT, L4, H4, X4, L6, H6, X6) (See Table 1-B at the end of Configuration)
59	1000	V	W	100-12000/0.01	LEA_Z Side Phase C output voltage.H
60	100	V	W	10-1200/0.01	LEA Low Voltage Terminals Calibration Voltage
61	100	V	W	500-30000/0.01	LEA High Voltage Terminals Calibration Voltage
62	1	–	W	0-1/1	LEA Source Orientation Setting 0 – Y Side 1 – Z side This register is only available when the Voltage input option is LEA L6, H6 or X6.
67	10	Deg	W	-1800 – 1800/0.1	Phase shift compensation Vy (A)
68	10	Deg	W	-1800 – 1800/0.1	Phase shift compensation Vz (A)
69	10	Deg	W	-1800 – 1800/0.1	Phase shift compensation Vy (B)
70	10	Deg	W	-1800 – 1800/0.1	Phase shift compensation Vz (B)
71	10	Deg	W	-1800 – 1800/0.1	Phase shift compensation Vy (C)
72	10	Deg	W	-1800 – 1800/0.1	Phase shift compensation Vz (C)
73	10000	–	W	1000-20000/0.0001	LEA Y Side Phase A RCF
74	10000	–	W	1000-20000/0.0001	LEA Y Side Phase B RCF
75	10000	–	W	1000-20000/0.0001	LEA Y Side Phase C RCF
76	10000	–	W	1000-20000/0.0001	LEA Z Side Phase A RCF
77	10000	–	W	1000-20000/0.0001	LEA Z Side Phase B RCF
78	10000	–	W	1000-20000/0.0001	LEA Z Side Phase C RCF
155	10000	-	W	0-429467.295	LEA YA Multiplier
156	10000	-	W	0-429467.295	LEA YA Multiplier .H
157	10000	-	W	0-429467.295	LEA YB Multiplier
158	10000	-	W	0-429467.295	LEA YB Multiplier. H
159	10000	-	W	0-429467.295	LEA YC Multiplier
160	10000	-	W	0-429467.295	LEA YC Multiplier .H

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
161	10000	-	W	0-429467.295	LEA ZA Multiplier
162	10000	-	W	0-429467.295	LEA ZA Multiplier .H
163	10000	-	W	0-429467.295	LEA ZB Multiplier
164	10000	-	W	0-429467.295	LEA ZB Multiplier .H
165	10000	-	W	0-429467.295	LEA ZC Multiplier
166	10000	-	W	0-429467.295	LEA ZC Multiplier .H
80	1	—	W	0-21/1	Interface Type setting for Three Phase Ganged Recloser Type 0 – Custom 1 – 14C/G Traditional / GW Viper S 2 – M-2410 SEL 351R-2 3 – Custom 4 – Custom 5 – Custom 6 – 32B Multi Recloser Interface 7 – 32V GW VRC Viper ST/LT 8 – 42B Multi Recloser Interface 9 – 42B Tavrida OSM AI_2 10 – 42B Tavrida OSM AI_4 11 – 42V GW VRC Viper ST/LT 12 – Custom 13 – 42B Multi Recloser Interface with 52b Phantom 14 – M-2420 Inertia MSO 15 – 19B GW Viper-S Cooper Kyle Nova 16 – M-2406 Cooper Form 6 17 – 24A ABB OVR3 18 – ABB Multi Recloser Interface 19 – 24G ABB Grid Shield (L) 20 – 32H Hubbell LIBERTY 3GR 21 – 32H Hubbell LIBERTY LBS
81	1	—	W	0-11/1	VT Configuration Z side See Register 25 above for definition
82	1	—	W	0-1/1	Voltage Transducers Y Side 0 – VT 1 – LEA
83	1	—	W	0-1/1	Voltage Transducers Z side 0 – VT 1 – LEA

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
84	1	—	W	0-11/1	Interface Type setting for Independent Phase Capable Recloser Type 0 – Custom 1 – 32V G&W VRC Viper ST/LT 2 – 42V G&W VRC Viper ST/LT 3 – 32B Multi Recloser Interface 4 – 42B Multi Recloser Interface 5 – 42B Tavrida OSM AI_4 6 – 42B Multi Interface with 52b Phantom 7 – Custom 8 – 24A ABB OVR3 9 – ABB Multi Recloser Interface 10 – 24G ABB Grid Shield (L) 11 – 32H Hubbell LIBERTY Triple-Single
85	1	-	W	0-7/1	CT Polarity Reversal (Applicable only to 6 Channel LEA)
86	1	-	W	0-1/1	External Command Enable 0 – Disable 1 – Enable
87	1	—	-	0-1/1	Smart Pulse. Enable
108	1	-	W	0-65535/1	Interface Configurator Manufacturer 0-None 1-Abb 2-Cooper 3-G and W 4-Hss Whipp and Bourne 5-Siemens 6-Tavrida 7-Elastimold 8-S and C 9-Inertia 10-Resead 11-HUBBELL
109	1	-	W	0-255/1	Arc light sensitivity #1
110	1	-	W	0-255/1	Arc light sensitivity #2
111	1	-	W	0-255/1	Arc light sensitivity #3
112	1	-	W	0-255/1	Arc light sensitivity #4
113	1	-	W	0-18/1	Phase Angle Reference

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
114	1	-	W	0-131071/1	Smart function Remote Mask
115	1	-	W	0-131071/1	Smart function Remote Mask.H
116	1	-	W	0-4294967295	REMOTE REBOOT (Note: This Point is CM Access)
117	1	-	W	0-4294967295	REMOTE REBOOT.H
118	1	-	W	0-2/1	RMS_DFT_SELECTION
119	1000	-	W	100-1500/0.001	DC_OFFSET_RATIO
145	1	-	W	0-1/1	Trip Mode Status
146	1	-	W	0-1/1	Lockout Mode Status
147	1	min	W	0-1440/1	Fault Current 1stT Reset
148	1	-	W	0-1/1	Enable Fault Current
149	1	-	W	0-1/1	PROT Elem Tripouts
150	1	-	W	0-1/1	79 Global Operation Mode Status
151	1	-	W	1-6/1	Pole Configuration
152	1	-	W	0-5/1	Bushing AssignmentYZ
153	1	-	W	0-7/1	ALTPROFILE
154	1	-	W	0-1/1	BOOTINTODFLTPROF
120	1	-	-	0-4294947295	Get File length
121	1	-	-	0-4294947295	Get File length

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
100	1	-	W	0-65535/1	Generic Analog Output.1
101	1	—	W	0-65535/1	Generic Analog Output.2
102	1	—	W	0-65535/1	Generic Analog Output.3
103	1	—	W	0-65535/1	Generic Analog Output.4
104	1	—	W	0-65535/1	Generic Binary Output
106	100	—	W	0-500/0.01	Open Breaker Time
107	100	—	W	0-500/0.01	Close Breaker Time
650	1	—	W	0-4095/1	Inputs Active State Bit 0 – Input 1 Bit 6 – Input 7 Bit 1 – Input 2 Bit 7 – Input 8 Bit 2 – Input 3 Bit 8 – Input 9 Bit 3 – Input 4 Bit 9 – Input 10 Bit 4 – Input 5 Bit 10 – Input 11 Bit 5 – Input 6 Bit 11 – Input 12
680	1	ms	W	50-5000/1	Input 1 Debounce Timer
681	1	ms	W	50-5000/1	Input 2 Debounce Timer
682	1	ms	W	50-5000/1	Input 3 Debounce Timer
683	1	ms	W	50-5000/1	Input 4 Debounce Timer
684	1	ms	W	50-5000/1	Input 5 Debounce Timer
685	1	ms	W	50-5000/1	Input 6 Debounce Timer
686	1	ms	W	50-5000/1	Input 7 Debounce Timer
687	1	ms	W	50-5000/1	Input 8 Debounce Timer
688	1	ms	W	50-5000/1	Input 9 Debounce Timer
689	1	ms	W	50-5000/1	Input 10 Debounce Timer
690	1	ms	W	50-5000/1	Input 11 Debounce Timer
691	1	ms	W	50-5000/1	Input 12 Debounce Timer

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
692- 703	1	—	W	0-19/1	Input function 1-12 0 – 52a Phase A 1 – 52a Phase B 2 – 52a Phase C 3 – 52b Phase A 4 – 52b Phase B 5 – 52b Phase C 6 – 69 Lockout Phase A 7 – 69 Lockout Phase B 8 – 69 Lockout Phase C 9 – Gas Pressure 10 – General 11 – Hot line tag 12 – Profile Switching 13 – G and W Mode Phase A 14 – G and W Mode Phase B 15 – G and W Mode Phase C 16 – Battery Alarm 17 – AC Status 18 – Close ABC 19 – Trip ABC
1003	1	—	W	0-2/1	Output Characteristic 1 0 – Direct 1 – Latched 2 – Pulsed
1004	1	—	W	0-2/1	Output Characteristic 2 0 – Direct 1 – Latched 2 – Pulsed
1005	1	—	W	0-2/1	Output Characteristic 3 0 – Direct 1 – Latched 2 – Pulsed
1006	1	—	W	0-2/1	Output Characteristic 4 0 – Direct 1 – Latched 2 – Pulsed
1007	1	—	W	0-2/1	Output Characteristic 5 0 – Direct 1 – Latched 2 – Pulsed
1008	1	—	W	0-2/1	Output Characteristic 6 0 – Direct 1 – Latched 2 – Pulsed
1009	1	—	W	0-2/1	Output Characteristic 7 0 – Direct 1 – Latched 2 – Pulsed

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1010	1	–	W	0-2/1	Output Characteristic 8 0 – Direct 1 – Latched 2 – Pulsed
1011	1	–	W	0-2/1	Output Characteristic 9 0 – Direct 1 – Latched 2 – Pulsed
1012	1	–	W	0-2/1	Output Characteristic 10 0 – Direct 1 – Latched 2 – Pulsed
1013	1	–	W	0-2/1	Output Characteristic 11 0 – Direct 1 – Latched 2 – Pulsed
1014	1	–	W	0-2/1	Output Characteristic 12 0 – Direct 1 – Latched 2 – Pulsed
1015	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 1
1016	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 2
1017	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 3
1018	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 4
1019	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 5
1020	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 6
1021	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 7
1022	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 8
1023	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 9
1024	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 10
1025	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 11
1026	100	s	W	1-13600/0.01	Output Pulse Width/Seal-In Timer 12

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1036	1	—	W	0-65535/1	Remote Output Control Enable Bit 0 – Enable Remote Output 1 Control Bit 1 – Enable Remote Output 2 Control Bit 2 – Enable Remote Output 3 Control Bit 3 – Enable Remote Output 4 Control Bit 4 – Enable Remote Output 5 Control Bit 5 – Enable Remote Output 6 Control Bit 6 – Enable Remote Output 7 Control Bit 7 – Enable Remote Output 8 Control Bit 8 – Enable Remote Output 9 Control Bit 9 – Enable Remote Output 10 Control Bit 10 – Enable Remote Output 11 Control Bit 11 – Enable Remote Output 12 Control
1049	1	Sec	W	0-90/1	Manual Reclose Delay
1051-1062	1	—	W	0-11/1	Output Function 1-12 0 – Trip A 1 – Trip B 2 – Trip C 3 – Close A 4 – Close B 5 – Close C 6 – General 7 – Hot Line Tag 8 – Alarm 9 – Battery Alarm 10 – Trip ABC 11 – Close ABC
1063	1	-	W	0-65535/1	Breaker Open Block Outputs
1064	1	-	W	0-65535/1	Breaker Close Block Outputs
*MODBUS Registers with Gray shading are not available in M-7651A.					
105	1	-	W	0-2/1	Pressure Detection 1-SF6 Contact 2-SF6 Voltage
88	10	-	W	1-100000/0.1	LEA Y Side Phase A PT ratio.
89	10	-	W	1-100000/0.1	High byte register LEA Y Side Phase A PT ratio.
90	10	-	W	1-100000/0.1	LEA Y Side Phase B PT ratio.
91	10	-	W	1-100000/0.1	High byte register LEA Y Side Phase B PT ratio.
92	10	-	W	1-100000/0.1	LEA Y Side Phase C PT ratio.
93	10	-	W	1-100000/0.1	High byte register LEA Y Side Phase C PT ratio.
94	10	-	W	1-100000/0.1	LEA Z Side Phase A PT ratio.
95	10	-	W	1-100000/0.1	High byte register LEA Z Side Phase A PT ratio.
96	10	-	W	1-100000/0.1	LEA Z Side Phase B PT ratio.
97	10	-	W	1-100000/0.1	High byte register LEA Z Side Phase B PT ratio

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
98	10	-	W	1-100000/0.1	LEA Z Side Phase C PT ratio.
99	10	-	W	1-100000/0.1	High byte register LEA Z Side Phase C PT ratio.
704	1	-	W	0-4095/1	Debounce Timer ACDC Option 0-DC 1-AC Bit 0- Input 1 Bit 1- Input 2 But 2- Input 3 Bit 3- Input 4 Bit 4- Input 5 Bit 5- Input 6 Bit 6- Input 7 Bit 7- Input 8 Bit 8- Input 9 Bit 9 – Input 10 Bit 10- Input 11 Bit 11- Input 12
705	1	-	W	0-65535/1	Breaker Status Delay
706	1	-	W	0-65535/1	Input map 1
707	1	-	W	0-65535/1	Input map 2
708	1	-	W	0-65535/1	Input map 3
709	1	-	W	0-65535/1	Input map 4
710	1	-	W	0-65535/1	Input map 5
711	1	-	W	0-65535/1	Input map 6
712	1	-	W	0-65535/1	Input map 7
713	1	-	W	0-65535/1	Input map 8
714	1	-	W	0-65535/1	Input map 9
715	1	-	W	0-65535/1	Input map 10
716	1	-	W	0-65535/1	Input map 11
717	1	-	W	0-65535/1	Input map 12
0	1	-	W	0-65535/1	Input.Extended.IPSLOGIC.1
0	1	-	W	0-65535/1	Input.Extended.IPSLOGIC.2
0	1	-	W	0-65535/1	Input.Extended.IPSLOGIC.3
0	1	-	W	0-65535/1	Input.Extended.IPSLOGIC.4
0	1	-	W	0-65535/1	Input.Extended.IPSLOGIC.5
0	1	-	W	0-65535/1	Input.Extended.IPSLOGIC.6
0	1	-	W	0-65535/1	Input.Extended.IPSLOGIC.7

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
0	1	-	W	0-65535/1	Input.Extended.IPSLOGIC.8
0	1	-	W	0-65535/1	Input.Extended.COMIPSLOGIC.1
0	1	-	W	0-65535/1	Input.Extended.COMIPSLOGIC.2
0	1	-	W	0-65535/1	Input.Extended.COMIPSLOGIC.3
0	1	-	W	0-65535/1	Input.Extended.COMIPSLOGIC.4
0	1	-	W	0-65535/1	Input.Extended.COMIPSLOGIC.5
0	1	-	W	0-65535/1	Input.Extended.COMIPSLOGIC.6
0	1	-	W	0-65535/1	Input.Extended.COMIPSLOGIC.7
0	1	-	W	0-65535/1	Input.Extended.COMIPSLOGIC.8
746	1	-	W	0-4294967295/1	Input.Open Lockout Initiate
747	1	-	W	0-4294967295/1	Input.Open Lockout Initiate.H
748	1	-	W	0-4294967295/1	Input. Close Initiate
749	1	-	W	0-4294967295/1	Input. Close Initiate.H
750	1	-	W	0-4294967295/1	Breaker Open Block Inputs
751	1	-	W	0-4294967295/1	BrkrOpenBlockInputs.H
752	1	-	W	0-4294967295/1	Breaker Close Block Inputs
753	1	-	W	0-4294967295/1	Breaker Close Block Inputs.H
5556	1	-	W	0-1/1	Show only with fault current
651	1	-	W	0-65535/1	Input function 52b Phase A Bit 0- Input 1 Bit 1- Input 2 Bit 2 – Input 3 Bit 3- Input 4 Bit 4- Input 5 Bit 5- Input 6 Bit 6- Input 7 Bit 7- Input 8 Bit 8 – Input 9 Bit 9- Input 10 Bit 10- Input 11 Bit 11- Input 12
652	1	-	W	0-65535/1	Input function 52b Phase B Bit description same as Register No : 651
653	1	-	W	0-65535/1	Input function 52b Phase C Bit description same as Register No : 651
654	1	-	W	0-65535/1	Input function 52a Phase A Bit description same as Register No : 651

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
655	1	-	W	0-65535/1	Input function 52a Phase B Bit description same as Reg No: 651
656	1	-	W	0-65535/1	Input function 52a Phase C Bit description same as Register No : 651
657	1	-	W	0-65535/1	Input function 69 Lockout Phase ABC Bit description same as Register No : 651
672	1	-	W	0-65535/1	Input function 69 Lockout Phase A Bit description same as RegisterNo:651
673	1	-	W	0-65535/1	Input function 69 Lockout Phase B Bit description same as Register No : 651
674	1	-	W	0-65535/1	Input function 69 Lockout Phase C Bit description same as Register No : 651
658	1	-	W	0-65535/1	Input function Gas Pressure Bit description same as Register No : 651
659	1	-	W	0-65535/1	Input function General Bit description same as Register No : 651
660	1	-	W	0-4095/1	Input function Hot line Tag Bit description same as Register No : 651
661	1	-	W	0-4095/1	Input function Profile Switch Bit description same as Register No : 651
662	100	Sec	W	1-1000/0.01	Profile Debounce Time
663	1	-	W	0-1/1	Input function 52b/69 Lockout Phase ABC Bit description same as Register No : 651
675	1	-	W	0-1/1	Input function 52b/69 Lockout Phase A Bit description same as Register No : 651
676	1	-	W	0-1/1	Input function 52b/69 Lockout Phase B Bit description same as Register No : 651
677	1	-	W	0-1/1	Input function 52b/69 Lockout Phase C Bit description same as Register No : 651
0	1	-	-	0-57344/1	Input function IPSLOGIC #1 Bit position-0
0	1	-	W	0-57344/1	Input function IPSLOGIC #2 Bit position-1
0	1	-	W	0-57344/1	Input function IPSLOGIC #3 Bit position-2
0	1	-	W	0-57344/1	Input function IPSLOGIC #4 Bit position-3
0	1	-	W	0-57344/1	Input function IPSLOGIC #5 Bit position-4

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
0	1	-	W	0-57344/1	Input function IPSLOGIC #6 Bit position-5
0	1	-	W	0-57344/1	Input function IPSLOGIC #7 Bit position-6
0	1	-	W	0-57344/1	Input function IPSLOGIC #8 Bit position-7
678	1	-	W	0-1024/1	Input function Battery Alarm Bit description same as Register No : 651
679	1	-	W	0-2048/1	Input function AC status Bit description same as Register No : 651
722	1	-	W	0-80/1	Virtual Input Configuration 1
723	1	-	W	0-80/1	Virtual Input Configuration 2
724	1	-	W	0-80/1	Virtual Input Configuration 3
725	1	-	W	0-80/1	Virtual Input Configuration 4
726	1	-	W	0-80/1	Virtual Input Configuration 5
727	1	-	W	0-80/1	Virtual Input Configuration 6
728	1	-	W	0-80/1	Virtual Input Configuration 7
729	1	-	W	0-80/1	Virtual Input Configuration 8
730	1	-	W	0-80/1	Virtual Input Configuration 9
731	1	-	W	0-80/1	Virtual Input Configuration 10
732	1	-	W	0-80/1	Virtual Input Configuration 11
733	1	-	W	0-80/1	Virtual Input Configuration 12
734	1	-	W	0-80/1	Virtual Input Configuration 13
735	1	-	W	0-80/1	Virtual Input Configuration 14
736	1	-	W	0-80/1	Virtual Input Configuration 15
737	1	-	W	0-80/1	Virtual Input Configuration 16
738	1	-	W	0-80/1	Virtual Input Configuration 17
739	1	-	W	0-80/1	Virtual Input Configuration 18
740	1	-	W	0-80/1	Virtual Input Configuration 19
1000	1	-	W	0-65535/1	Output function Direct
1001	1	-	W	0-65535/1	Output function Latch
1002	1	-	W	0-65535/1	Output function pulse

Table 1 Configuration

Configuration					
Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1027	1	-	W	0-65535/1	Output function Trip A Bit 0- Output 1 Bit 1- Outpu2 Bit 2 – Output 3 Bit 3- Outpu4 Bit 4- Outpu5 Bit 5- Outpu6 Bit 6- Outpu7 Bit 7- Outpu8 Bit 8 – Outpu9 Bit 9- Outpu10 Bit 10- Outpu11 Bit 11- Outpu12
1028	1	-	W	0-65535/1	Output function Trip B Bit descriptions same as Register Number : 1027
1029	1	-	W	0-65535/1	Output function Trip C Bit description same as Register Number : 1027
1030	1	-	W	0-65535/1	Output function Close A Bit description same as Register Number : 1027
1031	1	-	W	0-65535/1	Output function Close B Bit description same as RegNo:1027
1032	1	-	W	0-65535/1	Output function Close C Bit descriptions same as Register Number : 1027
1033	1	-	W	0-65535/1	Output function General Bit descriptions same as Register Number : 1027
1034	1	-	W	0-65535/1	Output function Hot line Tag Bit descriptions same as Register Number : 1027
1035	1	-	W	0-65535/1	Output function Alarm Bit descriptions same as Register Number : 1027
1050	1	-	W	0-65535/1	Output function Battery Test Bit descriptions same as Register Number : 1027
1036	1	-	W	0-65535/1	Output function Remote Bit descriptions same as Register Number : 1027
1037	100	s	W	0-6000/0.01	Time Delay.1
1038	100	s	W	0-6000/0.01	Time Delay.2
1039	100	s	W	0-6000/0.01	Time Delay.3
1040	100	s	W	0-6000/0.01	Time Delay.4
1041	100	s	W	0-6000/0.01	Time Delay.5
1042	100	s	W	0-6000/0.01	Time Delay.6
1043	100	s	W	0-6000/0.01	Time Delay.7
1044	100	s	W	0-6000/0.01	Time Delay.8

Table 1 Configuration

Configuration

Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A

MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1045	100	s	W	0-6000/0.01	Time Delay.9
1046	100	s	W	0-6000/0.01	Time Delay.10
1047	100	s	W	0-6000/0.01	Time Delay.11
1048	100	s	W	0-6000/0.01	Time Delay.12

TABLE 1-A LEA Y SIDE OUTPUT VOLTAGE

DESCRIPTION	SCALE FACTOR	RANGE/INCREMENT
Factory Hardware LEA Voltage Input Option is VT	1	6000-30000/0.01
Factory Hardware LEA Voltage Input Option is L4	1	10-1200/0.01
Factory Hardware LEA Voltage Input Option is X4	1	10-1200/0.01
Factory Hardware LEA Voltage Input Option is H6	1	6000-30000/0.01
Factory Hardware LEA Voltage Input Option is L6	1	10-1200/0.01
Factory Hardware LEA Voltage Input Option is X6	1	10-1200/0.01
Factory Hardware LEA Voltage Input Option is H4	1	6000-30000/0.01

LEA Y Side Range Table

Table 1 Configuration

TABLE 1-B LEA Z SIDE OUTPUT VOLTAGE		
DESCRIPTION	SCALE FACTOR	RANGE/INCREMENT
Factory Hardware LEA Voltage Input Option is VT	1	6000-30000/0.01
Factory Hardware LEA Voltage Input Option is L4	1	10-1200/0.01
Factory Hardware LEA Voltage Input Option is X4	1	6000-30000/0.01
Factory Hardware LEA Voltage Input Option is H6	1	6000-30000/0.01
Factory Hardware LEA Voltage Input Option is L6	1	10-1200/0.01
Factory Hardware LEA Voltage Input Option is X6	1	6000-30000/0.01
Factory Hardware LEA Voltage Input Option is H4	1	6000-30000/0.01

LEA Z Side Range Table

Table 1 Configuration

User Lines Profiles #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7000-7009 9300-9309 11600-11609 13900-13909 16200-16209 18500-18509 20800-20809 23100-23109	1	—	W	0-65535	User Line 1 text 2 ASCII characters of 20-character User Line 1 Example: "Beckwith Electric P1" Now 'B' and 'e' ASCII values are stored in 7000 register, 'c' and 'k' in 7001 and so on until 'P' and '1' in 7009. User should make sure that all 10 registers are written at the same time to get the correct string.
1 2 3 4 5 6 7 8	7010-7019 9310-9319 11610-11619 13910-13919 16210-16219 18510-18519 20810-20819 23110-23119	1	—	W	0-65535	User Line 2 2 ASCII characters of 20-character User Line 2 Example: "Beckwith Electric P1" Now 'B' and 'e' ASCII values are stored in 7000 register, 'c' and 'k' in 7001 and so on until 'P' and '1' in 7009. User should make sure that all 10 registers are written at the same time to get the correct string.

Table 2.0 User Lines

Function 25 Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: Standard Function 25 Registers indicate Pole 1 Setpoints						
1 2 3 4 5 6 7 8	46820 49120 51420 53720 56020 58320 60620 62920	1	—	W	0-4294967295 / 1	25 Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	46821 49121 51421 53721 56021 58321 60621 62921	1	—	W	0-4294967295 / 1	25 Blocking Inputs.H Pole1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7021 9321 11621 13921 16221 18521 20821 23121	1	—	W	0-4095 / 1	25 Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7022 9322 11622 13922 16222 18522 20822 23122	1	—	W	0-1/ 1	25 Enable Pole1 Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7023 9323 11623 13923 16223 18523 20823 23123	1	—	W	0-3/ 1	25 Reference Phase A Phase B Phase C

Table 2.01 Function 25 Setpoints

Function 25 Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7024 9324 11624 13924 16224 18524 20824 23124	1	—	W	0-63 / 1	25 Under voltage Enable Pole1 Bit 0 – Dead Line/Dead Bus Bit 1- Dead Line/ Live Bus Bit 2- Live Line/Dead Bus
1 2 3 4 5 6 7 8	7025 9325 11625 13925 16225 18525 20825 23125	10	V,sec	W	0-2000/0.1	25 Line Min Voltage Pole1
1 2 3 4 5 6 7 8	7026 9326 11626 13926 16226 18526 20826 23126	10	V,sec	W	0-2000/0.1	25 Bus Min Voltage Pole1
1 2 3 4 5 6 7 8	7027 9327 11627 13927 16227 18527 20827 23127	100	Sec	—	1-60000/0.01	25 Max/Min Time Delay Pole1
1 2 3 4 5 6 7 8	7028 9328 11628 13928 16228 18528 20828 23128	100	V,sec	W	1000-30000/0.01	25 Min Voltage Pole1
1 2 3 4 5 6 7 8	7029 9329 11629 13929 16229 18529 20829 23129	100	Degrees	W	0-9000/0.01	25 Angle Difference Pole1

Table 2.01 Function 25 Setpoints

Function 25 Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7030 9330 11630 13930 16230 18530 20830 23130	100	V _{sec}	W	0-30000/0.01	25 Magnitude Difference Pole1
1 2 3 4 5 6 7 8	7031 9331 11631 13931 16231 18531 20831 23131	100	Hz	W	0-500/0.01	25 Frequency Difference Pole1
1 2 3 4 5 6 7 8	7032 9332 11632 13932 16232 18532 20832 23132	100	V _{sec}	W	1000-30000/0.01	25 Max Voltage Pole1
1 2 3 4 5 6 7 8	7033 9333 11633 13933 16233 18533 20833 23133	1	–	W	0-1/1	25 Line Voltage Side Pole1 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.
25.2 Registers are only available with Option P and indicate Pole 2 Setpoints						
1 2 3 4 5 6 7 8	46822 49122 51422 53722 56022 58322 60622 62922	1	–	W	0-4294967295 / 1	25.2 Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3

Table 2.01 Function 25 Setpoints

Function 25 Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46823 49123 51423 53723 56023 58323 60623 62923	1	—	W	0-4294967295 / 1	25.2 Blocking Inputs.H Pole2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7035 9335 11635 13935 16235 18535 20835 23135	1	—	W	0-4095 / 1	25.2 Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7036 9336 11636 11936 16236 18536 20836 23136	1	—	W	0-1/ 1	25.2 Enable Pole2 Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7038 9338 11638 11938 16238 18538 20838 23138	1	—	W	0-63 / 1	25.2 Under voltage Enable Pole2 Bit 0 – Dead Line/Dead Bus Bit 1- Dead Line/ Live Bus Bit 2- Live Line/Dead Bus
1 2 3 4 5 6 7 8	7039 9339 11639 11939 16239 18539 20839 23139	10	V,sec	W	0-2000/0.1	25.2 Line Min Voltage Pole2
1 2 3 4 5 6 7 8	7040 9340 11640 11940 16240 18540 20840 23140	10	V,sec	W	0-2000/0.1	25.2 Bus Min Voltage Pole2

Table 2.01 Function 25 Setpoints

Function 25 Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7041 9341 11641 11941 16241 18541 20841 23141	100	Sec	–	1-60000/0.01	25.2 Max/Min Time Delay Pole2
1 2 3 4 5 6 7 8	7042 9342 11642 11941 16242 18542 20842 23142	100	V,sec	W	1000-30000/0.01	25.2 Min Voltage Pole2
1 2 3 4 5 6 7 8	7043 9343 11643 11942 16243 18543 20843 23143	100	Degrees	W	0-9000/0.01	25.2 Angle Difference Pole2
1 2 3 4 5 6 7 8	7044 9344 11644 11943 16244 18544 20844 23144	100	V,sec	W	0-30000/0.01	25.2 Magnitude Difference Pole2
1 2 3 4 5 6 7 8	7045 9345 11645 11944 16245 18545 20845 23145	100	Hz	W	0-500/0.01	25.2 Frequency Difference Pole2
1 2 3 4 5 6 7 8	7046 9346 11646 11945 16246 18546 20846 23146	100	V,sec	W	1000-30000/0.01	25.2 Max Voltage Pole2

Table 2.01 Function 25 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46824 49124 51424 53724 56024 58324 60624 62924	1	—	W	0-4294967295 / 1	27 #1 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46825 49125 51425 53725 56025 58325 60625 62925	1	—	W	0-4294967295 / 1	27 #1 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7061 9361 11661 13961 16261 18561 20861 23161	1	—	W	0-4095/1	27 #1 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7062 9362 11662 13962 16262 18562 20862 23162	1	—	W	0-1/1	27 #1 Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7063 9363 11663 13963 16263 18563 20863 23163	100	V, sec	W	1000-30000/0.01	27 #1 Phase ABC Pickup

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7064 9364 11664 13964 16264 18564 20864 23164	100	S	W	0-60000/0.01	27 #1 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7065 9365 11665 13965 16265 18565 20865 23165	1	–	W	0-1/1	27 #1 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	7144 9444 11744 14044 16344 18644 20944 23244	1	–	W	0-255/1	27 Operating Voltage Side 0 – Y Side 1 – Z Side Bit 0 – 27 #1 Bit 1 – 27 #2 Bit 2 – 27 #3 Bit 3 – 27 #4 Bit 4 – 27 #5 Bit 5 – 27 #6 Bit 6 – 27 #7 Bit 7 – 27 #8 NOTE: This Register is available with a 6LEA Hardware Option.
1 2 3 4 5 6 7 8	46826 49126 51426 53726 56026 58326 60626 62926	1	–	W	0-4294967295 / 1	27 #2 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46827 49127 51427 53727 56027 58327 60627 62927	1	–	W	0-4294967295 / 1	27 #2 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7067 9367 11667 13967 16267 18567 20867 23167	1	—	W	0-4095/1	27 #2 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7068 9368 11668 13968 16268 18568 20868 23168	1	—	W	0-1/1	27 #2 Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7069 9369 11669 13969 16269 18569 20869 23169	100	V, sec	W	1000-30000/0.01	27 #2 Phase ABC Pickup
1 2 3 4 5 6 7 8	7070 9370 11670 13970 16270 18570 20870 23170	100	S	W	0-60000/0.01	27 #2 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7071 9371 11671 13971 16271 18571 20871 23171	1	—	W	0-1/1	27 #2 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	46828 49128 51428 53728 56028 58328 60628 62928	1	—	W	0-4294967295 / 1	27 #3 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46829 49129 51429 53729 56029 58329 60629 62929	1	—	W	0-4294967295 / 1	27 #3 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7073 9373 11673 13973 16273 18573 20873 23173	1	—	W	0-4095/1	27 #3 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7074 9374 11674 13974 16274 18574 20874 23174	1	—	W	0-1/1	27 #3 Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7075 9375 11675 13975 16275 18575 20875 23175	100	V, sec	W	1000-30000/0.01	27 #3 Phase ABC Pickup
1 2 3 4 5 6 7 8	7076 9376 11676 13976 16276 18576 20876 23176	100	S	W	0-60000/0.01	27 #3 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7077 9377 11677 13977 16277 18577 20877 23177	1	—	W	0-1/1	27 #3 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46830 49130 51430 53730 56030 58330 60630 62930	1	—	W	0-4294967295 / 1	27 #4 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46831 49131 51431 53731 56031 58331 60631 62931	1	—	W	0-4294967295 / 1	27 #4 Phase ABC Blocking Inputs Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7079 9379 11679 13979 16279 18579 20879 23179	1	—	W	0-4095/1	27 #4 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7080 9380 11680 13980 16280 18580 20880 23180	1	—	W	0-1/1	27 #4 Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7081 9381 11681 13981 16281 18581 20881 23181	100	V, sec	W	1000-30000/0.01	27 #4 Phase ABC Pickup

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7082 9382 11682 13982 16282 18582 20882 23182	100	S	W	0-60000/0.01	27 #4 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7083 9383 11683 13983 16283 18583 20883 23183	1	–	W	0-1/1	27 #4 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
With Option P: standard Function 27 Phase A Registers indicate Pole 1 Setpoints						
1 2 3 4 5 6 7 8	46832 49132 51432 53732 56032 58332 60632 62932	1	–	W	0-4294967295 / 1	27 #1 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46833 49133 51433 53733 56033 58333 60633 62933	1	–	W	0-4294967295 / 1	27 #1 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7085 9385 11685 13985 16285 18585 20885 23185	1	–	W	0-4095/1	27 #1 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7086 9386 11686 13986 16286 18586 20886 23186	1	—	W	0-1/1	27 #1 Phase A Enable (or Pole 1) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7087 9387 11687 13987 16287 18587 20887 23187	100	V, sec	W	1000-30000/0.01	27 #1 Phase A Pickup (or Pole 1)
1 2 3 4 5 6 7 8	7088 9388 11688 13988 16288 18588 20888 23188	100	S	W	0-60000/0.01	27 #1 Phase A Definite Time (or Pole 1)
With Option P: standard Function 27 Phase B Registers indicate Pole 2 Setpoints						
1 2 3 4 5 6 7 8	46834 49134 51434 53734 56034 58334 60634 62934	1	—	W	0-4294967295 / 1	27 #1 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46835 49135 51435 53735 56035 58335 60635 62935	1	—	W	0-4294967295 / 1	27 #1 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7090 9390 11690 13990 16290 18590 20890 23190	1	—	W	0-4095/1	27 #1 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7091 9391 11691 13991 16291 18591 20891 23191	1	—	W	0-1/1	27 #1 Phase B Enable (or Pole 2) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7092 9392 11692 13992 16292 18592 20892 23192	100	V, sec	W	1000-30000/0.01	27 #1 Phase B Pickup (or Pole 2)
1 2 3 4 5 6 7 8	7093 9393 11693 13993 16293 18593 20893 23193	100	S	W	0-60000/0.01	27 #1 Phase B Definite Time (or Pole 2)
1 2 3 4 5 6 7 8	46836 49136 51436 53736 56036 58336 60636 62936	1	—	W	0-4294967295 / 1	27 #1 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46837 49137 51437 53737 56037 58337 60637 62937	1	—	W	0-4294967295 / 1	27 #1 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7095 9395 11695 13995 16295 18595 20895 23195	1	—	W	0-4095/1	27 #1 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7096 9396 11696 13996 16296 18596 20896 23196	1	—	W	0-1/1	27 #1 Phase C Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7097 9397 11697 13997 16297 18597 20897 23197	100	V, sec	W	1000-30000/0.01	27 #1 Phase C Pickup
1 2 3 4 5 6 7 8	7098 9398 11698 13998 16298 18598 20898 23198	100	S	W	0-60000/0.01	27 #1 Phase C Definite Time

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46838 49138 51438 53738 56038 58338 60638 62938	1	—	W	0-4294967295 / 1	27 #2 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46839 49139 51439 53739 56039 58339 60639 62939	1	—	W	0-4294967295 / 1	27 #2 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7100 9400 11700 14000 16300 18600 20900 23200	1	—	W	0-4095/1	27 #2 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7101 9401 11701 14001 16301 18601 20901 23201	1	—	W	0-1/1	27 #2 Phase A Enable (or Pole 1) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7102 9402 11702 14002 16302 18602 20902 23202	100	V, sec	W	1000-30000/0.01	27 #2 Phase A Pickup (or Pole 1)

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7103 9403 11703 14003 16303 18603 20903 23203	100	S	W	0-60000/0.01	27 #2 Phase A Definite Time (or Pole 1)
1 2 3 4 5 6 7 8	46840 49140 51440 53740 56040 58340 60640 62940	1	—	W	0-4294967295 / 1	27 #2 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46841 49141 51441 53741 56041 58341 60641 62941	1	—	W	0-4294967295 / 1	27 #2 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7105 9405 11705 14005 16305 18605 20905 23205	1	—	W	0-4095/1	27 #2 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7106 9406 11706 14006 16306 18606 20906 23206	1	—	W	0-1/1	27 #2 Phase B Enable (or Pole 2) Bit-0 Enable-1; Disable-0

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7107 9407 11707 14007 16307 18607 20907 23207	100	V, sec	W	1000-30000/0.01	27 #2 Phase B Pickup (or Pole 2)
1 2 3 4 5 6 7 8	7108 9408 11708 14008 16308 18608 20908 23208	100	S	W	0-60000/0.01	27 #2 Phase B Definite Time (or Pole 2)
1 2 3 4 5 6 7 8	46842 49142 51442 53742 56042 58342 60642 62942	1	—	W	0-4294967295 / 1	27 #2 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46843 49143 51443 53743 56043 58343 60643 62943	1	—	W	0-4294967295 / 1	27 #2 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7110 9410 11710 14010 16310 18610 20910 23210	1	—	W	0-4095/1	27 #2 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7111 9411 11711 14011 16311 18611 20911 23211	1	—	W	0-1/1	27 #2 Phase C Enable
1 2 3 4 5 6 7 8	7112 9412 11712 14012 16312 18612 20912 23212	100	V I-g,sec	W	1000-30000/0.01	27 #2 Phase C Pickup
1 2 3 4 5 6 7 8	7113 9413 11713 14013 16313 18613 20913 23213	100	S	W	0-60000/0.01	27 #2 Phase C Definite Time
1 2 3 4 5 6 7 8	46844 49144 51444 53744 56044 58344 60644 62944	1	—	W	0-4294967295 / 1	27 #3 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46845 49145 51445 53745 56045 58345 60645 62945	1	—	W	0-4294967295 / 1	27 #3 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7115 9415 11715 14015 16315 18615 20915 23215	1	—	W	0-4095/1	27 #3 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7116 9416 11716 14016 16316 18616 20916 23216	1	—	W	0-1/1	27 #3 Phase A Enable (or Pole 1) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7117 9417 11717 14017 16317 18617 20917 23217	100	V, sec	W	1000-30000/0.01	27 #3 Phase A Pickup (or Pole 1)
1 2 3 4 5 6 7 8	7118 9418 11718 14018 16318 18618 20918 23218	100	S	W	0-60000/0.01	27 #3 Phase A Definite Time (or Pole 1)
1 2 3 4 5 6 7 8	46846 49146 51446 53746 56046 58346 60646 62946	1	—	W	0-4294967295 / 1	27 #3 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46847 49147 51447 53747 56047 58347 60647 62947	1	—	W	0-4294967295 / 1	27 #3 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7120 9420 11720 14020 16320 18620 20920 23220	1	—	W	0-4095/1	27 #3 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7121 9421 11721 14021 16321 18621 20921 23221	1	—	W	0-1/1	27 #3 Phase B Enable (or Pole 2) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7122 9422 11722 14022 16322 18622 20922 23222	100	V, sec	W	1000-30000/0.01	27 #3 Phase B Pickup (or Pole 2)
1 2 3 4 5 6 7 8	7123 9423 11723 14023 16323 18623 20923 23223	100	S	W	0-60000/0.01	27 #3 Phase B Definite Time (or Pole 2)

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46848 49148 51448 53748 56048 58348 60648 62948	1	—	W	0-4294967295 / 1	27 #3 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46849 49149 51449 53749 56049 58349 60649 62949	1	—	W	0-4294967295 / 1	27 #3 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7125 9425 11725 14025 16325 18625 20925 23225	1	—	W	0-4095/1	27 #3 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7126 9426 11726 14026 16326 18626 20926 23226	1	—	W	0-1/1	27 #3 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7127 9427 11727 14027 16327 18627 20927 23227	100	V, sec	W	1000-30000/0.01	27 #3 Phase C Pickup

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7128 9428 11728 14028 16328 18628 20928 23228	100	S	W	0-60000/0.01	27 #3 Phase C Definite Time
1 2 3 4 5 6 7 8	46850 49150 51450 53750 56050 58350 60650 62950	1	—	W	0-4294967295 / 1	27 #4 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46851 49151 51451 53751 56051 58351 60651 62951	1	—	W	0-4294967295 / 1	27 #4 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7130 9430 11730 14030 16330 18630 20930 23230	1	—	W	0-4095/1	27 #4 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7131 9431 11731 14031 16331 18631 20931 23231	1	—	W	0-1/1	27 #4 Phase A Enable (or Pole 1) Bit-0 Enable-1; Disable-0

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7132 9432 11732 14032 16332 18632 20932 23232	100	V, sec	W	1000-30000/0.01	27 #4 Phase A Pickup (or Pole 1)
1 2 3 4 5 6 7 8	7133 9433 11733 14033 16333 18633 20933 23233	100	S	W	0-60000/0.01	27 #4 Phase A Definite Time (or Pole 1)
1 2 3 4 5 6 7 8	46852 49152 51452 53752 56052 58352 60652 62952	1	–	W	0-4294967295 / 1	27 #4 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46853 49153 51453 53753 56053 58353 60653 62953	1	–	W	0-4294967295 / 1	27 #4 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7135 9435 11735 14035 16335 18635 20935 23235	1	–	W	0-4095/1	27 #4 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7136 9436 11736 14036 16336 18636 20936 23236	1	—	W	0-1/1	27 #4 Phase B Enable (or Pole 2) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7137 9437 11737 14037 16337 18637 20937 23237	100	V, sec	W	1000-30000/0.01	27 #4 Phase B Pickup (or Pole 2)
1 2 3 4 5 6 7 8	7138 9438 11738 14038 16338 18638 20938 23238	100	S	W	0-60000/0.01	27 #4 Phase B Definite Time (or Pole 2)
1 2 3 4 5 6 7 8	46854 49154 51454 53754 56054 58354 60654 62954	1	—	W	0-4294967295 / 1	27 #4 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46855 49155 51455 53755 56055 58355 60655 62955	1	—	W	0-4294967295 / 1	27 #4 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7140 9440 11740 14040 16340 18640 20940 23240	1	—	W	0-4095/1	27 #4 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7141 9441 11741 14041 16341 18641 20941 23241	1	—	W	0-1/1	27 #4 Phase C Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7142 9442 11742 14042 16342 18642 20942 23242	100	V, sec	W	1000-30000/0.01	27 #4 Phase C Pickup
1 2 3 4 5 6 7 8	7143 9443 11743 14043 16343 18643 20943 23243	100	S	W	0-60000/0.01	27 #4 Phase C Definite Time
1 2 3 4 5 6 7 8	46856 49156 51456 53756 56056 58356 60656 62956	1	—	W	0-4294967295 / 1	27 #5 Three Phase Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46857 49157 51457 53757 56057 58357 60657 62957	1	—	W	0-4294967295 / 1	27 #5 Three Phase Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46351 48651 50951 53251 55551 57851 60151 62451	1	—	W	0-4095/1	27 #5 Three Phase Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46352 48652 50952 53252 55552 57852 60152 62452	1	—	W	0-1/1	27 #5 Three Phase Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46353 48653 50953 53253 55553 57853 60153 62453	100	V,sec	W	1000-30000/0.01	27 #5 Three Phase Pickup
1 2 3 4 5 6 7 8	46354 48654 50954 53254 55554 57854 60154 62454	100	S	W	0-60000/0.01	27 #5 Three Phase Definite Time

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46858 49158 51458 53758 56058 58358 60658 62958	1	—	W	0-4294967295 / 1	27 #6 Three Phase Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46859 49159 51459 53759 56059 58359 60659 62959	1	—	W	0-4294967295 / 1	27 #6 Three Phase Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46356 48656 50956 53256 55556 57856 60156 62456	1	—	W	0-4095/1	27 #6 Three Phase Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46357 48657 50957 53257 55557 57857 60157 62457	1	—	W	0-1/1	27 #6 Three Phase Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46358 48658 50958 53258 55558 57858 60158 62458	100	V,sec	W	1000-30000/0.01	27 #6 Three Phase Pickup

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46359 48659 50959 53259 55559 57859 60159 62459	100	S	W	0-60000/0.01	27 #6 Three Phase Definite Time
1 2 3 4 5 6 7 8	46860 49160 51460 53760 56060 58360 60660 62960	1	—	W	0-4294967295 / 1	27 #7 Three Phase Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46861 49161 51461 53761 56061 58361 60661 62961	1	—	W	0-4294967295 / 1	27 #7 Three Phase Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46361 48661 50961 53261 55561 57861 60161 62461	1	—	W	0-4095/1	27 #7 Three Phase Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46362 48662 50962 53262 55562 57862 60162 62462	1	—	W	0-1/1	27 #7 Three Phase Enable Bit-0 Enable-1; Disable-0

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46363 48663 50963 53263 55563 57863 60163 62463	100	V _{sec}	W	1000-30000/0.01	27 #7 Three Phase Pickup
1 2 3 4 5 6 7 8	46364 48664 50964 53264 55564 57864 60164 62464	100	S	W	0-60000/0.01	27 #7 Three Phase Definite Time
1 2 3 4 5 6 7 8	46862 49162 51462 53762 56062 58362 60662 62962	1	–	W	0-4294967295 / 1	27 #8 Three Phase Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46863 49163 51463 53763 56063 58363 60663 62963	1	–	W	0-4294967295 / 1	27 #8 Three Phase Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46366 48666 50966 53266 55566 57866 60166 62466	1	–	W	0-4095/1	27 #8 Three Phase Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.02 Function 27 Setpoints

Function 27 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46367 48667 50967 53267 55567 57867 60167 62467	1	—	W	0-1/1	27 #8 Three Phase Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46368 48668 50968 53268 55568 57868 60168 62468	100	V,sec	W	1000-30000/0.01	27 #8 Three Phase Pickup
1 2 3 4 5 6 7 8	46369 48669 50969 53269 55569 57869 60169 62469	100	S	W	0-60000/0.01	27 #8 Three Phase Definite Time

Table 2.02 Function 27 Setpoints

Function 27PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47206 49506 51806 54106 56406 58706 61006 63306	1	—	W	0-4294967295 / 1	27PP Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47207 49507 51807 54107 56407 58707 61007 63307	1	—	W	0-4294967295 / 1	27PP Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8695 10995 13295 15595 17895 20195 22495 24795	1	—	W	0-4095/1	27PP Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8696 10996 13296 15596 17896 20196 22496 24796	1	—	W	0-1/1	27PP Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8697 10997 13297 15597 17897 20197 22497 24797	100	V I-I,Sec	W	1000-30000/0.01	27PP Phase ABC Pickup

Table 2.03 Function 27PP Setpoints

Function 27PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8698 10998 13298 15598 17898 20198 22498 24798	100	Sec	W	0-60000/0.01	27PP Phase ABC Definite Time
1 2 3 4 5 6 7 8	8699 10999 13299 15599 17899 20199 22499 24799	1	–	W	0-1/1	27PP Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	8715 11015 13315 15615 17915 20215 22515 24815	1	–	W	0-1/1	27PP Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.
1 2 3 4 5 6 7 8	47208 49508 51808 54108 56408 58708 61008 63308	1	–	W	0-4294967295 / 1	27PP Phase AB Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47209 49509 51809 54109 56409 58709 61009 63309	1	–	W	0-4294967295 / 1	27PP Phase AB Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.03 Function 27PP Setpoints

Function 27PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8701 11001 13301 15601 17901 20201 22501 24801	1	—	W	0-4095/1	27PP Phase AB Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8702 11002 13302 15602 17902 20202 22502 24802	1	—	W	0-1/1	27PP Phase AB Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8703 11003 13303 15603 17903 20203 22503 24803	100	V I-,Sec	W	1000-30000/0.01	27PP Phase AB Pickup
1 2 3 4 5 6 7 8	8704 11004 13304 15604 17904 20204 22504 24804	100	Sec	W	0-60000/0.01	27PP Phase AB Definite Time
1 2 3 4 5 6 7 8	47210 49510 51810 54110 56410 58710 61010 63310	1	—	W	0-4294967295 / 1	27PP Phase BC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47211 49511 51811 54111 56411 58711 61011 63311	1	—	W	0-4294967295 / 1	27PP Phase BC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.03 Function 27PP Setpoints

Function 27PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8706 11006 13306 15606 17906 20206 22506 24806	1	—	W	0-4095/1	27PP Phase BC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8707 11007 13307 15607 17907 20207 22507 24807	1	—	W	0-1/1	27PP Phase BC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8708 11008 13308 15608 17908 20208 22508 24808	100	V I-,Sec	W	1000-30000/0.01	27PP Phase BC Pickup
1 2 3 4 5 6 7 8	8709 11009 13309 15609 17909 20209 22509 24809	100	Sec	W	0-60000/0.01	27PP Phase BC Definite Time
1 2 3 4 5 6 7 8	47212 49512 51812 54112 56412 58712 61012 63312	1	—	W	0-4294967295 / 1	27PP Phase CA Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.03 Function 27PP Setpoints

Function 27PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47213 49513 51813 54113 56413 58713 61013 63313	1	—	W	0-4294967295 / 1	27PP Phase CA Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8711 11011 13311 15611 17911 20211 22511 24811	1	—	W	0-4095/1	27PP Phase CA Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8712 11012 13312 15612 17912 20212 22512 24812	1	—	W	0-1/1	27PP Phase CA Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8713 11013 13313 15613 17913 20213 22513 24813	100	V I-I,Sec	W	1000-30000/0.01	27PP Phase CA Pickup
1 2 3 4 5 6 7 8	8714 11014 13314 15614 17914 20214 22514 24814	100	Sec	W	0-60000/0.01	27PP Phase CA Definite Time

Table 2.03 Function 27PP Setpoints

Function 27Vz1 and 27VzS (Option P) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47214 49514 51814 54114 56414 58714 61014 63314	1	—	W	0-4294967295 / 1	27Vz1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47215 49515 51815 54115 56415 58715 61015 63315	1	—	W	0-4294967295 / 1	27Vz1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8727 11027 13327 15627 17927 20227 22527 24827	1	—	W	0-4095/1	27Vz1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8728 11028 13328 15628 17928 20228 22528 24828	—	—	W	0-1/1	27Vz1 Enable Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8729 11029 13329 15629 17929 20229 22529 24829	100	V-Ig, sec	W	1000-30000/0.01	27Vz1 Pickup

Table 2.04 Function 27Vz1 and 27VzS (Option P) Setpoints

Function 27Vz1 and 27VzS (Option P) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8730 11030 13330 15630 17930 20230 22530 24830	100	S	W	0-60000/0.01	27Vz1 Definite Time
27VzS Registers are only available with Option P						
1 2 3 4 5 6 7 8	47214 49514 51814 54114 56414 58714 61014 63314	1	–	W	0-4294967295 / 1	27VzS Blocking Inputs Pole 1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47215 49515 51815 54115 56415 58715 61015 63315	1	–	W	0-4294967295 / 1	27VzS Blocking Inputs.H Pole 1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8727 11027 13327 15627 17927 20227 22527 24827	1	–	W	0-4095/1	27VzS Outputs Pole 1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8728 11028 13328 15628 17928 20228 22528 24828	–	–	W	0-1/1	27VzS Enable Pole 1 Bit 0 – Enable: 1, Disable: 0

Table 2.04 Function 27Vz1 and 27VzS (Option P) Setpoints

Function 27Vz1 and 27VzS (Option P) Setpoints

Profiles #1 to #8

MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.

PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8729 11029 13329 15629 17929 20229 22529 24829	100	V-Ig, sec	W	1000-30000/0.01	27VzS Pickup Pole 1
1 2 3 4 5 6 7 8	8730 11030 13330 15630 17930 20230 22530 24830	100	S	W	0-60000/0.01	27VzS Definite Time Pole 1
1 2 3 4 5 6 7 8	47216 49516 51816 54116 56416 58716 61016 63316	1	–	W	0-4294967295 / 1	27VzS Blocking Inputs Pole 2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47217 49517 51817 54117 56417 58717 61017 63317	1	–	W	0-4294967295 / 1	27VzS Blocking Inputs.H Pole 2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8732 11032 13332 15632 17932 20232 20532 24832	1	–	W	0-4095/1	27VzS Outputs Pole 2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.04 Function 27Vz1 and 27VzS (Option P) Setpoints

Function 27Vz1 and 27VzS (Option P) Setpoints

Profiles #1 to #8

MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.

PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8733 11033 13333 15633 17933 20233 20533 24833	—	—	W	0-1/1	27VzS Enable Pole 2 Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8734 11034 13334 15634 17934 20234 20534 24834	100	V-Ig, sec	W	1000-30000/0.01	27VzS Pickup Pole 2
1 2 3 4 5 6 7 8	8735 11035 13335 15635 17935 20235 20535 24835	100	S	W	0-60000/0.01	27VzS Definite Time Pole 2

Table 2.04 Function 27Vz1 and 27VzS (Option P) Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46864 49164 51464 53764 56064 58364 60664 62964	1	—	W	0-4294967295 / 1	32 #1 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46865 49165 51465 53765 56065 58365 60665 62965	1	—	W	0-4294967295 / 1	32 #1 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7151 9451 11751 14051 16351 18651 20951 23251	1	—	W	0-4095/1	32 #1 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7152 9452 11752 14052 16352 18652 20952 23252	1	—	W	0-1/1	32 #1 Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7153 9453 11753 14053 16353 18653 20953 23253	100	pu	W	-300-300/0.01	32 #1 Phase ABC Pickup Low

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7154 9454 11754 14054 16354 18654 20954 23254	100	pu	W	-300-300/0.01	32 #1 Phase ABC Pickup High
1 2 3 4 5 6 7 8	7155 9455 11755 14055 16355 18655 20955 23255	100	S	W	0 -60000/0.01	32 #1 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7156 9456 11756 14056 16356 18656 20956 23256	1	–	W	0-1/1	32 #1 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	7157 9457 11757 14057 16357 18657 20957 23257	1	–	W	0-3/1	32 #1 Phase ABC Operating Power
1 2 3 4 5 6 7 8	46866 49166 51466 53766 56066 58366 60666 62966	1	–	W	0-4294967295 / 1	32 #2 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46867 49167 51467 53767 56067 58367 60667 62967	1	—	W	0-4294967295 / 1	32 #2 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7159 9459 11759 14059 16359 18659 20959 23259	1	—	W	0-4095/1	32 #2 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7160 9460 11760 14060 16360 18660 20960 23260	1	—	W	0-1/1	32 #2 Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7161 9461 11761 14061 16361 18661 20961 23261	100	pu	W	-300-300/0.01	32 #2 Phase ABC Pickup Low
1 2 3 4 5 6 7 8	7162 9462 11762 14062 16362 18662 20962 23262	100	pu	W	-300-300/0.01	32 #2 Phase ABC Pickup High
1 2 3 4 5 6 7 8	7163 9463 11763 14063 16363 18663 20963 23263	100	S	W	0 -60000/0.01	32 #2 Phase ABC Definite Time

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7164 9464 11764 14064 16364 18664 20964 23264	1	—	W	0-1/1	32 #2 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	7165 9465 11765 14065 16365 18665 20965 23265	1	—	W	0-3/1	32 #2 Phase ABC Operating Power
1 2 3 4 5 6 7 8	46868 49168 51468 53768 56068 58368 60668 62968	1	—	W	0-4294967295 / 1	32 #3 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46869 49169 51469 53769 56069 58369 60669 62969	1	—	W	0-4294967295 / 1	32 #3 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7167 9467 11767 14067 16367 18667 20967 23267	1	—	W	0-4095/1	32 #3 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7168 9468 11768 14068 16368 18668 20968 23268	1	—	W	0-1/1	32 #3 Phase ABC Enable
1 2 3 4 5 6 7 8	7169 9469 11769 14069 16369 18669 20969 23269	100	pu	W	-300-300/0.01	32 #3 Phase ABC Pickup Low
1 2 3 4 5 6 7 8	7170 9470 11770 14070 16370 18670 20970 23270	100	pu	W	-300-300/0.01	32 #3 Phase ABC Pickup High
1 2 3 4 5 6 7 8	7171 9471 11771 14071 16371 18671 20971 23271	100	S	W	0 -60000/0.01	32 #3 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7172 9472 11772 14072 16372 18672 20972 23272	1	—	W	0-1/1	32 #3 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	7173 9473 11773 14073 16373 18673 20973 23273	1	—	W	0-3/1	32 #3 Phase ABC Operating Power

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46870 49170 51470 53770 56070 58370 60670 62970	1	—	W	0-4294967295 / 1	32 #4 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46871 49171 51471 53771 56071 58371 60671 62971	1	—	W	0-4294967295 / 1	32 #4 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7175 9475 11775 14075 16375 18675 20975 23275	1	—	W	0-4095/1	32 #4 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7176 9476 11776 14076 16376 18676 20976 23276	1	—	W	0-1/1	32 #4 Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7177 9477 11777 14077 16377 18677 20977 23277	100	pu	W	-300-300/0.01	32 #4 Phase ABC Pickup Low

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7178 9478 11778 14078 16378 18678 20978 23278	100	pu	W	-300-300/0.01	32 #4 Phase ABC Pickup High
1 2 3 4 5 6 7 8	7179 9479 11779 14079 16379 18679 20979 23279	100	S	W	0 -60000/0.01	32 #4 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7180 9480 11780 14080 16380 18680 20980 23280	1	–	W	0-1/1	32 #4 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	7181 9481 11781 14081 16381 18681 20981 23281	1	–	W	0-3/1	32 #4 Phase ABC Operating Power
With Option P: standard Function 32 Phase A Registers indicate Pole 1 Setpoints						
1 2 3 4 5 6 7 8	46872 49172 51472 53772 56072 58372 60672 62972	1	–	W	0-4294967295 / 1	32 #1 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46873 49173 51473 53773 56073 58373 60673 62973	1	—	W	0-4294967295 / 1	32 #1 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7183 9483 11783 14083 16383 18683 20983 23283	1	—	W	0-4095/1	32 #1 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7184 9484 11784 14084 16384 18684 20984 23284	1	—	W	0-1/1	32 #1 Phase A Enable (or Pole 1) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7185 9485 11785 14085 16385 18685 20985 23285	100	pu	W	-300-300/0.01	32 #1 Phase A Pickup Low (or Pole 1)
1 2 3 4 5 6 7 8	7186 9486 11786 14086 16386 18686 20986 23286	100	pu	W	-300-300/0.01	32 #1 Phase A Pickup High (or Pole 1)
1 2 3 4 5 6 7 8	7187 9487 11787 14087 16387 18687 20987 23287	100	Sec	W	0 -60000/0.01	32 #1 Phase A Definite Time (or Pole 1)

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7188 9488 11788 14088 16388 18688 20988 23288	1	—	W	0-3/1	32 #1 Phase A Operating Power (or Pole 1)
With Option P: standard Function 32 Phase B Registers indicate Pole 2 Setpoints						
1 2 3 4 5 6 7 8	46874 49174 51474 53774 56074 58374 60674 62974	1	—	W	0-4294967295 / 1	32 #1 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46875 49175 51475 53775 56075 58375 60675 62975	1	—	W	0-4294967295 / 1	32 #1 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7190 9490 11790 14090 16390 18690 20990 23290	1	—	W	0-4095/1	32 #1 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7191 9491 11791 14091 16391 18691 20991 23291	1	—	W	0-1/1	32 #1 Phase B Enable (or Pole 2) Bit-0 Enable-1; Disable-0

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7192 9492 11792 14092 16392 18692 20992 23292	100	pu	W	-300-300/0.01	32 #1 Phase B Pickup Low (or Pole 2) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7193 9493 11793 14093 16393 18693 20993 23293	100	pu	W	-300-300/0.01	32 #1 Phase B Pickup High (or Pole 2)
1 2 3 4 5 6 7 8	7194 9494 11794 14094 16394 18694 20994 23294	100	Sec	W	0 -60000/0.01	32 #1 Phase B Definite Time (or Pole 2)
1 2 3 4 5 6 7 8	7195 9495 11795 14095 16395 18695 20995 23295	1	—	W	0-3/1	32 #1 Phase B Operating Power (or Pole 2)
1 2 3 4 5 6 7 8	46876 49176 51476 53776 56076 58376 60676 62976	1	—	W	0-4294967295 / 1	32 #1 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46877 49177 51477 53777 56077 58377 60677 62977	1	—	W	0-4294967295 / 1	32 #1 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7197 9497 11797 14097 16397 18697 20997 23297	1	—	W	0-4095/1	32 #1 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7198 9498 11798 14098 16398 18698 20998 23298	1	—	W	0-1/1	32 #1 Phase C Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7199 9499 11799 14099 16399 18699 20999 23299	100	pu	W	-300-300/0.01	32 #1 Phase C Pickup Low
1 2 3 4 5 6 7 8	7200 9500 11800 14100 16400 18700 21000 23300	100	pu	W	-300-300/0.01	32 #1 Phase C Pickup High
1 2 3 4 5 6 7 8	7201 9501 11801 14101 16401 18701 21001 23301	100	Sec	W	0 -60000/0.01	32 #1 Phase C Definite Time

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7202 9502 11802 14102 16402 18702 21002 23302	1	—	W	0-3/1	32 #1 Phase C Operating Power
1 2 3 4 5 6 7 8	46878 49178 51478 53778 56078 58378 60678 62978	1	—	W	0-4294967295 / 1	32 #2 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46879 49179 51479 53779 56079 58379 60679 62979	1	—	W	0-4294967295 / 1	32 #2 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7204 9504 11804 14104 16404 18704 21004 23304	1	—	W	0-4095/1	32 #2 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7205 9505 11805 14105 16405 18705 21005 23305	1	—	W	0-1/1	32 #2 Phase A Enable (or Pole 1) Bit-0 Enable-1; Disable-0

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7206 9506 11806 14106 16406 18706 21006 23306	100	pu	W	-300-300/0.01	32 #2 Phase A Pickup Low (or Pole 1)
1 2 3 4 5 6 7 8	7207 9507 11807 14107 16407 18707 21007 23307	100	pu	W	-300-300/0.01	32 #2 Phase A Pickup High (or Pole 1)
1 2 3 4 5 6 7 8	7208 9508 11808 14108 16408 18708 21008 23308	100	Sec	W	0 -60000/0.01	32 #2 Phase A Definite Time (or Pole 1)
1 2 3 4 5 6 7 8	7209 9509 11809 14109 16409 18709 21009 23309	1	—	W	0-3/1	32 #2 Phase A Operating Power (or Pole 1)
1 2 3 4 5 6 7 8	46880 49180 51480 53780 56080 58380 60680 62980	1	—	W	0-4294967295 / 1	32 #2 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46881 49181 51481 53781 56081 58381 60681 62981	1	—	W	0-4294967295 / 1	32 #2 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7211 9511 11811 14111 16411 18711 21011 23311	1	—	W	0-4095/1	32 #2 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7212 9512 11812 14112 16412 18712 21012 23312	1	—	W	0-1/1	32 #2 Phase B Enable (or Pole 2) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7213 9513 11813 14113 16413 18713 21013 23313	100	pu	W	-300-300/0.01	32 #2 Phase B Pickup Low (or Pole 2)
1 2 3 4 5 6 7 8	7214 9514 11814 14114 16414 18714 21014 23314	100	pu	W	-300-300/0.01	32 #2 Phase B Pickup High (or Pole 2)
1 2 3 4 5 6 7 8	7215 9515 11815 14115 16415 18715 21015 23315	100	Sec	W	0 -60000/0.01	32 #2 Phase B Definite Time (or Pole 2)

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7216 9516 11816 14116 16416 18716 21016 23316	1	—	W	0-3/1	32 #2 Phase B Operating Power (or Pole 2)
1 2 3 4 5 6 7 8	46882 49182 51482 53782 56082 58382 60682 62982	1	—	W	0-4294967295 / 1	32 #2 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46883 49183 51483 53783 56083 58383 60683 62983	1	—	W	0-4294967295 / 1	32 #2 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7218 9518 11818 14118 16418 18718 21018 23318	1	—	W	0-4095/1	32 #2 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7219 9519 11819 14119 16419 18719 21019 23319	1	—	W	0-1/1	32 #2 Phase C Enable Bit-0 Enable-1; Disable-0

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7220 9520 11820 14120 16420 18720 21020 23320	100	pu	W	-300-300/0.01	32 #2 Phase C Pickup Low
1 2 3 4 5 6 7 8	7221 9521 11821 14121 16421 18721 21021 23321	100	pu	W	-300-300/0.01	32 #2 Phase C Pickup High
1 2 3 4 5 6 7 8	7222 9522 11822 14122 16422 18722 21022 23322	100	Sec	W	0 -60000/0.01	32 #2 Phase C Definite Time
1 2 3 4 5 6 7 8	7223 9523 11823 14123 16423 18723 21023 23323	1	—	W	0-3/1	32 #2 Phase C Operating Power
1 2 3 4 5 6 7 8	46884 49184 51484 53784 56084 58384 60684 62984	1	—	W	0-4294967295 / 1	32 #3 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46885 49185 51485 53785 56085 58385 60685 62985	1	—	W	0-4294967295 / 1	32 #3 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7225 9525 11825 14125 16425 18725 21025 23325	1	—	W	0-4095/1	32 #3 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7226 9526 11826 14126 16426 18726 21026 23326	1	—	W	0-1/1	32 #3 Phase A Enable (or Pole 1) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7227 9527 11827 14127 16427 18727 21027 23327	100	pu	W	-300-300/0.01	32 #3 Phase A Pickup Low (or Pole 1)
1 2 3 4 5 6 7 8	7228 9528 11828 14128 16428 18728 21028 23328	100	pu	W	-300-300/0.01	32 #3 Phase A Pickup High (or Pole 1)
1 2 3 4 5 6 7 8	7229 9529 11829 14129 16429 18729 21029 23329	100	Sec	W	0 -60000/0.01	32 #3 Phase A Definite Time (or Pole 1)

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7230 9530 11830 14130 16430 18730 21030 23330	1	—	W	0-3/1	32 #3 Phase A Operating Power (or Pole 1)
1 2 3 4 5 6 7 8	46886 49186 51486 53786 56086 58386 60686 62986	1	—	W	0-4294967295 / 1	32 #3 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46887 49187 51487 53787 56087 58387 60687 62987	1	—	W	0-4294967295 / 1	32 #3 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7232 9532 11832 14132 16432 18732 21032 23332	1	—	W	0-4095/1	32 #3 Phase B Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7233 9533 11833 14133 16433 18733 21033 23333	1	—	W	0-1/1	32 #3 Phase B Enable (or Pole 2) Bit-0 Enable-1; Disable-0

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7234 9534 11834 14134 16434 18734 21034 23334	100	pu	W	-300-300/0.01	32 #3 Phase B Pickup Low (or Pole 2)
1 2 3 4 5 6 7 8	7235 9535 11835 14135 16435 18735 21035 23335	100	pu	W	-300-300/0.01	32 #3 Phase B Pickup High (or Pole 2)
1 2 3 4 5 6 7 8	7236 9536 11836 14136 16436 18736 21036 23336	100	Sec	W	0 -60000/0.01	32 #3 Phase B Definite Time (or Pole 2)
1 2 3 4 5 6 7 8	7237 9537 11837 14137 16437 18737 21037 23337	1	—	W	0-3/1	32 #3 Phase B Operating Power (or Pole 2)
1 2 3 4 5 6 7 8	46888 49188 51488 53788 56088 58388 60688 62988	1	—	W	0-4294967295 / 1	32 #3 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46889 49189 51489 53789 56089 58389 60689 62989	1	—	W	0-4294967295 / 1	32 #3 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7239 9539 11839 14139 16439 18739 21039 23339	1	—	W	0-4095/1	32 #3 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7240 9540 11840 14140 16440 18740 21040 23340	1	—	W	0-1/1	32 #3 Phase C Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7241 9541 11841 14141 16441 18741 21041 23341	100	pu	W	-300-300/0.01	32 #3 Phase C Pickup Low
1 2 3 4 5 6 7 8	7242 9542 11842 14142 16442 18742 21042 23342	100	pu	W	-300-300/0.01	32 #3 Phase C Pickup High
1 2 3 4 5 6 7 8	7243 9543 11843 14143 16443 18743 21043 23343	100	Sec	W	0 -60000/0.01	32 #3 Phase C Definite Time

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7244 9544 11844 14144 16444 18744 21044 23344	1	—	W	0-3/1	32 #3 Phase C Operating Power
1 2 3 4 5 6 7 8	46890 49190 51490 53790 56090 58390 60690 62990	1	—	W	0-4294967295 / 1	32 #4 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46891 49191 51491 53791 56091 58391 60691 62991	1	—	W	0-4294967295 / 1	32 #4 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7246 9546 11846 14146 16446 18746 21046 23346	1	—	W	0-4095/1	32 #4 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7247 9547 11847 14147 16447 18747 21047 23347	1	—	W	0-1/1	32 #4 Phase A Enable (or Pole 1) Bit-0 Enable-1; Disable-0

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7248 9548 11848 14148 16448 18748 21048 23348	100	pu	W	-300-300/0.01	32 #4 Phase A Pickup Low (or Pole 1)
1 2 3 4 5 6 7 8	7249 9549 11849 14149 16449 18749 21049 23349	100	pu	W	-300-300/0.01	32 #4 Phase A Pickup High (or Pole 1)
1 2 3 4 5 6 7 8	7250 9550 11850 14150 16450 18750 21050 23350	100	Sec	W	0 -60000/0.01	32 #4 Phase A Definite Time (or Pole 1)
1 2 3 4 5 6 7 8	7251 9551 11851 14151 16451 18751 21051 23351	1	—	W	0-3/1	32 #4 Phase A Operating Power (or Pole 1)
1 2 3 4 5 6 7 8	46892 49192 51492 53792 56092 58392 60692 62992	1	—	W	0-4294967295 / 1	32 #4 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46893 49193 51493 53793 56093 58393 60693 62993	1	—	W	0-4294967295 / 1	32 #4 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7253 9553 11853 14153 16453 18753 21053 23353	1	—	W	0-4095/1	32 #4 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7254 9554 11854 14154 16454 18754 21054 23354	1	—	W	0-1/1	32 #4 Phase B Enable (or Pole 2) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	7255 9555 11855 14155 16455 18755 21055 23355	100	pu	W	-300-300/0.01	32 #4 Phase B Pickup Low (or Pole 2)
1 2 3 4 5 6 7 8	7256 9556 11856 14156 16456 18756 21056 23356	100	pu	W	-300-300/0.01	32 #4 Phase B Pickup High (or Pole 2)
1 2 3 4 5 6 7 8	7257 9557 11857 14157 16457 18757 21057 23357	100	Sec	W	0 -60000/0.01	32 #4 Phase B Definite Time (or Pole 2)

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7258 9558 11858 14158 16458 18758 21058 23358	1	—	W	0-3/1	32 #4 Phase B Operating Power (or Pole 2)
1 2 3 4 5 6 7 8	46894 49194 51494 53794 56094 58394 60694 62994	1	—	W	0-4294967295 / 1	32 #4 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46895 49195 51495 53795 56095 58395 60695 62995	1	—	W	0-4294967295 / 1	32 #4 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7260 9560 11860 14160 16460 18760 21060 23360	1	—	W	0-4095/1	32 #4 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7261 9561 11861 14161 16461 18761 21061 23361	1	—	W	0-1/1	32 #4 Phase C Enable Bit-0 Enable-1; Disable-0

Table 2.05 Function 32 Setpoints

Function 32 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7262 9562 11862 14162 16462 18762 21062 23362	100	pu	W	-300-300/0.01	32 #4 Phase C Pickup Low
1 2 3 4 5 6 7 8	7263 9563 11863 14163 16463 18763 21063 23363	100	pu	W	-300-300/0.01	32 #4 Phase C Pickup High
1 2 3 4 5 6 7 8	7264 9564 11864 14164 16464 18764 21064 23364	100	Sec	W	0 -60000/0.01	32 #4 Phase C Definite Time
1 2 3 4 5 6 7 8	7265 9565 11865 14165 16465 18765 21065 23365	1	–	W	0-3/1	32 #4 Phase C Operating Power

Table 2.05 Function 32 Setpoints

Function 40 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46896 49196 51496 53796 56096 58396 60696 62996	1	—	W	0-4294967295 / 1	40 #1 Loss of Field Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46897 49197 51497 53797 56097 58397 60697 62997	1	—	W	0-4294967295 / 1	40 #1 Loss of Field Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46013 48313 50613 52913 55213 57513 59813 62113	1	—	W	0-4095/1	40 #1 Loss of Field Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46014 48314 50614 52914 55214 57514 59814 62114	1	—	W	0-1/1	40 #1 Loss of Field Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46015 48315 50615 52915 55215 57515 59815 62115	10	Ohm	W	Range based on CT Rating: 5-5000/0.1 = 1 A CT 1-1000/0.1 = 5 A CT	40 #1 Loss of Field Circle Diameter 0 – Phase CT Rating = 1 A 1 – Phase CT Rating = 5 A

Table 2.06 Function 40 Setpoints

Function 40 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46016 48316 50616 52916 55216 57516 59816 62116	10	Ohm	W	Range based on CT Rating: (-2500)-2500/0.1 = 1 A CT (Signed) (-500)-500/0.1 = 5 A CT (Signed)	40 #1 Loss of Field Offset 0 – Phase CT Rating = 1 A 1 – Phase CT Rating = 5 A
1 2 3 4 5 6 7 8	46017 48317 50617 52917 55217 57517 59817 62117	100	Sec	W	1-30000/0.01	40 #1 Loss of Field Time Delay
1 2 3 4 5 6 7 8	46898 49198 51498 53798 56098 58398 60698 62998	1	–	W	0-4294967295 / 1	40 #2 Loss of Field Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46899 49199 51499 53799 56099 58399 60699 62999	1	–	W	0-4294967295 / 1	40 #2 Loss of Field Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46019 48319 50619 52919 55219 57519 59819 62119	1	–	W	0-4095/1	40 #2 Loss of Field Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.06 Function 40 Setpoints

Function 40 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46020 48320 50620 52920 55220 57520 59820 62120	1	–	W	0-1/1	40 #2 Loss of Field Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46021 48321 50621 52921 55221 57521 59821 62121	10	Ohm	W	Range based on CT Rating: 5-5000/0.1 = 1 A CT 1-1000/0.1 = 5 A CT	40 #2 Loss of Field Circle Diameter 0 – Phase CT Rating = 1 A 1 – Phase CT Rating = 5 A
1 2 3 4 5 6 7 8	46022 48322 50622 52922 55222 57522 59822 62122	10	Ohm	W	Range based on CT Rating: (-2500)-2500/0.1 = 1 A CT (Signed) (-500)-500/0.1 = 5 A CT (Signed)	40 #2 Loss of Field Offset 0 – Phase CT Rating = 1 A 1 – Phase CT Rating = 5 A
1 2 3 4 5 6 7 8	46023 48323 50623 52923 55223 57523 59823 62123	100	Sec	W	1-30000/0.01	40 #2 Loss of Field Time Delay
1 2 3 4 5 6 7 8	46900 49200 51500 53800 56100 58400 60700 63000	1	–	W	0-4294967295 / 1	40 #1 Voltage Control Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.06 Function 40 Setpoints

Function 40 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46901 49201 51501 53801 56101 58401 60701 63001	1	—	W	0-4294967295 / 1	40 #1 Voltage Control Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46025 48325 50625 52925 55225 57525 59825 62125	1	—	W	0-4095/1	40 #1 Voltage Control Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46026 48326 50626 52926 55226 57526 59826 62126	1	—	W	0-1/1	40 #1 Voltage Control Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46027 48327 50627 52927 55227 57527 59827 62127	100	Sec	W	1-30000/0.01	40 #1 Voltage Control Time Delay
1 2 3 4 5 6 7 8	46902 49202 51502 53802 56102 58402 60702 63002	1	—	W	0-4294967295 / 1	40 #2 Voltage Control Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.06 Function 40 Setpoints

Function 40 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46903 49203 51503 53803 56103 58403 60703 63003	1	—	W	0-4294967295 / 1	40 #2 Voltage Control Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46029 48329 50629 52929 55229 57529 59829 62129	1	—	W	0-4095/1	40 #2 Voltage Control Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46030 48330 50630 52930 55230 57530 59830 62130	1	—	W	0-1/1	40 #2 Voltage Control Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46031 48331 50631 52931 55231 57531 59831 62131	100	Sec	W	1-30000/0.01	40 #2 Voltage Control Time Delay
1 2 3 4 5 6 7 8	46032 48332 50632 52932 55232 57532 59832 62132	1	V	W	5-180/1	40 Voltage Control Setting This setting is common to both 40 elements
1 2 3 4 5 6 7 8	46033 48333 50633 52933 55233 57533 59833 62133	1	Deg	W	0-20/1	40 Directional Element Setting This setting is common to both 40 elements

Table 2.06 Function 40 Setpoints

Function 46DT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46964 49264 51564 53864 56164 58464 60764 63064	1	—	W	0-4294967295/1	46DT #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46965 49265 51565 53865 56165 58465 60765 63065	1	—	W	0-4294967295/1	46DT #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7461 9761 12061 14361 16661 18961 21261 23561	1	—	W	0-4095/1	46DT #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7462 9762 12062 14362 16662 18962 21262 23562	1	—	W	0-1/1	46DT #1 Enable Bit 0 Enable: 1, Disable: 0

Table 2.07 Function 46DT Setpoints

Function 46DT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7463 9763 12063 14363 16663 18963 21263 23563	100	Amps	W	1-2000/0.01	46DT #1 Pickup
1 2 3 4 5 6 7 8	7464 9764 12064 14364 16664 18964 21264 23564	100	Sec	W	0 -60000/0.01	46DT #1 Definite Time
1 2 3 4 5 6 7 8	46966 49266 51566 53866 56166 58466 60766 63066	1	—	W	0-4294967295/1	46DT #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46967 49267 51567 53867 56167 58467 60767 63067	1	—	W	0-4294967295/1	46DT #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7466 9766 12066 14366 16666 18966 21266 23566	1	—	W	0-4095/1	46DT #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7467 9767 12067 14367 16667 18967 21267 23567	1	—	W	0-1/1	46DT #2 Enable Bit 0 Enable: 1, Disable: 0

Table 2.07 Function 46DT Setpoints

Function 46DT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7468 9768 12068 14368 16668 18968 21268 23568	100	Amps	W	1-2000/0.01	46DT #2 Pickup
1 2 3 4 5 6 7 8	7469 9769 12069 14369 16669 18969 21269 23569	100	Sec	W	0 -60000/0.01	46DT #2 Definite Time
1 2 3 4 5 6 7 8	46968 49268 51568 53868 56168 58468 60768 63068	1	—	W	0-4294967295/1	46DT #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46969 49269 51569 53869 56169 58469 60769 63069	1	—	W	0-4294967295/1	46DT #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7471 9771 12071 14371 16671 18971 21271 23571	1	—	W	0-4095/1	46DT #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7472 9772 12072 14372 16672 18972 21272 23572	1	—	W	0-1/1	46DT #3 Enable Bit 0 Enable: 1, Disable: 0

Table 2.07 Function 46DT Setpoints

Function 46DT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7473 9773 12073 14373 16673 18973 21273 23573	100	Amps	W	1-2000/0.01	46DT #3 Pickup
1 2 3 4 5 6 7 8	7474 9774 12074 14374 16674 18974 21274 23574	100	Sec	W	0 -60000/0.01	46DT #3 Definite Time
1 2 3 4 5 6 7 8	46970 49270 51570 53870 56170 58470 60770 63070	1	—	W	0-4294967295/1	46DT #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.07 Function 46DT Setpoints

Function 46DT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46971 49271 51571 53871 56171 58471 60771 63071	1	—	W	0-4294967295/1	46DT #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7476 9776 12076 14376 16676 18976 21276 23576	1	—	W	0-4095/1	46DT #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7477 9777 12077 14377 16677 18977 21277 23577	1	—	W	0-1/1	46DT #4 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7478 9778 12078 14378 16678 18978 21278 23578	100	Amps	W	1-2000/0.01	46DT #4 Pickup

Table 2.07 Function 46DT Setpoints

Function 46DT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7479 9779 12079 14379 16679 18979 21279 23579	100	Sec	W	0 -60000/0.01	46DT #4 Definite Time
1 2 3 4 5 6 7 8	46972 49272 51572 53872 56172 58472 60772 63072	1	—	W	0-4294967295/1	46DT #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46973 49273 51573 53873 56173 58473 60773 63073	1	—	W	0-4294967295/1	46DT #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7481 9781 12081 14381 16681 18981 21281 23581	1	—	W	0-4095/1	46DT #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.07 Function 46DT Setpoints

Function 46DT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7482 9782 12082 14382 16682 18982 21282 23582	1	—	W	0-1/1	46DT #5 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7483 9783 12083 14383 16683 18983 21283 23583	100	Amps	W	1-2000/0.01	46DT #5 Pickup
1 2 3 4 5 6 7 8	7484 9784 12084 14384 16684 18984 21284 23584	100	Sec	W	0 -60000/0.01	46DT #5 Definite Time

Table 2.07 Function 46DT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47034 49334 51634 53934 56234 58534 60834 63134	1	—	W	0-4294967295/1	46IT #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47035 49335 51635 53935 56235 58535 60835 63135	1	—	W	0-4294967295/1	46IT #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7925 10225 12525 14825 17125 19425 21725 24025	1	—	W	0-4095 / 1	46IT #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7926 10226 12526 14826 17126 19426 21726 24026	1	—	W	0-1 / 1	46IT #1 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7927 10227 12527 14827 17127 19427 21727 24027	100	Amps	W	1-320/0.01	46IT #1 Pickup
1 2 3 4 5 6 7 8	7928 10228 12528 14828 17128 19428 21728 24028	1	—	W	0-71 / 1	46IT #1 Curve (See the Reference Tables of the end of Function 46IT)

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7929 10229 12529 14829 17129 19429 21729 24029	1	—	W	0-1/ 1	46IT #1 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7930 10230 12530 14830 17130 19430 21730 24030	1000	Sec	W	1– 60000/0.001	46IT #1 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7931 10231 12531 14831 17131 19431 21731 24031	1000	Sec	W	1– 30000/0.001	46IT #1 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7932 10232 12532 14832 17132 19432 21732 24032	100	—	W	5-100/0.01	46IT #1 Time Multiplier Range of this point changes based on 46IT Curve setting (See the Reference Tables of the end of Function 46IT)
1 2 3 4 5 6 7 8	7933 10233 12533 14833 17133 19433 21733 24033	100	Sec	W	0 –3000/0.01	46IT #1 Time Adder
1 2 3 4 5 6 7 8	7934 10234 12534 14834 17134 19434 21734 24034	100	Sec	W	0 – 100/0.01	46IT #1 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7935 10235 12535 14835 17135 19435 21735 24035	100	Sec	W	0 – 100/0.01	46IT #1 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6880 25576 25739 27334 27653 27853 28179 29214	100	S	W	100-60000/0.01	51Q.1.MAXOPTM
1 2 3 4 5 6 7 8	6881 25577 25740 27335 27654 27854 28180 29215	1	–	W	0-1/1	51Q.1.MAXOPTMENA
1 2 3 4 5 6 7 8	47036 49336 51636 53936 56236 58536 60836 63136	1	–	W	0-4294967295/1	46IT #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47037 49337 51637 53937 56237 58537 60837 63137	1	–	W	0-4294967295/1	46IT #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7938 10238 12538 14838 17138 19438 21738 24038	1	–	W	0-4095 / 1	46IT #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7939 10239 12539 14839 17139 19439 21739 24039	1	—	W	0-1 / 1	46IT #2 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7940 10240 12540 14840 17140 19440 21740 24040	100	Amps	W	1-320/0.01	46IT #2 Pickup
1 2 3 4 5 6 7 8	7941 10241 12541 14841 17141 19441 21741 24041	1	—	W	0-71 / 1	46IT #2 Curve (See the Reference Tables of the end of Function 46IT)
1 2 3 4 5 6 7 8	7942 10242 12542 14842 17142 19442 21742 24042	1	—	W	0-1/ 1	46IT #2 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7943 10243 12543 14843 17143 19443 21743 24043	1000	Sec	W	1– 60000/0.001	46IT #2 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7944 10244 12544 14844 17144 19444 21744 24044	1000	Sec	W	1– 60000/0.001	46IT #2 Reset Coefficient (High) High bytes of 32-bit register

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7945 10245 12545 14845 17145 19445 21745 24045	100	—	W	5-100/0.01	46IT #2 Time Multiplier Range of this point changes based on 46IT Curve setting (See the Reference Tables of the end of Function 46IT)
1 2 3 4 5 6 7 8	7946 10246 12546 14846 17146 19446 21746 24046	100	Sec	W	0 – 3000/0.01	46IT #2 Time Adder
1 2 3 4 5 6 7 8	7947 10247 12547 14847 17147 19447 21747 24047	100	Sec	W	0 – 100/0.01	46IT #2 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7948 10248 12548 14848 17148 19448 21748 24048	100	Sec	W	0 – 100/0.01	46IT #2 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6882 25578 25741 27336 27655 27855 28181 29216	100	Sec	W	100-60000/0.01	51Q.2.MAXOPTM
1 2 3 4 5 6 7 8	6883 25579 25742 27337 27656 27856 28182 29217	1	-	W	0-1/1	51Q.2.MAXOPTMENA

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47038 49338 51638 53938 56238 58538 60838 63138	1	—	W	0-4294967295/1	46IT #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47039 49339 51639 53939 56239 58539 60839 63139	1	—	W	0-4294967295/1	46IT #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7951 10251 12551 14851 17151 19451 21751 24051	1	—	W	0-4095 / 1	46IT #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7952 10252 12552 14852 17152 19452 21752 24052	1	—	W	0-1 / 1	46IT #3 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7953 10253 12553 14853 17153 19453 21753 24053	100	Amps	W	1-320/0.01	46IT #3 Pickup
1 2 3 4 5 6 7 8	7954 10254 12554 14854 17154 19454 21754 24054	1	—	W	0-71 / 1	46IT #3 Curve (See the Reference Tables of the end of Function 46IT)

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7955 10255 12555 14855 17155 19455 21755 24055	1	—	W	0-1/ 1	46IT #3 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7956 10256 12556 14856 17156 19456 21756 24056	1000	Sec	W	1– 60000/0.001	46IT #3 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7957 10257 12557 14857 17157 19457 21757 24057	1000	Sec	W	1– 60000/0.001	46IT #3 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7958 10258 12558 14858 17158 19458 21758 24058	100	—	W	5-100/0.01	46IT #3 Time Multiplier Range of this point changes based on 46IT Curve setting (See the Reference Tables of the end of Function 46IT)
1 2 3 4 5 6 7 8	7959 10259 12559 14859 17159 19459 21759 24059	100	Sec	W	0 –3000/0.01	46IT #3 Time Adder
1 2 3 4 5 6 7 8	7960 10260 12560 14860 17160 19460 21760 24060	100	Sec	W	0 – 100/0.01	46IT #3 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7961 10261 12561 14861 17161 19461 21761 24061	100	Sec	W	0 – 100/0.01	46IT #3 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6884 25580 25743 27338 27657 27857 28183 29218	100	Sec	W	100-60000/0.01	51Q.3.MAXOPTM
1 2 3 4 5 6 7 8	6885 25581 25744 27339 27658 27858 28184 29219	1	-	W	0-1/1	51Q.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47040 49340 51640 53940 56240 58540 60840 63140	1	–	W	0-4294967295/1	46IT #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47041 49341 51641 53941 56241 58541 60841 63141	1	–	W	0-4294967295/1	46IT #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7964 10264 12564 14864 17164 19464 21764 24064	1	–	W	0-4095 / 1	46IT #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7965 10265 12565 14865 17165 19465 21765 24065	1	—	W	0-1 / 1	46IT #4 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7966 10266 12566 14866 17166 19466 21766 24066	100	Amps	W	1-320/0.01	46IT #4 Pickup
1 2 3 4 5 6 7 8	7967 10267 12567 14867 17167 19467 21767 24067	1	—	W	0-71 / 1	46IT #4 Curve (See the Reference Tables of the end of Function 46IT)
1 2 3 4 5 6 7 8	7968 10268 12568 14868 17168 19468 21768 24068	1	—	W	0-1/ 1	46IT #4 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7969 10269 12569 14869 17169 19469 21769 24069	1000	Sec	W	1– 60000/0.001	46IT #4 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7970 10270 12570 14870 17170 19470 21770 24070	1000	Sec	W	1– 60000/0.001	46IT #4 Reset Coefficient (High) High bytes of 32-bit register

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7971 10271 12571 14871 17171 19471 21771 24071	100	—	W	5-100/0.01	46IT #4 Time Multiplier Range of this point changes based on 46IT Curve setting (See the Reference Tables of the end of Function 46IT)
1 2 3 4 5 6 7 8	7972 10272 12572 14872 17172 19472 21772 24072	100	Sec	W	0 – 3000/0.01	46IT #4 Time Adder
1 2 3 4 5 6 7 8	7973 10273 12573 14873 17173 19473 21773 24073	100	Sec	W	0 – 100/0.01	46IT #4 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7974 10274 12574 14874 17174 19474 21774 24074	100	Sec	W	0 – 100/0.01	46IT #4 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6886 25582 25745 27340 27651 27659 27859 28185	100	S	W	100-60000/0.01	51Q.4.MAXOPTM
1 2 3 4 5 6 7 8	6887 25583 25746 27341 27652 27660 27860 28186	1	—	W	0-1/1	51Q.4.MAXOPTMENA

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47042 49342 51642 53942 56242 58542 60842 63142	1	—	W	0-4294967295/1	46IT #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47043 49343 51643 53943 56243 58543 60843 63143	1	—	W	0-4294967295/1	46IT #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7977 10277 12577 14877 17177 19477 21777 24077	1	—	W	0-4095 / 1	46IT #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7978 10278 12578 14878 17178 19478 21778 24078	1	—	W	0-1 / 1	46IT #5 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7979 10279 12579 14879 17179 19479 21779 24079	100	Amps	W	1-320/0.01	46IT #5 Pickup
1 2 3 4 5 6 7 8	7980 10280 12580 14880 17180 19480 21780 24080	1	—	W	0-71 / 1	46IT #5 Curve (See the Reference Tables of the end of Function 46IT)

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7981 10281 12581 14881 17181 19481 21781 24081	1	—	W	0-1/ 1	46IT #5 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7982 10282 12582 14882 17182 19482 21782 24082	1000	Sec	W	1– 60000/0.001	46IT #5 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7983 10283 12583 14883 17183 19483 21783 24083	1000	Sec	W	1– 60000/0.001	46IT #5 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7984 10284 12584 14884 17184 19484 21784 24084	100	—	W	5-100/0.01	46IT #5 Time Multiplier Range of this point changes based on 46IT Curve setting (See the Reference Tables of the end of Function 46IT)
1 2 3 4 5 6 7 8	7985 10285 12585 14885 17185 19485 21785 24085	100	Sec	W	0 –3000/0.01	46IT #5 Time Adder
1 2 3 4 5 6 7 8	7986 10286 12586 14886 17186 19486 21786 24086	100	Sec	W	0 – 100/0.01	46IT #5 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.08 Function 46IT Setpoints

Function 46IT Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7987 10287 12587 14887 17187 19487 21787 24087	100	Sec	W	0 – 100/0.01	46IT #5 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6888 25584 25747 27342 27661 27861 28187 29222	100	S	W	100-60000/0.01	51Q.5.MAXOPTM
1 2 3 4 5 6 7 8	6889 25585 25748 27343 27662 27862 28188 29223	1	-	W	0-1/1	51Q.5.MAXOPTMENA

Table 2.08 Function 46IT Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP
38	120(Y)		69	BSCP
39	121(G)		70	BFCG
40	122(H)		71	BSCG
41	131(9)			

Inverse Time Curves – Bit Number Reference Table

Table 2.08 Function 46IT Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4	NA	NA
68-BFCP 69-BSCP 70-BFCG 71-BSCG	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.08 Function 46IT Setpoints

Function 47 Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47088 49388 51688 53988 56288 58588 60888 63188	1	—	W	0-4294967295/1	47 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47089 49389 51689 53989 56289 58589 60889 63189	1	—	W	0-4294967295/1	47 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8111 10411 12711 15011 17311 19611 21911 24211	1	—	W	0-4095/1	47 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8112 10412 12712 15012 17312 19612 21912 24212	1	—	W	0-1/1	47 Enable Bit 0 Enable: 1, Disable: 0

Table 2.09 Function 47 Setpoints

Function 47 Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8113 10413 12713 15013 17313 19613 21913 24213	100	V, s	W	1000-30000/0.01	47 Pickup
1 2 3 4 5 6 7 8	8114 10414 12714 15014 17314 19614 21914 24214	100	Sec	W	0-60000/0.01	47 Definite Time
1 2 3 4 5 6 7 8	8115 10415 12715 15015 17315 19615 21915 24215	1	–	W	0-1/1	47 Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.09 Function 47 Setpoints

Function 50BF Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47226 49526 51826 54126 56426 58726 61026 63326	—	—	W	0-4294967295/1	50BF Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47227 49527 51827 54127 56427 58727 61027 63327	—	—	W	0-4294967295/1	50BF Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8813 11113 13413 15713 18013 20313 22613 24913	—	—	W	0-4095/1	50BF Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8814 11114 13414 15714 18014 20314 22614 24914	—	—	W	0-1/1	50BF Enable 1=Enable ,0=Disable

Table 2.10 Function 50BF Setpoints

Function 50BF Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8827 11127 13427 15727 18027 20327 22627 24927	1	—	W	0-4294967295/1	50BF Input Initiate Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	8828 11128 13428 15728 18028 20328 22628 24928	1	—	W	0-4294967295/1	50BF Input Initiate.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8816 11116 13416 15716 18016 20316 22616 24916	1	—	W	0-4095/1	50BF Output Initiate Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8817 11117 13417 15717 18017 20317 22617 24917	100	Amps	W	1-200/0.01	50BF Phase Current Pickup

Table 2.10 Function 50BF Setpoints

Function 50BF Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8818 11118 13418 15718 18018 20318 22618 24918	1	—	W	0-3/1	50BF OPT Enable Bit 0 – Enable Phase Current Bit 1 – Enable Ground/Neutral Current
1 2 3 4 5 6 7 8	8819 11119 13419 15719 18019 20319 22619 24919	100	Amps	W	1-200/0.01	50BF Neutral Current Pickup
1 2 3 4 5 6 7 8	9027 11327 13627 15927 18227 20527 22827 25127	1000	Amps	W	1-1600/0.001	50BF Sensitive Ground Pickup
1 2 3 4 5 6 7 8	9028 11328 13628 15928 18228 20528 22828 25128	100	Amps	W	2-200/0.01	50BF Ground Pickup
1 2 3 4 5 6 7 8	8820 11120 13420 15720 18020 20320 22620 24920	100	Sec	W	1-60000/0.01	50BF Breaker Failure Time Delay
1 2 3 4 5 6 7 8	8821 11121 13421 15721 18021 20321 22621 24921	100	Sec	W	1-60000/0.01	50BF Retrip Time Delay

Table 2.10 Function 50BF Setpoints

Function 50BF Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	7047	1	-	W	0-4294967295	50BF.RETRIPINIT
2	9347					
3	11647					
4	13947					
5	16247					
6	18547					
7	20847					
8	23147					
1	7048	1	-	W	0-4294967295	50BF.RETRIPINIT.H
2	9348					
3	11648					
4	13948					
5	16248					
6	18548					
7	20848					
8	23148					

Table 2.10 Function 50BF Setpoints

Function 50G Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46954 49254 51554 53854 56154 58454 60754 63054	1	—	W	0-4294967295 / 1	50G #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46955 49255 51555 53855 56155 58455 60755 63055	1	—	W	0-4294967295 / 1	50G #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7425 9725 12025 14325 16625 18925 21225 23525	1	—	W	0-4095/1	50G #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7426 9726 12026 14326 16626 18926 21226 23526	1	—	W	0-1/1	50G #1 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7427 9727 12027 14327 16627 18927 21227 23527	1000	Amps	W	2-2000/0.01	50G #1 Pickup

Table 2.11 Function 50G Setpoints

Function 50G Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7428 9728 12028 14328 16628 18928 21228 23528	100	Sec	W	0 -60000/0.01	50G #1 Definite Time
1 2 3 4 5 6 7 8	46956 49256 51556 53856 56156 58456 60756 63056	1	—	W	0-4294967295 / 1	50G #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46957 49257 51557 53857 56157 58457 60757 63057	1	—	W	0-4294967295 / 1	50G #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7430 9730 12030 14330 16630 18930 21230 23530	1	—	W	0-4095/1	50G #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7431 9731 12031 14331 16631 18931 21231 23531	1	—	W	0-1/1	50G #2 Enable Bit 0 Enable: 1, Disable: 0

Table 2.11 Function 50G Setpoints

Function 50G Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7432 9732 12032 14332 16632 18932 21232 23532	1000	Amps	W	2-2000/0.01	50G #2 Pickup
1 2 3 4 5 6 7 8	7433 9733 12033 14333 16633 18933 21233 23533	100	Sec	W	0 -60000/0.01	50G #2 Definite Time
1 2 3 4 5 6 7 8	46958 49258 51558 53858 56158 58458 60758 63058	1	—	W	0-4294967295 / 1	50G #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46959 49259 51559 53859 56159 58459 60759 63059	1	—	W	0-4294967295 / 1	50G #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7435 9735 12035 14335 16635 18935 21235 23535	1	—	W	0-4095/1	50G #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.11 Function 50G Setpoints

Function 50G Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7436 9736 12036 14336 16636 18936 21236 23536	1	—	W	0-1/1	50G #3 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7437 9737 12037 14337 16637 18937 21237 23537	1000	Amps	W	2-2000/0.01	50G #3 Pickup
1 2 3 4 5 6 7 8	7438 9738 12038 14338 16638 18938 21238 23538	100	Sec	W	0 -60000/0.01	50G #3 Definite Time
1 2 3 4 5 6 7 8	46960 49260 51560 53860 56160 58460 60760 63060	1	—	W	0-4294967295 / 1	50G #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46961 49261 51561 53861 56161 58461 60761 63061	1	—	W	0-4294967295 / 1	50G #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.11 Function 50G Setpoints

Function 50G Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7440 9740 12040 14340 16640 18940 21240 23540	1	—	W	0-4095/1	50G #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7441 9741 12041 14341 16641 18941 21241 23541	1	—	W	0-1/1	50G #4 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7442 9742 12042 14342 16642 18942 21242 23542	1000	Amps	W	2-2000/0.01	50G #4 Pickup
1 2 3 4 5 6 7 8	7443 9743 12043 14343 16643 18943 21243 23543	100	Sec	W	0 -60000/0.01	50G #4 Definite Time
1 2 3 4 5 6 7 8	46962 49262 51562 53862 56162 58462 60762 63062	1	—	W	0-4294967295 / 1	50G #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.11 Function 50G Setpoints

Function 50G Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46963 49263 51563 53863 56163 58463 60763 63063	1	—	W	0-4294967295 / 1	50G #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7445 9745 12045 14345 16645 18945 21245 23545	1	—	W	0-4095/1	50G #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7446 9746 12046 14346 16646 18946 21246 23546	1	—	W	0-1/1	50G #5 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7447 9747 12047 14347 16647 18947 21247 23547	1000	Amps	W	2-2000/0.01	50G #5 Pickup
1 2 3 4 5 6 7 8	7448 9748 12048 14348 16648 18948 21248 23548	100	Sec	W	0 -60000/0.01	50G #5 Definite Time

Table 2.11 Function 50G Setpoints

Function 50GS Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47228 49528 51828 54128 56428 58728 61028 63328	1	–	W	0-4294967295 / 1	50GS #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47229 49529 51829 54129 56429 58729 61029 63329	1	–	W	0-4294967295 / 1	50GS #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8855 11155 13455 15755 18055 20355 22655 24955	1	–	W	0-4095/1	50GS #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8856 11156 13456 15756 18056 20356 22656 24956	–	–	W	0-1/1	50GS #1 Enable Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8857 11157 13457 15757 18057 20357 22657 24957	1000	A	W	1-160/0.001	50GS #1 Pickup

Table 2.12 Function 50GS Setpoints

Function 50GS Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8858 11158 13458 15758 18058 20358 22658 24958	100	S	W	0-60000/0.01	50GS #1 Definite Time
1 2 3 4 5 6 7 8	47230 49530 51830 54130 56430 58730 61030 63330	1	–	W	0-4294967295 / 1	50GS #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47231 49531 51831 54131 56431 58731 61031 63331	1	–	W	0-4294967295 / 1	50GS #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8860 11160 13460 15760 18060 20360 22660 24960	1	–	W	0-4095/1	50GS #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8861 11161 13461 15761 18061 20361 22661 24961	–	–	W	0-1/1	50GS #2 Enable Bit 0 – Enable: 1, Disable: 0

Table 2.12 Function 50GS Setpoints

Function 50GS Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8862 11162 13462 15762 18062 20362 22662 24962	1000	A	W	1-160/0.001	50GS #2 Pickup
1 2 3 4 5 6 7 8	8863 11163 13463 15763 18063 20363 22663 24963	100	S	W	0-60000/0.01	50GS #2 Definite Time
1 2 3 4 5 6 7 8	47232 49532 51832 54132 56432 58732 61032 63332	1	—	W	0-4294967295 / 1	50GS #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47233 49533 51833 54133 56433 58733 61033 63333	1	—	W	0-4294967295 / 1	50GS #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8865 11165 13465 15765 18065 20365 22665 24965	1	—	W	0-4095/1	50GS #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.12 Function 50GS Setpoints

Function 50GS Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8866 11166 13466 15766 18066 20366 22666 24966	—	—	W	0-1/1	50GS #3 Enable Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8867 11167 13467 15767 18067 20367 22667 24967	1000	A	W	1-160/0.001	50GS #3 Pickup
1 2 3 4 5 6 7 8	8868 11168 13468 15768 18068 20368 22668 24968	100	S	W	0-60000/0.01	50GS #3 Definite Time
1 2 3 4 5 6 7 8	47234 49534 51834 54134 56434 58734 61034 63334	1	—	W	0-4294967295 / 1	50GS #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47235 49535 51835 54135 56435 58735 61035 63335	1	—	W	0-4294967295 / 1	50GS #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.12 Function 50GS Setpoints

Function 50GS Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8870 11170 13470 15770 18070 20370 22670 24970	1	–	W	0-4095/1	50GS #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8871 11171 13471 15771 18071 20371 22671 24971	–	–	W	0-1/1	50GS #4 Enable Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8872 11172 13472 15772 18072 20372 22672 24972	1000	A	W	1-160/0.001	50GS #4 Pickup
1 2 3 4 5 6 7 8	8873 11173 13473 15773 18073 20373 22673 24973	100	S	W	0-60000/0.01	50GS #4 Definite Time
1 2 3 4 5 6 7 8	47236 49536 51836 54136 56436 58736 61036 63336	1	–	W	0-4294967295 / 1	50GS #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.12 Function 50GS Setpoints

Function 50GS Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47237 49537 51837 54137 56437 58737 61037 63337	1	–	W	0-4294967295 / 1	50GS #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8875 11175 13475 15775 18075 20375 22675 24975	1	–	W	0-4095/1	50GS #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8876 11176 13476 15776 18076 20376 22676 24976	–	–	W	0-1/1	50GS #5 Enable Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8877 11177 13477 15777 18077 20377 22677 24977	1000	A	W	1-160/0.001	50GS #5 Pickup
1 2 3 4 5 6 7 8	8878 11178 13478 15778 18078 20378 22678 24978	100	S	W	0-60000/0.01	50GS #5 Definite Time

Table 2.12 Function 50GS Setpoints

Function 50N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46944 49244 51544 53844 56144 58444 60744 63044	1	—	W	0-4294967295/1	50N #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46945 49245 51545 53845 56145 58445 60745 63045	1	—	W	0-4294967295/1	50N #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7389 9689 11989 14289 16589 18889 21189 23489	1	—	W	0-4095/1	50N #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7390 9690 11990 14290 16590 18890 21190 23490	1	—	W	0-1/1	50N #1 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7391 9691 11991 14291 16591 18891 21191 23491	100	Amps	W	1-2000/0.01	50N #1 Pickup
1 2 3 4 5 6 7 8	7392 9692 11992 14292 16592 18892 21192 23492	100	Sec	W	0 -60000/0.01	50N #1 Definite Time

Table 2.13 Function 50N Setpoints

Function 50N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46946 49246 51546 53846 56146 58446 60746 63046	1	—	W	0-4294967295/1	50N #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46947 49247 51547 53847 56147 58447 60747 63047	1	—	W	0-4294967295/1	50N #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7394 9694 11994 14294 16594 18894 21194 23494	1	—	W	0-4095/1	50N #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7395 9695 11995 14295 16595 18895 21195 23495	1	—	W	0-1/1	50N #2 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7396 9696 11996 14296 16596 18896 21196 23496	100	Amps	W	1-2000/0.01	50N #2 Pickup
1 2 3 4 5 6 7 8	7397 9697 11997 14297 16597 18897 21197 23497	100	Sec	W	0 -60000/0.01	50N #2 Definite Time

Table 2.13 Function 50N Setpoints

Function 50N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46948 49248 51548 53848 56148 58448 60748 63048	1	—	W	0-4294967295/1	50N #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46949 49249 51549 53849 56149 58449 60749 63049	1	—	W	0-4294967295/1	50N #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7399 9699 11999 14299 16599 18899 21199 23499	1	—	W	0-4095/1	50N #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.13 Function 50N Setpoints

Function 50N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7400 9700 12000 14300 16600 18900 21200 23500	1	—	W	0-1/1	50N #3 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7401 9701 12001 14301 16601 18901 21201 23501	100	Amps	W	1-2000/0.01	50N #3 Pickup
1 2 3 4 5 6 7 8	7402 9702 12002 14302 16602 18902 21202 23502	100	Sec	W	0 -60000/0.01	50N #3 Definite Time
1 2 3 4 5 6 7 8	46950 49250 51550 53850 56150 58450 60750 63050	1	—	W	0-4294967295/1	50N #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.13 Function 50N Setpoints

Function 50N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46951 49251 51551 53851 56151 58451 60751 63051	1	—	W	0-4294967295/1	50N #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7404 9704 12004 14304 16604 18904 21204 23504	1	—	W	0-4095/1	50N #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7405 9705 12005 14305 16605 18905 21205 23505	1	—	W	0-1/1	50N #4 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7406 9706 12006 14306 16606 18906 21206 23506	100	Amps	W	1-2000/0.01	50N #4 Pickup

Table 2.13 Function 50N Setpoints

Function 50N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7407 9707 12007 14307 16607 18907 21207 23507	100	Sec	W	0 -60000/0.01	50N #4 Definite Time
1 2 3 4 5 6 7 8	46952 49252 51552 53852 56152 58452 60752 63052	1	—	W	0-4294967295/1	50N #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46953 49253 51553 53853 56153 58453 60753 63053	1	—	W	0-4294967295/1	50N #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7409 9709 12009 14309 16609 18909 21209 23509	1	—	W	0-4095/1	50N #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.13 Function 50N Setpoints

Function 50N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7410 9710 12010 14310 16610 18910 21210 23510	1	—	W	0-1/1	50N #5 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7411 9711 12011 14311 16611 18911 21211 23511	100	Amps	W	1-2000/0.01	50N #5 Pickup
1 2 3 4 5 6 7 8	7412 9712 12012 14312 16612 18912 21212 23512	100	Sec	W	0 -60000/0.01	50N #5 Definite Time

Table 2.13 Function 50N Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46904 49204 51504 53804 56104 58404 60704 63004	1	—	W	0-4294967295/1	50P #1 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46905 49205 51505 53805 56105 58405 60705 63005	1	—	W	0-4294967295/1	50P#1 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7273 9573 11873 14173 16473 18773 21073 23373	1	—	W	0-4095/1	50P #1 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7274 9574 11874 14174 16474 18774 21074 23374	1	—	W	0-1/1	50P #1 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7275 9575 11875 14175 16475 18775 21075 23375	100	Amps	W	1-2000/0.01	50P #1 Phase ABC Pickup
1 2 3 4 5 6 7 8	7276 9576 11876 14176 16476 18776 21076 23376	100	Sec	W	0 -60000/0.01	50P #1 Phase ABC Definite Time

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7277 9577 11877 14177 16477 18777 21077 23377	1	—	W	0-1/1	50P #1 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	46906 49206 51506 53806 56106 58406 60706 63006	1	—	W	0-42949667295/1	50P #2 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46907 49207 51507 53807 56107 58407 60707 63007	1	—	W	0-42949667295/1	50P #2 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7279 9579 11879 14179 16479 18779 21079 23379	1	—	W	0-4095/1	50P #2 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7280 9580 11880 14180 16480 18780 21080 23380	1	—	W	0-1/1	50P #2 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7281 9581 11881 14181 16481 18781 21081 23381	100	Amps	W	1-2000/0.01	50P #2 Phase ABC Pickup

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7282 9582 11882 14182 16482 18782 21082 23382	100	Sec	W	0 -60000/0.01	50P #2 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7283 9583 11883 14183 16483 18783 21083 23383	1	—	W	0-1/1	50P #2 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	46908 49208 51508 53808 56108 58408 60708 63008	1	—	W	0-4294967295/1	50P #3 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46909 49209 51509 53809 56109 58409 60709 63009	1	—	W	0-4294967295/1	50P #3 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7285 9585 11885 14185 16485 18785 21085 23385	1	—	W	0-4095/1	50P #3 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7286 9586 11886 14186 16486 18786 21086 23386	1	—	W	0-1/1	50P #3 Phase ABC Enable Bit 0 Enable: 1, Disable: 0

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7287 9587 11887 14187 16487 18787 21087 23387	100	Amps	W	1-2000/0.01	50P #3 Phase ABC Pickup
1 2 3 4 5 6 7 8	7288 9588 11888 14188 16488 18788 21088 23388	100	Sec	W	0 -60000/0.01	50P #3 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7289 9589 11889 14189 16489 18789 21089 23389	1	—	W	0-1/1	50P #3 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	46910 49210 51510 53810 56110 58410 60710 63010	1	—	W	0-4294967295/1	50P #4 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46911 49211 51511 53811 56111 58411 60711 63011	1	—	W	0-4294967295/1	50P #4 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7291 9591 11891 14191 16491 18791 21091 23391	1	—	W	0-4095/1	50P #4 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7292 9592 11892 14192 16492 18792 21092 23392	1	—	W	0-1/1	50P #4 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7293 9593 11893 14193 16493 18793 21093 23393	100	Amps	W	1-2000/0.01	50P #4 Phase ABC Pickup
1 2 3 4 5 6 7 8	7294 9594 11894 14194 16494 18794 21094 23394	100	Sec	W	0 -60000/0.01	50P #4 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7295 9595 11895 14195 16495 18795 21095 23395	1	—	W	0-1/1	50P #4 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	46912 49212 51512 53812 56112 58412 60712 63012	1	—	W	0-4294967295/1	50P #5 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46913 49213 51513 53813 56113 58413 60713 63013	1	—	W	0-4294967295/1	50P #5 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7297 9597 11897 14197 16497 18797 21097 23397	1	—	W	0-4095/1	50P #5 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7298 9598 11898 14198 16498 18798 21098 23398	1	—	W	0-1/1	50P #5 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7299 9599 11899 14199 16499 18799 21099 23399	100	Amps	W	1-2000/0.01	50P #5 Phase ABC Pickup
1 2 3 4 5 6 7 8	7300 9600 11900 14200 16500 18800 21100 23400	100	Sec	W	0 -60000/0.01	50P #5 Phase ABC Definite Time
1 2 3 4 5 6 7 8	7301 9601 11901 14201 16501 18801 21101 23401	1	—	W	0-1/1	50P #5 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
With Option P: Standard Function 50P Phase A & Phase B Registers indicate Pole 1 & Pole 2 Setpoints						

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46914 49214 51514 53814 56114 58414 60714 63014	1	—	W	0-4294967295/1	50P #1 Phase A Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46915 49215 51515 53815 56115 58415 60715 63015	1	—	W	0-4294967295/1	50P #1 Phase A Blocking Inputs.H Pole 1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7303 9603 11903 14203 16503 18803 21103 23403	1	—	W	0-4095/1	50P #1 Phase A Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7304 9604 11904 14204 16504 18804 21104 23404	1	—	W	0-1/1	50P #1 Phase A Enable Pole1 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7305 9605 11905 14205 16505 18805 21105 23405	100	Amps	W	1-2000/0.01	50P #1 Phase A Pickup Pole1
1 2 3 4 5 6 7 8	7306 9606 11906 14206 16506 18806 21106 23406	100	Sec	W	0 -60000/0.01	50P #1 Phase A Definite Time Pole1

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46916 49216 51516 53816 56116 58416 60716 63016	1	—	W	0-4294967295/1	50P #1 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46917 49217 51517 53817 56117 58417 60717 63017	1	—	W	0-4294967295/1	50P #1 Phase B Blocking Inputs.H Pole2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7308 9608 11908 14208 16508 18808 21108 23408	1	—	W	0-4095/1	50P #1 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7309 9609 11909 14209 16509 18809 21109 23409	1	—	W	0-1/1	50P #1 Phase B Enable Pole2 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7310 9610 11910 14210 16510 18810 21110 23410	100	Amps	W	1-2000/0.01	50P #1 Phase B Pickup Pole2
1 2 3 4 5 6 7 8	7311 9611 11911 14211 16511 18811 21111 23411	100	Sec	W	0 -60000/0.01	50P #1 Phase B Definite Time Pole2

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46918 49218 51518 53818 56118 58418 60718 63018	1	—	W	0-4294967295/1	50P #1 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46919 49219 51519 53819 56119 58419 60719 63019	1	—	W	0-4294967295/1	50P #1 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7313 9613 11913 14213 16513 18813 21113 23413	1	—	W	0-4095/1	50P #1 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7314 9614 11914 14214 16514 18814 21114 23414	1	—	W	0-1/1	50P #1 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7315 9615 11915 14215 16515 18815 21115 23415	100	Amps	W	1-2000/0.01	50P #1 Phase C Pickup
1 2 3 4 5 6 7 8	7316 9616 11916 14216 16516 18816 21116 23416	100	Sec	W	0 -60000/0.01	50P #1 Phase C Definite Time

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46920 49220 51520 53820 56120 58420 60720 63020	1	—	W	0-4294967295/1	50P #2 Phase A Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46921 49221 51521 53821 56121 58421 60721 63021	1	—	W	0-4294967295/1	50P #2 Phase A Blocking Inputs.H Pole1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7318 9618 11918 14218 16518 18818 21118 23418	1	—	W	0-4095/1	50P #2 Phase A Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7319 9619 11919 14219 16519 18819 21119 23419	1	—	W	0-1/1	50P #2 Phase A Enable Pole1 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7320 9620 11920 14220 16520 18820 21120 23420	100	Amps	W	1-2000/0.01	50P #2 Phase A Pickup Pole1
1 2 3 4 5 6 7 8	7321 9621 11921 14221 16521 18821 21121 23421	100	Sec	W	0 -60000/0.01	50P #2 Phase A Definite Time Pole1

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46922 49222 51522 53822 56122 58422 60722 63022	1	—	W	0-4294967295/1	50P #2 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46923 49223 51523 53823 56123 58423 60723 63023	1	—	W	0-4294967295/1	50P #2 Phase B Blocking Inputs.H Pole2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7323 9623 11923 14223 16523 18823 21123 23423	1	—	W	0-4095/1	50P #2 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7324 9624 11924 14224 16524 18824 21124 23424	1	—	W	0-1/1	50P #2 Phase B Enable Pole2 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7325 9625 11925 14225 16525 18825 21125 23425	100	Amps	W	1-2000/0.01	50P #2 Phase B Pickup Pole2
1 2 3 4 5 6 7 8	7326 9626 11926 14226 16526 18826 21126 23426	100	Sec	W	0 -60000/0.01	50P #2 Phase B Definite Time Pole2

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46924 49224 51524 53824 56124 58424 60724 63024	1	—	W	0-4294967295/1	50P #2 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46925 49225 51525 53825 56125 58425 60725 63025	1	—	W	0-4294967295/1	50P #2 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7328 9628 11928 14228 16528 18828 21128 23428	1	—	W	0-4095/1	50P #2 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7329 9629 11929 14229 16529 18829 21129 23429	1	—	W	0-1/1	50P #2 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7330 9630 11930 14230 16530 18830 21130 23430	100	Amps	W	1-2000/0.01	50P #2 Phase C Pickup
1 2 3 4 5 6 7 8	7331 9631 11931 14231 16531 18831 21131 23431	100	Sec	W	0 -60000/0.01	50P #2 Phase C Definite Time

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46926 49226 51526 53826 56126 58426 60726 63026	1	—	W	0-4294967295/1	50P #3 Phase A Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46927 49227 51527 53827 56127 58427 60727 63027	1	—	W	0-4294967295/1	50P #3 Phase A Blocking Inputs.H Pole1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7333 9633 11933 14233 16533 18833 21133 23433	1	—	W	0-4095/1	50P #3 Phase A Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7334 9634 11934 14234 16534 18834 21134 23434	1	—	W	0-1/1	50P #3 Phase A Enable Pole1 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7335 9635 11935 14235 16535 18835 21135 23435	100	Amps	W	1-2000/0.01	50P #3 Phase A Pickup Pole1

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7336 9636 11936 14236 16536 18836 21136 23436	100	Sec	W	0 -60000/0.01	50P #3 Phase A Definite Time Pole1
1 2 3 4 5 6 7 8	46928 49228 51528 53828 56128 58428 60728 63028	1	—	W	0-4294967295/1	50P #3 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46929 49229 51529 53829 56129 58429 60729 63029	1	—	W	0-4294967295/1	50P #3 Phase B Blocking Inputs.H Pole2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7338 9638 11938 14238 16538 18838 21138 23438	1	—	W	0-4095/1	50P #3 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7339 9639 11939 14239 16539 18839 21139 23439	1	—	W	0-1/1	50P #3 Phase B Enable Pole2 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7340 9640 11940 14240 16540 18840 21140 23440	100	Amps	W	1-2000/0.01	50P #3 Phase B Pickup Pole2
1 2 3 4 5 6 7 8	7341 9641 11941 14241 16541 18841 21141 23441	100	Sec	W	0 -60000/0.01	50P #3 Phase B Definite Time Pole2
1 2 3 4 5 6 7 8	46930 49230 51530 53830 56130 58430 60730 63030	1	—	W	0-4294967295/1	50P #3 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46931 49231 51531 53831 56131 58431 60731 63031	1	–	W	0-4294967295/1	50P #3 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7343 9643 11943 14243 16543 18843 21143 23443	1	–	W	0-4095/1	50P #3 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7344 9644 11944 14244 16544 18844 21144 23444	1	–	W	0-1/1	50P #3 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7345 9645 11945 14245 16545 18845 21145 23445	100	Amps	W	1-2000/0.01	50P #3 Phase C Pickup

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7346 9646 11946 14246 16546 18846 21146 23446	100	Sec	W	0 -60000/0.01	50P #3 Phase C Definite Time
1 2 3 4 5 6 7 8	46932 49232 51532 53832 56132 58432 60732 63032	1	—	W	0-4294967295/1	50P #4 Phase A Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46933 49233 51533 53833 56133 58433 60733 63033	1	—	W	0-4294967295/1	50P #4 Phase A Blocking Inputs.H Pole1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7348 9648 11948 14248 16548 18848 21148 23448	1	—	W	0-4095/1	50P #4 Phase A Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7349 9649 11949 14249 16549 18849 21149 23449	1	—	W	0-1/1	50P #4 Phase A Enable Pole1 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7350 9650 11950 14250 16550 18850 21150 23450	100	Amps	W	1-2000/0.01	50P #4 Phase A Pickup Pole1
1 2 3 4 5 6 7 8	7351 9651 11951 14251 16551 18851 21151 23451	100	Sec	W	0 -60000/0.01	50P #4 Phase A Definite Time Pole1
1 2 3 4 5 6 7 8	46934 49234 51534 53834 56134 58434 60734 63034	1	—	W	0-4294967295/1	50P #4 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46935 49235 51535 53835 56135 58435 60735 63035	1	–	W	0-4294967295/1	50P #4 Phase B Blocking Inputs.H Pole2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7353 9653 11953 14253 16553 18853 21153 23453	1	–	W	0-4095/1	50P #4 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7354 9654 11954 14254 16554 18854 21154 23454	1	–	W	0-1/1	50P #4 Phase B Enable Pole2 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7355 9655 11955 14255 16555 18855 21155 23455	100	Amps	W	1-2000/0.01	50P #4 Phase B Pickup Pole2

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7356 9656 11956 14256 16556 18856 21156 23456	100	Sec	W	0 -60000/0.01	50P #4 Phase B Definite Time Pole2
1 2 3 4 5 6 7 8	46936 49236 51536 53836 56136 58436 60736 63036	1	–	W	0-4294967295/1	50P #4 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46937 49237 51537 53837 56137 58437 60737 63037	1	–	W	0-4294967295/1	50P #4 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7358 9658 11958 14258 16558 18858 21158 23458	1	–	W	0-4095/1	50P #4 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7359 9659 11959 14259 16559 18859 21159 23459	1	—	W	0-1/1	50P #4 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7360 9660 11960 14260 16560 18860 21160 23460	100	Amps	W	1-2000/0.01	50P #4 Phase C Pickup
1 2 3 4 5 6 7 8	7361 9661 11961 14261 16561 18861 21161 23461	100	Sec	W	0 -60000/0.01	50P #4 Phase C Definite Time
1 2 3 4 5 6 7 8	46938 49238 51538 53838 56138 58438 60738 63038	1	—	W	0-4294967295/1	50P #5 Phase A Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46939 49239 51539 53839 56139 58439 60739 63039	1	—	W	0-4294967295/1	50P #5 Phase A Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7363 9663 11963 14263 16563 18863 21163 23463	1	—	W	0-4095/1	50P #5 Phase A Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7364 9664 11964 14264 16564 18864 21164 23464	1	—	W	0-1/1	50P #5 Phase A Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7365 9665 11965 14265 16565 18865 21165 23465	100	Amps	W	1-2000/0.01	50P #5 Phase A Pickup

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7366 9666 11966 14266 16566 18866 21166 23466	100	Sec	W	0 -60000/0.01	50P #5 Phase A Definite Time
1 2 3 4 5 6 7 8	46940 49240 51540 53840 56140 58440 60740 63040	1	—	W	0-4294967295/1	50P #5 Phase B Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	46941 49241 51541 53841 56141 58441 60741 63041	1	—	W	0-4294967295/1	50P #5 Phase B Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7368 9668 11968 14268 16568 18868 21168 23468	1	—	W	0-4095/1	50P #5 Phase B Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7369 9669 11969 14269 16569 18869 21169 23469	1	—	W	0-1/1	50P #5 Phase B Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7370 9670 11970 14270 16570 18870 21170 23470	100	Amps	W	1-2000/0.01	50P #5 Phase B Pickup
1 2 3 4 5 6 7 8	7371 9671 11971 14271 16571 18871 21171 23471	100	Sec	W	0 -60000/0.01	50P #5 Phase B Definite Time
1 2 3 4 5 6 7 8	46942 49242 51542 53842 56142 58442 60742 63042	1	—	W	0-4294967295/1	50P #5 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.14 Function 50P Setpoints

Function 50P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46943 49243 51543 53843 56143 58443 60743 63043	1	—	W	0-4294967295/1	50P #5 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7373 9673 11973 14273 16573 18873 21173 23473	1	—	W	0-4095/1	50P #5 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7374 9674 11974 14274 16574 18874 21174 23474	1	—	W	0-1/1	50P #5 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7375 9675 11975 14275 16575 18875 21175 23475	100	Amps	W	1-2000/0.01	50P #5 Phase C Pickup
1 2 3 4 5 6 7 8	7376 9676 11976 14276 16576 18876 21176 23476	100	Sec	W	0 -60000/0.01	50P #5 Phase C Definite Time
1 2 3 4 5 6 7 8	7377 9677 11977 14277 16577 18877 21177 23477	1	s	W	0-31/1	50VIEWWINDPHASE

Table 2.14 Function 50P Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47024 49324 51624 53924 56224 58524 60824 63124	1	—	W	0-4294967295/1	51G #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47025 49325 51625 53925 56225 58525 60825 63125	1	—	W	0-4294967295/1	51G #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7849 10149 12449 14749 17049 19349 21649 23949	1	—	W	0-4095 / 1	51G #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7850 10150 12450 14750 17050 19350 21650 23950	1	—	W	0-1 / 1	51G #1 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7851 10151 12451 14751 17051 19351 21651 23951	100	Amps	W	2-320/0.01	51G #1 Pickup
1 2 3 4 5 6 7 8	7852 10152 12452 14752 17052 19352 21652 23952	1	—	W	0-71 / 1	51G #1 Curve (See the Reference Tables of the end of Function 51G)

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7853 10153 12453 14753 17053 19353 21653 23953	1	—	W	0-1/ 1	51G #1 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7854 10154 12454 14754 17054 19354 21654 23954	1000	Sec	W	1– 60000/0.001	51G #1 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7855 10155 12455 14755 17055 19355 21655 23955	1000	Sec	W	1– 60000/0.001	51G #1 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7856 10156 12456 14756 17056 19356 21656 23956	100	—	W	5-109/0.01	51G #1 Time Multiplier Range of this point changes based on 51G Curve setting (See the Reference Tables of the end of Function 51G)
1 2 3 4 5 6 7 8	7857 10157 12457 14757 17057 19357 21657 23957	100	Sec	W	0 –3000/0.01	51G #1 Time Adder
1 2 3 4 5 6 7 8	7858 10158 12458 14758 17058 19358 21658 23958	100	Sec	W	0 – 100/0.01	51G #1 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7859 10159 12459 14759 17059 19359 21659 23959	100	Sec	W	0 – 100/0.01	51G #1 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6870 25566 25729 27324 26743 27843 28168 29204	100	A	W	1-60000/0.01	51G.1.MAXOPTM
1 2 3 4 5 6 7 8	6871 25567 25730 27325 27644 27844 28169 29205	1	A	W	0-1/1	51G.1.MAXOPTMENA
1 2 3 4 5 6 7 8	47026 49326 51626 53926 56226 58526 60826 63126	1	–	W	0-4294967295/1	51G #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47027 49327 51627 53927 56227 58527 60827 63127	1	–	W	0-4294967295/1	51G #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7862 10162 12462 14762 17062 19362 21662 23962	1	–	W	0-4095 / 1	51G #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7863 10163 12463 14763 17063 19363 21663 23963	1	—	W	0-1 / 1	51G #2 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7864 10164 12464 14764 17064 19364 21664 23964	100	Amps	—	2-320/0.01	51G #2 Pickup
1 2 3 4 5 6 7 8	7865 10165 12465 14765 17065 19365 21665 23965	1	—	W	0-71 / 1	51G #2 Curve (See the Reference Tables of the end of Function 51G)
1 2 3 4 5 6 7 8	7866 10166 12466 14766 17066 19366 21666 23966	1	—	W	0-1/ 1	51G #2 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7867 10167 12467 14767 17067 19367 21667 23967	1000	Sec	W	1– 60000/0.001	51G #2 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7868 10168 12468 14768 17068 19368 21668 23968	1000	Sec	W	1– 60000/0.001	51G #2 Reset Coefficient (High) High bytes of 32-bit register

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7869 10169 12469 14769 17069 19369 21669 23969	100	—	W	5-109/0.01	51G #2 Time Multiplier Range of this point changes based on 51G Curve setting (See the Reference Tables of the end of Function 51G)
1 2 3 4 5 6 7 8	7870 10170 12470 14770 17070 19370 21670 23970	100	Sec	W	0 – 3000/0.01	51G #2 Time Adder
1 2 3 4 5 6 7 8	7871 10171 12471 14771 17071 19371 21671 23971	100	Sec	W	0 – 100/0.01	51G #2 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7872 10172 12472 14772 17072 19372 21672 23972	100	Sec	W	0 – 100/0.01	51G #2 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6872 25568 25731 27326 27645 27845 28170 29206	100	A	W	1-60000/0.01	51G.2.MAXOPTM
1 2 3 4 5 6 7 8	6873 25569 25732 27327 27646 27846 28171 29207	1	A	W	0-1/1	51G.2.MAXOPTMENA

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47028 49328 51628 53928 56228 58528 60828 63128	1	—	W	0-4294967295/1	51G #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47029 49329 51629 53929 56229 58529 60829 63129	1	—	W	0-4294967295/1	51G #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7875 10175 12475 14775 17075 19375 21675 23975	1	—	W	0-4095 / 1	51G #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7876 10176 12476 14776 17076 19376 21676 23976	1	—	W	0-1 / 1	51G #3 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7877 10177 12477 14777 17077 19377 21677 23977	100	Amps	W	2-320/0.01	51G #3 Pickup
1 2 3 4 5 6 7 8	7878 10178 12478 14778 17078 19378 21678 23978	1	—	W	0-71 / 1	51G #3 Curve (See the Reference Tables of the end of Function 51G)

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7879 10179 12479 14779 17079 19379 21679 23979	1	—	W	0-1/ 1	51G #3 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7880 10180 12480 14780 17080 19380 21680 23980	1000	Sec	W	1– 60000/0.001	51G #3 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7881 10181 12481 14781 17081 19381 21681 23981	1000	Sec	W	1– 60000/0.001	51G #3 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7882 10182 12482 14782 17082 19382 21682 23982	100	—	W	5-109/0.01	51G #3 Time Multiplier Range of this point changes based on 51G Curve setting (See the Reference Tables of the end of Function 51G)

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7883 10183 12483 14783 17083 19383 21683 23983	100	Sec	W	0 – 3000/0.01	51G #3 Time Adder
1 2 3 4 5 6 7 8	7884 10184 12484 14784 17084 19384 21684 23984	100	Sec	W	0 – 100/0.01	51G #3 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7885 10185 12485 14785 17085 19385 21685 23985	100	Sec	W	0 – 100/0.01	51G #3 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6874 25570 25733 27328 27647 27847 28172 29208	100	A	W	1-60000/0.01	51G.3.MAXOPTM

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6875 25571 25734 27329 27648 27848 28173 29209	1	A	W	0-1/1	51G.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47030 49330 51630 53930 56230 58530 60830 63130	1	—	W	0-4294967295/1	51G #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47031 49331 51631 53931 56231 58531 60831 63131	1	—	W	0-4294967295/1	51G #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7888 10188 12488 14788 17088 19388 21688 23988	1	—	W	0-4095 / 1	51G #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7889 10189 12489 14789 17089 19389 21689 23989	1	—	W	0-1 / 1	51G #4 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7890 10190 12490 14790 17090 19390 21690 23990	100	Amps	W	2-320/0.01	51G #4 Pickup
1 2 3 4 5 6 7 8	7891 10191 12491 14791 17091 19391 21691 23991	1	—	W	0-71 / 1	51G #4 Curve (See the Reference Tables of the end of Function 51G)
1 2 3 4 5 6 7 8	7892 10192 12492 14792 17092 19392 21692 23992	1	—	W	0-1/ 1	51G #4 Electromechanical Reset Enable: 1, Disable: 0

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7893 10193 12493 14793 17093 19393 21693 23993	1000	Sec	W	1– 60000/0.001	51G #4 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7894 10194 12494 14794 17094 19394 21694 23994	1000	Sec	W	1– 60000/0.001	51G #4 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7895 10195 12495 14795 17095 19395 21695 23995	100	–	W	5-109/0.01	51G #4 Time Multiplier Range of this point changes based on 51G Curve setting (See the Reference Tables of the end of Function 51G)
1 2 3 4 5 6 7 8	7896 10196 12496 14796 17096 19396 21696 23996	100	Sec	W	0 –3000/0.01	51G #4 Time Adder

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7897 10197 12497 14797 17097 19397 21697 23997	100	Sec	W	0 – 100/0.01	51G #4 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7898 10198 12498 14798 17098 19398 21698 23998	100	Sec	W	0 – 100/0.01	51G #4 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6876 25572 25735 27330 27649 27849 28174 29210	100	A	W	1-60000/0.01	51G.4.MAXOPTM
1 2 3 4 5 6 7 8	6877 25573 25736 27331 27650 27850 28175 29211	1	A	W	0-1/1	51G.4.MAXOPTMENA

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47032 49332 51632 53932 56232 58532 60832 63132	1	—	W	0-4294967295/1	51G #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47033 49333 51633 53933 56233 58533 60833 63133	1	—	W	0-4294967295/1	51G #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7901 10201 12501 14801 17101 19401 21701 24001	1	—	W	0-4095 / 1	51G #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7902 10202 12502 14802 17102 19402 21702 24002	1	—	W	0-1 / 1	51G #5 Enable Bit 0 Enable: 1, Disable: 0

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7903 10203 12503 14803 17103 19403 21703 24003	100	Amps	W	2-320/0.01	51G #5 Pickup
1 2 3 4 5 6 7 8	7904 10204 12504 14804 17104 19404 21704 24004	1	—	W	0-71 / 1	51G #5 Curve (See the Reference Tables of the end of Function 51G)
1 2 3 4 5 6 7 8	7905 10205 12505 14805 17105 19405 21705 24005	1	—	W	0-1/ 1	51G #5 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7906 10206 12506 14806 17106 19406 21706 24006	1000	Sec	W	1– 60000/0.001	51G #5 Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7907 10207 12507 14807 17107 19407 21707 24007	1000	Sec	W	1– 60000/0.001	51G #5 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7908 10208 12508 14808 17108 19408 21708 24008	100	–	W	5-109/0.01	51G #5 Time Multiplier Range of this point changes based on 51G Curve setting
1 2 3 4 5 6 7 8	7909 10209 12509 14809 17109 19409 21709 24009	100	Sec	W	0 –3000/0.01	51G #5 Time Adder
1 2 3 4 5 6 7 8	7910 10210 12510 14810 17110 19410 21710 24010	100	Sec	W	0 – 100/0.01	51G #5 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.15 Function 51G Setpoints

Function 51G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7911 10211 12511 14811 17111 19411 21711 24011	100	Sec	W	0 – 100/0.01	51G #5 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7912 10212 12512 14812 17112 19412 28716 24012	100	Sec	W	0.1-30.00	51G #5 TMDIALRESET
1 2 3 4 5 6 7 8	6878 25574 25737 27332 27651 27851 28177 29212	100	A	W	1-60000/0.01	51G.5.MAXOPTM
1 2 3 4 5 6 7 8	6879 25575 25738 27333 27652 27852 28178 29213	1	A	W	0-1/1	51G.5.MAXOPTMENA

Table 2.15 Function 51G Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP
38	120(Y)		69	BSCP
39	121(G)		70	BFCG
40	122(H)		71	BSCG
41	131(9)			

Inverse Time Curves – Bit Number Reference Table

Table 2.15 Function 51G Setpoints

Inverse Time Curves – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4	NA	NA
68-BFCP 69-BSCP 70-BFCG 71-BSCG	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.15 Function 51G Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47238 49538 51838 54138 56438 58738 61038 63338	1	—	W	0-4294967295/1	51GS #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47239 49539 51839 54139 56439 58739 61039 63339	1	—	W	0-4294967295/1	51GS #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8891 11191 13491 15791 18091 20391 22691 24991	1	—	W	0-4095 / 1	51GS #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8892 11192 13492 15792 18092 20392 22692 24992	1	—	W	0-1 / 1	51GS #1 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8893 11193 13493 15793 18093 20393 22693 24993	1000	Amps	—	1-160/0.001	51GS # 1 Pickup

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8894 11194 13494 15794 18094 20394 22694 24994	1	—	W	0-71/ 1	51GS #1 Curve (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8895 11195 13495 15795 18095 20395 22695 24995	1	—	W	0-1/ 1	51GS #1 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8896 11196 13496 15796 18096 20396 22696 24996	1000	Sec	W	1– 60000/0.001	51GS #1 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8897 11197 13497 15797 18097 20397 22697 24997	1000	Sec	W	1– 60000/0.001	51GS #1 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8898 11198 13498 15798 18098 20398 22698 24998	100	—	W	5-109/0.01	51GS #1 Time Multiplier Range of this point changes based on 51GS Curve setting (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8899 11199 13499 15799 18099 20399 22699 24999	100	Sec	W	0 –3000/0.01	51GS #1 Time Adder

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8900 11200 13500 15800 18100 20400 22700 25000	100	Sec	W	0-100/0.01	51GS #1 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8901 11201 13501 15801 18101 20401 22701 25001	100	Sec	W	0-100/0.01	51GS #1 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9029 11329 13629 15929 18229 20529 22829 25129	100	s	W	100-60000/0.01	51GS.1.MAXOPTM
1 2 3 4 5 6 7 8	9030 11330 13630 15930 18230 20530 22830 25130	1	—	W	0-1/1	51GS.1.MAXOPTMENA
1 2 3 4 5 6 7 8	47240 49540 51840 54140 56440 58740 61040 63340	1	—	W	0-4294967295/1	51GS #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47241 49541 51841 54141 56441 58741 61041 63341	1	—	W	0-4294967295/1	51GS #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8904 11204 13504 15804 18104 20404 22704 25004	1	—	W	0-4095 / 1	51GS #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8905 11205 13505 15805 18105 20405 22705 25005	1	—	W	0-1 / 1	51GS #2 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8906 11206 13506 15806 18106 20406 22706 25006	1000	Amps	—	1-160/0.001	51GS #2 Pickup
1 2 3 4 5 6 7 8	8907 11207 13507 15807 18107 20407 22707 25007	1	—	W	0-71/ 1	51GS #2 Curve (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8908 11208 13508 15808 18108 20408 22708 25008	1	—	W	0-1/ 1	51GS #2 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8909 11209 13509 15809 18109 20409 22709 25009	1000	Sec	W	1–60000/0.001	51GS #2 Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8910 11210 13510 15810 18110 20410 22710 25010	1000	Sec	W	1– 60000/0.001	51GS #2 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8911 11211 13511 15811 18111 20411 22711 25011	100	–	W	5-109/0.01	51GS #2 Time Multiplier Range of this point changes based on 51GS Curve setting (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8912 11212 13512 15812 18112 20412 22712 25012	100	Sec	W	0 –3000/0.01	51GS #2 Time Adder
1 2 3 4 5 6 7 8	8913 11213 13513 15813 18113 20413 22713 25013	100	Sec	W	0-100/0.01	51GS #2 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8914 11214 13514 15814 18114 20414 22714 25014	100	Sec	W	0-100/0.01	51GS #2 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9031 11331 13631 15931 18231 20531 22831 25131	100	s	W	1-60000/0.01	51GS.2.MAXOPTM

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9032 11332 13632 15932 18232 20532 22832 25132	1	—	W	0-1/1	51GS.2.MAXOPTMENA
1 2 3 4 5 6 7 8	47242 49542 51842 54142 56442 58742 61042 63342	1	—	W	0-4294967295/1	51GS #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47243 49543 51843 54143 56443 58743 61043 63343	1	—	W	0-4294967295/1	51GS #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8917 11217 13517 15817 18117 20417 22717 25017	1	—	W	0-4095 / 1	51GS #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8918 11218 13518 15818 18118 20418 22718 25018	1	—	W	0-1 / 1	51GS #3 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8919 11219 13519 15819 18119 20419 22719 25019	1000	Amps	—	1-160/0.001	51GS #3 Pickup

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8920 11220 13520 15820 18120 20420 22720 25020	1	—	W	0-71/ 1	51GS #3 Curve (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8921 11221 13521 15821 18121 20421 22721 25021	1	—	W	0-1/ 1	51GS #3 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8922 11222 13522 15822 18122 20422 22722 25022	1000	Sec	W	1– 60000/0.001	51GS #3 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8923 11223 13523 15823 18123 20423 22723 25023	1000	Sec	W	1– 60000/0.001	51GS #3 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8924 11224 13524 15824 18124 20424 22724 25024	100	—	W	5-109/0.01	51GS #3 Time Multiplier Range of this point changes based on 51GS Curve setting (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8925 11225 13525 15825 18125 20425 22725 25025	100	Sec	W	0 –3000/0.01	51GS #3 Time Adder

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8926 11226 13526 15826 18126 20426 22726 25026	100	Sec	W	0-100/0.01	51GS #3 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8927 11227 13527 15827 18127 20427 22727 25027	100	Sec	W	0-100/0.01	51GS #3 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9033 11333 13633 15933 18233 20533 22833 25133	100	s	W	1-60000/0.01	51GS.3.MAXOPTM
1 2 3 4 5 6 7 8	9034 11334 13634 15934 18234 20534 22834 25134	1	—	W	0-1/1	51GS.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47244 49544 51844 54144 56444 58744 61044 63344	1	—	W	0-4294967295/1	51GS #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47245 49545 51845 54145 56445 58745 61045 63345	1	—	W	0-4294967295/1	51GS #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8930 11230 13530 15830 18130 20430 22730 25030	1	—	W	0-4095 / 1	51GS #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8931 11231 13531 15831 18131 20431 22731 25031	1	—	W	0-1 / 1	51GS #4 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8932 11232 13532 15832 18132 20432 22732 25032	1000	Amps	—	1-160/0.001	51GS #4 Pickup
1 2 3 4 5 6 7 8	8933 11233 13533 15833 18133 20433 22733 25033	1	—	W	0-71/ 1	51GS #4 Curve (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8934 11234 13534 15834 18134 20434 22734 25034	1	—	W	0-1/ 1	51GS #4 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8935 11235 13535 15835 18135 20435 22735 25035	1000	Sec	W	1– 60000/0.001	51GS #4 Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8936 11236 13536 15836 18136 20436 22736 25036	1000	Sec	W	1– 60000/0.001	51GS #4 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8937 11237 13537 15837 18137 20437 22737 25037	100	–	W	5-109/0.01	51GS #4 Time Multiplier Range of this point changes based on 51GS Curve setting (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8938 11238 13538 15838 18138 20438 22738 25038	100	Sec	W	0 –3000/0.01	51GS #4 Time Adder
1 2 3 4 5 6 7 8	8939 11239 13539 15839 18139 20439 22739 25039	100	Sec	W	0-100/0.01	51GS #4 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8940 11240 13540 15840 18140 20440 22740 25040	100	Sec	W	0-100/0.01	51GS #4 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9035 11335 13635 15935 18235 20535 22835 25135	100	s	W	1-60000/0.01	51GS.4.MAXOPTM

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9036 11336 13635 15936 18236 20536 22836 25136	1	—	W	–0-1/1	51GS.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47246 49546 51846 54146 56446 58746 61046 63346	1	—	W	0-4294967295/1	51GS #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47247 49547 51847 54147 56447 58747 61047 63347	1	—	W	0-4294967295/1	51GS #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8943 11243 13543 15843 18143 20443 22743 25043	1	—	W	0-4095 / 1	51GS #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8944 11244 13544 15844 18144 20444 22744 25044	1	—	W	0-1 / 1	51GS #5 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8945 11245 13545 15845 18145 20445 22745 25045	1000	Amps	—	1-160/0.001	51GS #5 Pickup

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8946 11246 13546 15846 18146 20446 22746 25046	1	—	W	0-71/ 1	51GS #5 Curve (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8947 11247 13547 15847 18147 20447 22747 25047	1	—	W	0-1/ 1	51GS #5 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8948 11248 13548 15848 18148 20448 22748 25048	1000	Sec	W	1– 60000/0.001	51GS #5 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8949 11249 13549 15849 18149 20449 22749 25049	1000	Sec	W	1– 60000/0.001	51GS #5 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8950 11250 13550 15850 18150 20450 22750 25050	100	—	W	5-109/0.01	51GS #5 Time Multiplier Range of this point changes based on 51GS Curve setting (See the Reference Tables of the end of Function 51GS)
1 2 3 4 5 6 7 8	8951 11251 13551 15851 18151 20451 22751 25051	100	Sec	W	0 –3000/0.01	51GS #5 Time Adder

Table 2.16 Function 51GS Setpoints

Function 51GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8952 11252 13552 15852 18152 20452 22752 25052	100	Sec	W	0-100/0.01	51GS #5 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8953 11253 13553 15853 18153 20453 22753 25053	100	Sec	W	0-100/0.01	51GS #5 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8954 11254 13554 15854 18154 20454 22754 25054	100	Sec	W	0.1-30	51GS.5.TMDIALRESET
1 2 3 4 5 6 7 8	9037 11337 13637 15937 18237 20537 22837 25137	100	s	W	1-60000/0.01	51GS.5.MAXOPTM
1 2 3 4 5 6 7 8	9038 11338 13638 15938 18238 20538 22838 25138	1	—	W	0-1/1	51GS.5.MAXOPTMENA

Table 2.16 Function 51GS Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve Selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP
38	120(Y)		69	BSCP
39	121(G)		70	BFCG
40	122(H)		71	BSCG
41	131(9)			

Inverse Time Curves – Bit Number Reference Table

Table 2.16 Function 51GS Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4	NA	NA
68-BFCP 69-BSCP 70-BFCG 71-BSCG	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.16 Function 51GS Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47014 49314 51614 53914 56214 58514 60814 63114	1	—	W	0-4294967295/1	51N #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47015 49315 51615 53915 56215 58515 60815 63115	1	—	W	0-4294967295/1	51N #1 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7773 10073 12373 14673 16973 19273 21573 23873	1	—	W	0-4095 / 1	51N #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7774 10074 12374 14674 16974 19274 21574 23874	1	—	W	0-1 / 1	51N #1 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7775 10075 12375 14675 16975 19275 21575 23875	100	Amps	W	1-320/0.01	51N #1 Pickup
1 2 3 4 5 6 7 8	7776 10076 12376 14676 16976 19276 21576 23876	1	—	W	0-71 / 1	51N #1 Curve (See the Reference Tables of the end of Function 51N)

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7777 10077 12377 14677 16977 19277 21577 23877	1	—	W	0-1/ 1	51N #1 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7778 10078 12378 14678 16978 19278 21578 23878	1000	Sec	W	1– 60000/0.001	51N #1 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7779 10079 12379 14679 16979 19279 21579 23879	1000	s	W	1– 60000/0.001	51N #1 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7780 10080 12380 14680 16980 19280 21580 23880	100	Sec	W	5-109/0.01	51N #1 Time Multiplier Range of this point changes based on 51N Curve setting (See the Reference Tables of the end of Function 51N)
1 2 3 4 5 6 7 8	7781 10081 12381 14681 16981 19281 21581 23881	100	Sec	W	0 –3000/0.01	51N #1 Time Adder
1 2 3 4 5 6 7 8	7782 10082 12382 14682 16982 19282 21582 23882	100	Sec	W	0 – 100/0.01	51N #1 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7783 10083 12383 14683 16983 19283 21583 23883	100	Sec	W	0 – 100/0.01	51N #1 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6860 25556 25719 27314 27633 27833 28158 29194	100	S	W	1-60000/0.01	51N.1.MAXOPTM
1 2 3 4 5 6 7 8	6861 25557 25720 27315 27634 27834 28159 29195	1	–	W	0-1/1	51N.1.MAXOPTMENA
1 2 3 4 5 6 7 8	47016 49316 51616 53916 56216 58516 60816 63116	1	–	W	0-4294967295/1	51N #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47017 49317 51617 53917 56217 58517 60817 63117	1	–	W	0-4294967295/1	51N #2 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7786 10086 12386 14686 16986 19286 21586 23886	1	–	W	0-4095 / 1	51N #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7787 10087 12387 14687 16987 19287 21587 23887	1	—	W	0-1 / 1	51N #2 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7788 10088 12388 14688 16988 19288 21588 23888	100	Amps	W	1-320/0.01	51N #2 Pickup
1 2 3 4 5 6 7 8	7789 10089 12389 14689 16989 19289 21589 23889	1	—	W	0-71 / 1	51N #2 Curve (See the Reference Tables of the end of Function 51N)
1 2 3 4 5 6 7 8	7790 10090 12390 14690 16990 19290 21590 23890	1	—	W	0-1/ 1	51N #2 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7791 10091 12391 14691 16991 19291 21591 23891	1000	Sec	W	1– 60000/0.001	51N #2 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7792 10092 12392 14692 16992 19292 21592 23892	1000	s	W	1– 60000/0.001	51N #2 Reset Coefficient (High) High bytes of 32-bit register

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7793 10093 12393 14693 16993 19293 21593 23893	100	Sec	W	5-109/0.01	51N #2 Time Multiplier Range of this point changes based on 51N Curve setting (See the Reference Tables of the end of Function 51N)
1 2 3 4 5 6 7 8	7794 10094 12394 14694 16994 19294 21594 23894	100	Sec	W	0 – 3000/0.01	51N #2 Time Adder
1 2 3 4 5 6 7 8	7795 10095 12395 14695 16995 19295 21595 23895	100	Sec	W	0 – 100/0.01	51N #2 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7796 10096 12396 14696 16996 19296 21596 23896	100	Sec	W	0 – 100/0.01	51N #2 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6862 25558 25721 27316 27635 27835 28160 29196	100	S	W	1-60000/0.01	51N.2.MAXOPTM
1 2 3 4 5 6 7 8	6863 25559 25722 27317 27636 27836 28161 29197	1	–	W	0-1/1	51N.2.MAXOPTMENA

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47018 49318 51618 53918 56218 58518 60818 63118	1	—	W	0-4294967295/1	51N #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47019 49319 51619 53919 56219 58519 60819 63119	1	—	W	0-4294967295/1	51N #3 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7799 10099 12399 14699 16999 19299 21599 23899	1	—	W	0-4095 / 1	51N #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7800 10100 12400 14700 17000 19300 21600 23900	1	—	W	0-1 / 1	51N #3 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7801 10101 12401 14701 17001 19301 21601 23901	100	Amps	W	1-320/0.01	51N #3 Pickup
1 2 3 4 5 6 7 8	7802 10102 12402 14702 17002 19302 21602 23902	1	—	W	0-71 / 1	51N #3 Curve (See the Reference Tables of the end of Function 51N)

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7803 10103 12403 14703 17003 19303 21603 23903	1	—	W	0-1/ 1	51N #3 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7804 10104 12404 14704 17004 19304 21604 23904	1000	Sec	W	1– 60000/0.001	51N #3 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7805 10105 12405 14705 17005 19305 21605 23905	1000	s	W	1– 60000/0.001	51N #3 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7806 10106 12406 14706 17006 19306 21606 23906	100	Sec	W	5-109/0.01	51N #3 Time Multiplier Range of this point changes based on 51N Curve setting (See the Reference Tables of the end of Function 51N)
1 2 3 4 5 6 7 8	7807 10107 12407 14707 17007 19307 21607 23907	100	Sec	W	0 –3000/0.01	51N #3 Time Adder
1 2 3 4 5 6 7 8	7808 10108 12408 14708 17008 19308 21608 23908	100	Sec	W	0 – 100/0.01	51N #3 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7809 10109 12409 14709 17009 19309 21609 23909	100	Sec	W	0 – 100/0.01	51N #3 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6864 25560 25723 27318 27637 27837 28162 29198	100	S	W	1-60000/0.01	51N.3.MAXOPTM
1 2 3 4 5 6 7 8	6865 25561 25724 27319 27638 27838 28163 29199	1	–	W	0-1/1	51N.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47020 49320 51620 53920 56220 58520 60820 63120	1	–	W	0-4294967295/1	51N #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47021 49321 51621 53921 56221 58521 60821 63121	1	–	W	0-4294967295/1	51N #4 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7812 10112 12412 14712 17012 19312 21612 23912	1	–	W	0-4095 / 1	51N #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7813 10113 12413 14713 17013 19313 21613 23913	1	—	W	0-1 / 1	51N #4 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7814 10114 12414 14714 17014 19314 21614 23914	100	Amps	W	1-320/0.01	51N #4 Pickup
1 2 3 4 5 6 7 8	7815 10115 12415 14715 17015 19315 21615 23915	1	—	W	0-71 / 1	51N #4 Curve (See the Reference Tables of the end of Function 51N)
1 2 3 4 5 6 7 8	7816 10116 12416 14716 17016 19316 21616 23916	1	—	W	0-1/ 1	51N #4 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7817 10117 12417 14717 17017 19317 21617 23917	1000	Sec	W	1– 60000/0.001	51N #4 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7818 10118 12418 14718 17018 19318 21618 23918	1000	s	W	1– 60000/0.001	51N #4 Reset Coefficient (High) High bytes of 32-bit register

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7819 10119 12419 14719 17019 19319 21619 23919	100	Sec	W	5-109/0.01	51N #4 Time Multiplier Range of this point changes based on 51N Curve setting (See the Reference Tables of the end of Function 51N)
1 2 3 4 5 6 7 8	7820 10120 12420 14720 17020 19320 21620 23920	100	Sec	W	0 – 3000/0.01	51N #4 Time Adder
1 2 3 4 5 6 7 8	7821 10121 12421 14721 17021 19321 21621 23921	100	Sec	W	0 – 100/0.01	51N #4 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7822 10122 12422 14722 17022 19322 21622 23922	100	Sec	W	0 – 100/0.01	51N #4 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	6864 25562 25725 27320 27639 27839 28164 29200	100	S	W	1-60000/0.01	51N.3.MAXOPTM
1 2 3 4 5 6 7 8	6865 25563 25726 27321 27640 27840 28165 29201	1	–	W	0-1/1	51N.3.MAXOPTMENA

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47022 49322 51622 53922 56222 58522 60822 63122	1	—	W	0-4294967295/1	51N #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47023 49323 51623 53923 56223 58523 60823 63123	1	—	W	0-4294967295/1	51N #5 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7825 10125 12425 14725 17025 19325 21625 23925	1	—	W	0-4095 / 1	51N #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7826 10126 12426 14726 17026 19326 21626 23926	1	—	W	0-1 / 1	51N #5 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7827 10127 12427 14727 17027 19327 21627 23927	100	Amps	W	1-320/0.01	51N #5 Pickup
1 2 3 4 5 6 7 8	7828 10128 12428 14728 17028 19328 21628 23928	1	—	W	0-71 / 1	51N #5 Curve (See the Reference Tables of the end of Function 51N)

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7829 10129 12429 14729 17029 19329 21629 23929	1	—	W	0-1/ 1	51N #5 Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7830 10130 12430 14730 17030 19330 21630 23930	1000	Sec	W	1– 60000/0.001	51N #5 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7831 10131 12431 14731 17031 19331 21631 23931	1000	Sec	W	1– 60000/0.001	51N #5 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7832 10132 12432 14732 17032 19332 21632 23932	100	—	W	5-109/0.01	51N #5 Time Multiplier Range of this point changes based on 51N Curve setting (See the Reference Tables of the end of Function 51N)

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7833 10133 12433 14733 17033 19333 21633 23933	100	Sec	W	0 – 3000/0.01	51N #5 Time Adder
1 2 3 4 5 6 7 8	7834 10134 12434 14734 17034 19334 21634 23934	100	Sec	W	0 – 100/0.01	51N #5 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7835 10135 12435 14735 17035 19335 21635 23935	100	Sec	W	0 – 100/0.01	51N #5 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7836 10136 12436 14736 17036 19336 21636 23936	100	Sec	W	0.1-30.00	51N #5 .TMDIALRESET
1 2 3 4 5 6 7 8	6868 25564 25727 27322 27641 27841 28166 29202	100	S	W	1-60000/0.01	51N.5.MAXOPTM

Table 2.17 Function 51N Setpoints

Function 51N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	6869	1	—	W	0-1/1	51N.5.MAXOPTMENA
2	25565					
3	25728					
4	27323					
5	27642					
6	27842					
7	28167					
8	29203					

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “*Inverse Time Curves – Time Multiplier Ranges*” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “*Inverse Time Curves – Time Multiplier Ranges*” Reference Table. The corresponding range/increment is “5-100/0.01”.

Table 2.17 Function 51N Setpoints

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP
38	120(Y)		69	BSCP
39	121(G)		70	BFCG
40	122(H)		71	BSCG
41	131(9)			

Inverse Time Curves – Bit Number Reference Table

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01

Table 2.17 Function 51N Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4	NA	NA
68-BFCP 69-BSCP 70-BFCG 71-BSCG	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.17 Function 51N Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46974 49274 51574 53874 56174 58474 60774 63074	1	—	W	0-4294967295/1	51P #1 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46975 49275 51575 53875 56175 58475 60775 63075	1	—	W	0-4294967295/1	51P #1 Phase ABC Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7497 9797 12097 14397 16697 18997 21297 23597	1	—	W	0-4095 / 1	51P #1 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7498 9798 12098 14398 16698 18998 21298 23598	1	—	W	0-1 / 1	51P #1 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7499 9799 12099 14399 16699 18999 21299 23599	100	Amps	W	1-320/0.01	51P #1 Phase ABC Pickup
1 2 3 4 5 6 7 8	7500 9800 12100 14400 16700 19000 21300 23600	1	—	W	0-71 / 1	51P #1 Phase ABC Curve (See the Reference Tables of the end of Function 51P)

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7501 9801 12101 14401 16701 19001 21301 23601	1	—	W	0-1 / 1	51P #1 Phase ABC Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7502 9802 12102 14402 16702 19002 21302 23602	1000	Sec	W	1 – 60000/0.001	51P #1 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7503 9803 12103 14403 16703 19003 21303 23603	1000	Sec	W	1 – 60000/0.001	51P #1 Phase ABC Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7504 9804 12104 14404 16704 19004 21304 23604	100	—	W	5– 100/0.01	51P #1 Phase ABC Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7505 9805 12105 14405 16705 19005 21305 23605	100	Sec	W	0 – 3000/0.01	51P #1 Phase ABC Time Adder
1 2 3 4 5 6 7 8	7506 9806 12106 14406 16706 19006 21306 23606	100	Sec	W	0 – 100/0.01	51P #1 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7507 9807 12107 14407 16707 19007 21307 23607	100	Sec	W	0 – 100/0.01	51P #1 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7509 9809 12109 14409 16709 19009 21309 23609	1	–	W	0-1 / 1	51P #1 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	7761 10061 12361 14661 16961 19261 21561 23861	1	–	W	0-1/1	51P #1 Phase ABC Enable usage of 51P #1 for Load Encroachment Logic (LEL)
1 2 3 4 5 6 7 8	30717 32842 34967 37092 39217 41342 43467 45460	1	–	W	0-2/1	51P #1 Phase ABC Enable Voltage Control
1 2 3 4 5 6 7 8	30718 32843 34968 37093 39218 41343 43468 45461	10	%	W	40-1500/0.1	51P #1 Phase ABC Voltage Control Pickup
1 2 3 4 5 6 7 8	7266 9566 11866 14166 16466 18766 21066 23366	100	S	W	1-60000/0.01	51ABC.1.MAXOPTM

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7267 9567 11867 14167 16467 18767 21067 23367	1	—	W	0-1/1	51ABC.1.MAXOPTMENA
1 2 3 4 5 6 7 8	46976 49276 51576 53876 56176 58476 60776 63076	1	—	W	0-4294967295/1	51P #2 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46977 49277 51577 53877 56177 58477 60777 63077	1	—	W	0-4294967295/1	51P #2 Phase ABC Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7511 9811 12111 14411 16711 19011 21311 23611	1	—	W	0-4095 / 1	51P #2 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7512 9812 12112 14412 16712 19012 21312 23612	1	—	W	0-1 / 1	51P #2 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7513 9813 12113 14413 16713 19013 21313 23613	100	Amps	W	1-320/0.01	51P #2 Phase ABC Pickup

Table 2.18 Function 51P Setpoints

Function 51P Setpoints Profiles #1 To #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7514 9814 12114 14414 16714 19014 21314 23614	1	—	W	0-71 / 1	51P #2 Phase ABC Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7515 9815 12115 14415 16715 19015 21315 23615	1	—	W	0-1 / 1	51P #2 Phase ABC Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7516 9816 12116 14416 16716 19016 21316 23616	1000	s	W	1 – 60000/0.001	51P #2 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7517 9817 12117 14417 16717 19017 21317 23617	1000	Sec	W	1 – 60000/0.001	51P #2 Phase ABC Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7518 9818 12118 14418 16718 19018 21318 23618	100	—	W	5 – 100/0.01	51P #2 Phase ABC Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7519 9819 12119 14419 16719 19019 21319 23619	100	Sec	W	0 – 3000/0.01	51P #2 Phase ABC Time Adder

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7520 9820 12120 14420 16720 19020 21320 23620	100	Sec	W	0 – 100/0.01	51P #2 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7521 9821 12121 14421 16721 19021 21321 23621	100	Sec	W	0 – 100/0.01	51P #2 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7523 9823 12123 14423 16723 19023 21323 23623	1	–	W	0-1 / 1	51P #2 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	7762 10062 12362 14662 16962 19262 21562 23862	1	–	W	0-1/1	51P #2 Phase ABC Enable usage of 51P #2 for Load Encroachment Logic (LEL)
1 2 3 4 5 6 7 8	30719 32844 34969 37094 39219 41344 43469 45462	1	–	W	0-2/1	51P #2 Phase ABC Enable Voltage Control Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30720 32845 34970 37095 39220 41345 43470 45463	10	%	W	40-1500/0.1	51P #2 Phase ABC Voltage Control Pickup

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7268 9568 11868 14168 16468 18768 21068 23368	100	S	W	1-60000/0.01	51ABC.2.MAXOPTM
1 2 3 4 5 6 7 8	7269 9569 11869 14169 16469 18769 21069 23369	1	—	W	0-1/1	51ABC.2.MAXOPTMENA
1 2 3 4 5 6 7 8	46978 49278 51578 53878 56178 58478 60778 63078	1	—	W	0-4294967295/1	51P #3 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46979 49279 51579 53879 56179 58479 60779 63079	1	—	W	0-4294967295/1	51P #3 Phase ABC Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7525 9825 12125 14425 16725 19025 21325 23625	1	—	W	0-4095 / 1	51P #3 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7526 9826 12126 14426 16726 19026 21326 23626	1	—	W	0-1 / 1	51P #3 Phase ABC Enable Bit 0 Enable: 1, Disable: 0

Table 2.18 Function 51P Setpoints

Function 51P Setpoints Profiles #1 To #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7527 9827 12127 14427 16727 19027 21327 23627	100	Amps	W	1-320/0.01	51P #3 Phase ABC Pickup
1 2 3 4 5 6 7 8	7528 9828 12128 14428 16728 19028 21328 23628	1	—	W	0-71 / 1	51P #3 Phase ABC Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7529 9829 12129 14429 16729 19029 21329 23629	1	—	W	0-1 / 1	51P #3 Phase ABC Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7530 9830 12130 14430 16730 19030 21330 23630	1000	s	W	1 – 60000/0.001	51P #3 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7531 9831 12131 14431 16731 19031 21331 23631	1000	Sec	W	1 – 60000/0.001	51P #3 Phase ABC Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7532 9832 12132 14432 16732 19032 21332 23632	100	—	W	5 – 100/0.01	51P #3 Phase ABC Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7533 9833 12133 14433 16733 19033 21333 23633	100	Sec	W	0 – 3000/0.01	51P #3 Phase ABC Time Adder
1 2 3 4 5 6 7 8	7534 9834 12134 14434 16734 19034 21334 23634	100	Sec	W	0 – 100/0.01	51P #3 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7535 9835 12135 14435 16735 19035 21335 23635	100	Sec	W	0 – 100/0.01	51P #3 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7537 9837 12137 14437 16737 19037 21337 23637	1	–	W	0-1 / 1	51P #3 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	7763 10063 12363 14663 16963 19263 21563 23863	1	–	W	0-1/1	51P #3 Phase ABC Enable usage of 51P #3 for Load Encroachment Logic (LEL)
1 2 3 4 5 6 7 8	30721 32846 34971 37096 39221 41346 43471 45464	1	–	W	0-2/1	51P #3 Phase ABC Enable Voltage Control Bit-0 Enable-1; Disable-0

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30722 32847 34972 37097 39222 41347 43472 45465	10	%	W	40-1500/0.1	51P #3 Phase ABC Voltage Control Pickup
1 2 3 4 5 6 7 8	7270 9570 11870 14170 16470 18770 21070 23370	100	S	W	1-60000/0.01	51ABC.3.MAXOPTM
1 2 3 4 5 6 7 8	7271 9571 11871 14171 16471 18771 21071 23371	1	—	W	0-1/1	51ABC.3.MAXOPTMENA
1 2 3 4 5 6 7 8	46980 49280 51580 53880 56180 58480 60780 63080	1	—	W	0-4294967295/1	51P #4 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46981 49281 51581 53881 56181 58481 60781 63081	1	—	W	0-4294967295/1	51P #4 Phase ABC Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7539 9839 12139 14439 16739 19039 21339 23639	1	—	W	0-4095 / 1	51P #4 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7540 9840 12140 14440 16740 19040 21340 23640	1	—	W	0-1 / 1	51P #4 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7541 9841 12141 14441 16741 19041 21341 23641	100	Amps	W	1-320/0.01	51P #4 Phase ABC Pickup
1 2 3 4 5 6 7 8	7542 9842 12142 14442 16742 19042 21342 23642	1	—	W	0-71 / 1	51P #4 Phase ABC Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7543 9843 12143 14443 16743 19043 21343 23643	1	—	W	0-1 / 1	51P #4 Phase ABC Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7544 9844 12144 14444 16744 19044 21344 23644	1000	s	W	1 – 60000/0.001	51P #4 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7545 9845 12145 14445 16745 19045 21345 23645	1000	Sec	W	1 – 60000/0.001	51P #4 Phase ABC Reset Coefficient (High) High bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7546 9846 12146 14446 16746 19046 21346 23646	100	—	W	5 – 100/0.01	51P #4 Phase ABC Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7547 9847 12147 14447 16747 19047 21347 23647	100	Sec	W	0 – 3000/0.01	51P #4 Phase ABC Time Adder
1 2 3 4 5 6 7 8	7548 9848 12148 14448 16748 19048 21348 23648	100	Sec	W	0 – 100/0.01	51P #4 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7549 9849 12149 14449 16749 19049 21349 23649	100	Sec	W	0 – 100/0.01	51P #4 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7551 9851 12151 14451 16751 19051 21351 23651	1	—	W	0-1 / 1	51P #4 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	7764 10064 12364 14664 16964 19264 21564 23864	1	—	W	0-1/1	51P #4 Phase ABC Enable usage of 51P #4 for Load Encroachment Logic (LEL)

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30723 32848 34973 37098 39223 41348 43473 45466	1	—	W	0-2/1	51P #4 Phase ABC Enable Voltage Control Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30724 32849 34974 37099 39224 41349 43474 45467	10	%	W	40-1500/0.1	51P #4 Phase ABC Voltage Control Pickup
1 2 3 4 5 6 7 8	7272 9572 11872 14172 16472 18772 21072 23372	100	S	W	1-60000/0.01	51ABC.4.MAXOPTM
1 2 3 4 5 6 7 8	6827 25523 25686 27281 27600 27800 28125 29161	1	—	W	0-1/1	51ABC.4.MAXOPTMENA
1 2 3 4 5 6 7 8	46982 49282 51582 53882 56182 58482 60782 63082	1	—	W	0-4294967295/1	51P #5 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46983 49283 51583 53883 56183 58483 60783 63083	1	—	W	0-4294967295/1	51P #5 Phase ABC Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.18 Function 51P Setpoints

Function 51P Setpoints Profiles #1 To #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7553 9853 12153 14453 16753 19053 21353 23653	1	—	W	0-4095 / 1	51P #5 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7554 9854 12154 14454 16754 19054 21354 23654	1	—	W	0-1 / 1	51P #5 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7555 9855 12155 14455 16755 19055 21355 23655	100	Amps	W	1-320/0.01	51P #5 Phase ABC Pickup
1 2 3 4 5 6 7 8	7556 9856 12156 14456 16756 19056 21356 23656	1	—	W	0-71 / 1	51P #5 Phase ABC Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7557 9857 12157 14457 16757 19057 21357 23657	1	—	W	0-1 / 1	51P #5 Phase ABC Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7558 9858 12158 14458 16758 19058 21358 23658	1000	s	W	1 – 60000/0.001	51P #5 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7559 9859 12159 14459 16759 19059 21359 23659	1000	Sec	W	1 – 60000/0.001	51P #5 Phase ABC Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7560 9860 12160 14460 16760 19060 21360 23660	100	–	W	5 – 100/0.01	51P #5 Phase ABC Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7561 9861 12161 14461 16761 19061 21361 23661	100	Sec	W	0 – 3000/0.01	51P #5 Phase ABC Time Adder
1 2 3 4 5 6 7 8	7562 9862 12162 14462 16762 19062 21362 23662	100	Sec	W	0 – 100/0.01	51P #5 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7563 9863 12163 14463 16763 19063 21363 23663	100	Sec	W	0 – 100/0.01	51P #5 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7565 9865 12165 14465 16765 19065 21365 23665	1	–	W	0-1 / 1	51P #5 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.

Table 2.18 Function 51P Setpoints

Function 51P Setpoints Profiles #1 To #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7765 10065 12365 14665 16965 19265 21565 23865	1	—	W	0-1/1	51P #5 Phase ABC Enable usage of 51P #5 for Load Encroachment Logic (LEL)
1 2 3 4 5 6 7 8	30725 32850 34975 37100 39225 41350 43475 45468	1	—	W	0-2/1	51P #5 Phase ABC Enable Voltage Control Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30726 32851 34976 37101 39226 41351 43476 45469	10	%	W	40-1500/0.1	51P #5 Phase ABC Voltage Control Pickup
1 2 3 4 5 6 7 8	6828 25524 25687 27282 27601 27801 28126 29162	100	S	W	1-60000/0.01	51ABC.5.MAXOPTM
1 2 3 4 5 6 7 8	6829 25525 25688 27283 27602 27802 28127 29163	1	—	W	0-1/1	51ABC.5.MAXOPTMENA
With Option P: Standard Function 51P Phase A & Phase B Registers indicate Pole 1 & Pole 2 Setpoints						

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46984 49284 51584 53884 56184 58484 60784 63084	1	—	W	0-4294967295/1	51P #1 Phase A Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46985 49285 51585 53885 56185 58485 60785 63085	1	—	W	0-4294967295/1	51P #1 Phase A Blocking Inputs.H Pole1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7567 9867 12167 14467 16767 19067 21367 23667	1	—	W	0-4095 / 1	51P #1 Phase A Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7568 9868 12168 14468 16768 19068 21368 23668	1	—	W	0-1 / 1	51P #1 Phase A Enable Pole1 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7569 9869 12169 14469 16769 19069 21369 23669	100	Amps	W	1-320/0.01	51P #1 Phase A Pickup Pole1
1 2 3 4 5 6 7 8	7570 9870 12170 14470 16770 19070 21370 23670	1	—	W	0-71/ 1	51P #1 Phase A Curve Pole1 (See the Reference Tables of the end of Function 51P)

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7571 9871 12171 14471 16771 19071 21371 23671	1	—	W	0--1 / 1	51P #1 Phase A Electromechanical Reset Enable: 1, Disable: 0 Pole1
1 2 3 4 5 6 7 8	7572 9872 12172 14472 16772 19072 21372 23672	1000	Sec	W	1 – 60000/0.001	51P #1 Phase A Reset Coefficient (Low) Low bytes of 32-bit register Pole1
1 2 3 4 5 6 7 8	7573 9873 12173 14473 16773 19073 21373 23673	1000	Sec	W	1 – 60000/0.001	51P #1 Phase A Reset Coefficient (High) High bytes of 32-bit register Pole1
1 2 3 4 5 6 7 8	7574 9874 12174 14474 16774 19074 21374 23674	100	—	W	5 – 100/0.01	51P #1 Phase A Time Multiplier Pole1 Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7575 9875 12175 14475 16775 19075 21375 23675	100	Sec	W	0 – 3000/0.01	51P #1 Phase A Time Adder Pole1
1 2 3 4 5 6 7 8	7576 9876 12176 14476 16776 19076 21376 23676	100	Sec	W	0 – 100/0.01	51P #1 Phase A Minimum Response Time Adder (Low) Pole1 Low bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7577 9877 12177 14477 16777 19077 21377 23677	100	Sec	W	0 – 100/0.01	51P #1 Phase A Minimum Response Time Adder (High) Pole1 High bytes of 32-bit register
1 2 3 4 5 6 7 8	30727 32852 34977 37102 39227 41352 43477 45470	1	–	W	0-2/1	51P #1 Phase A Enable Voltage Control Bit-0 Enable-1; Disable-0 Pole1
1 2 3 4 5 6 7 8	30728 32853 34978 37103 39228 41353 43478 45471	10	%	W	40-1500/0.1	51P #1 Phase A Voltage Control Pickup Pole1
1 2 3 4 5 6 7 8	6830 25526 25589 27284 27603 27803 28128 29164	100	S	W	1-60000/0.01	51A.1.MAXOPTM
1 2 3 4 5 6 7 8	6831 25527 25690 27285 27604 27804 28129 29165	1	–	W	0-1/1	51A.1.MAXOPTMENA
1 2 3 4 5 6 7 8	46986 49286 51586 53886 56186 58486 60786 63086	1	–	W	0-4294967295/1	51P #1 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46987 49287 51587 53887 56187 58487 60787 63087	1	—	W	0-4294967295/1	51P #1 Phase B Blocking Inputs.H Pole2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7580 9880 12180 14480 16780 19080 21380 23680	1	—	W	0-4095 / 1	51P #1 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7581 9881 12181 14481 16781 19081 21381 23681	1	—	W	0-1 / 1	51P #1 Phase B Enable Pole2 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7582 9882 12182 14482 16782 19082 21382 23682	100	Amps	W	1-320/0.01	51P #1 Phase B Pickup Pole2
1 2 3 4 5 6 7 8	7583 9883 12183 14483 16783 19083 21383 23683	1	—	W	0-71 / 1	51P #1 Phase B Curve Pole2 (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7584 9884 12184 14484 16784 19084 21384 23684	1	—	W	0--1 / 1	51P #1 Phase B Electromechanical Reset Enable: 1, Disable: 0 Pole2

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7585 9885 12185 14485 16785 19085 21385 23685	1000	Sec	W	1 – 60000/0.001	51P #1 Phase B Reset Coefficient (Low) Pole2 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7586 9886 12186 14486 16786 19086 21386 23686	1000	Sec	W	1 – 60000/0.001	51P #1 Phase B Reset Coefficient (High) Pole2 High bytes of 32-bit register
1 2 3 4 5 6 7 8	7587 9887 12187 14487 16787 19087 21387 23687	100	–	W	5 – 100/0.01	51P #1 Phase B Time Multiplier Pole2 Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7588 9888 12188 14488 16788 19088 21388 23688	100	Sec	W	0 – 3000/0.01	51P #1 Phase B Time Adder Pole2
1 2 3 4 5 6 7 8	7589 9889 12189 14489 16789 19089 21389 23689	100	Sec	W	0-100/0.01	51P #1 Phase B Minimum Response Time Adder (Low) Pole2 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7590 9890 12190 14490 16790 19090 21390 23690	100	Sec	W	0-100/0.01	51P #1 Phase B Minimum Response Time Adder (High) Pole2 High bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30729 32854 34979 37104 39229 41354 43479 45472	1	—	W	0-2/1	51P #1 Phase B Enable Voltage Control Pole2
1 2 3 4 5 6 7 8	30730 32855 34980 37105 39230 41355 43480 45473	10	%	W	40-1500/0.1	51P #1 Phase B Voltage Control Pickup Pole2
1 2 3 4 5 6 7 8	6832 25528 25691 27286 27605 27805 28130 29166	100	S	W	1-60000/0.01	51B.1.MAXOPTM
1 2 3 4 5 6 7 8	6833 25529 25692 27287 27606 27806 28131 29167	1	—	W	0-1/1	51B.1.MAXOPTMENA
1 2 3 4 5 6 7 8	46988 49288 51588 53888 56188 58488 60788 63088	1	—	W	0-4294967295/1	51P #1 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46989 49289 51589 53889 56189 58489 60789 63089	1	—	W	0-4294967295/1	51P #1 Phase C Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.18 Function 51P Setpoints

Function 51P Setpoints Profiles #1 To #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7593 9893 12193 14493 16793 19093 21393 23693	1	—	W	0-4095 / 1	51P #1 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7594 9894 12194 14494 16794 19094 21394 23694	1	—	W	0-1 / 1	51P #1 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7595 9895 12195 14495 16795 19095 21395 23695	100	Amps	W	1-320/0.01	51P #1 Phase C Pickup
1 2 3 4 5 6 7 8	7596 9896 12196 14496 16796 19096 21396 23696	1	—	W	0-71 / 1	51P #1 Phase C Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7597 9897 12197 14497 16797 19097 21397 23697	1	—	W	0--1 / 1	51P #1 Phase C Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7598 9898 12198 14498 16798 19098 21398 23698	1000	Sec	W	1 – 60000/0.001	51P #1 Phase C Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7599 9899 12199 14499 16799 19099 21399 23699	1000	Sec	W	1 – 60000/0.001	51P #1 Phase C Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7600 9900 12200 14500 16800 19100 21400 23700	100	–	W	5 – 100/0.01	51P #1 Phase C Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7601 9901 12201 14501 16801 19101 21401 23701	100	Sec	W	0 – 3000/0.01	51P #1 Phase C Time Adder
1 2 3 4 5 6 7 8	7602 9902 12202 14502 16802 19102 21402 23702	100	Sec	W	0-100/0.01	51P #1 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7603 9903 12203 14503 16803 19103 21403 23703	100	Sec	W	0-100/0.01	51P #1 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30731 32856 34981 37106 39231 41356 43481 45474	1	–	W	0-2/1	51P #1 Phase C Enable Voltage Control Bit-0 Enable-1; Disable-0

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30732 32857 34982 37107 39232 41357 43482 45475	10	%	W	40-1500/0.1	551P #1 Phase C Voltage Control Pickup
1 2 3 4 5 6 7 8	6834 25530 25693 27288 27607 27807 28132 29168	100	S	W	1-60000/0.01	51C.1.MAXOPTM
1 2 3 4 5 6 7 8	6835 25531 25694 27289 27608 27808 28133 29169	1	—	W	0-1/1	51C.1.MAXOPTMENA
1 2 3 4 5 6 7 8	46990 49290 51590 53890 56190 58490 60790 63090	1	—	W	0-4294967295/1	51P #2 Phase A Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46991 49291 51591 53891 56191 58491 60791 63091	1	—	W	0-4294967295/1	51P #2 Phase A Blocking Inputs.H Pole1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7606 9906 12206 14506 16806 19106 21406 23706	1	—	W	0-4095 / 1	51P #2 Phase A Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7607 9907 12207 14507 16807 19107 21407 23707	1	—	W	0-1 / 1	51P #2 Phase A Enable Pole1 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7608 9908 12208 14508 16808 19108 21408 23708	100	Amps	W	1-320/0.01	51P #2 Phase A Pickup Pole1
1 2 3 4 5 6 7 8	7609 9909 12209 14509 16809 19109 21409 23709	1	—	W	0-71 / 1	51P #2 Phase A Curve Pole1 (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7610 9910 12210 14510 16810 19110 21410 23710	1	—	W	0--1 / 1	51P #2 Phase A Electromechanical Reset Enable: 1, Disable: 0 Pole1
1 2 3 4 5 6 7 8	7611 9911 12211 14511 16811 19111 21411 23711	1000	Sec	W	1 – 60000/0.001	51P #2 Phase A Reset Coefficient (Low) Pole1 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7612 9912 12212 14512 16812 19112 21412 23712	1000	Sec	W	1 – 60000/0.001	51P #2 Phase A Reset Coefficient (High) Pole1 High bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7613 9913 12213 14513 16813 19113 21413 23713	100	—	W	5 – 100/0.01	51P #2 Phase A Time Multiplier Pole1 Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7614 9914 12214 14514 16814 19114 21414 23714	100	Sec	W	0 – 3000/0.01	51P #2 Phase A Time Adder Pole1
1 2 3 4 5 6 7 8	7615 9915 12215 14515 16815 19115 21415 23715	100	Sec	W	0 – 100/0.01	51P #2 Phase A Minimum Response Time Adder (Low) Pole1 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7616 9916 12216 14516 16816 19116 21416 23716	100	Sec	W	0 – 100/0.01	51P #2 Phase A Minimum Response Time Adder (High) Pole1 High bytes of 32-bit register
1 2 3 4 5 6 7 8	30733 32858 34983 37108 39233 41358 43483 45476	1	—	W	0-2/1	51P #2 Phase A Enable Voltage Control Bit-0 Enable-1; Disable-0Pole1
1 2 3 4 5 6 7 8	30734 32859 34984 37109 39234 41359 43484 45477	10	%	W	40-1500/0.1	51P #2 Phase A Voltage Control Pickup Pole1

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6836 25532 25695 27290 27609 27809 28134 29170	100	S	W	1-60000/0.01	51A.2.MAXOPTM
1 2 3 4 5 6 7 8	6837 25533 25696 27291 27610 27810 28135 29171	1	—	W	0-1/1	51A.2.MAXOPTMENA
1 2 3 4 5 6 7 8	46992 49292 51592 53892 56192 58492 60792 63092	1	—	W	0-4294967295/1	51P #2 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46993 49293 51593 53893 56193 58493 60793 63093	1	—	W	0-4294967295/1	51P #2 Phase B Blocking Inputs.H Pole2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7619 9919 12219 14519 16819 19119 21419 23719	1	—	W	0-4095 / 1	51P #2 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7620 9920 12220 14520 16820 19120 21420 23720	1	—	W	0-1 / 1	51P #2 Phase B Enable Pole2 Bit 0 Enable: 1, Disable: 0

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7621 9921 12221 14521 16821 19121 21421 23721	100	Amps	W	1-320/0.01	51P #2 Phase B Pickup Pole2
1 2 3 4 5 6 7 8	7622 9922 12222 14522 16822 19122 21422 23722	1	—	W	0-71 / 1	51P #2 Phase B Curve Pole2 (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7623 9923 12223 14523 16823 19123 21423 23723	1	—	W	0--1 / 1	51P #2 Phase B Electromechanical Reset Enable: 1, Disable: 0 Pole2
1 2 3 4 5 6 7 8	7624 9924 12224 14524 16824 19124 21424 23724	1000	Sec	W	1 – 60000/0.001	51P #2 Phase B Reset Coefficient (Low) Pole2 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7625 9925 12225 14525 16825 19125 21425 23725	1000	Sec	W	1 – 60000/0.001	51P #2 Phase B Reset Coefficient (High) Pole2 High bytes of 32-bit register
1 2 3 4 5 6 7 8	7626 9926 12226 14526 16826 19126 21426 23726	100	—	W	5 – 100/0.01	551P #2 Phase B Time Multiplier Pole2 Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7627 9927 12227 14527 16827 19127 21427 23727	100	Sec	W	0 – 3000/0.01	51P #2 Phase B Time Adder Pole2
1 2 3 4 5 6 7 8	7628 9928 12228 14528 16828 19128 21428 23728	100	Sec	W	0-100/0.01	51P #2 Phase B Minimum Response Time Adder (Low) Pole2 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7629 9929 12229 14529 16829 19129 21429 23729	100	Sec	W	0-100/0.01	51P #2 Phase B Minimum Response Time Adder (High) Pole2 High bytes of 32-bit register
1 2 3 4 5 6 7 8	30735 32860 34985 37110 39235 41360 43485 45478	1	–	W	0-2/1	51P #2 Phase B Enable Voltage Control Bit-0 Enable-1; Disable-0 Pole2

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30736 32861 34986 37111 39236 41361 43486 45479	10	%	W	40-1500/0.1	51P #2 Phase B Voltage Control Pickup Pole2
1 2 3 4 5 6 7 8	6838 25534 25697 27292 27611 27811 28136 29172	100	S	W	1-60000/0.01	51B.2.MAXOPTM
1 2 3 4 5 6 7 8	6839 25535 25698 27293 27612 27812 28137 29173	1	—	W	0-1	51B.2.MAXOPTMENA
1 2 3 4 5 6 7 8	46994 49294 51594 53894 56194 58494 60794 63094	1	—	W	0-4294967295/1	51P #2 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46995 49295 51595 53895 56195 58495 60795 63095	1	—	W	0-4294967295/1	51P #2 Phase C Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7632 9932 12232 14532 16832 19132 21432 23732	1	—	W	0-4095 / 1	51P #2 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7633 9933 12233 14533 16833 19133 21433 23733	1	—	W	0-1 / 1	51P #2 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7634 9934 12234 14534 16834 19134 21434 23734	100	Amps	W	1-320/0.01	51P #2 Phase C Pickup

Table 2.18 Function 51P Setpoints

Function 51P Setpoints Profiles #1 To #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7635 9935 12235 14535 16835 19135 21435 23735	1	—	W	0-71 / 1	51P #2 Phase C Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7636 9936 12236 14536 16836 19136 21436 23736	1	—	W	0--1 / 1	51P #2 Phase C Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7637 9937 12237 14537 16837 19137 21437 23737	1000	Sec	W	1 – 60000/0.001	51P #2 Phase C Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7638 9938 12238 14538 16838 19138 21438 23738	1000	Sec	W	1 – 60000/0.001	51P #2 Phase C Reset Coefficient (High) High bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7639 9939 12239 14539 16839 19139 21439 23739	100	—	W	5 – 100/0.01	51P #2 Phase C Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7640 9940 12240 14540 16840 19140 21440 23740	100	Sec	W	0 – 3000/0.01	51P #2 Phase C Time Adder
1 2 3 4 5 6 7 8	7641 9941 12241 14541 16841 19141 21441 23741	100	Sec	W	0-100/0.01	51P #2 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7642 9942 12242 14542 16842 19142 21442 23742	100	Sec	W	0-100/0.01	51P #2 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30737 32862 34987 37112 39237 41362 43487 45480	1	—	W	0-2/1	51P #2 Phase C Enable Voltage Control Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30738 32863 34988 37113 39238 41363 43488 45481	10	%	W	40-1500/0.1	51P #2 Phase C Voltage Control Pickup
1 2 3 4 5 6 7 8	6840 25536 25699 27294 27613 27813 28138 29174	100	S	W	1-60000/0.01	51C.2.MAXOPTM
1 2 3 4 5 6 7 8	6841 25537 25700 27295 27614 27814 28139 29175	1	—	W	0-1/1	51C.2.MAXOPTMENA

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	46996	1	—	W	0-4294967295/1	51P #3 Phase A Blocking Inputs Pole1
2	49296					Bit 0 – In 1 Bit 8 – In 9
3	51596					Bit 1 – In 2 Bit 9 – In 10
4	53896					Bit 2 – In 3 Bit 10 – In 11
5	56196					Bit 3 – In 4 Bit 11 – In 12
6	58496					Bit 4 – In 5 Bit 12 – In FL
7	60796					Bit 5 – In 6 Bit 13 – In V1
8	63096					Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1	46997	1	—	W	0-4294967295/1	51P #3 Phase A Blocking Inputs.H Pole1
2	49297					Bit 0 – V4 Bit 8 – V12
3	51597					Bit 1 – V5 Bit 9 – V13
4	53897					Bit 2 – V6 Bit 10 – V14
5	56197					Bit 3 – V7 Bit 11 – V15
6	58497					Bit 4 – V8 Bit 12 – V16
7	60797					Bit 5 – V9 Bit 13 – V17
8	63097					Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1	7645	1	—	W	0-4095 / 1	51P #3 Phase A Outputs Pole1
2	9945					Bit 0 – Out 1 Bit 6 – Out 7
3	12245					Bit 1 – Out 2 Bit 7 – Out 8
4	14545					Bit 2 – Out 3 Bit 8 – Out 9
5	16845					Bit 3 – Out 4 Bit 9 – Out 10
6	19145					Bit 4 – Out 5 Bit 10 – Out 11
7	21445					Bit 5 – Out 6 Bit 11 – Out 12
8	23745					

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7646 9946 12246 14546 16846 19146 21446 23746	1	—	W	0-1 / 1	51P #3 Phase A Enable Pole1 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7647 9947 12247 14547 16847 19147 21447 23747	100	Amps	W	1-320/0.01	51P #3 Phase A Pickup Pole1
1 2 3 4 5 6 7 8	7648 9948 12248 14548 16848 19148 21448 23748	1	—	W	0-71 / 1	51P #3 Phase A Curve Pole1 (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7649 9949 12249 14549 16849 19149 21449 23749	1	—	W	0--1 / 1	51P #3 Phase A Electromechanical Reset Enable: 1, Disable: 0 Pole1

Table 2.18 Function 51P Setpoints

Function 51P Setpoints Profiles #1 To #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7650 9950 12250 14550 16850 19150 21450 23750	1000	Sec	W	1 – 60000/0.001	51P #3 Phase A Reset Coefficient (Low) Pole1 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7651 9951 12251 14551 16851 19151 21451 23751	1000	Sec	W	1 – 60000/0.001	51P #3 Phase A Reset Coefficient (High) Pole1 High bytes of 32-bit register
1 2 3 4 5 6 7 8	7652 9952 12252 14552 16852 19152 21452 23752	100	–	W	5 – 100/0.01	51P #3 Phase A Time Multiplier Pole1 Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7653 9953 12253 14553 16853 19153 21453 23753	100	Sec	W	0 – 3000/0.01	51P #3 Phase A Time Adder Pole1

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7654 9954 12254 14554 16854 19154 21454 23754	100	Sec	W	0-100/0.01	51P #3 Phase A Minimum Response Time Adder (Low) Pole1 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7655 9955 12255 14555 16855 19155 21455 23755	100	Sec	W	0-100/0.01	51P #3 Phase A Minimum Response Time Adder (High) Pole1 High bytes of 32-bit register
1 2 3 4 5 6 7 8	30739 32864 34989 37114 39239 41364 43489 45482	1	—	W	0-2/1	51P #3 Phase A Enable Voltage Control Bit-0 Enable-1; Disable-0 Pole1
1 2 3 4 5 6 7 8	30740 32865 34990 37115 39240 41365 43490 45483	10	%	W	40-1500/0.1	51P #3 Phase A Voltage Control Pickup Pole1

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6842 25538 25701 27296 27615 27815 28140 29176	100	S	W	1-60000/0.01	51A.3.MAXOPTM
1 2 3 4 5 6 7 8	6843 25539 25702 27297 27616 27816 28141 29177	1	—	W	0-1/1	51A.3.MAXOPTMENA
1 2 3 4 5 6 7 8	46998 49298 51598 53898 56198 58498 60798 63098	1	—	W	0-4294967295/1	51P #3 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	46999 49299 51599 53899 56199 58499 60799 63099	1	—	W	0-4294967295/1	51P #3 Phase B Blocking Inputs.H Pole2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7658 9958 12258 14558 16858 19158 21458 23758	1	—	W	0-4095 / 1	51P #3 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7659 9959 12259 14559 16859 19159 21459 23759	1	—	W	0-1 / 1	51P #3 Phase B Enable Pole2 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7660 9960 12260 14560 16860 19160 21460 23760	100	Amps	W	1-320/0.01	51P #3 Phase B Pickup Pole2
1 2 3 4 5 6 7 8	7661 9961 12261 14561 16861 19161 21461 23761	1	—	W	0-71 / 1	51P #3 Phase B Curve Pole2 (See the Reference Tables of the end of Function 51P)

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7662 9962 12262 14562 16862 19162 21462 23762	1	—	W	0--1 / 1	51P #3 Phase B Electromechanical Reset Pole2 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7663 9963 12263 14563 16863 19163 21463 23763	1000	Sec	W	1 – 60000/0.001	51P #3 Phase B Reset Coefficient (Low) Pole2 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7664 9964 12264 14564 16864 19164 21464 23764	1000	Sec	W	1 – 60000/0.001	51P #3 Phase B Reset Coefficient (High) Pole2 High bytes of 32-bit register
1 2 3 4 5 6 7 8	7665 9965 12265 14565 16865 19165 21465 23765	100	—	W	5 – 100/0.01	51P #3 Phase B Time Multiplier Pole2 Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7666 9966 12266 14566 16866 19166 21466 23766	100	Sec	W	0 – 3000/0.01	51P #3 Phase B Time Adder Pole2
1 2 3 4 5 6 7 8	7667 9967 12267 14567 16867 19167 21467 23767	100	Sec	W	0-100/0.01	51P #3 Phase B Minimum Response Time Adder (Low) Pole2 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7668 9968 12268 14568 16868 19168 21468 23768	100	Sec	W	0-100/0.01	51P #3 Phase B Minimum Response Time Adder (High) Pole2 High bytes of 32-bit register
1 2 3 4 5 6 7 8	30741 32866 34991 37116 39241 41366 43491 45484	1	–	W	0-2/1	51P #3 Phase B Enable Voltage Control Bit-0 Enable-1; Disable-0 Pole2

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30742 32867 34992 37117 39242 41367 43492 45485	10	%	W	40-1500/0.1	51P #3 Phase B Voltage Control Pickup Pole2
1 2 3 4 5 6 7 8	6844 25540 25703 27298 27617 27817 28142 29178	100	S	W	1-60000/0.01	51B.3.MAXOPTM
1 2 3 4 5 6 7 8	6845 25541 25704 27299 27618 27818 28143 29179	1	—	W	0-1/1	51B.3.MAXOPTMENA

Table 2.18 Function 51P Setpoints

Function 51P Setpoints

Profiles #1 To #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47000 49300 51600 53900 56200 58500 60800 63100	1	—	W	0-4294967295/1	51P #3 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47001 49301 51601 53901 56201 58501 60801 63101	1	—	W	0-4294967295/1	51P #3 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7671 9971 12271 14571 16871 19171 21471 23771	1	—	W	0-4095 / 1	51P #3 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7672 9972 12272 14572 16872 19172 21472 23772	1	—	W	0-1 / 1	51P #3 Phase C Enable Bit 0 Enable: 1, Disable: 0

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7673 9973 12273 14573 16873 19173 21473 23773	100	Amps	W	1-320/0.01	51P #3 Phase C Pickup
1 2 3 4 5 6 7 8	7674 9974 12274 14574 16874 19174 21474 23774	1	—	W	0-71 / 1	51P #3 Phase C Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7675 9975 12275 14575 16875 19175 21475 23775	1	—	W	0--1 / 1	51P #3 Phase C Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7676 9976 12276 14576 16876 19176 21476 23776	1000	Sec	W	1 – 60000/0.001	51P #3 Phase C Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7677 9977 12277 14577 16877 19177 21477 23777	1000	Sec	W	1 – 60000/0.001	51P #3 Phase C Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7678 9978 12278 14578 16878 19178 21478 23778	100	–	W	5 – 100/0.01	51P #3 Phase C Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7679 9979 12279 14579 16879 19179 21479 23779	100	Sec	W	0 – 3000/0.01	51P #3 Phase C Time Adder
1 2 3 4 5 6 7 8	7680 9980 12280 14580 16880 19180 21480 23780	100	Sec	W	0-100/0.01	51P #3 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7681 9981 12281 14581 16881 19181 21481 23781	100	Sec	W	0-100/0.01	51P #3 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30743 32868 34993 37118 39243 41368 43493 45486	1	—	W	0-2/1	51P #3 Phase C Enable Voltage Control Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30744 32869 34994 37119 39244 41369 43494 45487	10	%	W	40-1500/0.1	51P #3 Phase C Voltage Control Pickup
1 2 3 4 5 6 7 8	6846 25542 25705 27300 27619 27819 28144 29180	100	S	W	1-60000/0.01	51C.3.MAXOPTM

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6847 25543 25706 27301 27620 27820 28145 29181	1	—	W	0-1/1	51C.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47002 49302 51602 53902 56202 58502 60802 63102	1	—	W	0-4294967295/1	51P #4 Phase A Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47003 49303 51603 53903 56203 58503 60803 63103	1	—	W	0-4294967295/1	51P #4 Phase A Blocking Inputs Pole1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7684 9984 12284 14584 16884 19184 21484 23784	1	—	W	0-4095 / 1	51P #4 Phase A Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7685 9985 12285 14585 16885 19185 21485 23785	1	—	W	0-1 / 1	51P #4 Phase A Enable Pole1 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7686 9986 12286 14586 16886 19186 21486 23786	100	Amps	W	1-320/0.01	51P #4 Phase A Pickup Pole1
1 2 3 4 5 6 7 8	7687 9987 12287 14587 16887 19187 21487 23787	1	—	W	0-71 / 1	51P #4 Phase A Curve Pole1 (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7688 9988 12288 14588 16888 19188 21488 23788	1	—	W	0--1 / 1	51P #4 Phase A Electromechanical Reset Enable: 1, Disable: 0 Pole1

Table 2.18 Function 51P Setpoints

Function 51P Setpoints Profiles #1 To #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7689 9989 12289 14589 16889 19189 21489 23789	1000	Sec	W	1 – 60000/0.001	51P #4 Phase A Reset Coefficient (Low) Pole1 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7690 9990 12290 14590 16890 19190 21490 23790	1000	Sec	W	1 – 60000/0.001	51P #4 Phase A Reset Coefficient (High) Pole1 High bytes of 32-bit register
1 2 3 4 5 6 7 8	7691 9991 12291 14591 16891 19191 21491 23791	100	–	W	5 – 100/0.01	51P #4 Phase A Time Multiplier Pole1 Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7692 9992 12292 14592 16892 19192 21492 23792	100	Sec	W	0 – 3000/0.01	51P #4 Phase A Time Adder Pole1

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7693 9993 12293 14593 16893 19193 21493 23793	100	Sec	W	0-100/0.01	51P #4 Phase A Minimum Response Time Adder (Low) Pole1 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7694 9994 12294 14594 16894 19194 21494 23794	100	Sec	W	0-100/0.01	51P #4 Phase A Minimum Response Time Adder (High) Pole1 High bytes of 32-bit register
1 2 3 4 5 6 7 8	30745 32870 34995 37120 39245 41370 43495 45488	1	—	W	0-2/1	51P #4 Phase A Enable Voltage Control Bit-0 Enable-1; Disable-0 Pole1
1 2 3 4 5 6 7 8	30746 32871 34996 37121 39246 41371 43496 45489	10	%	W	40-1500/0.1	51P #4 Phase A Voltage Control Pickup Pole1

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6848 25544 25707 27302 27621 27821 28146 29182	100	S	W	1-60000/0.01	51A.4.MAXOPTM
1 2 3 4 5 6 7 8	6849 25545 25708 27303 27622 27822 28147 29183	1	—	W	0-1/1	51A.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47004 49304 51604 53904 56204 58504 60804 63104	1	—	W	0-4294967295/1	51P #4 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47005 49305 51605 53905 56205 58505 60805 63105	1	—	W	0-4294967295/1	51P #4 Phase B Blocking Inputs.H Pole2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7697 9997 12297 14597 16897 19197 21497 23797	1	—	W	0-4095 / 1	51P #4 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7698 9998 12298 14598 16898 19198 21498 23798	1	—	W	0-1 / 1	51P #4 Phase B Enable Pole2 Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7699 9999 12299 14599 16899 19199 21499 23799	100	Amps	W	1-320/0.01	51P #4 Phase B Pickup Pole2

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7700 10000 12300 14600 16900 19200 21500 23800	1	—	W	0-71 / 1	51P #4 Phase B Curve Pole2 (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7701 10001 12301 14601 16901 19201 21501 23801	1	—	W	0--1 / 1	51P #4 Phase B Electromechanical Reset Enable: 1, Disable: 0 Pole2
1 2 3 4 5 6 7 8	7702 10002 12302 14602 16902 19202 21502 23802	1000	Sec	W	1 – 60000/0.001	51P #4 Phase B Reset Coefficient (Low) Pole2 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7703 10003 12303 14603 16903 19203 21503 23803	1000	Sec	W	1 – 60000/0.001	51P #4 Phase B Reset Coefficient (High) Pole2 High bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7704 10004 12304 14604 16904 19204 21504 23804	100	—	W	5 – 100/0.01	51P #4 Phase B Time Multiplier Pole2 Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7705 10005 12305 14605 16905 19205 21505 23805	100	Sec	W	0 – 3000/0.01	51P #4 Phase B Time Adder Pole2
1 2 3 4 5 6 7 8	7706 10006 12306 14606 16906 19206 21506 23806	100	Sec	W	0-100/0.01	51P #4 Phase B Minimum Response Time Adder (Low) Pole2 Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7707 10007 12307 14607 16907 19207 21507 23807	100	Sec	W	0-100/0.01	51P #4 Phase B Minimum Response Time Adder (High) Pole2 High bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30747 32872 34997 37122 39247 41372 43497 45490	1	—	W	0-2/1	51P #4 Phase B Enable Voltage Control Pole2 Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30748 32873 34998 37123 39248 41373 43498 45491	10	%	W	40-1500/0.1	51P #4 Phase B Voltage Control Pickup Pole2
1 2 3 4 5 6 7 8	6850 25546 25709 27304 27623 27823 28148 29184	100	S	W	1-60000/0.01	51B.4.MAXOPTM
1 2 3 4 5 6 7 8	6851 25547 25710 27305 27624 27824 28149 29185	1	—	W	0-1/1	51B.4.MAXOPTMENA

Table 2.18 Function 51P Setpoints

Function 51P Setpoints

Profiles #1 To #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47006 49306 51606 53906 56206 58506 60806 63106	1	—	W	0-4294967295/1	51P #4 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47007 49307 51607 53907 56207 58507 60807 63107	1	—	W	0-4294967295/1	51P #4 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7710 10010 12310 14610 16910 19210 21510 23810	1	—	W	0-4095 / 1	51P #4 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7711 10011 12311 14611 16911 19211 21511 23811	1	—	W	0-1 / 1	51P #4 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7712 10012 12312 14612 16912 19212 21512 23812	100	Amps	W	1-320/0.01	51P #4 Phase C Pickup
1 2 3 4 5 6 7 8	7713 10013 12313 14613 16913 19213 21513 23813	1	—	W	0-71 / 1	51P #4 Phase C Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7714 10014 12314 14614 16914 19214 21514 23814	1	—	W	0--1 / 1	51P #4 Phase C Electromechanical Reset Enable: 1, Disable: 0

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7715 10015 12315 14615 16915 19215 21515 23815	1000	Sec	W	1 – 60000/0.001	51P #4 Phase C Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7716 10016 12316 14616 16916 19216 21516 23816	1000	Sec	W	1 – 60000/0.001	51P #4 Phase C Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7717 10017 12317 14617 16917 19217 21517 23817	100	–	W	5 – 100/0.01	51P #4 Phase C Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7718 10018 12318 14618 16918 19218 21518 23818	100	Sec	W	0 – 3000/0.01	51P #4 Phase C Time Adder

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7719 10019 12319 14619 16919 19219 21519 23819	100	Sec	W	0-100/0.01	51P #4 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7720 10020 12320 14620 16920 19220 21520 23820	100	Sec	W	0-100/0.01	51P #4 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30749 32874 34999 37124 39249 41374 43499 45492	1	—	W	0-2/1	51P #4 Phase C Enable Voltage Control Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30750 32875 35000 37125 39250 41375 43500 45493	10	%	W	40-1500/0.1	51P #4 Phase C Voltage Control Pickup

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6852 25548 25711 27306 27625 27825 28150 29186	100	S	W	1-60000/0.01	51C.4.MAXOPTM
1 2 3 4 5 6 7 8	6853 25549 25712 27307 27626 27826 28151 29187	1	—	W	0-1/1	51C.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47008 49308 51608 53908 56208 58508 60808 63108	1	—	W	0-4294967295/1	51P #5 Phase A Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47009 49309 51609 53909 56209 58509 60809 63109	1	—	W	0-4294967295/1	51P #5 Phase A Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7723 10023 12323 14623 16923 19223 21523 23823	1	—	W	0-4095 / 1	51P #5 Phase A Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7724 10024 12324 14624 16924 19224 21524 23824	1	—	W	0-1 / 1	51P #5 Phase A Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7725 10025 12325 14625 16925 19225 21525 23825	100	Amps	W	1-320/0.01	51P #5 Phase A Pickup
1 2 3 4 5 6 7 8	7726 10026 12326 14626 16926 19226 21526 23826	1	—	W	0-71 / 1	51P #5 Phase A Curve (See the Reference Tables of the end of Function 51P)

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7727 10027 12327 14627 16927 19227 21527 23827	1	—	W	0--1 / 1	51P #5 Phase A Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7728 10028 12328 14628 16928 19228 21528 23828	1000	Sec	W	1 – 60000/0.001	51P #5 Phase A Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7729 10029 12329 14629 16929 19229 21529 23829	1000	Sec	W	1 – 60000/0.001	51P #5 Phase A Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7730 10030 12330 14630 16930 19230 21530 23830	100	—	W	5 – 100/0.01	51P #5 Phase A Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)

Table 2.18 Function 51P Setpoints

Function 51P Setpoints Profiles #1 To #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7731 10031 12331 14631 16931 19231 21531 23831	100	Sec	W	0 – 3000/0.01	51P #5 Phase A Time Adder
1 2 3 4 5 6 7 8	7732 10032 12332 14632 16932 19232 21532 23832	100	Sec	W	0-100/0.01	51P #5 Phase A Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7733 10033 12333 14633 16933 19233 21533 23833	100	Sec	W	0-100/0.01	51P #5 Phase A Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30751 32876 35001 37126 39251 41376 43501 45494	1	–	W	0-2/1	51P #5 Phase A Enable Voltage Control

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30752 32877 35002 37127 39252 41377 43502 45495	10	%	W	40-1500/0.1	51P #5 Phase A Voltage Control Pickup
1 2 3 4 5 6 7 8	6854 25550 25713 27308 27627 27827 28152 29188	100	S	W	1-60000/0.01	51A.5.MAXOPTM
1 2 3 4 5 6 7 8	6855 25551 25714 27309 27628 27828 28153 29189	1	—	W	0-1/1	51A.5.MAXOPTMENA
1 2 3 4 5 6 7 8	47010 49310 51610 53910 56210 58510 60810 63110	1	—	W	0-4294967295/1	51P #5 Phase B Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47011 49311 51611 53911 56211 58511 60811 63111	1	—	W	0-4294967295/1	51P #5 Phase B Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7736 10036 12336 14636 16936 19236 21536 23836	1	—	W	0-4095 / 1	51P #5 Phase B Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7737 10037 12337 14637 16937 19237 21537 23837	1	—	W	0-1 / 1	51P #5 Phase B Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7738 10038 12338 14638 16938 19238 21538 23838	100	Amps	W	1-320/0.01	51P #5 Phase B Pickup

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7739 10039 12339 14639 16939 19239 21539 23839	1	—	W	0-71 / 1	51P #5 Phase B Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7740 10040 12340 14640 16940 19240 21540 23840	1	—	W	0--1 / 1	51P #5 Phase B Electromechanical Reset Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7741 10041 12341 14641 16941 19241 21541 23841	1000	Sec	W	1 – 60000/0.001	51P #5 Phase B Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7742 10042 12342 14642 16942 19242 21542 23842	1000	Sec	W	1 – 60000/0.001	51P #5 Phase B Reset Coefficient (High) High bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7743 10043 12343 14643 16943 19243 21543 23843	100	—	W	5 – 100/0.01	51P #5 Phase B Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7744 10044 12344 14644 16944 19244 21544 23844	100	Sec	W	0 – 3000/0.01	51P #5 Phase B Time Adder
1 2 3 4 5 6 7 8	7745 10045 12345 14645 16945 19245 21545 23845	100	Sec	W	0-100/0.01	51P #5 Phase B Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7746 10046 12346 14646 16946 19246 21546 23846	100	Sec	W	0-100/0.01	51P #5 Phase B Minimum Response Time Adder (High) High bytes of 32-bit register

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30753 32878 35003 37128 39253 41378 43503 45496	1	—	W	0-2/1	51P #5 Phase B Enable Voltage Control Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30754 32879 35004 37129 39254 41379 43504 45497	10	%	W	40-1500/0.1	51P #5 Phase B Voltage Control Pickup
1 2 3 4 5 6 7 8	6856 25552 25715 27310 27629 27829 28154 29190	100	S	W	1-60000/0.01	51B.5.MAXOPTM

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6857 25553 25716 27311 27630 27830 28155 29191	1	—	W	0-1/1	51B.5.MAXOPTMENA
1 2 3 4 5 6 7 8	47012 49312 51612 53912 56212 58512 60812 63112	1	—	W	0-4294967295/1	51P #5 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47013 49313 51613 53913 56213 58513 60813 63113	1	—	W	0-4294967295/1	51P #5 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	7749 10049 12349 14649 16949 19249 21549 23849	1	—	W	0-4095 / 1	51P #5 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7750 10050 12350 14650 16950 19250 21550 23850	1	—	W	0-1 / 1	51P #5 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	7751 10051 12351 14651 16951 19251 21551 23851	100	Amps	W	1-320/0.01	51P #5 Phase C Pickup
1 2 3 4 5 6 7 8	7752 10052 12352 14652 16952 19252 21552 23852	1	—	W	0-71 / 1	51P #5 Phase C Curve (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7753 10053 12353 14653 16953 19253 21553 23853	1	—	W	0--1 / 1	51P #5 Phase C Electromechanical Reset Enable: 1, Disable: 0

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7754 10054 12354 14654 16954 19254 21554 23854	1000	Sec	W	1 – 60000/0.001	51P #5 Phase C Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	7755 10055 12355 14655 16955 19255 21555 23855	1000	Sec	W	1 – 60000/0.001	51P #5 Phase C Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	7756 10056 12356 14656 16956 19256 21556 23856	100	–	W	0 – 100/0.01	51P #5 Phase C Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables of the end of Function 51P)
1 2 3 4 5 6 7 8	7757 10057 12357 14657 16957 19257 21557 23857	100	Sec	W	0 – 3000/0.01	51P #5 Phase C Time Adder

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	7758	100	Sec	W	0-100/0.01	51P #5 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register
2	10058					
3	12358					
4	14658					
5	16958					
6	19258					
7	21558					
8	23858					

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	7759	100	Sec	W	0-100/0.01	51P #5 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register
2	10059					
3	12359					
4	14659					
5	16959					
6	19259					
7	21559					
8	23859					
1	30755	1	—	W	0-2/1	51P #5 Phase C Enable Voltage Control
2	32880					
3	35005					
4	37130					
5	39255					
6	41380					
7	43505					
8	45498					

Table 2.18 Function 51P Setpoints

Function 51P Setpoints						
Profiles #1 To #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30756 32881 35006 37131 39256 41381 43506 45499	10	%	W	40-1500/0.1	51P #5 Phase C Voltage Control Pickup
1 2 3 4 5 6 7 8	30757 32882 35007 37132 39257 41382 43507 45500	--	--	--	0-31/1	51VIEWINDPHASE
1 2 3 4 5 6 7 8	6858 25554 25717 27312 27631 27831 28156 29192	100	S	W	1-60000/0.01	51C.5.MAXOPTM
1 2 3 4 5 6 7 8	6859 25555 25718 27313 27632 27832 28157 29193	1	—	W	0-1/1	51C.5.MAXOPTMENA

Table 2.18 Function 51P Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP
38	120(Y)		69	BSCP
39	121(G)		70	BFCG
40	122(H)		71	BSCG
41	131(9)			

Inverse Time Curves – Bit Number Reference Table

Table 2.18 Function 51P Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4	NA	NA
68-BFCP 69-BSCP 70-BFCG 71-BSCG	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.18 Function 51P Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47044 49344 51644 53944 56244 58544 60844 63144	—	—	W	0-4294967295 / 1	59 #1 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47045 49345 51645 53945 56245 58545 60845 63145	—	—	W	0-4294967295 / 1	59 #1 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8001 10301 12601 14901 17201 19501 21801 24101	—	—	W	0-4095/1	59 #1 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8002 10302 12602 14902 17202 19502 21802 24102	—	—	W	0-1/1	59 #1 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8003 10303 12603 14903 17203 19503 21803 24103	100	V	W	1000-30000/0.01	59 #1 Phase ABC Pickup

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8004 10304 12604 14904 17204 19504 21804 24104	100	Sec	W	0-60000/0.01	59 #1 Phase ABC Definite Time
1 2 3 4 5 6 7 8	8005 10305 12605 14905 17205 19505 21805 24105	—	—	W	0-1/1	59 #1 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	8084 10384 12684 14984 17284 19584 21884 24184	1	—	W	0-255/1	59 Operating Voltage Side 0 = Y Side 1 = Z Side Bit 0 – 59 #1 Bit 1 – 59 #2 Bit 2 – 59 #3 Bit 3 – 59 #4 Bit 4 – 59 #5 Bit 5 – 59 #6 Bit 6 – 59 #7 Bit 7 – 59 #8 NOTE: This Register is available with a 6LEA Hardware Option.
1 2 3 4 5 6 7 8	47046 49346 51646 53946 56246 58546 60846 63146	—	—	W	0-4294967295 / 1	59 #2 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47047 49347 51647 53947 56247 58547 60847 63147	—	—	W	0-4294967295 / 1	59 #2 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8007 10307 12607 14907 17207 19507 21807 24107	—	—	W	0-4095/1	59 #2 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8008 10308 12608 14908 17208 19508 21808 24108	—	—	W	0-1/1	59 #2 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8009 10309 12609 14909 17209 19509 21809 24109	100	V	W	1000-30000/0.01	59 #2 Phase ABC Pickup 2
1 2 3 4 5 6 7 8	8010 10310 12610 14910 17210 19510 21810 24110	100	Sec	W	0-60000/0.01	59 #2 Phase ABC Definite Time 2
1 2 3 4 5 6 7 8	8011 10311 12611 14911 17211 19511 21811 24111	—	—	W	0-1/1	59 #2 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	47048 49348 51648 53948 56248 58548 60848 63148	—	—	W	0-4294967295 / 1	59 #3 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47049 49349 51649 53949 56249 58549 60849 63149	—	—	W	0-4294967295 / 1	59 #3 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8013 10313 12613 14913 17213 19513 21813 24113	—	—	W	0-4095/1	59 #3 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8014 10314 12614 14914 17214 19514 21814 24114	—	—	W	0-1/1	59 #3 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8015 10315 12615 14915 17215 19515 21815 24115	100	V	W	1000-30000/0.01	59 #3 Phase ABC Pickup
1 2 3 4 5 6 7 8	8016 10316 12616 14916 17216 19516 21816 24116	100	Sec	W	0-60000/0.01	59 #3 Phase ABC Definite Time
1 2 3 4 5 6 7 8	8017 10317 12617 14917 17217 19517 21817 24117	—	—	W	0-1/1	59 #3 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47050 49350 51650 53950 56250 58550 60850 63150	—	—	W	0-4294967295 / 1	59 #4 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47051 49351 51651 53951 56251 58551 60851 63151	—	—	W	0-4294967295 / 1	59 #4 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8019 10319 12619 14919 17219 19519 21819 24119	—	—	W	0-4095/1	59 #4 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8020 10320 12620 14920 17220 19520 21820 24120	—	—	W	0-1/1	59 #4 Phase ABC Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8021 10321 12621 14921 17221 19521 21821 24121	100	V	W	1000-30000/0.01	59 #4 Phase ABC Pickup

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8022 10322 12622 14922 17222 19522 21822 24122	100	Sec	W	0-60000/0.01	59 #4 Phase ABC Definite Time
1 2 3 4 5 6 7 8	8023 10323 12623 14923 17223 19523 21823 24123	—	—	W	0-1/1	59 #4 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	47052 49352 51652 53952 56252 58552 60852 63152	—	—	W	0-4294967295 / 1	59 #1 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47053 49353 51653 53953 56253 58553 60853 63153	—	—	W	0-4294967295 / 1	59 #1 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8025 10325 12625 14925 17225 19525 21825 24125	—	—	W	0-4095/1	59 #1 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8026 10326 12626 14926 17226 19526 21826 24126	—	—	W	0-1/1	59 #1 Phase A Enable (or Pole 1) Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8027 10327 12627 14927 17227 19527 21827 24127	100	V	W	1000-30000/0.01	59 #1 Phase A Pickup (or Pole 1)
1 2 3 4 5 6 7 8	8028 10328 12628 14928 17228 19528 21828 24128	100	Sec	W	0-60000/0.01	59 #1 Phase A Definite Time (or Pole 1)
1 2 3 4 5 6 7 8	47054 49354 51654 53954 56254 58554 60854 63154	—	—	W	0-4294967295 / 1	59 #1 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47055 49355 51655 53955 56255 58555 60855 63155	—	—	W	0-4294967295 / 1	59 #1 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8030 10330 12630 14930 17230 19530 21830 24130	—	—	W	0-4095/1	59 #1 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8031 10331 12631 14931 17231 19531 21831 24131	—	—	W	0-1/1	59 #1 Phase B Enable (or Pole 2) Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8032 10332 12632 14932 17232 19532 21832 24132	100	V	W	1000-30000/0.01	59 #1 Phase B Pickup (or Pole 2)
1 2 3 4 5 6 7 8	8033 10333 12633 14933 17233 19533 21833 24133	100	Sec	W	0-60000/0.01	59 #1 Phase B Definite Time (or Pole 2)
1 2 3 4 5 6 7 8	47056 49356 51656 53956 56256 58556 60856 63156	—	—	W	0-4294967295 / 1	59 #1 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47057 49357 51657 53957 56257 58557 60857 63157	—	—	W	0-4294967295 / 1	59 #1 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8035 10335 12635 14935 17235 19535 21835 24135	—	—	W	0-4095/1	59 #1 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8036 10336 12636 14936 17236 19536 21836 24136	—	—	W	0-1/1	59 #1 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8037 10337 12637 14937 17237 19537 21837 24137	100	V	W	1000-30000/0.01	59 #1 Phase C Pickup
1 2 3 4 5 6 7 8	8038 10338 12638 14938 17238 19538 21838 24138	100	Sec	W	0-60000/0.01	59 #1 Phase C Definite Time

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47058 49358 51658 53958 56258 58558 60858 63158	—	—	W	0-4294967295 / 1	59 #2 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47059 49359 51659 53959 56259 58559 60859 63159	—	—	W	0-4294967295 / 1	59 #2 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8040 10340 12640 14940 17240 19540 21840 24140	—	—	W	0-4095/1	59 #2 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8041 10341 12641 14941 17241 19541 21841 24141	—	—	W	0-1/1	59 #2 Phase A Enable (or Pole 1) Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8042 10342 12642 14942 17242 19542 21842 24142	100	V	W	1000-30000/0.01	59 #2 Phase A Pickup (or Pole 1)

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8043 10343 12643 14943 17243 19543 21843 24143	100	Sec	W	0-60000/0.01	59 #2 Phase A Definite Time (or Pole 1)
1 2 3 4 5 6 7 8	47060 49360 51660 53960 56260 58560 60860 63160	—	—	W	0-4294967295 / 1	59 #2 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47061 49361 51661 53961 56261 58561 60861 63161	—	—	W	0-4294967295 / 1	59 #2 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8045 10345 12645 14945 17245 19545 21845 24145	—	—	W	0-4095/1	59 #2 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8046 10346 12646 14946 17246 19546 21846 24146	—	—	W	0-1/1	59 #2 Phase B Enable (or Pole 2) Bit 0 Enable: 1, Disable: 0

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8047 10347 12647 14947 17247 19547 21847 24147	100	V	W	1000-30000/0.01	59 #2 Phase B Pickup (or Pole 2)
1 2 3 4 5 6 7 8	8048 10348 12648 14948 17248 19548 21848 24148	100	Sec	W	0-60000/0.01	59 #2 Phase B Definite Time (or Pole 2)
1 2 3 4 5 6 7 8	47062 49362 51662 53962 56262 58562 60862 63162	—	—	W	0-4294967295 / 1	59 #2 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47063 49363 51663 53963 56263 58563 60863 63163	—	—	W	0-4294967295 / 1	59 #2 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8050 10350 12650 14950 17250 19550 21850 24150	—	—	W	0-4095/1	59 #2 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8051 10351 12651 14951 17251 19551 21851 24151	—	—	W	0-1/1	59 #2 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8052 10352 12652 14952 17252 19552 21852 24152	100	V	W	1000-30000/0.01	59 #2 Phase C Pickup
1 2 3 4 5 6 7 8	8053 10353 12653 14953 17253 19553 21853 24153	100	Sec	W	0-60000/0.01	59 #2 Phase C Definite Time
1 2 3 4 5 6 7 8	47064 49364 51664 53964 56264 58564 60864 63164	—	—	W	0-4294967295 / 1	59 #3 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47065 49365 51665 53965 56265 58565 60865 63165	—	—	W	0-4294967295 / 1	59 #3 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8055 10355 12655 14955 17255 19555 21855 24155	—	—	W	0-4095/1	59 #3 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8056 10356 12656 14956 17256 19556 21856 24156	—	—	W	0-1/1	59 #3 Phase A Enable (or Pole 1) Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8057 10357 12657 14957 17257 19557 21857 24157	100	V	W	1000-30000/0.01	59 #3 Phase A Pickup (or Pole 1)
1 2 3 4 5 6 7 8	8058 10358 12658 14958 17258 19558 21858 24158	100	Sec	W	0-60000/0.01	59 #3 Phase A Definite Time (or Pole 1)
1 2 3 4 5 6 7 8	47066 49366 51666 53966 56266 58566 60866 63166	—	—	W	0-4294967295 / 1	59 #3 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47067 49367 51667 53967 56267 58567 60867 63167	—	—	W	0-4294967295 / 1	59 #3 Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8060 10360 12660 14960 17260 19560 21860 24160	—	—	W	0-4095/1	59 #3 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8061 10361 12661 14961 17261 19561 21861 24161	—	—	W	0-1/1	59 #3 Phase B Enable (or Pole 2) Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8062 10362 12662 14962 17262 19562 21862 24162	100	V	W	1000-30000/0.01	59 #3 Phase B Pickup (or Pole 2)
1 2 3 4 5 6 7 8	8063 10363 12663 14963 17263 19563 21863 24163	100	Sec	W	0-60000/0.01	59 #3 Phase B Definite Time (or Pole 2)

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47068 49368 51668 53968 56268 58568 60868 63168	—	—	W	0-4294967295 / 1	59 #3 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47069 49369 51669 53969 56269 58569 60869 63169	—	—	W	0-4294967295 / 1	59 #3 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8065 10365 12665 14965 17265 19565 21865 24165	—	—	W	0-4095/1	59 #3 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8066 10366 12666 14966 17266 19566 21866 24166	—	—	W	0-1/1	59 #3 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8067 10367 12667 14967 17267 19567 21867 24167	100	V	W	1000-30000/0.01	59 #3 Phase C Pickup

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8068 10368 12668 14968 17268 19568 21868 24168	100	Sec	W	0-60000/0.01	59 #3 Phase C Definite Time
1 2 3 4 5 6 7 8	47070 49370 51670 53970 56270 58570 60870 63170	–	–	W	0-4294967295 / 1	59 #4 Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47071 49371 51671 53971 56271 58571 60871 63171	–	–	W	0-4294967295 / 1	59 #4 Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8070 10370 12670 14970 17270 19570 21870 24170	–	–	W	0-4095/1	59 #4 Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8071 10371 12671 14971 17271 19571 21871 24171	–	–	W	0-1/1	59 #4 Phase A Enable (or Pole 1) Bit 0 Enable: 1, Disable: 0

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8072 10372 12672 14972 17272 19572 21872 24172	100	V	W	1000-30000/0.01	59 #4 Phase A Pickup (or Pole 1)
1 2 3 4 5 6 7 8	8073 10373 12673 14973 17273 19573 21873 24173	100	Sec	W	0-60000/0.01	59 #4 Phase A Definite Time (or Pole 1)
1 2 3 4 5 6 7 8	47072 49372 51672 53972 56272 58572 60872 63172	–	–	W	0-4294967295 / 1	59 #4 Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47073 49373 51673 53973 56273 58573 60873 63173	–	–	W	0-4294967295 / 1	59 #4 Phase B Blocking Inputs (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8075 10375 12675 14975 17275 19575 21875 24175	–	–	W	0-4095/1	59 #4 Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8076 10376 12676 14976 17276 19576 21876 24176	—	—	W	0-1/1	59 #4 Phase B Enable (or Pole 2) Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8077 10377 12677 14977 17277 19577 21877 24177	100	V	W	1000-30000/0.01	59 #4 Phase B Pickup (or Pole 2)
1 2 3 4 5 6 7 8	8078 10378 12678 14978 17278 19578 21878 24178	100	Sec	W	0-60000/0.01	59 #4 Phase B Definite Time (or Pole 2)
1 2 3 4 5 6 7 8	47074 49374 51674 53974 56274 58574 60874 63174	—	—	W	0-4294967295 / 1	59 #4 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47075 49375 51675 53975 56275 58575 60875 63175	—	—	W	0-4294967295 / 1	59 #4 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8080 10380 12680 14980 17280 19580 21880 24180	—	—	W	0-4095/1	59 #4 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8081 10381 12681 14981 17281 19581 21881 24181	—	—	W	0-1/1	59 #4 Phase C Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8082 10382 12682 14982 17282 19582 21882 24182	100	V	W	1000-30000/0.01	59 #4 Phase C Pickup
1 2 3 4 5 6 7 8	8083 10383 12683 14983 17283 19583 21883 24183	100	Sec	W	0-60000/0.01	59 #4 Phase C Definite Time
1 2 3 4 5 6 7 8	47076 49376 51676 53976 56276 58576 60876 63176	—	—	W	0-4294967295 / 1	59 #5 Three Phase Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47077 49377 51677 53977 56277 58577 60877 63177	—	—	W	0-4294967295 / 1	59 #5 Three Phase Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46371 48671 50971 53271 55571 57871 60171 62471	—	—	W	0-4095/1	59 #5 Three Phase Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46372 48672 50972 53272 55572 57872 60172 62472	—	—	W	0-1/1	59 #5 Three Phase Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46373 48673 50973 53273 55573 57873 60173 62473	100	V	W	1000-30000/0.01	59 #5 Three Phase Pickup
1 2 3 4 5 6 7 8	46374 48674 50974 53274 55574 57874 60174 62474	100	Sec	W	0-60000/0.01	59 #5 Three Phase Definite Time

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47078 49378 51678 53978 56278 58578 60878 63178	—	—	W	0-4294967295 / 1	59 #6 Three Phase Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47079 49379 51679 53979 56279 58579 60879 63179	—	—	W	0-4294967295 / 1	59 #6 Three Phase Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46376 48676 50976 53276 55576 57876 60176 62476	—	—	W	0-4095/1	59 #6 Three Phase Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46377 48677 50977 53277 55577 57877 60177 62477	—	—	W	0-1/1	59 #6 Three Phase Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46378 48678 50978 53278 55578 57878 60178 62478	100	V	W	1000-30000/0.01	59 #6 Three Phase Pickup

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46379 48679 50979 53279 55579 57879 60179 62479	100	Sec	W	0-60000/0.01	59 #6 Three Phase Definite Time
1 2 3 4 5 6 7 8	47080 49380 51680 53980 56280 58580 60880 63180	—	—	W	0-4294967295 / 1	59 #7 Three Phase Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47081 49381 51681 53981 56281 58581 60881 63181	—	—	W	0-4294967295 / 1	59 #7 Three Phase Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46381 48681 50981 53281 55581 57881 60181 62481	—	—	W	0-4095/1	59 #7 Three Phase Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46382 48682 50982 53282 55582 57882 60182 62482	—	—	W	0-1/1	59 #7 Three Phase Enable Bit 0 Enable: 1, Disable: 0

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46383 48683 50983 53283 55583 57883 60183 62483	100	V	W	1000-30000/0.01	59 #7 Three Phase Pickup
1 2 3 4 5 6 7 8	46384 48684 50984 53284 55584 57884 60184 62484	100	Sec	W	0-60000/0.01	59 #7 Three Phase Definite Time
1 2 3 4 5 6 7 8	47082 49382 51682 53982 56282 58582 60882 63182	—	—	W	0-4294967295 / 1	59 #8 Three Phase Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47083 49383 51683 53983 56283 58583 60883 63183	—	—	W	0-4294967295 / 1	59 #8 Three Phase Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46386 48686 50986 53286 55586 57886 60186 62486	—	—	W	0-4095/1	59 #8 Three Phase Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.19 Function 59 Setpoints

Function 59 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46387 48687 50987 53287 55587 57887 60187 62487	—	—	W	0-1/1	59 #8 Three Phase Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46388 48688 50988 53288 55588 57888 60188 62488	100	V	W	1000-30000/0.01	59 #8 Three Phase Pickup
1 2 3 4 5 6 7 8	46389 48689 50989 53289 55589 57889 60189 62489	100	Sec	W	0-60000/0.01	59 #8 Three Phase Definite Time

Table 2.19 Function 59 Setpoints

Function 59I Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47274 49574 51874 54174 56474 58774 61074 63374	1	—	W	0-4294967295 / 1	59I Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47275 49575 51875 54175 56475 58775 61075 63375	1	—	W	0-4294967295 / 1	59I Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9143 11443 13743 16043 18343 20643 22943 25243	1	—	W	0-4095/1	59I Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9144 11444 13744 16044 18344 20644 22944 25244	1	—	W	0-1/1	59I Phase ABC Enable Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9145 11445 13745 16045 18345 20645 22945 25245	1	%	W	100-150/1	59I Phase ABC Pickup

Table 2.20 Function 59I Setpoints

Function 59I Setpoints						
Profiles #1 to #8						
MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9146 11446 13746 16046 18346 20646 22946 25246	100	Sec	W	1-14000/0.01	59I Phase ABC Definite Time
1 2 3 4 5 6 7 8	9147 11447 13747 16047 18347 20647 22947 25247	1	–	W	0-1/1	59I Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
With Option P: standard Function 59I Phase A Registers indicate Pole 1 Setpoints						
1 2 3 4 5 6 7 8	47276 49576 51876 54176 56476 58776 61076 63376	1	–	W	0-4294967295 / 1	59I Phase A Blocking Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47277 49577 51877 54177 56477 58777 61077 63377	1	–	W	0-4294967295 / 1	59I Phase A Blocking Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9149 11449 13749 16049 18349 20649 22949 25249	1	–	W	0-4095/1	59I Phase A Outputs (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.20 Function 59I Setpoints

Function 59I Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9150 11450 13750 16050 18350 20650 22950 25250	1	—	W	0-1/1	59I Phase A Enable (or Pole 1) Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9151 11451 13751 16051 18351 20651 22951 25251	1	%	W	100-150/1	59I Phase A Pickup (or Pole 1)
1 2 3 4 5 6 7 8	9152 11452 13752 16052 18352 20652 22952 25252	100	Sec	W	1-14000/0.01	59I Phase A Definite Time (or Pole 1)
With Option P: standard Function 59I Phase B Registers indicate Pole 2 Setpoints						
1 2 3 4 5 6 7 8	47278 49578 51878 54178 56478 58778 61078 63378	1	—	W	0-4294967295 / 1	59I Phase B Blocking Inputs (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47279 49579 51879 54179 56479 58779 61079 63379	1	—	W	0-4294967295 / 1	59I Phase B Blocking Inputs.H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.20 Function 59I Setpoints

Function 59I Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9154 11454 13754 16054 18354 20654 22954 25254	1	–	W	0-4095/1	59I Phase B Outputs (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9155 11455 13755 16055 18355 20655 22955 25255	1	–	W	0-1/1	59I Phase B Enable (or Pole 2) Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9156 11456 13756 16056 18356 20656 22956 25256	1	%	W	100-150/1	59I Phase B Pickup (or Pole 2)
1 2 3 4 5 6 7 8	9157 11457 13757 16057 18357 20657 22957 25257	100	Sec	W	1-14000/0.01	59I Phase B Definite Time (or Pole 2)
1 2 3 4 5 6 7 8	47280 49580 51880 54180 56480 58780 61080 63380	1	–	W	0-4294967295 / 1	59I Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.20 Function 59I Setpoints

Function 59I Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47281 49581 51881 54181 56481 58781 61081 63381	1	–	W	0-4294967295 / 1	59I Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9159 11459 13759 16059 18359 20659 22959 25259	1	–	W	0-4095/1	59I Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9160 11460 13760 16060 18360 20660 22960 25260	1	–	W	0-1/1	59I Phase C Enable Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9161 11461 13761 16061 18361 20661 22961 25261	1	%	W	100-150/1	59I Phase C Pickup
1 2 3 4 5 6 7 8	9162 11462 13762 16062 18362 20662 22962 25262	100	Sec	W	1-14000/0.01	59I Phase C Definite Time

Table 2.20 Function 59I Setpoints

Function 59N Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47090 49390 51690 53990 56290 58590 60890 63190	1	—	W	0-4294967295 / 1	59N Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47091 49391 51691 53991 56291 58591 60891 63191	1	—	W	0-4294967295 / 1	59N Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8127 10427 12727 15027 17327 19627 21927 24227	1	—	W	0-4095/1	59N Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8128 10428 12728 15028 17328 19628 21928 24228	1	—	W	0-1/1	59N Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8129 10429 12729 15029 17329 19629 21929 24229	100	V	W	1000-30000/0.01	59N Pickup

Table 2.21 Function 59N Setpoints

Function 59N Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8130 10430 12730 15030 17330 19630 21930 24230	100	Sec	W	0-60000/0.01	59N Definite Time
1 2 3 4 5 6 7 8	8131 10431 12731 15031 17331 19631 21931 24231	1	–	W	0-1/1	59N Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.
1 2 3 4 5 6 7 8	47092 49392 51692 53992 56292 58592 60892 63192	1	–	W	0-4294967295 / 1	59N#2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47093 49393 51693 53993 56293 58593 60893 63193	1	–	W	0-4294967295 / 1	59N#2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8133 10433 12733 15033 17333 19633 21933 24233	1	–	W	0-4095/1	59N#2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.21 Function 59N Setpoints

Function 59N Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8134 10434 12734 15034 17334 19634 21934 24234	1	—	W	0-1/1	59N#2 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8135 10435 12735 15035 17335 19635 21935 24235	100	V	W	1000-30000/0.01	59N#2 Pickup
1 2 3 4 5 6 7 8	8136 10436 12736 15036 17336 19636 21936 24236	100	Sec	W	0-60000/0.01	59N#2 Definite Time

Table 2.21 Function 59N Setpoints

Function 59PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47218 49518 51818 54118 56418 58718 61018 63318	1	—	W	0-4294967295 / 1	59PP Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47219 49519 51819 54119 56419 58719 61019 63319	1	—	W	0-4294967295 / 1	59PP Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8743 11043 13343 15643 17943 20243 22543 24843	1	—	W	0-4095/1	59PP Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8744 11044 13344 15644 17944 20244 22544 24844	1	—	W	0-1/1	59PP Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8745 11045 13345 15645 17945 20245 22545 24845	100	V I-I,Sec	W	1000-30000/0.01	59PP Phase ABC Pickup

Table 2.22 Function 59PP Setpoints

Function 59PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8746 11046 13346 15646 17946 20246 22546 24846	100	Sec	W	0-60000/0.01	59PP Phase ABC Definite Time
1 2 3 4 5 6 7 8	8747 11047 13347 15647 17947 20247 22547 24847	1	–	W	0-1/1	59PP Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	8763 11063 13363 15663 17963 20263 22563 24863	1	–	W	0-1/1	59PP Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.
1 2 3 4 5 6 7 8	47220 49520 51820 54120 56420 58720 61020 63320	1	–	W	0-4294967295 / 1	59PP Phase AB Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47221 49521 51821 54121 56421 58721 61021 63321	1	–	W	0-4294967295 / 1	59PP Phase AB Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.22 Function 59PP Setpoints

Function 59PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8749 11049 13349 15649 17949 20249 22549 24849	1	—	W	0-4095/1	59PP Phase AB Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8750 11050 13350 15650 17950 20250 22550 24850	1	—	W	0-1/1	59PP Phase AB Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8751 11051 13351 15651 17951 20251 22551 24851	100	V I-I,Sec	W	1000-30000/0.01	59PP Phase AB Pickup
1 2 3 4 5 6 7 8	8752 11052 13352 15652 17952 20252 22552 24852	100	Sec	W	0-60000/0.01	59PP Phase AB Definite Time
1 2 3 4 5 6 7 8	47222 49522 51822 54122 56422 58722 61022 63322	1	—	W	0-4294967295 / 1	59PP Phase BC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.22 Function 59PP Setpoints

Function 59PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47223 49523 51823 54123 56423 58723 61023 63323	1	—	W	0-4294967295 / 1	59PP Phase BC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8754 11054 13354 15654 17954 20254 22554 24854	1	—	W	0-4095/1	59PP Phase BC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8755 11055 13355 15655 17955 20255 22555 24855	1	—	W	0-1/1	59PP Phase BC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8756 11056 13356 15656 17956 20256 22556 24856	100	V I-,Sec	W	1000-30000/0.01	59PP Phase BC Pickup
1 2 3 4 5 6 7 8	8757 11057 13357 15657 17957 20257 22557 24857	100	Sec	W	0-60000/0.01	59PP Phase BC Definite Time

Table 2.22 Function 59PP Setpoints

Function 59PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47224 49524 51824 54124 56424 58724 61024 63324	1	—	W	0-4294967295 / 1	59PP Phase CA Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47225 49525 51825 54125 56425 58725 61025 63325	1	—	W	0-4294967295 / 1	59PP Phase CA Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8759 11059 13359 15659 17959 20259 22559 24859	1	—	W	0-4095/1	59PP Phase CA Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8760 11060 13360 15660 17960 20260 22560 24860	1	—	W	0-1/1	59PP Phase CA Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8761 11061 13361 15661 17961 20261 22561 24861	100	V I-I,Sec	W	1000-30000/0.01	59PP Phase CA Pickup

Table 2.22 Function 59PP Setpoints

Function 59PP Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	8762	100	Sec	W	0-60000/0.01	59PP Phase CA Definite Time
2	11062					
3	13362					
4	15662					
5	17962					
6	20262					
7	22562					
8	24862					

Table 2.22 Function 59PP Setpoints

Function 59Vz1 and 59VzS (Option P) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47084 49384 51684 53984 56284 58584 60884 63184	1	—	W	0-4294967295 / 1	59Vz1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47085 49385 51685 53985 56285 58585 60885 63185	1	—	W	0-4294967295 / 1	59Vz1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8095 10395 12695 14995 17295 19595 21895 24195	1	—	W	0-4095/1	59Vz1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8096 10396 12696 14996 17296 19596 21896 24196	1	—	W	0-1/1	59Vz1 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8097 10397 12697 14997 17297 19597 21897 24197	100	V l-g,sec	W	1000-30000/0.01	59Vz1 Pickup

Table 2.23 Function 59Vz1 and 59VzS (Option P) Setpoints

Function 59Vz1 and 59VzS (Option P) Setpoints Profiles #1 to #8						
MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8098 10398 12698 14998 17298 19598 21898 24198	100	Sec	W	0-60000/0.01	59Vz1 Definite Time
59VzS Registers are only available with Option P						
1 2 3 4 5 6 7 8	47084 49384 51684 53984 56284 58584 60884 63184	1	–	W	0-4294967295 / 1	59VzS Blocking Inputs Pole 1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47085 49385 51685 53985 56285 58585 60885 63185	1	–	W	0-4294967295 / 1	59VzS Blocking Inputs.H Pole 1 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8095 10395 12695 14995 17295 19595 21895 24195	1	–	W	0-4095/1	59VzS Outputs Pole 1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8096 10396 12696 14996 17296 19596 21896 24196	1	–	W	0-1/1	59VzS Enable Pole 1 Bit 0 – Enable: 1, Disable: 0

Table 2.23 Function 59Vz1 and 59VzS (Option P) Setpoints

Function 59Vz1 and 59VzS (Option P) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8097 10397 12697 14997 17297 19597 21897 24197	100	V I-g,sec	W	1000-30000/0.01	59VzS Pickup Pole 1
1 2 3 4 5 6 7 8	8098 10398 12698 14998 17298 19598 21898 24198	100	Sec	W	0-60000/0.01	59VzS Definite Time Pole 1
1 2 3 4 5 6 7 8	47086 49386 51686 53986 56286 58586 60886 63186	1	—	W	0-4294967295 / 1	59VzS Blocking Inputs Pole 2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47087 49387 51687 53987 56287 58587 60887 63187	1	—	W	0-4294967295 / 1	59VzS Blocking Inputs.H Pole 2 Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8100 10400 12700 15000 17300 19600 21900 24200	1	—	W	0-4095/1	59VzS Outputs Pole 2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.23 Function 59Vz1 and 59VzS (Option P) Setpoints

Function 59Vz1 and 59VzS (Option P) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8101 10401 12701 15001 17301 19601 21901 24201	—	—	W	0-1/1	59VzS Enable Pole 2 Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8102 10402 12702 15002 17302 19602 21902 24202	100	V-Ig, sec	W	1000-30000/0.01	59VzS Pickup Pole 2
1 2 3 4 5 6 7 8	8103 10403 12703 15003 17303 19603 21903 24203	100	S	W	0-60000/0.01	59VzS Definite Time Pole 2

Table 2.23 Function 59Vz1 and 59VzS (Option P) Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47144 49444 51744 54044 56344 58644 60944 63244	1	—	W	0-4294967295/1	67G #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47145 49445 51745 54045 56345 58645 60945 63245	1	—	W	0-4294967295/1	67G #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8369 10669 12969 15269 17569 19869 22169 24469	1	—	W	0-4095/1	67G #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8370 10670 12970 15270 17570 19870 22170 24470	1	—	W	0-1/1	67G #1 Enable Bit-0 Enable-1; Disable-0

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8371 10671 12971 15271 17571 19871 22171 24471	1	—	W	0-65535/1	67G #1 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8372 10672 12972 15272 17572 19872 22172 24472	100	A	W	5-2000/0.01	67G #1 Definite Time Pickup
1 2 3 4 5 6 7 8	30404 32529 34654 36779 38904 41029 43154 45147	100	A	W	2-320/0.01	67G #1 Inverse Time Pickup
1 2 3 4 5 6 7 8	8373 10673 12973 15273 17573 19873 22173 24473	100	Sec	W	0-60000/0.01	67G #1 Definite Time Delay
1 2 3 4 5 6 7 8	8374 10674 12974 15274 17574 19874 22174 24474	1	Degree	W	0-359/1	67G #1 Maximum Sensitivity Angle 1

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30405 32530 34655 36780 38905 41030 43155 45148	1	Degree	W	5-90/1	67G #1 Angle Band+
1 2 3 4 5 6 7 8	30407 32532 34657 36782 38907 41032 43157 45150	1	—	W	0-71/1	67G #1 Curves (See the Reference Tables at the end of Function 67G)
1 2 3 4 5 6 7 8	30408 32533 34658 36783 38908 41033 43158 45151	1	—	W	0-1/1	67G #1 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30409 32534 34659 36784 38909 41034 43159 45152	1000	Sec	W	1-60000/0.001	67G #1 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30410 32535 34660 36785 38910 41035 43160 45153	1000	Sec	W	1-60000/0.001	67G #1 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30411 32536 34661 36786 38911 41036 43161 45154	100	—	W	5-100/0.01	67G #1 Time Multiplier Range of this point changes based on 67G Curve setting (See the Reference Tables at the end of Function 67G)

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30412 32537 34662 36787 38912 41037 43162 45155	100	Sec	W	0-3000/0.01	67G #1 Time Adder
1 2 3 4 5 6 7 8	30413 32538 34663 36788 38913 41038 43163 45156	100	Sec	W	0-100/0.01	67G #1 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30414 32539 34664 36789 38914 41039 43164 45157	100	Sec	W	0-100/0.01	67G #1 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8375 10675 12975 15275 17575 19875 22175 24475	100	V	W	500-2000/0.01	67G #1 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6940 25636 25799 27394 27713 27913 28239 29274	100	s	W	1-60000/0.01	67G.1.MAXOPTM
1 2 3 4 5 6 7 8	6941 25637 25800 27395 27714 27914 28240 29275	1	—	W	0-1/1	67G.1.MAXOPTMENA

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8408 10708 13008 15308 17608 19908 22208 24508	1	—	W	0-31/1	67G Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.
1 2 3 4 5 6 7 8	47146 49446 51746 54046 56346 58646 60946 63246	1	—	W	0-4294967295/1	67G #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47147 49447 51747 54047 56347 58647 60947 63247	1	—	W	0-4294967295/1	67G #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8377 10677 12977 15277 17577 19877 22177 24477	1	—	W	0-4095/1	67G #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8378 10678 12978 15278 17578 19878 22178 24478	1	—	W	0-1/1	67G #2 Enable Bit-0 Enable-1; Disable-0

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8379 10679 12979 15279 17579 19879 22179 24479	—	—	W	0-65535/1	67G #2 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8380 10680 12980 15280 17580 19880 22180 24480	100	A	W	5-2000/0.01	67G #2 Definite Time Pickup
1 2 3 4 5 6 7 8	30416 32541 34666 36791 38916 41041 43166 45159	100	A	W	2-320/0.01	67G #2 Inverse Time Pickup
1 2 3 4 5 6 7 8	8381 10681 12981 15281 17581 19881 22181 24481	100	Sec	W	0-60000/0.01	67G #2 Definite Time Delay
1 2 3 4 5 6 7 8	8382 10682 12982 15282 17582 19882 22182 24482	1	Degree	W	0-359/1	67G #2 Maximum Sensitivity Angle 1

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30417 32542 34667 36792 38917 41042 43167 45160	1	Degree	W	5-90/1	67G #2 Angle Band+
1 2 3 4 5 6 7 8	30419 32544 34669 36794 38919 41044 43169 45162	1	—	W	0-71/1	67G #2 Curves (See the Reference Tables at the end of Function 67G)
1 2 3 4 5 6 7 8	30420 32545 34670 36795 38920 41045 43170 45163	1	—	W	0-1/1	67G #2 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30421 32546 34671 36796 38921 41046 43171 45164	1000	Sec	W	1-60000/0.001	67G #2 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30422 32547 34672 36797 38922 41047 43172 45165	1000	Sec	W	1-60000/0.001	67G #2 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30423 32548 34673 36798 38923 41048 43173 45166	100	—	W	5-100/0.01	67G #2 Time Multiplier Range of this point changes based on 67G Curve setting (See the Reference Tables at the end of Function 67G)

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30424 32549 34674 36799 38924 41049 43174 45167	100	Sec	W	0-3000/0.01	67G #2 Time Adder
1 2 3 4 5 6 7 8	30425 32550 34675 36800 38925 41050 43175 45168	100	Sec	W	0-100/0.01	67G #2 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30426 32551 34676 36801 38926 41051 43176 45169	100	Sec	W	0-100/0.01	67G #2 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8383 10683 12983 15283 17583 19883 22183 24483	100	V	W	500-2000/0.01	67G #2 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6942 25638 25801 27396 27715 27915 28241 29276	100	s	W	1-60000/0.01	67G.2.MAXOPTM
1 2 3 4 5 6 7 8	6943 25639 25802 27397 27716 27916 28242 29277	1	—	W	0-1/1	67G.2.MAXOPTMENA

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47148 49448 51748 54048 56348 58648 60948 63248	1	—	W	0-4294967295/1	67G #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47149 49449 51749 54049 56349 58649 60949 63249	1	—	W	0-4294967295/1	67G #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8385 10685 12985 15285 17585 19885 22185 24485	1	—	W	0-4095/1	67G #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
.1 2 3 4 5 6 7 8	8386 10686 12986 15286 17586 19886 22186 24486	—	—	W	0-1/1	67G #3 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8387 10687 12987 15287 17587 19887 22187 24487	—	—	W	0-65535/1	67G #3 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8388 10688 12988 15288 17588 19888 22188 24488	100	A	W	5-2000/0.01	67G #3 Definite Time Pickup
1 2 3 4 5 6 7 8	30428 32553 34678 36803 38928 41053 43178 45171	100	A	W	2-320/0.01	67G #3 Inverse Time Pickup
1 2 3 4 5 6 7 8	8389 10689 12989 15289 17589 19889 22189 24489	100	Sec	W	0-60000/0.01	67G #3 Definite Time Delay
1 2 3 4 5 6 7 8	8390 10690 12990 15290 17590 19890 22190 24490	1	Degree	W	0-359/1	67G #3 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30429 32554 34679 36804 38929 41054 43179 45172	1	Degree	W	5-90/1	67G #3 Angle Band+
1 2 3 4 5 6 7 8	30431 32556 34681 36806 38931 41056 43181 45174	1	—	W	0-71/1	67G #3 Curves (See the Reference Tables at the end of Function 67G)

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30432 32557 34682 36807 38932 41057 43182 45175	1	—	W	0-1/1	67G #3 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30433 32558 34683 36808 38933 41058 43183 45176	1000	Sec	W	1-60000/0.001	67G #3 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30434 32559 34684 36809 38934 41059 43184 45177	1000	Sec	W	1-60000/0.001	67G #3 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30435 32560 34685 36810 38935 41060 43185 45178	100	—	W	5-100/0.01	67G #3 Time Multiplier Range of this point changes based on 67G Curve setting (See the Reference Tables at the end of Function 67G)
1 2 3 4 5 6 7 8	30436 32561 34686 36811 38936 41061 43186 45179	100	Sec	W	0-3000/0.01	67G #3 Time Adder
1 2 3 4 5 6 7 8	30437 32562 34687 36812 38937 41062 43187 45180	100	Sec	W	0-100/0.01	67G #3 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30438 32563 34688 36813 38938 41063 43188 45181	100	Sec	W	0-100/0.01	67G #3 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8391 10691 12991 15291 17591 19891 22191 29278	100	V	W	500-2000/0.01	67G #3 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6944 25640 25803 27398 27717 27917 28243 29279	100	s	W	1-60000/0.01	67G.3.MAXOPTM
1 2 3 4 5 6 7 8	6945 25641 25804 27399 27718 27918 28244 29280	1	—	W	0-1/1	67G.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47150 49450 51750 54050 56350 58650 60950 63250	1	—	W	0-4294967295/1	67G #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47151 49451 51751 54051 56351 58651 60951 63251	1	—	W	0-4294967295/1	67G #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8393 10693 12993 15293 17593 19893 22193 24493	1	—	W	0-4095/1	67G #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8394 10694 12994 15294 17594 19894 22194 24494	—	—	W	0-1/1	67G #4 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8395 10695 12995 15295 17595 19895 22195 24495	—	—	W	0-65535/1	67G #4 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8396 10696 12996 15296 17596 19896 22196 24496	100	A	W	5-2000/0.01	67G #4 Definite Time Pickup
1 2 3 4 5 6 7 8	30440 32565 34690 36815 38940 41065 43190 45183	100	A	W	2-320/0.01	67G #4 Inverse Time Pickup

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8397 10697 12997 15297 17597 19897 22197 24497	100	Sec	W	0-60000/0.01	67G #4 Definite Time Delay
1 2 3 4 5 6 7 8	8398 10698 12998 15298 17598 19898 22198 24498	1	Degree	W	0-359/1	67G #4 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30441 32566 34691 36816 38941 41066 43191 45184	1	Degree	W	5-90/1	67G #4 Angle Band+
1 2 3 4 5 6 7 8	30443 32568 34693 36818 38943 41068 43193 45186	1	—	W	0-71/1	67G #4 Curves (See the Reference Tables at the end of Function 67G)
1 2 3 4 5 6 7 8	30444 32569 34694 36819 38944 41069 43194 45187	1	—	W	0-1/1	67G #4 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30445 32570 34695 36820 38945 41070 43195 45188	1000	Sec	W	1-60000/0.001	67G #4 Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30446 32571 34696 36821 38946 41071 43196 45189	1000	Sec	W	1-60000/0.001	67G #4 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30447 32572 34697 36822 38947 41072 43197 45190	100	—	W	5-100/0.01	67G #4 Time Multiplier Range of this point changes based on 67G Curve setting (See the Reference Tables at the end of Function 67G)
1 2 3 4 5 6 7 8	30448 32573 34698 36823 38948 41073 43198 45191	100	Sec	W	0-3000/0.01	67G #4 Time Adder
1 2 3 4 5 6 7 8	30449 32574 34699 36824 38949 41074 43199 45192	100	Sec	W	0-100/0.01	67G #4 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30450 32575 34700 36825 38950 41075 43200 45193	100	Sec	W	0-100/0.01	67G #4 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8399 10699 12999 15299 17599 19899 22199 24499	100	V	W	500-2000/0.01	67G #4 Minimum Polarization Voltage

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6946 25642 25805 27400 27719 27919 28245 29281	100	s	W	1-60000/0.01	67G.4.MAXOPTM
1 2 3 4 5 6 7 8	6947 25643 25806 27401 27720 27920 28246 29282	1	—	W	0-1/1	67G.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47152 49452 51752 54052 56352 58652 60952 63252	1	—	W	0-4294967295/1	67G #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47153 49453 51753 54053 56353 58653 60953 63253	1	—	W	0-4294967295/1	67G #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8401 10701 13001 15301 17601 19901 22201 24501	1	—	W	0-4095/1	67G #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8402 10702 13002 15302 17602 19902 22202 24502	—	—	W	0-1/1	67G #5 Enable Bit-0 Enable-1; Disable-0s

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8403 10703 13003 15303 17603 19903 22203 24503	—	—	W	0-65535/1	67G #5 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8404 10704 13004 15304 17604 19904 22204 24504	100	A	W	5-2000/0.01	67G #5 Definite Time Pickup
1 2 3 4 5 6 7 8	30452 32577 34702 36827 38952 41077 43202 45195	100	A	W	2-320/0.01	67G #5 Inverse Time Pickup
1 2 3 4 5 6 7 8	8405 10705 13005 15305 17605 19905 22205 24505	100	Sec	W	0-60000/0.01	67G #5 Definite Time Delay
1 2 3 4 5 6 7 8	8406 10706 13006 15306 17606 19906 22206 24506	1	Degree	W	0-359/1	67G #5 Maximum Sensitivity Angle 1

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30453 32578 34703 36828 38953 41078 43203 45196	1	Degree	W	5-90/1	67G #5 Angle Band+
1 2 3 4 5 6 7 8	30455 32580 34705 36830 38955 41080 43205 45198	1	—	W	0-71/1	67G #5 Curves (See the Reference Tables at the end of Function 67G)
1 2 3 4 5 6 7 8	30456 32581 34706 36831 38956 41081 43206 45199	1	—	W	0-1/1	67G #5 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30457 32582 34707 36832 38957 41082 43207 45200	1000	Sec	W	1-60000/0.001	67G #5 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30458 32583 34708 36833 38958 41083 43208 45201	1000	Sec	W	1-60000/0.001	67G #5 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30459 32584 34709 36834 38959 41084 43209 45202	100	—	W	5-100/0.01	67G #5 Time Multiplier Range of this point changes based on 67G Curve setting (See the Reference Tables at the end of Function 67G)

Table 2.24 Function 67G Setpoints

Function 67G Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30460 32585 34710 36835 38960 41085 43210 45203	100	Sec	W	0-3000/0.01	67G #5 Time Adder
1 2 3 4 5 6 7 8	30461 32586 34711 36836 38961 41086 43211 45204	100	Sec	W	0-100/0.01	67G #5 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30462 32587 34712 36837 38962 41087 43212 45205	100	Sec	W	0-100/0.01	67G #5 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8407 10707 13007 15307 17607 19907 22207 24507	100	V	W	500-2000/0.01	67G #5 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6948 25644 25807 27402 27721 27921 28247 29283	100	s	W	1-60000/0.01	67G.5.MAXOPTM
1 2 3 4 5 6 7 8	6949 25645 25808 27403 27722 27922 28248 29284	1	—	W	0-1/1	67G.5.MAXOPTMENA

Table 2.24 Function 67G Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP-101(A)
38	120(Y)		69	BSCP-101(A)
39	121(G)		70	BFCG-101(A)
40	122(H)		71	BSCG-101(A)
41	131(9)			

Inverse Time Curves – Bit Number Reference Table

Table 2.24 Function 67G Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4 68 – BFCP - 101(A) 69 – BSCP - 101(A) 70 – BFCG - 101(A) 71 – BSCG - 101(A)	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.24 Function 67G Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47248 49548 51848 54148 56448 58748 61048 63348	1	—	W	0-4294967295/1	67GS #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47249 49549 51849 54149 56449 58749 61049 63349	1	—	W	0-4294967295/1	67GS #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8967 11267 13567 15867 18167 20467 22767 25067	1	—	W	0-4095/1	67GS #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8968 11268 13568 15868 18168 20468 22768 25068	—	—	W	0-1/1	67GS #1 Enable Bit 0 – Enable: 1, Disable: 0

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8969 11269 13569 15869 18169 20469 22769 25069	1	—	W	0-65535/1	67GS #1 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8970 11270 13570 15870 18170 20470 22770 25070	1000	A	W	1-160/0.001	67GS #1 Definite Time Pickup
1 2 3 4 5 6 7 8	30856 32981 35106 37231 39356 41481 43606 45599	1000	A	W	1-160/0.001	67GS #1 Pickup
1 2 3 4 5 6 7 8	8971 11271 13571 15871 18171 20471 22771 25071	100	S	W	0-60000/0.01	67GS #1 Definite time
1 2 3 4 5 6 7 8	8972 11272 13572 15872 18172 20472 22772 25072	1	Degree	W	0-359/1	67GS #1 Maximum Sensitivity Angle 1

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30857 32982 35107 37232 39357 41482 43607 45600	1	Degree	W	5-90/1	67GS #1 Angle Band+
1 2 3 4 5 6 7 8	30858 32983 35108 37233 39358 41483 43608 45601	1	—	W	0-71 / 1	67GS #1 Curve (See the Reference Tables at the end of Function 67GS)
1 2 3 4 5 6 7 8	30859 32984 35109 37234 39359 41484 43609 45602	1	—	W	0-1/ 1	67GS #1 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30860 32985 35110 37235 39360 41485 43610 45603	1000	Sec	W	1– 60000/0.001	67GS #1 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30861 32986 35111 37236 39361 41486 43611 45604	1000	Sec	W	1– 60000/0.001	67GS #1 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30862 32987 35112 37237 39362 41487 43612 45605	100	—	W	5-100/0.01	67GS #1 Time Multiplier Range of this point changes based on 67GS Curve setting (See the Reference Tables at the end of Function 67GS)

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30863 32988 35113 37238 39363 41488 43613 45606	100	Sec	W	0 –3000/0.01	67GS #1 Time Adder
1 2 3 4 5 6 7 8	30864 32989 35114 37239 39364 41489 43614 45607	100	Sec	W	0-100/0.01	67GS #1 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30865 32990 35115 37240 39365 41490 43615 45608	100	Sec	W	0-100/0.01	67GS #1 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8973 11273 13573 15873 18173 20473 22773 25073	100	V	W	500-2000/0.01	67GS #1 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	9039 11339 13639 15939 18239 20539 22839 25139	100	S	W	1-60000/0.01	67GS.1.MAXOPTM
1 2 3 4 5 6 7 8	9040 11340 13640 15940 18240 20540 22840 25140	1	–	W	0-1/1	67GS.1.MAXOPTMENA

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30911 33036 35161 37286 39411 41536 43661 45654	1	—	W	0-31/1	67GS Operating Voltage Side NOTE: This Register is available with a 6LEA Hardware Option.
1 2 3 4 5 6 7 8	47250 49550 51850 54150 56450 58750 61050 63350	1	—	W	0-4294967295/1	67GS #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47251 49551 51851 54151 56451 58751 61051 63351	1	—	W	0-4294967295/1	67GS #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8975 11275 13575 15875 18175 20475 22775 25075	1	—	W	0-4095/1	67GS #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8976 11276 13576 15876 18176 20476 22776 25076	—	—	W	0-1/1	67GS #2 Enable Bit 0 – Enable: 1, Disable: 0

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8977 11277 13577 15877 18177 20477 22777 25077	—	—	W	0-65535/1	67GS #2 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8978 11278 13578 15878 18178 20478 22778 25078	1000	A	W	1-160/0.001	67GS #2 Definite Time Pickup
1 2 3 4 5 6 7 8	30867 32992 35117 37242 39367 41492 43617 45610	1000	A	W	1-160/0.001	67GS #2 Pickup
1 2 3 4 5 6 7 8	8979 11279 13579 15879 18179 20479 22779 25079	100	S	W	0-60000/0.01	67GS #2 Definite time
1 2 3 4 5 6 7 8	8980 11280 13580 15880 18180 20480 22780 25080	1	Degree	W	0-359/1	67GS #2 Maximum Sensitivity Angle 1

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30868 32993 35118 37243 39368 41493 43618 45611	1	Degree	W	5-90/1	67GS #2 Angle Band+
1 2 3 4 5 6 7 8	30869 32994 35119 37244 39369 41494 43619 45612	1	—	W	0-71 / 1	67GS #2 Curve (See the Reference Tables at the end of Function 67GS)
1 2 3 4 5 6 7 8	30870 32995 35120 37245 39370 41495 43620 45613	1	—	W	0-1/ 1	67GS #2 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30871 32996 35121 37246 39371 41496 43621 45614	1000	Sec	W	1– 60000/0.001	67GS #2 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30872 32997 35122 37247 39372 41497 43622 45615	1000	Sec	W	1– 60000/0.001	67GS #2 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30873 32998 35123 37248 39373 41498 43623 45616	100	—	W	5-100/0.01	67GS #2 Time Multiplier Range of this point changes based on 67GS Curve setting (See the Reference Tables at the end of Function 67GS)

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30874 32999 35124 37249 39374 41499 43624 45617	100	Sec	W	0 –3000/0.01	67GS #2 Time Adder
1 2 3 4 5 6 7 8	30875 33000 35125 37250 39375 41500 43625 45618	100	Sec	W	0-100/0.01	67GS #2 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30876 33001 35126 37251 39376 41501 43626 45619	100	Sec	W	0-100/0.01	67GS #2 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8981 11281 13581 15881 18181 20481 22781 25081	100	V	W	500-2000/0.01	67GS #2 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	9041 11341 13641 15941 18241 20541 22841 25141	100	S	W	1-60000/0.01	67GS.2.MAXOPTM
1 2 3 4 5 6 7 8	9042 11342 13642 15942 18242 20542 22842 25142	1	–	W	0-1/1	67GS.2.MAXOPTMENA

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47252 49552 51852 54152 56452 58752 61052 63352	1	—	W	0-4294967295/1	67GS #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47253 49553 51853 54153 56453 58753 61053 63353	1	—	W	0-4294967295/1	67GS #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8983 11283 13583 15883 18183 20483 22783 25083	1	—	W	0-4095/1	67GS #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8984 11284 13584 15884 18184 20484 22784 25084	—	—	W	0-1/1	67GS #3 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8985 11285 13585 15885 18185 20485 22785 25085	—	—	W	0-65535/1	67GS #3 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8986 11286 13586 15886 18186 20486 22786 25086	1000	A	W	1-160/0.001	67GS #3 Definite Time Pickup
1 2 3 4 5 6 7 8	30878 33003 35128 37253 39378 41503 43628 45621	1000	A	W	1-160/0.001	67GS #3 Pickup
1 2 3 4 5 6 7 8	8987 11287 13587 15887 18187 20487 22787 25087	100	S	W	0-60000/0.01	67GS #3 Definite time
1 2 3 4 5 6 7 8	8988 11288 13588 15888 18188 20488 22788 25088	1	Degree	W	0-359/1	67GS #3 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30879 33004 35129 37254 39379 41504 43629 45622	1	Degree	W	5-90/1	67GS #3 Angle Band+
1 2 3 4 5 6 7 8	30880 33005 35130 37255 39380 41505 43630 45623	1	—	W	0-71 / 1	67GS #3 Curve (See the Reference Tables at the end of Function 67GS)

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30881 33006 35131 37256 39381 41506 43631 45624	1	—	W	0-1/ 1	67GS #3 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30882 33007 35132 37257 39382 41507 43632 45625	1000	Sec	W	1– 60000/0.001	67GS #3 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30883 33008 35133 37258 39383 41508 43633 45626	1000	Sec	W	1– 60000/0.001	67GS #3 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30884 33009 35134 37259 39384 41509 43634 45627	100	—	W	5-100/0.01	67GS #3 Time Multiplier Range of this point changes based on 67GS Curve setting (See the Reference Tables at the end of Function 67GS)
1 2 3 4 5 6 7 8	30885 33010 35135 37260 39385 41510 43635 45628	100	Sec	W	0 –3000/0.01	67GS #3 Time Adder
1 2 3 4 5 6 7 8	30886 33011 35136 37261 39386 41511 43636 45629	100	Sec	W	0-100/0.01	67GS #3 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30887 33012 35137 37262 39387 41512 43637 45630	100	Sec	W	0-100/0.01	67GS #3 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8989 11289 13589 15889 18189 20489 22789 25089	100	V	W	500-2000/0.01	67GS #3 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	9043 11343 13643 15943 18243 20543 22843 25143	100	S	W	1-60000/0.01	67GS.3.MAXOPTM
1 2 3 4 5 6 7 8	9044 11344 13644 15944 18244 20544 22844 25144	1	—	W	0-1/1	67GS.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47254 49554 51854 54154 56454 58754 61054 63354	1	—	W	0-4294967295/1	67GS #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47255 49555 51855 54155 56455 58755 61055 63355	1	—	W	0-4294967295/1	67GS #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8991 11291 13591 15891 18191 20491 22791 25091	1	—	W	0-4095/1	67GS #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8992 11292 13592 15892 18192 20492 22792 25092	—	—	W	0-1/1	67GS #4 Enable Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8993 11293 13593 15893 18193 20493 22793 25093	—	—	—	0-65535/1	67GS #4 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8994 11294 13594 15894 18194 20494 22794 25094	1000	A	W	1-160/0.001	67GS #4 Definite Time Pickup
1 2 3 4 5 6 7 8	30889 33014 35139 37264 39389 41514 43639 45632	1000	A	W	1-160/0.001	67GS #4 Pickup

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8995 11295 13595 15895 18195 20495 22795 25095	100	S	W	0-60000/0.01	67GS #4 Definite time
1 2 3 4 5 6 7 8	8996 11296 13596 15896 18196 20496 22796 25096	1	Degree	W	0-359/1	67GS #4 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30890 33015 35140 37265 39390 41515 43640 45633	1	Degree	W	5-90/1	67GS #4 Angle Band+
1 2 3 4 5 6 7 8	30891 33016 35141 37266 39391 41516 43641 45634	1	—	W	0-71 / 1	67GS #4 Curve (See the Reference Tables at the end of Function 67GS)
1 2 3 4 5 6 7 8	30892 33017 35142 37267 39392 41517 43642 45635	1	—	W	0-1/ 1	67GS #4 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30893 33018 35143 37268 39393 41518 43643 45636	1000	Sec	W	1– 60000/0.001	67GS #4 Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30894 33019 35144 37269 39394 41519 43644 45637	1000	Sec	W	1– 60000/0.001	67GS #4 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30895 33020 35145 37270 39395 41520 43645 45638	100	–	W	5-100/0.01	67GS #4 Time Multiplier Range of this point changes based on 67GS Curve setting (See the Reference Tables at the end of Function 67GS)
1 2 3 4 5 6 7 8	30896 33021 35146 37271 39396 41521 43646 45639	100	Sec	W	0 –3000/0.01	67GS #4 Time Adder
1 2 3 4 5 6 7 8	30897 33022 35147 37272 39397 41522 43647 45640	100	Sec	W	0-100/0.01	67GS #4 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30898 33023 35148 37273 39398 41523 43648 45641	100	Sec	W	0-100/0.01	67GS #4 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8997 11297 13597 15897 18197 20497 22797 25097	100	V	W	500-2000/0.01	67GS #4 Minimum Polarization Voltage

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9045 11345 13645 15945 18245 20545 22845 25145	100	S	W	100-60000/0.01	67GS.4.MAXOPTM
1 2 3 4 5 6 7 8	9046 11346 13646 15946 18246 20546 22846 25146	1	—	W	0-1/1	67GS.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47256 49556 51856 54156 56456 58756 61056 63356	1	—	W	0-4294967295/1	67GS #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47257 49557 51857 54157 56457 58757 61057 63357	1	—	W	0-4294967295/1	67GS #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8999 11299 13599 15899 18199 20499 22799 25099	1	—	W	0-4095/1	67GS #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9000 11300 13600 15900 18200 20500 22800 25100	—	—	W	0-1/1	67GS #5 Enable Bit 0 Enable: 1, Disable: 0

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9001 11301 13601 15901 18201 20501 22801 25101	—	—	W	0-65535/1	67GS #5 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	9002 11302 13602 15902 18202 20502 22802 25102	1000	A	W	1-160/0.001	67GS #5 Definite Time Pickup
1 2 3 4 5 6 7 8	30900 33025 35150 37275 39400 41525 43650 45643	1000	A	W	1-160/0.001	67GS #5 Pickup
1 2 3 4 5 6 7 8	9003 11303 13603 15903 18203 20503 22803 25103	100	S	W	0-60000/0.01	67GS #5 Definite time
1 2 3 4 5 6 7 8	9004 11304 13604 15904 18204 20504 22804 25104	1	Degree	W	0-359/1	67GS #5 Maximum Sensitivity Angle 1

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30901 33026 35151 37276 39401 41526 43651 45644	1	Degree	W	5-90/1	67GS #5 Angle Band+
1 2 3 4 5 6 7 8	30902 33027 35152 37277 39402 41527 43652 45645	1	—	W	0-71 / 1	67GS #5 Curve (See the Reference Tables at the end of Function 67GS)
1 2 3 4 5 6 7 8	30903 33028 35153 37278 39403 41528 43653 45646	1	—	W	0-1/ 1	67GS #5 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30904 33029 35154 37279 39404 41529 43654 45647	1000	Sec	W	1– 60000/0.001	67GS #5 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30905 33030 35155 37280 39405 41530 43655 45648	1000	Sec	W	1– 60000/0.001	67GS #5 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30906 33031 35156 37281 39406 41531 43656 45649	100	—	W	5-100/0.01	67GS #5 Time Multiplier Range of this point changes based on 67GS Curve setting (See the Reference Tables at the end of Function 67GS)

Table 2.25 Function 67GS Setpoints

Function 67GS Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30907 33032 35157 37282 39407 41532 43657 45650	100	Sec	W	0 –3000/0.01	67GS #5 Time Adder
1 2 3 4 5 6 7 8	30908 33033 35158 37283 39408 41533 43658 45651	100	Sec	W	0-100/0.01	67GS #5 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30909 33034 35159 37284 39409 41534 43659 45652	100	Sec	W	0-100/0.01	67GS #5 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9005 11305 13605 15905 18205 20505 22805 25105	100	V	W	500-2000/0.01	67GS #5 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	9047 11347 13647 15947 18247 20547 22847 25147	100	S	W	1-60000/0.01	67GS.5.MAXOPTM
1 2 3 4 5 6 7 8	9048 11348 13648 15948 18248 20548 22848 25148	1	–	W	0-1/1	67GS.5.MAXOPTMENA

Table 2.25 Function 67GS Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “*Inverse Time Curves – Time Multiplier Ranges*” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “*Inverse Time Curves – Time Multiplier Ranges*” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP—101(A)
38	120(Y)		69	BSCP—101(A)
39	121(G)		70	BFCG—101(A)
40	122(H)		71	BSCG—101(A)
41	131(9)		68 & 69	This bit numbers are invalid for Ground functions

Inverse Time Curves – Bit Number Reference Table

Table 2.25 Function 67GS Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4 68 – BFCP - 101(A) 69 – BSCP - 101(A) 70 – BFCG - 101(A) 71 – BSCG - 101(A)	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.25 Function 67GS Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47134 49434 51734 54034 56334 58634 60934 63234	1	—	W	0-4294967295/1	67N #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47135 49435 51735 54035 56335 58635 60935 63235	1	—	W	0-4294967295/1	67N #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8319 10619 12919 15219 17519 19819 22119 24419	1	—	W	0-4095/1	67N #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8320 10620 12920 15220 17520 19820 22120 24420	—	—	W	0-1/1	67N #1 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8321 10621 12921 15221 17521 19821 22121 24421	—	—	W	0-65535/1	67N #1 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8322 10622 12922 15222 17522 19822 22122 24422	100	A	W	1-2000/0.01	67N #1 Definite Time Pickup
1 2 3 4 5 6 7 8	30245 32370 34495 36620 38745 40870 42995 44988	100	A	W	1-320/0.01	67N #1 Inverse Time Pickup
1 2 3 4 5 6 7 8	8323 10623 12923 15223 17523 19823 22123 24423	100	Sec	W	0-60000/0.01	67N #1 Definite Time Delay
1 2 3 4 5 6 7 8	8324 10624 12924 15224 17524 19824 22124 24424	1	Degree	W	0-359/1	67N #1 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30246 32371 34496 36621 38746 40871 42996 44989	1	Degree	W	5-90/1	67N #1 Angle Band+
1 2 3 4 5 6 7 8	30248 32373 34498 36623 38748 40873 42998 44991	1	—	W	0-71/1	67N #1 Curves (See the Reference Tables at the end of Function 67N)

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30249 32374 34499 36624 38749 40874 42999 44992	1	—	W	0-1/1	67N #1 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30250 32375 34500 36625 38750 40875 43000 44993	1000	Sec	W	1-60000/0.001	67N #1 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30251 32376 34501 36626 38751 40876 43001 44994	1000	Sec	W	1-60000/0.001	67N #1 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30252 32377 34502 36627 38752 40877 43002 44995	100	—	W	5-100/0.01	67N #1 Time Multiplier Range of this point changes based on 67N Curve setting (See the Reference Tables at the end of Function 67N)
1 2 3 4 5 6 7 8	30253 32378 34503 36628 38753 40878 43003 44996	100	Sec	W	0-3000/0.01	67N #1 Time Adder
1 2 3 4 5 6 7 8	30254 32379 34504 36629 38754 40879 43004 44997	100	Sec	W	0-100/0.01	67N #1 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30255 32380 34505 36630 38755 40880 43005 44998	100	Sec	W	0-100/0.01	67N #1 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30256 32381 34506 36631 38756 40881 43006 44999	1	s		0.1-30/1	67N #1.TMDIALRESET
1 2 3 4 5 6 7 8	8325 10625 12925 15225 17525 19825 22125 24425	100	V	W	500-2000/0.01	67N #1 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6930 25626 25789 27384 27703 27903 28229 29264	100	Sec	W	1-60000/0.01	67N.1.RESETCOEFF
1 2 3 4 5 6 7 8	6931 25627 25790 27385 27704 27904 28230 29265	1	—	W	0-1/1	67N.1.RESETCOEFF.H
1 2 3 4 5 6 7 8	8358 10658 12958 15258 17558 19858 22158 24458	1	—	W	0-31/1	67N Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47136 49436 51736 54036 56336 58636 60936 63236	1	—	W	0-4294967295/1	67N #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47137 49437 51737 54037 56337 58637 60937 63237	1	—	W	0-4294967295/1	67N #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8327 10627 12927 15227 17527 19827 22127 24427	1	—	W	0-4095/1	67N #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8328 10628 12928 15228 17528 19828 22128 24428	—	—	W	0-1/1	67N #2 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8329 10629 12929 15229 17529 19829 22129 24429	—	—	W	0-65535/1	67N #2 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8330 10630 12930 15230 17530 19830 22130 24430	100	A	W	1-2000/0.01	67N #2 Definite Time Pickup
1 2 3 4 5 6 7 8	30257 32382 34507 36632 38757 40882 43007 45000	100	A	W	1-320/0.01	67N #2 Inverse Time Pickup
1 2 3 4 5 6 7 8	8331 10631 12931 15231 17531 19831 22131 24431	100	Sec	W	0-60000/0.01	67N #2 Definite Time Delay
1 2 3 4 5 6 7 8	8332 10632 12932 15232 17532 19832 22132 24432	1	Degree	W	0-359/1	67N #2 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30258 32383 34508 36633 38758 40883 43008 45001	1	Degree	W	5-90/1	67N #2 Angle Band+
1 2 3 4 5 6 7 8	30260 32385 34510 36635 38760 40885 43010 45003	1	—	W	0-71/1	67N #2 Curves (See the Reference Tables at the end of Function 67N)

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30261 32386 34511 36636 38761 40886 43011 45004	1	—	W	0-1/1	67N #2 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30262 32387 34512 36637 38762 40887 43012 45005	1000	Sec	W	1-60000/0.001	67N #2 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30263 32388 34513 36638 38763 40888 43013 45006	1000	Sec	W	1-60000/0.001	67N #2 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30264 32389 34514 36639 38764 40889 43014 45007	100	—	W	5-100/0.01	67N #2 Time Multiplier Range of this point changes based on 67N Curve setting (See the Reference Tables at the end of Function 67N)
1 2 3 4 5 6 7 8	30265 32390 34515 36640 38765 40890 43015 45008	100	Sec	W	0-3000/0.01	67N #2 Time Adder
1 2 3 4 5 6 7 8	30266 32391 34516 36641 38766 40891 43016 45009	100	Sec	W	0-100/0.01	67N #2 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30267 32392 34517 36642 38767 40892 43017 45010	100	Sec	W	0-100/0.01	67N #2 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30268 32393 34518 36643 38768 40893 43018 45011	1	s		0.1-30/1	67N #2.TMDIALRESET
1 2 3 4 5 6 7 8	8333 10633 12933 15233 17533 19833 22133 24433	100	V	W	500-2000/0.01	67N #2 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6932 25628 25791 27386 27705 27905 28231 29266	100	Sec	W	1-60000/0.01	67N.2.MAXOPTM
1 2 3 4 5 6 7 8	6933 25629 25792 27387 27706 27906 28232 29267	1	—	W	0-1/1	67N.2.MAXOPTMENA
1 2 3 4 5 6 7 8	47138 49438 51738 54038 56338 58638 60938 63238	1	—	W	0-4294967295/1	67N #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47139 49439 51739 54039 56339 58639 60939 63239	1	—	W	0-4294967295/1	67N #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8335 10635 12935 15235 17535 19835 22135 24435	1	—	W	0-4095/1	67N #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8336 10636 12936 15236 17536 19836 22136 24436	—	—	W	0-1/1	67N #3 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8337 10637 12937 15237 17537 19837 22137 24437	—	—	W	0-65535/1	67N #3 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8338 10638 12938 15238 17538 19838 22138 24438	100	A	W	1-2000/0.01	67N #3 Definite Time Pickup

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30269 32394 34519 36644 38769 40894 43019 45012	100	A	W	1-320/0.01	67N #3 Inverse Time Pickup
1 2 3 4 5 6 7 8	8339 10639 12939 15239 17539 19839 22139 24439	100	Sec	W	0-60000/0.01	67N #3 Definite Time Delay
1 2 3 4 5 6 7 8	8340 10640 12940 15240 17540 19840 22140 24440	1	Degree	W	0-359/1	67N #3 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30270 32395 34520 36645 38770 40895 43020 45013	1	Degree	W	5-90/1	67N #3 Angle Band+
1 2 3 4 5 6 7 8	30272 32397 34522 36647 38772 40897 43022 45015	1	—	W	0-71/1	67N #3 Curves (See the Reference Tables at the end of Function 67N)
1 2 3 4 5 6 7 8	30273 32398 34523 36648 38773 40898 43023 45016	1	—	W	0-1/1	67N #3 Electromechanical Reset Enable:1, Disable: 0

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30274 32399 34524 36649 38774 40899 43024 45017	1000	Sec	W	1-60000/0.001	67N #3 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30275 32400 34525 36650 38775 40900 43025 45018	1000	Sec	W	1-60000/0.001	67N #3 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30276 32401 34526 36651 38776 40901 43026 45019	100	—	W	5-100/0.01	67N #3 Time Multiplier Range of this point changes based on 67N Curve setting (See the Reference Tables at the end of Function 67N)
1 2 3 4 5 6 7 8	30277 32402 34527 36652 38777 40902 43027 45020	100	Sec	W	0-3000/0.01	67N #3 Time Adder
1 2 3 4 5 6 7 8	30278 32403 34528 36653 38778 40903 43028 45021	100	Sec	W	0-100/0.01	67N #3 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30279 32404 34529 36654 38779 40904 43029 45022	100	Sec	W	0-100/0.01	67N #3 Minimum Response Time Adder (High) High bytes of 32-bit register

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30280 32405 34530 36655 38780 40905 43030 45023	1	s		0.1-30/1	67N #3.TMDIALRESET
1 2 3 4 5 6 7 8	8341 10641 12941 15241 17541 19841 22141 24441	100	V	W	500-2000/0.01	67N #3 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6934 25630 25793 27388 27707 27907 28233 29268	100	Sec	W	1-60000/0.01	67N.3.MAXOPTM
1 2 3 4 5 6 7 8	6935 25631 25794 27389 27708 27908 28234 29269	1	—	W	0-1/1	67N.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47140 49440 51740 54040 56340 58640 60940 63240	1	—	W	0-4294967295/1	67N #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47141 49441 51741 54041 56341 58641 60941 63241	1	—	W	0-4294967295/1	67N #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8343 10643 12943 15243 17543 19843 22143 24443	1	—	W	0-4095/1	67N #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8344 10644 12944 15244 17544 19844 22144 24444	—	—	W	0-1/1	67N #4 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8345 10645 12945 15245 17545 19845 22145 24445	—	—	W	0-65535/1	67N #4 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8346 10646 12946 15246 17546 19846 22146 24446	100	A	W	1-2000/0.01	67N #4 Definite Time Pickup
1 2 3 4 5 6 7 8	30281 32406 34531 36656 38781 40906 43031 45024	100	A	W	1-320/0.01	67N #4 Inverse Time Pickup

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8347 10647 12947 15247 17547 19847 22147 24447	100	Sec	W	0-60000/0.01	67N #4 Definite Time Delay
1 2 3 4 5 6 7 8	8348 10648 12948 15248 17548 19848 22148 24448	1	Degree	W	0-359/1	67N #4 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30282 32407 34532 36657 38782 40907 43032 45025	1	Degree	W	5-90/1	67N #4 Angle Band+
1 2 3 4 5 6 7 8	30284 32409 34534 36659 38784 40909 43034 45027	1	—	W	0-71/1	67N #4 Curves (See the Reference Tables at the end of Function 67N)
1 2 3 4 5 6 7 8	30285 32410 34535 36660 38785 40910 43035 45028	1	—	W	0-1/1	67N #4 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30286 32411 34536 36661 38786 40911 43036 45029	1000	Sec	W	1-60000/0.001	67N #4 Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30287 32412 34537 36662 38787 40912 43037 45030	1000	Sec	W	1-60000/0.001	67N #4 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30288 32413 34538 36663 38788 40913 43038 45031	100	—	W	5-100/0.01	67N #4 Time Multiplier Range of this point changes based on 67N Curve setting (See the Reference Tables at the end of Function 67N)
1 2 3 4 5 6 7 8	30289 32414 34539 36664 38789 40914 43039 45032	100	Sec	W	0-3000/0.01	67N #4 Time Adder
1 2 3 4 5 6 7 8	30290 32415 34540 36665 38790 40915 43040 45033	100	Sec	W	0-100/0.01	67N #4 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30291 32416 34541 36666 38791 40916 43041 45034	100	Sec	W	0-100/0.01	67N #4 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30292 32417 34542 36667 38792 40917 43042 45035	1	s		0.1-30/1	67N #4.TMDIALRESET

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8349 10649 12949 15249 17549 19849 22149 24449	100	V	W	500-2000/0.01	67N #4 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6936 25632 25795 27390 27709 27909 28235 29270	100	Sec	W	1-60000/0.01	67N.4.MAXOPTM
1 2 3 4 5 6 7 8	6937 25633 25796 27391 27710 27910 28236 29271	1	—	W	0-1/1	67N.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47142 49442 51742 54042 56342 58642 60942 63242	1	—	W	0-4294967295/1	67N #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47143 49443 51743 54043 56343 58643 60943 63243	1	—	W	0-4294967295/1	67N #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8351 10651 12951 15251 17551 19851 22151 24451	1	—	W	0-4095/1	67N #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8352 10652 12952 15252 17552 19852 22152 24452	—	—	W	0-1/1	67N #5 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8353 10653 12953 15253 17553 19853 22153 24453	—	—	W	0-65535/1	67N #5 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,9 – Polarization Voltage is Vz1 (set both bits to 1) Bit 10 – Polarization Voltage is V1 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 9,10 – Polarization Voltage is V0 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8354 10654 12954 15254 17554 19854 22154 24454	100	A	W	1-2000/0.01	67N #5 Definite Time Pickup
1 2 3 4 5 6 7 8	30293 32418 34543 36668 38793 40918 43043 45036	100	A	W	1-320/0.01	67N #5 Inverse Time Pickup
1 2 3 4 5 6 7 8	8355 10655 12955 15255 17555 19855 22155 24455	100	Sec	W	0-60000/0.01	67N #5 Definite Time Delay

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8356 10656 12956 15256 17556 19856 22156 24456	1	Degree	W	0-359/1	67N #5 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30294 32419 34544 36669 38794 40919 43044 45037	1	Degree	W	5-90/1	67N #5 Angle Band+
1 2 3 4 5 6 7 8	30296 32421 34546 36671 38796 40921 43046 45039	1	—	W	0-71/1	67N #5 Curves (See the Reference Tables at the end of Function 67N)
1 2 3 4 5 6 7 8	30297 32422 34547 36672 38797 40922 43047 45040	1	—	W	0-1/1	67N #5 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30298 32423 34548 36673 38798 40923 43048 45041	1000	Sec	W	1-60000/0.001	67N #5 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30299 32424 34549 36674 38799 40924 43049 45042	1000	Sec	W	1-60000/0.001	67N #5 Reset Coefficient (High) High bytes of 32-bit register

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30300 32425 34550 36675 38800 40925 43050 45043	100	—	W	5-100/0.01	67N #5 Time Multiplier Range of this point changes based on 67N Curve setting (See the Reference Tables at the end of Function 67N)
1 2 3 4 5 6 7 8	30301 32426 34551 36676 38801 40926 43051 45044	100	Sec	W	0-3000/0.01	67N #5 Time Adder
1 2 3 4 5 6 7 8	30302 32427 34552 36677 38802 40927 43052 45045	100	Sec	W	0-100/0.01	67N #5 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30303 32428 34553 36678 38803 40928 43053 45046	100	Sec	W	0-100/0.01	67N #5 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30304 32429 34554 36679 38804 40929 43054 45047	1	s		0.1-30/1	67N #5.TMDIALRESET
1 2 3 4 5 6 7 8	8357 10657 12957 15257 17557 19857 22157 24457	100	V	W	500-2000/0.01	67N #5 Minimum Polarization Voltage

Table 2.26 Function 67N Setpoints

Function 67N Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6938 25634 25797 27392 27711 27911 28237 29272	100	Sec	W	1-60000/0.01	67N.5.MAXOPTM
1 2 3 4 5 6 7 8	6939 25635 25798 27393 27712 27912 28238 29273	1	—	W	0-1/1	67N.5.MAXOPTMENA

Table 2.26 Function 67N Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP-101(A)
38	120(Y)		69	BSCP-101(A)
39	121(G)		70	BFCG-101(A)
40	122(H)		71	BSCG-101(A)
41	131(9)			

Inverse Time Curves – Bit Number Reference Table

Table 2.26 Function 67N Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4 68 – BFCP - 101(A) 69 – BSCP - 101(A) 70 – BFCG - 101(A) 71 – BSCG - 101(A)	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.26 Function 67N Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47094 49394 51694 53994 56294 58594 60894 63194	1	—	W	0-4294967295/1	67P #1 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47095 49395 51695 53995 56295 58595 60895 63195	1	—	W	0-4294967295/1	67P #1 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8143 10443 12743 15043 17343 19643 21943 24243	1	—	W	0-4095/1	67P #1 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8144 10444 12744 15044 17344 19644 21944 24244	1	—	W	0-1/1	67P #1 Phase ABC Enable Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8145 10445 12745 15045 17345 19645 21945 24245	1	—	W	0-65535/1	67P #1 Phase ABC Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8146 10446 12746 15046 17346 19646 21946 24246	100	A	W	1-2000/0.01	67P #1 Phase ABC Definite Time Pickup
1 2 3 4 5 6 7 8	30126 32251 34376 36501 38626 40751 42876 44968	100	A	W	1-320/0.01	67P #1 Phase ABC Inverse Time Pickup
1 2 3 4 5 6 7 8	8147 10447 12747 15047 17347 19647 21947 24247	100	S	W	0-60000/0.01	67P #1 Phase ABC Definite Time Delay
1 2 3 4 5 6 7 8	8148 10448 12748 15048 17348 19648 21948 24248	1	Degree	W	0-359/1	67P #1 Phase ABC Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	9192 11492 13792 16092 18392 20692 22992 25292	1	Degree	W	5-90/1	67P ABC #1 Angle Band+
1 2 3 4 5 6 7 8	9194 11494 13794 16094 18394 20694 22994 25294	1	—	W	0-71/1	67P #1 Phase ABC Curve (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9195 11495 13795 16095 18395 20695 22995 25295	1	—	W	0-1/1	67P #1 Phase ABC Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	9196 11496 13796 16096 18396 20696 22996 25296	1000	Sec	W	1-60000/0.001	67P #1 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9197 11497 13797 16097 18397 20697 22997 25297	1000	Sec	W	1-60000/0.001	67P #1 Phase ABC Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9198 11498 13798 16098 18398 20698 22998 25298	100	—	W	5-100/0.01	67P #1 Phase ABC Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9199 11499 13799 16099 18399 20699 22999 25299	100	Sec	W	0-3000/0.01	67P #1 Phase ABC Time Adder
1 2 3 4 5 6 7 8	9200 11500 13800 16100 18400 20700 23000 25300	100	Sec	W	0-100/0.01	67P #1 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9201 11501 13801 16101 18401 20701 23001 25301	100	Sec	W	0-100/0.01	67P #1 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9202 11502 13802 16102 18402 20702 23002 25302	1	s		0.1-30/1	67P #1 Phase ABC.1.TMDIALRESET
1 2 3 4 5 6 7 8	8149 10449 12749 15049 17349 19649 21949 24249	100	V	W	500-2000/0.01	67P #1 Phase ABC Minimum Polarization Voltage
1 2 3 4 5 6 7 8	8150 10450 12750 15050 17350 19650 21950 24250	1	—	W	0-1/1	67P #1 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	6890 25586 25749 27344 27663 27863 28189 29224	100	S	W	1-60000/0.01	67PABC.1.MAXOPTM
1 2 3 4 5 6 7 8	6891 25587 25750 27345 27664 27864 28190 29225	1	—	W	0-1/1	67PABC.1.MAXOPTMENA

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8307 10607 12907 15207 17507 19807 22107 24407	1	—	W	0-31/1	67P Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.
1 2 3 4 5 6 7 8	47096 49396 51696 53996 56296 58596 60896 63196	1	—	W	0-4294967295/1	67P #2 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47097 49397 51697 53997 56297 58597 60897 63197	1	—	W	0-4294967295/1	67P #2 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8152 10452 12752 15052 17352 19652 21952 24252	1	—	W	0-4095/1	67P #2 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8153 10453 12753 15053 17353 19653 21953 24253	1	—	W	0-1/1	67P #2 Phase ABC Enable Bit-0 Enable-1; Disable-0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8154 10454 12754 15054 17354 19654 21954 24254	1	—	W	0-65535/1	67P #2 Phase ABC Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8155 10455 12755 15055 17355 19655 21955 24255	100	A	W	1-2000/0.01	67P #2 Phase ABC Definite Time Pickup
1 2 3 4 5 6 7 8	30127 32252 34377 36502 38627 40752 42877 44969	100	A	W	1-320/0.01	67P #2 Phase ABC Inverse Time Pickup
1 2 3 4 5 6 7 8	8156 10456 12756 15056 17356 19656 21956 24256	100	S	W	0-60000/0.01	67P #2 Phase ABC Definite Time Delay
1 2 3 4 5 6 7 8	8157 10457 12757 15057 17357 19657 21957 24257	1	Degree	W	0-359/1	67P #2 Phase ABC Maximum Sensitivity Angle 1

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9203 11503 13803 16103 18403 20703 23003 25303	1	Degree	W	5-90/1	67P ABC #2 Angle Band+
1 2 3 4 5 6 7 8	9205 11505 13805 16105 18405 20705 23005 25305	1	—	W	0-71/1	67P #2 Phase ABC Curve (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9206 11506 13806 16106 18406 20706 23006 25306	1	—	W	0-1/1	67P #2 Phase ABC Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	9207 11507 13807 16107 18407 20707 23007 25307	1000	Sec	W	1-60000/0.001	67P #2 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9208 11508 13808 16108 18408 20708 23008 25308	1000	Sec	W	1-60000/0.001	67P #2 Phase ABC Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9209 11509 13809 16109 18409 20709 23009 25309	100	—	W	5-100/0.01	67P #2 Phase ABC Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9210 11510 13810 16110 18410 20710 23010 25310	100	Sec	W	0-3000/0.01	67P #2 Phase ABC Time Adder
1 2 3 4 5 6 7 8	9211 11511 13811 16111 18411 20711 23011 25311	100	Sec	W	0-100/0.01	67P #2 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9212 11512 13812 16112 18412 20712 23012 25312	100	Sec	W	0-100/0.01	67P #2 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9213 11513 13813 16113 18413 20713 23013 25313	1	s		0.1-30/1	67P #2 Phase ABC.2.TMDIALRESET
1 2 3 4 5 6 7 8	8158 10458 12758 15058 17358 19658 21958 24258	100	V	W	500-2000/1	67P #2 Phase ABC Minimum Polarization Voltage
1 2 3 4 5 6 7 8	8159 10459 12759 15059 17359 19659 21959 24259	1	—	W	0-1/1	67P #2 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6892 25588 25751 27346 27665 27865 28191 29226	100	S	W	1-60000/0.01	67PABC.2.MAXOPTM
1 2 3 4 5 6 7 8	6893 25589 25752 27347 27666 27866 28192 29227	1	—	W	0-1/1	67PABC.2.MAXOPTMENA
1 2 3 4 5 6 7 8	47098 49398 51698 53998 56298 58598 60898 63198	1	—	W	0-4294967295/1	67P #3 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47099 49399 51699 53999 56299 58599 60899 63199	1	—	W	0-4294967295/1	67P #3 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8161 10461 12761 15061 17361 19661 21961 24261	1	—	W	0-4095/1	67P #3 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8162 10462 12762 15062 17362 19662 21962 24262	1	—	W	0-1/1	67P #3 Phase ABC Enable Bit-0 Enable-1; Disable-0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8163 10463 12763 15063 17363 19663 21963 24263	1	—	W	0-65535/1	67P #3 Phase ABC Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8164 10464 12764 15064 17364 19664 21964 24264	100	A	W	1-2000/0.01	67P #3 Phase ABC Definite Time Pickup
1 2 3 4 5 6 7 8	30128 32253 34378 36503 38628 40753 42878 44970	100	A	W	1-320/0.01	67P #3 Phase ABC Inverse Time Pickup
1 2 3 4 5 6 7 8	8165 10465 12765 15065 17365 19665 21965 24265	100	S	W	0-60000/0.01	67P #3 Phase ABC Definite Time Delay
1 2 3 4 5 6 7 8	8166 10466 12766 15066 17366 19666 21966 24266	1	Degree	W	0-359/1	67P #3 Phase ABC Maximum Sensitivity Angle 1

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9214 11514 13814 16114 18414 20714 23014 25314	1	Degree	W	5-90/1	67P ABC #3 Angle Band+
1 2 3 4 5 6 7 8	9216 11516 13816 16116 18416 20716 23016 25316	1	—	W	0-71/1	67P #3 Phase ABC Curve (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9217 11517 13817 16117 18417 20717 23017 25317	1	—	W	0-1/1	67P #3 Phase ABC Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	9218 11518 13818 16118 18418 20718 23018 25318	1000	Sec	W	1-60000/0.001	67P #3 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9219 11519 13819 16119 18419 20719 23019 25319	1000	Sec	W	1-60000/0.001	67P #3 Phase ABC Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9220 11520 13820 16120 18420 20720 23020 25320	100	—	W	5-100/0.01	67P #3 Phase ABC Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9221 11521 13821 16121 18421 20721 23021 25321	100	Sec	W	0-3000/0.01	67P #3 Phase ABC Time Adder
1 2 3 4 5 6 7 8	9222 11522 13822 16122 18422 20722 23022 25322	100	Sec	W	0-100/0.01	67P #3 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9223 11523 13823 16123 18423 20723 23023 25323	100	Sec	W	0-100/0.01	67P #3 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9224 11524 13824 16124 18424 20724 23024 25324	1	s		0.1-30/1	67P #3 Phase ABC.3.TMDIALRESET
1 2 3 4 5 6 7 8	8167 10467 12767 15067 17367 19667 21967 24267	100	V	W	500-2000/0.01	67P #3 Phase ABC Minimum Polarization Voltage
1 2 3 4 5 6 7 8	8168 10468 12768 15068 17368 19668 21968 24268	1	—	W	0-1/1	67P #3 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6894 25590 25753 27348 27667 27867 28193 29228	100	S	W	1-60000/0.01	67PABC.3.MAXOPTM
1 2 3 4 5 6 7 8	6895 25591 25754 27349 27668 27868 28194 29229	1	—	W	0-1/1	67PABC.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47100 49400 51700 54000 56300 58600 60900 63200	1	—	W	0-4294967295/1	67P #4 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47101 49401 51701 54001 56301 58601 60901 63201	1	—	W	0-4294967295/1	67P #4 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8170 10470 12770 15070 17370 19670 21970 24270	1	—	W	0-4095/1	67P #4 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8171 10471 12771 15071 17371 19671 21971 24271	1	—	W	0-1/1	67P #4 Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8172 10472 12772 15072 17372 19672 21972 24272	1	—	W	0-65535/1	67P #4 Phase ABC Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8173 10473 12773 15073 17373 19673 21973 24273	100	A	W	1-2000/0.01	67P #4 Phase ABC Definite Time Pickup
1 2 3 4 5 6 7 8	30129 32254 34379 36504 38629 40754 42879 44971	100	A	W	1-320/0.01	67P #4 Phase ABC Inverse Time Pickup
1 2 3 4 5 6 7 8	8174 10474 12774 15074 17374 19674 21974 24274	100	S	W	0-60000/0.01	67P #4 Phase ABC Definite Time Delay

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8175 10475 12775 15075 17375 19675 21975 24275	1	Degree	W	0-359/1	67P #4 Phase ABC Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	9225 11525 13825 16125 18425 20725 23025 25325	1	Degree	W	5-90/1	67P ABC #4 Angle Band+
1 2 3 4 5 6 7 8	9227 11527 13827 16127 18427 20727 23027 25327	1	—	W	0-71/1	67P #4 Phase ABC Curve (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9228 11528 13828 16128 18428 20728 23028 25328	1	—	W	0-1/1	67P #4 Phase ABC Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	9229 11529 13829 16129 18429 20729 23029 25329	1000	Sec	W	1-60000/0.001	67P #4 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9230 11530 13830 16130 18430 20730 23030 25330	1000	Sec	W	1-60000/0.001	67P #4 Phase ABC Reset Coefficient (High) High bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9231 11531 13831 16131 18431 20731 23031 25331	100	—	W	5-100/0.01	67P #4 Phase ABC Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9232 11532 13832 16132 18432 20732 23032 25332	100	Sec	W	0-3000/0.01	67P #4 Phase ABC Time Adder
1 2 3 4 5 6 7 8	9233 11533 13833 16133 18433 20733 23033 25333	100	Sec	W	0-100/0.01	67P #4 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9234 11534 13834 16134 18434 20734 23034 25334	100	Sec	W	0-100/0.01	67P #4 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9235 11535 13835 16135 18435 20735 23035 25335	1	s		0.1-30/1	67P #4 Phase ABC.4.TMDIALRESET
1 2 3 4 5 6 7 8	8176 10476 12776 15076 17376 19676 21976 24276	100	V	W	500-2000/0.01	67P #4 Phase ABC Minimum Polarization Voltage

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8177 10477 12777 15077 17377 19677 21977 24277	1	—	W	0-1/1	67P #4 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	6896 25592 25755 27350 27669 27869 28195 29230	100	S	W	1-60000/0.01	67PABC.4.MAXOPTM
1 2 3 4 5 6 7 8	6897 25593 25756 27351 27670 27870 28196 29231	1	—	W	0-1/1	67PABC.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47102 49402 51702 54002 56302 58602 60902 63202	1	—	W	0-4294967295/1	67P #5 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47103 49403 51703 54003 56303 58603 60903 63203	1	—	W	0-4294967295/1	67P #5 Phase ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8179 10479 12779 15079 17379 19679 21979 24279	1	—	W	0-4095/1	67P #5 Phase ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8180 10480 12780 15080 17380 19680 21980 24280	1	—	W	0-1/1	67P #5 Phase ABC Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8181 10481 12781 15081 17381 19681 21981 24281	1	—	W	0-65535/1	67P #5 Phase ABC Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8182 10482 12782 15082 17382 19682 21982 24282	100	A	W	1-2000/0.01	67P #5 Phase ABC Definite Time Pickup
1 2 3 4 5 6 7 8	30130 32255 34380 36505 38630 40755 42880 44972	100	A	W	1-320/0.01	67P #5 Phase ABC Inverse Time Pickup
1 2 3 4 5 6 7 8	8183 10483 12783 15083 17383 19683 21983 24283	100	S	W	0-60000/0.01	67P #5 Phase ABC Definite Time Delay

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8184 10484 12784 15084 17384 19684 21984 24284	1	Degree	W	0-359/1	67P #5 Phase ABC Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	9236 11536 13836 16136 18436 20736 23036 25336	1	Degree	W	5-90/1	67P ABC #5 Angle Band+
1 2 3 4 5 6 7 8	9238 11538 13838 16138 18438 20738 23038 25338	1	—	W	0-71/1	67P #5 Phase ABC Curve (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9239 11539 13839 16139 18439 20739 23039 25339	1	—	W	0-1/1	67P #5 Phase ABC Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	9240 11540 13840 16140 18440 20740 23040 25340	1000	Sec	W	1-60000/0.001	67P #5 Phase ABC Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9241 11541 13841 16141 18441 20741 23041 25341	1000	Sec	W	1-60000/0.001	67P #5 Phase ABC Reset Coefficient (High) High bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9242 11542 13842 16142 18442 20742 23042 25342	100	—	W	5-100/0.01	67P #5 Phase ABC Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9243 11543 13843 16143 18443 20743 23043 25343	100	Sec	W	0-3000/0.01	67P #5 Phase ABC Time Adder
1 2 3 4 5 6 7 8	9244 11544 13844 16144 18444 20744 23044 25344	100	Sec	W	0-100/0.01	67P #5 Phase ABC Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9245 11545 13845 16145 18445 20745 23045 25345	100	Sec	W	0-100/0.01	67P #5 Phase ABC Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9246 11546 13846 16146 18446 20746 23046 25346	1	s		0.1-30/1	67P #5 Phase ABC.5.TMDIALRESET
1 2 3 4 5 6 7 8	8185 10485 12785 15085 17385 19685 21985 24285	100	V	W	500-2000/0.01	67P #5 Phase ABC Minimum Polarization Voltage

Table 2.27 Function 67P Setpoints

Function 67P Setpoints						
PROFILES #1 to #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8186 10486 12786 15086 17386 19686 21986 24286	1	—	W	0-1/1	67P #5 Individual Phase Setting Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
1 2 3 4 5 6 7 8	6898 25594 25757 27352 27671 27871 28197 29232	100	S	W	1-60000/0.01	67PABC.5.MAXOPTM
1 2 3 4 5 6 7 8	6899 25595 25758 27353 27672 27872 28198 29233	1	—	W	0-1/1	67PABC.5.MAXOPTMENA
1 2 3 4 5 6 7 8	47104 49404 51704 54004 56304 58604 60904 63204	1	—	W	0-4294967295/1	67P #1 Phase A Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47105 49405 51705 54005 56305 58605 60905 63205	1	—	W	0-4294967295/1	67P #1 Phase A Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8188 10488 12788 15088 17388 19688 21988 24288	1	—	W	0-4095/1	67P #1 Phase A Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8189 10489 12789 15089 17389 19689 21989 24289	1	—	W	0-1/1	67P #1 Phase A Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8190 10490 12790 15090 17390 19690 21990 24290	1	—	W	0-65535/1	67P #1 Phase A Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8191 10491 12791 15091 17391 19691 21991 24291	100	A	W	1-2000/0.01	67P #1 Phase A Definite Time Pickup
1 2 3 4 5 6 7 8	30131 32256 34381 36506 38631 40756 42881 44973	100	A	W	1-320/0.01	67P #1 Phase A Inverse Time Pickup
1 2 3 4 5 6 7 8	8192 10492 12792 15092 17392 19692 21992 24292	100	S	W	0-60000/0.01	67P #1 Phase A Definite Time Delay

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8193 10493 12793 15093 17393 19693 21993 24293	1	Degree	W	0-359/1	67P #1 Phase A Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	9247 11547 13847 16147 18447 20747 23047 25347	1	Degree	W	5-90/1	67P #1 Phase A Angle Band+
1 2 3 4 5 6 7 8	9249 11549 13849 16149 18449 20749 23049 25349	1	—	W	0-71/1	67P #1 Phase A Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9250 11550 13850 16150 18450 20750 23050 25350	1	—	W	0-1/1	67P #1 Phase A Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	9251 11551 13851 16151 18451 20751 23051 25351	1000	Sec	W	1-60000/0.001	67P #1 Phase A Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9252 11552 13852 16152 18452 20752 23052 25352	1000	Sec	W	1-60000/0.001	67P #1 Phase A Reset Coefficient (High) High bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9253 11553 13853 16153 18453 20753 23053 25353	100	—	W	5-100/0.01	67P #1 Phase A Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9254 11554 13854 16154 18454 20754 23054 25354	100	Sec	W	0-3000/0.01	67P #1 Phase A Time Adder
1 2 3 4 5 6 7 8	9255 11555 13855 16155 18455 20755 23055 25355	100	Sec	W	0-100/0.01	67P #1 Phase A Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9256 11556 13856 16156 18456 20756 23056 25356	100	Sec	W	0-100/0.01	67P #1 Phase A Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9257 11557 13857 16157 18457 20757 23057 25357	1	s		0.1-30/1	67P # 1 Phase A.1.TMDIALRESET
1 2 3 4 5 6 7 8	8194 10494 12794 15094 17394 19694 21994 24294	100	V	W	500-2000/0.01	67P #1 Phase A Minimum Polarization Voltage

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6900 25596 25759 27354 27673 27873 28199 29234	100	S	W	1-60000/0.01	67PA.1.MAXOPTM
1 2 3 4 5 6 7 8	6901 25597 25760 27355 27674 27874 28200 29235	1	—	W	0-1/1	67PA.1.MAXOPTMENA
1 2 3 4 5 6 7 8	47106 49406 51706 54006 56306 58606 60906 63206	1	—	W	0-4294967295/1	67P #2 Phase A Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47107 49407 51707 54007 56307 58607 60907 63207	1	—	W	0-4294967295/1	67P #2 Phase A Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8196 10496 12796 15096 17396 19696 21996 24296	1	—	W	0-4095/1	67P #2 Phase A Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8197 10497 12797 15097 17397 19697 21997 24297	1	—	W	0-1/1	67P #2 Phase A Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8198 10498 12798 15098 17398 19698 21998 24298	1	—	W	0-65535/1	67P #2 Phase A Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8199 10499 12799 15099 17399 19699 21999 24299	100	A	W	1-2000/0.01	67P #2 Phase A Definite Time Pickup
1 2 3 4 5 6 7 8	30132 32257 34382 36507 38632 40757 42882 44974	100	A	W	1-320/0.01	67P #2 Phase A Inverse Time Pickup
1 2 3 4 5 6 7 8	8200 10500 12800 15100 17400 19700 22000 24300	100	S	W	0-60000/0.01	67P #2 Phase A Definite Time Delay

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8201 10501 12801 15101 17401 19701 22001 24301	1	Degree	W	0-359/1	67P #2 Phase A Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	9258 11558 13858 16158 18458 20758 23058 25358	1	Degree	W	5-90/1	67P #2 Phase A Angle Band+
1 2 3 4 5 6 7 8	9260 11560 13860 16160 18460 20760 23060 25360	1	—	W	0-71/1	67P #2 Phase A Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9261 11561 13861 16161 18461 20761 23061 25361	1	—	W	0-1/1	67P #2 Phase A Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	9262 11562 13862 16162 18462 20762 23062 25362	1000	Sec	W	1-60000/0.001	67P #2 Phase A Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9263 11563 13863 16163 18463 20763 23063 25363	1000	Sec	W	1-60000/0.001	67P #2 Phase A Reset Coefficient (High) High bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9264 11564 13864 16164 18464 20764 23064 25364	100	—	W	5-100/0.01	67P #2 Phase A Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9265 11565 13865 16165 18465 20765 23065 25365	100	Sec	W	0-3000/0.01	67P #2 Phase A Time Adder
1 2 3 4 5 6 7 8	9266 11566 13866 16166 18466 20766 23066 25366	100	Sec	W	0-100/0.01	67P #2 Phase A Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9267 11567 13867 16167 18467 20767 23067 25367	100	Sec	W	0-100/0.01	67P #2 Phase A Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9268 11568 13868 16168 18468 20768 23068 25368	1	s		0.1-30/1	67P #2 Phase A.2.TMDIALRESET
1 2 3 4 5 6 7 8	8202 10502 12802 15102 17402 19702 22002 24302	100	V	W	500-2000/0.01	67P #2 Phase A Minimum Polarization Voltage

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6902 25598 25761 27356 27675 27875 28201 29236	100	S	W	1-60000/0.01	67PA.2.MAXOPTM
1 2 3 4 5 6 7 8	6903 25599 25762 27357 27676 27876 28202 29237	1	—	W	0-1/1	67PA.2.MAXOPTMENA
1 2 3 4 5 6 7 8	47108 49408 51708 54008 56308 58608 60908 63208	1	—	W	0-4294967295/1	67P #3 Phase A Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47109 49409 51709 54009 56309 58609 60909 63209	1	—	W	0-4294967295/1	67P #3 Phase A Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8204 10504 12804 15104 17404 19704 22004 24304	1	—	W	0-4095/1	67P #3 Phase A Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8205 10505 12805 15105 17405 19705 22005 24305	1	—	W	0-1/1	67P #3 Phase A Enable Bit-0 Enable-1; Disable-0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8206 10506 12806 15106 17406 19706 22006 24306	1	—	W	0-65535/1	67P #3 Phase A Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8207 10507 12807 15107 17407 19707 22007 24307	100	A	W	1-2000/0.01	67P #3 Phase A Definite Time Pickup
1 2 3 4 5 6 7 8	30133 32258 34383 36508 38633 40758 42883 44975	100	A	W	1-320/0.01	67P #3 Phase A Inverse Time Pickup
1 2 3 4 5 6 7 8	8208 10508 12808 15108 17408 19708 22008 24308	100	S	W	0-60000/0.01	67P #3 Phase A Definite Time Delay
1 2 3 4 5 6 7 8	8209 10509 12809 15109 17409 19709 22009 24309	1	Degree	W	0-359/1	67P #3 Phase A Maximum Sensitivity Angle 1

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9269 11569 13869 16169 18469 20769 23069 25369	1	Degree	W	5-90/1	67P #3 Phase A Angle Band+
1 2 3 4 5 6 7 8	9271 11571 13871 16171 18471 20771 23071 25371	1	—	W	0-71/1	67P #3 Phase A Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9272 11572 13872 16172 18472 20772 23072 25372	1	—	W	0-1/1	67P #3 Phase A Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	9273 11573 13873 16173 18473 20773 23073 25373	1000	Sec	W	1-60000/0.001	67P #3 Phase A Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9274 11574 13874 16174 18474 20774 23074 25374	1000	Sec	W	1-60000/0.001	67P #3 Phase A Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9275 11575 13875 16175 18475 20775 23075 25375	100	—	W	5-100/0.01	67P #3 Phase A Time Multiplier Range of this point changes based on 67P Curve setting See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9276 11576 13876 16176 18476 20776 23076 25376	100	Sec	W	0-3000/0.01	67P #3 Phase A Time Adder
1 2 3 4 5 6 7 8	9277 11577 13877 16177 18477 20777 23077 25377	100	Sec	W	0-100/0.01	67P #3 Phase A Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9278 11578 13878 16178 18478 20778 23078 25378	100	Sec	W	0-100/0.01	67P #3 Phase A Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9279 11579 13879 16179 18479 20779 23079 25379	1	s		0.1-30/1	67P #3 Phase A.3.TMDIALRESET
1 2 3 4 5 6 7 8	8210 10510 12810 15110 17410 19710 22010 24310	100	V	W	500-2000/0.01	67P #3 Phase A Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6904 25600 25763 27358 27677 27877 28203 29238	100	S	W	1-60000/0.01	67PA.3.MAXOPTM

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6905 25601 25764 27359 27678 27878 28204 29239	1	—	W	0-1/1	67PA.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47110 49410 51710 54010 56310 58610 60910 63210	1	—	W	0-4294967295/1	67P #4 Phase A Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47111 49411 51711 54011 56311 58611 60911 63211	1	—	W	0-4294967295/1	67P #4 Phase A Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8212 10512 12812 15112 17412 19712 22012 24312	1	—	W	0-4095/1	67P #4 Phase A Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8213 10513 12813 15113 17413 19713 22013 24313	1	—	W	0-1/1	67P #4 Phase A Enable Bit 0 – Enable: 1, Disable: 0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8214 10514 12814 15114 17414 19714 22014 24314	1	—	W	0-65535/1	67P #4 Phase A Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8215 10515 12815 15115 17415 19715 22015 24315	100	A	W	1-2000/0.01	67P #4 Phase A Definite Time Pickup
1 2 3 4 5 6 7 8	30134 32259 34384 36509 38634 40759 42884 44976	100	A	W	1-320/0.01	67P #4 Phase A Inverse Time Pickup
1 2 3 4 5 6 7 8	8216 10516 12816 15116 17416 19716 22016 24316	100	S	W	0-60000/0.01	67P #4 Phase A Definite Time Delay
1 2 3 4 5 6 7 8	8217 10517 12817 15117 17417 19717 22017 24317	1	Degree	W	0-359/1	67P #4 Phase A Maximum Sensitivity Angle 1

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9280 11580 13880 16180 18480 20780 23080 25380	1	Degree	W	5-90/1	67P #4 Phase A Angle Band+
1 2 3 4 5 6 7 8	9282 11582 13882 16182 18482 20782 23082 25382	1	—	W	0-71/1	67P #4 Phase A Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	9283 11583 13883 16183 18483 20783 23083 25383	1	—	W	0-1/1	67P #4 Phase A Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	9284 11584 13884 16184 18484 20784 23084 25384	1000	Sec	W	1-60000/0.001	67P #4 Phase A Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9285 11585 13885 16185 18485 20785 23085 25385	1000	Sec	W	1-60000/0.001	67P #4 Phase A Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9286 11586 13886 16186 18486 20786 23086 25386	100	—	W	5-100/0.01	67P #4 Phase A Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9287 11587 13887 16187 18487 20787 23087 25387	100	Sec	W	0-3000/0.01	67P #4 Phase A Time Adder
1 2 3 4 5 6 7 8	9288 11588 13888 16188 18488 20788 23088 25388	100	Sec	W	0-100/0.01	67P #4 Phase A Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	9289 11589 13889 16189 18489 20789 23089 25389	100	Sec	W	0-100/0.01	67P #4 Phase A Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	9290 11590 13890 16190 18490 20790 23090 25390	1	s		0.1-30/1	67P #4 Phase A.4.TMDIALRESET
1 2 3 4 5 6 7 8	8218 10518 12818 15118 17418 19718 22018 24318	100	V	W	500-2000/0.01	67P #4 Phase A Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6906 25602 25765 27360 27679 27879 28205 29240	100	S	W	1-60000/0.01	67PA.4.MAXOPTM

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6907 25603 25766 27361 27680 27880 28206 29241	1	—	W	0-1/1	67PA.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47112 49412 51712 54012 56312 58612 60912 63212	1	—	W	0-4294967295/1	67P #5 Phase A Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47113 49413 51713 54013 56313 58613 60913 63213	1	—	W	0-4294967295/1	67P #5 Phase A Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8220 10520 12820 15120 17420 19720 22020 24320	1	—	W	0-4095/1	67P #5 Phase A Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8221 10521 12821 15121 17421 19721 22021 24321	1	—	W	0-1/1	67P #5 Phase A Enable Bit-0 Enable-1; Disable-0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8222 10522 12822 15122 17422 19722 22022 24322	1	—	W	0-65535/1	67P #5 Phase A Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8223 10523 12823 15123 17423 19723 22023 24323	100	A	W	1-2000/0.01	67P #5 Phase A Definite Time Pickup
1 2 3 4 5 6 7 8	30135 32260 34385 36510 38635 40760 42885 44977	100	A	W	1-320/0.01	67P #5 Phase A Inverse Time Pickup
1 2 3 4 5 6 7 8	8224 10524 12824 15124 17424 19724 22024 24324	100	S	W	0-60000/0.01	67P #5 Phase A Definite Time Delay
1 2 3 4 5 6 7 8	8225 10525 12825 15125 17425 19725 22025 24325	1	Degree	W	0-359/1	67P #5 Phase A Maximum Sensitivity Angle 1

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30000 32125 34250 36375 38500 40625 42750 25391	1	Degree	W	5-90/1	67P #5 Phase A Angle Band+
1 2 3 4 5 6 7 8	30002 32127 34252 36377 38502 40627 42752 25393	1	—	W	0-71/1	67P #5 Phase A Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30003 32128 34253 36378 38503 40628 42753 25394	1	—	W	0-1/1	67P #5 Phase A Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30004 32129 34254 36379 38504 40629 42754 25395	1000	Sec	W	1-60000/0.001	67P #5 Phase A Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30005 32130 34255 36380 38505 40630 42755 25396	1000	Sec	W	1-60000/0.001	67P #5 Phase A Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30006 32131 34256 36381 38506 40631 42756 25397	100	—	W	5-100/0.01	67P #5 Phase A Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30007 32132 34257 36382 38507 40632 42757 25398	100	Sec	W	0-3000/0.01	67P #5 Phase A Time Adder
1 2 3 4 5 6 7 8	30008 32133 34258 36383 38508 40633 42758 25399	100	Sec	W	0-100/0.01	67P #5 Phase A Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30009 32134 34259 36384 38509 40634 42759 25400	100	Sec	W	0-100/0.01	67P #5 Phase A Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30010 32135 34260 36385 38510 40635 42760 25401	1	s		0.1-30/1	67P #5 Phase A.5.TMDIALRESET
1 2 3 4 5 6 7 8	8226 10526 12826 15126 17426 19726 22026 24326	100	V	W	500-20000.01	67P #5 Phase A Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6908 25604 25767 27362 27681 27881 28207 29242	100	S	W	1-60000/0.01	67PA.5.MAXOPTM

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6909 25605 25768 27363 27682 27882 28208 29243	1	—	W	0-1/1	67PA.5.MAXOPTMENA
1 2 3 4 5 6 7 8	47114 49414 51714 54014 56314 58614 60914 63214	1	—	W	0-4294967295/1	67P #1 Phase B Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47115 49415 51715 54015 56315 58615 60915 63215	1	—	W	0-4294967295/1	67P #1 Phase B Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8228 10528 12828 15128 17428 19728 22028 24328	1	—	W	0-4095/1	67P #1 Phase B Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8229 10529 12829 15129 17429 19729 22029 24329	1	—	W	0-1/1	67P #1 Phase B Enable
1 2 3 4 5 6 7 8	8230 10530 12830 15130 17430 19730 22030 24330	1	—	W	0-65535/1	67P #1 Phase B Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8231 10531 12831 15131 17431 19731 22031 24331	100	A	W	1-2000/0.01	67P #1 Phase B Definite Time Pickup

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30136 32261 34386 36511 38636 40761 42886 44978	100	A	W	1-320/0.01	67P #1 Phase B Inverse Time Pickup
1 2 3 4 5 6 7 8	8232 10532 12832 15132 17432 19732 22032 24332	100	S	W	0-60000/0.01	67P #1 Phase B Definite Time Delay
1 2 3 4 5 6 7 8	8233 10533 12833 15133 17433 19733 22033 24333	1	Degree	W	0-359/1	67P #1 Phase B Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30011 32136 34261 36386 38511 40636 42761 25402	1	Degree	W	5-90/1	67P #1 Phase B Angle Band+

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30013 32138 34263 36388 38513 40638 42763 25404	1	—	W	0-71/1	67P #1 Phase B Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30014 32139 34264 36389 38514 40639 42764 25405	1	—	W	0-1/1	67P #1 Phase B Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30015 32140 34265 36390 38515 40640 42765 25406	1000	Sec	W	1-60000/0.001	67P #1 Phase B Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30016 32141 34266 36391 38516 40641 42766 25407	1000	Sec	W	1-60000/0.001	67P #1 Phase B Reset Coefficient (High) High bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30017 32142 34267 36392 38517 40642 42767 25408	100	—	W	5-100/0.01	67P #1 Phase B Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30018 32143 34268 36393 38518 40643 42768 25409	100	Sec	W	0-3000/0.01	67P #1 Phase B Time Adder
1 2 3 4 5 6 7 8	30019 32144 34269 36394 38519 40644 42769 25410	100	Sec	W	0-100/0.01	67P #1 Phase B Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30020 32145 34270 36395 38520 40645 42770 25411	100	Sec	W	0-100/0.01	67P #1 Phase B Minimum Response Time Adder (High) High bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30021 32146 34271 36396 38521 40646 42771 25412	1	s		0.1-30/1	67P #1 Phase B.1.TMDIALRESET
1 2 3 4 5 6 7 8	8234 10534 12834 15134 17434 19734 22034 24334	100	V	W	500-2000/0.01	67P #1 Phase B Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6910 25606 25769 27364 27683 27883 28209 29244	100	S	W	1-60000/0.01	67PB.1.MAXOPTM
1 2 3 4 5 6 7 8	6911 25607 25770 27365 27684 27884 28210 29245	1	—	W	0-1/1	67PB.1.MAXOPTMENA

Table 2.27 Function 67P Setpoints

Function 67P Setpoints						
PROFILES #1 to #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47116 49416 51716 54016 56316 58616 60916 63216	1	—	W	0-4294967295/1	67P #2 Phase B Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47117 49417 51717 54017 56317 58617 60917 63217	1	—	W	0-4294967295/1	67P #2 Phase B Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8236 10536 12836 15136 17436 19736 22036 24336	1	—	W	0-4095/1	67P #2 Phase B Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8237 10537 12837 15137 17437 19737 22037 24337	1	—	W	0-1/1	67P #2 Phase B Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8238 10538 12838 15138 17438 19738 22038 24338	1	—	W	0-65535/1	67P #2 Phase B Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8239 10539 12839 15139 17439 19739 22039 24339	100	A	W	1-2000/0.01	67P #2 Phase B Definite Time Pickup
1 2 3 4 5 6 7 8	30137 32262 34387 36512 38637 40762 42887 44979	100	A	W	1-320/0.01	67P #2 Phase B Inverse Time Pickup

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8240 10540 12840 15140 17440 19740 22040 24340	100	S	W	0-60000/0.01	67P #2 Phase B Definite Time Delay
1 2 3 4 5 6 7 8	8241 10541 12841 15141 17441 19741 22041 24341	1	Degree	W	0-359/1	67P #2 Phase B Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30022 32147 34272 36397 38522 40647 42772 25413	1	Degree	W	5-90/1	67P #2 Phase B Angle Band+
1 2 3 4 5 6 7 8	30024 32149 34274 36399 38524 40649 42774 25415	1	—	W	0-71/1	67P #2 Phase B Curves (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30025 32150 34275 36400 38525 40650 42775 25416	1	—	W	0-1/1	67P #2 Phase B Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30026 32151 34276 36401 38526 40651 42776 25417	1000	Sec	W	1-60000/0.001	67P #2 Phase B Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30027 32152 34277 36402 38527 40652 42777 25418	1000	Sec	W	1-60000/0.001	67P #2 Phase B Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30028 32153 34278 36403 38528 40653 42778 25419	100	—	W	5-100/0.01	67P #2 Phase B Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30029 32154 34279 36404 38529 40654 42779 25420	100	Sec	W	0-3000/0.01	67P #2 Phase B Time Adder
1 2 3 4 5 6 7 8	30030 32155 34280 36405 38530 40655 42780 25421	100	Sec	W	0-100/0.01	67P #2 Phase B Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30031 32156 34281 36406 38531 40656 42781 25422	100	Sec	W	0-100/0.01	67P #2 Phase B Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30032 32157 34282 36407 38532 40657 42782 25423	1	s		0.1-30/1	67P #2 Phase B.2.TMDIALRESET

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8242 10542 12842 15142 17442 19742 22042 24342	100	V	W	500-2000/0.01	67P #2 Phase B Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6912 25608 25771 27366 27685 27885 28211 29246	100	S	W	1-60000/0.01	67PB.2.MAXOPTM
1 2 3 4 5 6 7 8	6913 25609 25772 27367 27686 27886 28212 29247	1	—	W	0-1/1	67PB.2.MAXOPTMENA

Table 2.27 Function 67P Setpoints

Function 67P Setpoints						
PROFILES #1 to #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	47118	1	—	W	0-4294967295/1	67P #3 Phase B Blocking Inputs
2	49418					Bit 0 – In 1 Bit 8 – In 9
3	51718					Bit 1 – In 2 Bit 9 – In 10
4	54018					Bit 2 – In 3 Bit 10 – In 11
5	56318					Bit 3 – In 4 Bit 11 – In 12
6	58618					Bit 4 – In 5 Bit 12 – In FL
7	60918					Bit 5 – In 6 Bit 13 – In V1
8	63218					Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1	47119	1	—	W	0-4294967295/1	67P #3 Phase B Blocking Inputs.H
2	49419					Bit 0 – V4 Bit 8 – V12
3	51719					Bit 1 – V5 Bit 9 – V13
4	54019					Bit 2 – V6 Bit 10 – V14
5	56319					Bit 3 – V7 Bit 11 – V15
6	58619					Bit 4 – V8 Bit 12 – V16
7	60919					Bit 5 – V9 Bit 13 – V17
8	63219					Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1	8244	1	—	W	0-4095/1	67P #3 Phase B Outputs
2	10544					Bit 0 – Out 1 Bit 6 – Out 7
3	12844					Bit 1 – Out 2 Bit 7 – Out 8
4	15144					Bit 2 – Out 3 Bit 8 – Out 9
5	17444					Bit 3 – Out 4 Bit 9 – Out 10
6	19744					Bit 4 – Out 5 Bit 10 – Out 11
7	22044					Bit 5 – Out 6 Bit 11 – Out 12
8	24344					
1	8245	1	—	W	0-1/1	67P #3 Phase B Enable
2	10545					Bit-0 Enable-1; Disable-0
3	12845					
4	15145					
5	17445					
6	19745					
7	22045					
8	24345					

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8246 10546 12846 15146 17446 19746 22046 24346	1	—	W	0-65535/1	67P #3 Phase B Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8247 10547 12847 15147 17447 19747 22047 24347	100	A	W	1-2000/0.01	67P #3 Phase B Definite Time Pickup
1 2 3 4 5 6 7 8	30138 32263 34388 36513 38638 40763 42888 44980	100	A	W	1-320/0.01	67P #3 Phase B Inverse Time Pickup
1 2 3 4 5 6 7 8	8248 10548 12848 15148 17448 19748 22048 24348	100	S	W	0-60000/0.01	67P #3 Phase B Definite Time Delay

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8249 10549 12849 15149 17449 19749 22049 24349	1	Degree	W	0-359/1	67P #3 Phase B Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30033 32158 34283 36408 38533 40658 42783 44875	1	Degree	W	5-90/1	67P #3 Phase B Angle Band+
1 2 3 4 5 6 7 8	30035 32160 34285 36410 38535 40660 42785 44877	1	—	W	0-71/1	67P #3 Phase B Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30036 32161 34286 36411 38536 40661 42786 44878	1	—	W	0-1/1	67P #3 Phase B Electromechanical Reset Enable:1, Disable: 0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30037 32162 34287 36412 38537 40662 42787 44879	1000	Sec	W	1-60000/0.001	67P #3 Phase B Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30038 32163 34288 36413 38538 40663 42788 44880	1000	Sec	W	1-60000/0.001	67P #3 Phase B Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30039 32164 34289 36414 38539 40664 42789 44881	100	–	W	5-100/0.01	67P #3 Phase B Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30040 32165 34290 36415 38540 40665 42790 44882	100	Sec	W	0-3000/0.01	67P #3 Phase B Time Adder

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30041 32166 34291 36416 38541 40666 42791 44883	100	Sec	W	0-100/0.01	67P #3 Phase B Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30042 32167 34292 36417 38542 40667 42792 44884	100	Sec	W	0-100/0.01	67P #3 Phase B Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30043 32168 34293 36418 38543 40668 42793 44885	1	s		0.1-30/1	67P #3 Phase B.3.TMDIALRESET
1 2 3 4 5 6 7 8	8250 10550 12850 15150 17450 19750 22050 24350	100	V	W	500-2000/0.01	67P #3 Phase B Minimum Polarization Voltage

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6914 25610 25773 27368 27687 27887 28213 29248	100	S	W	1-60000/0.01	67PB.3.MAXOPTM
1 2 3 4 5 6 7 8	6915 25611 25774 27369 27688 27888 28214 29249	1	—	W	0-1/1	67PB.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47120 49420 51720 54020 56320 58620 60920 63220	1	—	W	0-4294967295/1	67P #4 Phase B Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47121 49421 51721 54021 56321 58621 60921 63221	1	—	W	0-4294967295/1	67P #4 Phase B Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8252 10552 12852 15152 17452 19752 22052 24352	1	—	W	0-4095/1	67P #4 Phase B Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8253 10553 12853 15153 17453 19753 22053 24353	1	—	W	0-1/1	67P #4 Phase B Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8254 10554 12854 15154 17454 19754 22054 24354	1	—	W	0-65535/1	67P #4 Phase B Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8255 10555 12855 15155 17455 19755 22055 24355	100	A	W	1-2000/0.01	67P #4 Phase B Definite Time Pickup
1 2 3 4 5 6 7 8	30139 32264 34389 36514 38639 40764 42889 44981	100	A	W	1-320/0.01	67P #4 Phase B Inverse Time Pickup
1 2 3 4 5 6 7 8	8256 10556 12856 15156 17456 19756 22056 24356	100	S	W	0-60000/0.01	67P #4 Phase B Definite Time Delay
1 2 3 4 5 6 7 8	8257 10557 12857 15157 17457 19757 22057 24357	1	Degree	W	0-359/1	67P #4 Phase B Maximum Sensitivity Angle 1

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30044 32169 34294 36419 38544 40669 42794 44886	1	Degree	W	5-90/1	67P #4 Phase B Angle Band+
1 2 3 4 5 6 7 8	30046 32171 34296 36421 38546 40671 42796 44888	1	—	W	0-71/1	67P #4 Phase B Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30047 32172 34297 36422 38547 40672 42797 44889	1	—	W	0-1/1	67P #4 Phase B Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30048 32173 34298 36423 38548 40673 42798 44890	1000	Sec	W	1-60000/0.001	67P #4 Phase B Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30049 32174 34299 36424 38549 40674 42799 44891	1000	Sec	W	1-60000/0.001	67P #4 Phase B Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30050 32175 34300 36425 38550 40675 42800 44892	100	–	W	5-100/0.01	67P #4 Phase B Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30051 32176 34301 36426 38551 40676 42801 44893	100	Sec	W	0-3000/0.01	67P #4 Phase B Time Adder
1 2 3 4 5 6 7 8	30052 32177 34302 36427 38552 40677 42802 44894	100	Sec	W	0-100/0.01	67P #4 Phase B Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30053 32178 34303 36428 38553 40678 42803 44895	100	Sec	W	0-100/0.01	67P #4 Phase B Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30054 32179 34304 36429 38554 40679 42804 44896	1	s		0.1-30/1	67P #4 Phase B.4.TMDIALRESET
1 2 3 4 5 6 7 8	8258 10558 12858 15158 17458 19758 22058 24358	100	V	W	500-2000/0.01	67P #4 Phase B Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6916 25612 25775 27370 27689 27889 28215 29250	100	S	W	1-60000/0.01	67PB.4.MAXOPTM

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6917 25613 25776 27371 27690 27890 28216 29251	1	—	W	0-1/1	67PB.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47122 49422 51722 54022 56322 58622 60922 63222	1	—	W	0-4294967295/1	67P #5 Phase B Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47123 49423 51723 54023 56323 58623 60923 63223	1	—	W	0-4294967295/1	67P #5 Phase B Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8260 10560 12860 15160 17460 19760 22060 24360	1	—	W	0-4095/1	67P #5 Phase B Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8261 10561 12861 15161 17461 19761 22061 24361	1	—	W	0-1/1	67P #5 Phase B Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8262 10562 12862 15162 17462 19762 22062 24362	1	—	W	0-65535/1	67P #5 Phase B Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8263 10563 12863 15163 17463 19763 22063 24363	100	A	W	1-2000/0.01	67P #5 Phase B Definite Time Pickup
1 2 3 4 5 6 7 8	30140 32265 34390 36515 38640 40765 42890 44982	100	A	W	1-320/0.01	67P #5 Phase B Inverse Time Pickup

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8264 10564 12864 15164 17464 19764 22064 24364	100	S	W	0-60000/0.01	67P #5 Phase B Definite Time Delay
1 2 3 4 5 6 7 8	8265 10565 12865 15165 17465 19765 22065 24365	1	Degree	W	0-359/1	67P #5 Phase B Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30055 32180 34305 36430 38555 40680 42805 44897	1	Degree	W	5-90/1	67P #5 Phase B Angle Band+
1 2 3 4 5 6 7 8	30057 32182 34307 36432 38557 40682 42807 44899	1	—	W	0-71/1	67P #5 Phase B Curves (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30058 32183 34308 36433 38558 40683 42808 44900	1	—	W	0-1/1	67P #5 Phase B Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30059 32184 34309 36434 38559 40684 42809 44901	1000	Sec	W	1-60000/0.001	67P #5 Phase B Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30060 32185 34310 36435 38560 40685 42810 44902	1000	Sec	W	1-60000/0.001	67P #5 Phase B Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30061 32186 34311 36436 38561 40686 42811 44903	100	—	W	5-100/0.01	67P #5 Phase B Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30062 32187 34312 36437 38562 40687 42812 44904	100	Sec	W	0-3000/0.01	67P #5 Phase B Time Adder
1 2 3 4 5 6 7 8	30063 32188 34313 36438 38563 40688 42813 44905	100	Sec	W	0-100/0.01	67P #5 Phase B Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30064 32189 34314 36439 38564 40689 42814 44906	100	Sec	W	0-100/0.01	67P #5 Phase B Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30065 32190 34315 36440 38565 40690 42815 44907	1	s		0.1-30/1	67P #5 Phase B.5.TMDIALRESET

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8266 10566 12866 15166 17466 19766 22066 24366	100	V	W	500-2000/0.01	67P #5 Phase B Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6918 25614 25777 27372 27691 27891 28217 29252	100	S	W	1-60000/0.01	67PB.5.MAXOPTM
1 2 3 4 5 6 7 8	6919 25615 25778 27373 27692 27892 28218 29253	1	—	W	0-1/1	67PB.5.MAXOPTMENA

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47124 49424 51724 54024 56324 58624 60924 63224	1	—	W	0-4294967295/1	67P #1 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47125 49425 51725 54025 56325 58625 60925 63225	1	—	W	0-4294967295/1	67P #1 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8268 10568 12868 15168 17468 19768 22068 24368	1	—	W	0-4095/1	67P #1 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8269 10569 12869 15169 17469 19769 22069 24369	1	—	W	0-1/1	67P #1 Phase C Enable Bit-0 Enable-1; Disable-0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8270 10570 12870 15170 17470 19770 22070 24370	1	—	W	0-65535/1	67P #1 Phase C Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8271 10571 12871 15171 17471 19771 22071 24371	100	A	W	1-2000/0.01	67P #1 Phase C Definite Time Pickup
1 2 3 4 5 6 7 8	30141 32266 34391 36516 38641 40766 42891 44983	100	A	W	1-320/0.01	67P #1 Phase C Inverse Time Pickup
1 2 3 4 5 6 7 8	8272 10572 12872 15172 17472 19772 22072 24372	100	S	W	0-60000/0.01	67P #1 Phase C Definite Time Delay

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8273 10573 12873 15173 17473 19773 22073 24373	1	Degree	W	0-359/1	67P #1 Phase C Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30066 32191 34316 36441 38566 40691 42816 44908	1	Degree	W	5-90/1	67P #1 Phase C Angle Band+
1 2 3 4 5 6 7 8	30068 32193 34318 36443 38568 40693 42818 44910	1	—	W	0-71/1	67P #1 Phase C Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30069 32194 34319 36444 38569 40694 42819 44911	1	—	W	0-1/1	67P #1 Phase C Electromechanical Reset Enable:1, Disable: 0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30070 32195 34320 36445 38570 40695 42820 44912	1000	Sec	W	1-60000/0.001	67P #1 Phase C Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30071 32196 34321 36446 38571 40696 42821 44913	1000	Sec	W	1-60000/0.001	67P #1 Phase C Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30072 32197 34322 36447 38572 40697 42822 44914	100	–	W	5-100/0.01	67P #1 Phase C Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30073 32198 34323 36448 38573 40698 42823 44915	100	Sec	W	0-3000/0.01	67P #1 Phase C Time Adder

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30074 32199 34324 36449 38574 40699 42824 44916	100	Sec	W	0-100/0.01	67P #1 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30075 32200 34325 36450 38575 40700 42825 44917	100	Sec	W	0-100/0.01	67P #1 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30076 32201 34326 36451 38576 40701 42826 44918	1	s		0.1-30/1	67P #1 Phase C.1.TMDIALRESET
1 2 3 4 5 6 7 8	8274 10574 12874 15174 17474 19774 22074 24374	100	V	W	500-2000/0.01	67P #1 Phase C Minimum Polarization Voltage

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6920 25616 25779 27374 27693 27893 28219 29254	100	S	W	1-60000/0.01	67PC.1.MAXOPTM
1 2 3 4 5 6 7 8	6921 25617 25780 27375 27694 27894 28220 29255	1	—	W	0-1/1	67PC.1.MAXOPTMENA
1 2 3 4 5 6 7 8	47126 49426 51726 54026 56326 58626 60926 63226	1	—	W	0-4294967295/1	67P #2 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47127 49427 51727 54027 56327 58627 60927 63227	1	—	W	0-4294967295/1	67P #2 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8276 10576 12876 15176 17476 19776 22076 24376	1	—	W	0-4095/1	67P #2 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8277 10577 12877 15177 17477 19777 22077 24377	1	—	W	0-1/1	67P #2 Phase C Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8278 10578 12878 15178 17478 19778 22078 24378	1	—	W	0-65535/1	67P #2 Phase C Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8279 10579 12879 15179 17479 19779 22079 24379	100	A	W	1-2000/0.01	67P #2 Phase C Definite Time Pickup
1 2 3 4 5 6 7 8	30142 32267 34392 36517 38642 40767 42892 44984	100	A	W	1-320/0.01	67P #2 Phase C Inverse Time Pickup
1 2 3 4 5 6 7 8	8280 10580 12880 15180 17480 19780 22080 24380	100	S	W	0-60000/0.01	67P #2 Phase C Definite Time Delay
1 2 3 4 5 6 7 8	8281 10581 12881 15181 17481 19781 22081 24381	1	Degree	W	0-359/1	67P #2 Phase C Maximum Sensitivity Angle 1

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30077 32202 34327 36452 38577 40702 42827 44919	1	Degree	W	5-90/1	67P #2 Phase C Angle Band+
1 2 3 4 5 6 7 8	30079 32204 34329 36454 38579 40704 42829 44921	1	—	W	0-71/1	67P #2 Phase C Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30080 32205 34330 36455 38580 40705 42830 44922	1	—	W	0-1/1	67P #2 Phase C Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30081 32206 34331 36456 38581 40706 42831 44923	1000	Sec	W	1-60000/0.001	67P #2 Phase C Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30082 32207 34332 36457 38582 40707 42832 44924	1000	Sec	W	1-60000/0.001	67P #2 Phase C Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30083 32208 34333 36458 38583 40708 42833 44925	100	–	W	5-100/0.01	67P #2 Phase C Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30084 32209 34334 36459 38584 40709 42834 44926	100	Sec	W	0-3000/0.01	67P #2 Phase C Time Adder
1 2 3 4 5 6 7 8	30085 32210 34335 36460 38585 40710 42835 44927	100	Sec	W	0-100/0.01	67P #2 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30086 32211 34336 36461 38586 40711 42836 44928	100	Sec	W	0-100/0.01	67P #2 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30087 32212 34337 36462 38587 40712 42837 44929	1	s		0.1-30/1	67P #2 Phase C.2.TMDIALRESET
1 2 3 4 5 6 7 8	8282 10582 12882 15182 17482 19782 22082 24382	100	V	W	500-2000/0.01	67P #2 Phase C Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6922 25618 25781 27376 27695 27895 28221 29256	100	S	W	1-60000/0.01	67PC.2.MAXOPTM

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6923 25619 25782 27377 27696 27896 28222 29257	1	—	W	0-1/1	67PC.2.MAXOPTMENA
1 2 3 4 5 6 7 8	47128 49428 51728 54028 56328 58628 60928 63228	1	—	W	0-4294967295/1	67P #3 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47129 49429 51729 54029 56329 58629 60929 63229	1	—	W	0-4294967295/1	67P #3 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8284 10584 12884 15184 17484 19784 22084 24384	1	—	W	0-4095/1	67P #3 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8285 10585 12885 15185 17485 19785 22085 24385	1	—	W	0-1/1	67P #3 Phase C Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8286 10586 12886 15186 17486 19786 22086 24386	1	—	W	0-65535/1	67P #3 Phase C Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8287 10587 12887 15187 17487 19787 22087 24387	100	A	W	1-2000/0.01	67P #3 Phase C Definite Time Pickup
1 2 3 4 5 6 7 8	30143 32268 34393 36518 38643 40768 42893 44985	100	A	W	1-320/0.01	67P #3 Phase C Inverse Time Pickup

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8288 10588 12888 15188 17488 19788 22088 24388	100	S	W	0-60000/0.01	67P #3 Phase C Definite Time Delay
1 2 3 4 5 6 7 8	8289 10589 12889 15189 17489 19789 22089 24389	1	Degree	W	0-359/1	67P #3 Phase C Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30088 32213 34338 36463 38588 40713 42838 44930	1	Degree	W	5-90/1	67P #3 Phase C Angle Band+
1 2 3 4 5 6 7 8	30090 32215 34340 36465 38590 40715 42840 44932	1	—	W	0-71/1	67P #3 Phase C Curves (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30091 32216 34341 36466 38591 40716 42841 44933	1	—	W	0-1/1	67P #3 Phase C Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30092 32217 34342 36467 38592 40717 42842 44934	1000	Sec	W	1-60000/0.001	67P #3 Phase C Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30093 32218 34343 36468 38593 40718 42843 44935	1000	Sec	W	1-60000/0.001	67P #3 Phase C Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30094 32219 34344 36469 38594 40719 42844 44936	100	—	W	5-100/0.01	67P #3 Phase C Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30095 32220 34345 36470 38595 40720 42845 44937	100	Sec	W	0-3000/0.01	67P #3 Phase C Time Adder
1 2 3 4 5 6 7 8	30096 32221 34346 36471 38596 40721 42846 44938	100	Sec	W	0-100/0.01	67P #3 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30097 32222 34347 36472 38597 40722 42847 44939	100	Sec	W	0-100/0.01	67P #3 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30098 32223 34348 36473 38598 40723 42848 44940	1	s		0.1-30/1	67P #3 Phase C.3.TMDIALRESET

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8290 10590 12890 15190 17490 19790 22090 24390	100	V	W	500-2000/0.01	67P #3 Phase C Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6924 25620 25783 27378 27697 27897 28223 29258	100	S	W	1-60000/0.01	67PC.3.MAXOPTM
1 2 3 4 5 6 7 8	6925 25621 25784 27379 27698 27898 28224 29259	1	—	W	0-1/1	67PC.3.MAXOPTMENA

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47130 49430 51730 54030 56330 58630 60930 63230	1	—	W	0-4294967295/1	67P #4 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47131 49431 51731 54031 56331 58631 60931 63231	1	—	W	0-4294967295/1	67P #4 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8292 10592 12892 15192 17492 19792 22092 24392	1	—	W	0-4095/1	67P #4 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8293 10593 12893 15193 17493 19793 22093 24393	1	—	W	0-1/1	67P #4 Phase C Enable Bit-0 Enable-1; Disable-0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8294 10594 12894 15194 17494 19794 22094 24394	1	—	W	0-65535/1	67P #4 Phase C Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8295 10595 12895 15195 17495 19795 22095 24395	100	A	W	1-2000/0.01	67P #4 Phase C Definite Time Pickup
1 2 3 4 5 6 7 8	30144 32269 34394 36519 38644 40769 42894 44986	100	A	W	1-320/0.01	67P #4 Phase C Inverse Time Pickup
1 2 3 4 5 6 7 8	8296 10596 12896 15196 17496 19796 22096 24396	100	S	W	0-60000/0.01	67P #4 Phase C Definite Time Delay

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8297 10597 12897 15197 17497 19797 22097 24397	1	Degree	W	0-359/1	67P #4 Phase C Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30099 32224 34349 36474 38599 40724 42849 44941	1	Degree	W	5-90/1	67P #4 Phase C Angle Band+
1 2 3 4 5 6 7 8	30101 32226 34351 36476 38601 40726 42851 44943	1	—	W	0-71/1	67P #4 Phase C Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30102 32227 34352 36477 38602 40727 42852 44944	1	—	W	0-1/1	67P #4 Phase C Electromechanical Reset Enable:1, Disable: 0

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30103 32228 34353 36478 38603 40728 42853 44945	1000	Sec	W	1-60000/0.001	67P #4 Phase C Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30104 32229 34354 36479 38604 40729 42854 44946	1000	Sec	W	1-60000/0.001	67P #4 Phase C Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30105 32230 34355 36480 38605 40730 42855 44947	100	–	W	5-100/0.01	67P #4 Phase C Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30106 32231 34356 36481 38606 40731 42856 44948	100	Sec	W	0-3000/0.01	67P #4 Phase C Time Adder

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30107 32232 34357 36482 38607 40732 42857 44949	100	Sec	W	0-100/0.01	67P #4 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30108 32233 34358 36483 38608 40733 42858 44950	100	Sec	W	0-100/0.01	67P #4 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30109 32234 34359 36484 38609 40734 42859 44951	1	s		0.1-30/1	67P #4 Phase C.4.TMDIALRESET
1 2 3 4 5 6 7 8	8298 10598 12898 15198 17498 19798 22098 24398	100	V	W	500-2000/0.01	67P #4 Phase C Minimum Polarization Voltage

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6926 25622 25785 27380 27699 27899 28225 29260	100	S	W	1-60000/0.01	67PC.4.MAXOPTM
1 2 3 4 5 6 7 8	6927 25623 25786 27381 27700 27900 28226 29261	1	—	W	0-1/1	67PC.4.MAXOPTMENA
1 2 3 4 5 6 7 8	47132 49432 51732 54032 56332 58632 60932 63232	1	—	W	0-4294967295/1	67P #5 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47133 49433 51733 54033 56333 58633 60933 63233	1	—	W	0-4294967295/1	67P #5 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8300 10600 12900 15200 17500 19800 22100 24400	1	—	W	0-4095/1	67P #5 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8301 10601 12901 15201 17501 19801 22101 24401	1	—	W	0-1/1	67P #5 Phase C Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8302 10602 12902 15202 17502 19802 22102 24402	1	—	W	0-65535/1	67P #5 Phase C Enable Direction, Polarization Voltage selection, Action if Below Setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Angle Band+ Bit 10 – Polarization Voltage is V1 Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8303 10603 12903 15203 17503 19803 22103 24403	100	A	W	1-2000/0.01	67P #5 Phase C Definite Time Pickup
1 2 3 4 5 6 7 8	30145 32270 34395 36520 38645 40770 42895 44987	100	A	W	1-320/0.01	67P #5 Phase C Inverse Time Pickup
1 2 3 4 5 6 7 8	8304 10604 12904 15204 17504 19804 22104 24404	100	S	W	0-60000/0.01	67P #5 Phase C Definite Time Delay
1 2 3 4 5 6 7 8	8305 10605 12905 15205 17505 19805 22105 24405	1	Degree	W	0-359/1	67P #5 Phase C Maximum Sensitivity Angle 1

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30110 32235 34360 36485 38610 40735 42860 44952	1	Degree	W	5-90/1	67P #5 Phase C Angle Band+
1 2 3 4 5 6 7 8	30112 32237 34362 36487 38612 40737 42862 44954	1	—	W	0-71/1	67P #5 Phase C Curves (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30113 32238 34363 36488 38613 40738 42863 44955	1	—	W	0-1/1	67P #5 Phase C Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30114 32239 34364 36489 38614 40739 42864 44956	1000	Sec	W	1-60000/0.001	67P #5 Phase C Reset Coefficient (Low) Low bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30115 32240 34365 36490 38615 40740 42865 44957	1000	Sec	W	1-60000/0.001	67P #5 Phase C Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30116 32241 34366 36491 38616 40741 42866 44958	100	–	W	5-100/0.01	67P #5 Phase C Time Multiplier Range of this point changes based on 67P Curve setting (See the Reference Tables at the end of Function 67P)
1 2 3 4 5 6 7 8	30117 32242 34367 36492 38617 40742 42867 44959	100	Sec	W	0-3000/0.01	67P #5 Phase C Time Adder
1 2 3 4 5 6 7 8	30118 32243 34368 36493 38618 40743 42868 44960	100	Sec	W	0-100/0.01	67P #5 Phase C Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.27 Function 67P Setpoints

Function 67P Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30119 32244 34369 36494 38619 40744 42869 44961	100	Sec	W	0-100/0.01	67P #5 Phase C Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30120 32245 34370 36495 38620 40745 42870 44962	1	s		0.1-30/1	67P #5 Phase C.5.TMDIALRESET
1 2 3 4 5 6 7 8	8306 10606 12906 15206 17506 19806 22106 24406	100	V	W	500-2000/0.01	67P #5 Phase C Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6928 25624 25787 27382 27701 27901 28227 29262	100	S	W	1-60000/0.01	67PC.5.MAXOPTM

Table 2.27 Function 67P Setpoints

Function 67P Setpoints						
PROFILES #1 to #8						
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	6929	1	—	W	0-1/1	67PC.5.MAXOPTMENA
2	25625					
3	25788					
4	27383					
5	27702					
6	27902					
7	28228					
8	29263					
1	30121	--	--	--	0-31/1	67VIEWINDPHASE
2	32246					
3	34371					
4	36496					
5	38621					
6	40746					
7	42871					
8	44963					

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “*Inverse Time Curves – Time Multiplier Ranges*” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “*Inverse Time Curves – Time Multiplier Ranges*” Reference Table. The corresponding range/increment is “5-100/0.01”.

Table 2.27 Function 67P Setpoints

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP-101(A)
38	120(Y)		69	BSCP-101(A)
39	121(G)		70	BFCG-101(A)
40	122(H)		71	BSCG-101(A)
41	131(9)		70 & 71	This bit numbers are invalid for Phase functions

Inverse Time Curves – Bit Number Reference Table

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01

Table 2.27 Function 67P Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4 68 – BFCP - 101(A) 69 – BSCP - 101(A) 70 – BFCG - 101(A) 71 – BSCG - 101(A)	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.27 Function 67P Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47154 49454 51754 54054 56354 58654 60954 63254	1	—	W	0-4294967295/1	67Q #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47155 49455 51755 54055 56355 58655 60955 63255	1	—	W	0-4294967295/1	67Q #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8419 10719 13019 15319 17619 19919 22219 24519	1	—	W	0-4095/1	67Q #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8420 10720 13020 15320 17620 19920 22220 24520	—	—	W	0-1/1	67Q #1 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8421 10721 13021 15321 17621 19921 22221 24521	—	—	W	0-65535/1	67Q #1 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8422 10722 13022 15322 17622 19922 22222 24522	100	A	W	1-2000/0.01	67Q #1 Definite Time Pickup
1 2 3 4 5 6 7 8	30563 32688 34813 36938 39063 41188 43313 45306	100	A	W	1-320/0.01	67Q #1 Inverse Time Pickup
1 2 3 4 5 6 7 8	8423 10723 13023 15323 17623 19923 22223 24523	100	Sec	W	0-60000/0.01	67Q #1 Definite Time Delay
1 2 3 4 5 6 7 8	8424 10724 13024 15324 17624 19924 22224 24524	1	Degree	W	0-359/1	67Q #1 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30564 32689 34814 36939 39064 41189 43314 45307	1	Degree	W	5-90/1	67Q #1 Angle Band+
1 2 3 4 5 6 7 8	30565 32690 34815 36940 39065 41190 43315 45308	1	—	W	0-71/1	67Q #1 Curves (See the Reference Tables at the end of Function 67Q)

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30566 32691 34816 36941 39066 41191 43316 45309	1	—	W	0-1/1	67Q #1 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30567 32692 34817 36942 39067 41192 43317 45310	1000	Sec	W	1-60000/0.001	67Q #1 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30568 32693 34818 36943 39068 41193 43318 45311	1000	Sec	W	1-60000/0.001	67Q #1 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30569 32694 34819 36944 39069 41194 43319 45312	100	—	W	5-100/0.01	67Q #1 Time Multiplier Range of this point changes based on 67Q Curve setting (See the Reference Tables at the end of Function 67Q)
1 2 3 4 5 6 7 8	30570 32695 34820 36945 39070 41195 43320 45313	100	Sec	W	0-3000/0.01	67Q #1 Time Adder
1 2 3 4 5 6 7 8	30571 32696 34821 36946 39071 41196 43321 45314	100	Sec	W	0-100/0.01	67Q #1 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30572 32697 34822 36947 39072 41197 43322 45315	100	Sec	W	0-100/0.01	67Q #1 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8425 10725 13025 15325 17625 19925 22225 24525	100	V	W	500-2000/0.01	67Q #1 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6950 25646 25809 27404 27723 27923 28249 29285	100	S	W	1-60000/0.01	67Q.1.MAXOPTM
1 2 3 4 5 6 7 8	6951 25647 25810 27405 27724 27924 28250 29286	1	-	W	0-1/1	67Q.1.MAXOPTMENA
1 2 3 4 5 6 7 8	8458 10758 13058 15358 17658 19958 22258 24558	1	—	W	0-31/1	67Q Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.
1 2 3 4 5 6 7 8	47156 49456 51756 54056 56356 58656 60956 63256	1	—	W	0-4294967295/1	67Q #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47157 49457 51757 54057 56357 58657 60957 63257	1	—	W	0-4294967295/1	67Q #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8427 10727 13027 15327 17627 19927 22227 24527	1	—	W	0-4095/1	67Q #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8428 10728 13028 15328 17628 19928 22228 24528	—	—	W	0-1/1	67Q #2 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8429 10729 13029 15329 17629 19929 22229 24529	—	—	W	0-65535/1	67Q #2 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8430 10730 13030 15330 17630 19930 22230 24530	100	A	W	1-2000/0.01	67Q #2 Definite Time Pickup

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30574 32699 34824 36949 39074 41199 43324 45317	100	A	W	1-320/0.01	67Q #2 Inverse Time Pickup
1 2 3 4 5 6 7 8	8431 10731 13031 15331 17631 19931 22231 24531	100	Sec	W	0-60000/0.01	67Q #2 Definite Time Delay
1 2 3 4 5 6 7 8	8432 10732 13032 15332 17632 19932 22232 24532	1	Degree	W	0-359/1	67Q #2 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30575 32700 34825 36950 39075 41200 43325 45318	1	Degree	W	5-90/1	67Q #2 Angle Band+
1 2 3 4 5 6 7 8	30576 32701 34826 36951 39076 41201 43326 45319	1	—	W	0-71/1	67Q #2 Curves (See the Reference Tables at the end of Function 67Q)
1 2 3 4 5 6 7 8	30577 32702 34827 36952 39077 41202 43327 45320	1	—	W	0-1/1	67Q #2 Electromechanical Reset Enable:1, Disable: 0

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30578 32703 34828 36953 39078 41203 43328 45321	1000	Sec	W	1-60000/0.001	67Q #2 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30579 32704 34829 36954 39079 41204 43329 45322	1000	Sec	W	1-60000/0.001	67Q #2 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30580 32705 34830 36955 39080 41205 43330 45323	100	–	W	5-100/0.01	67Q #2 Time Multiplier Range of this point changes based on 67Q Curve setting (See the Reference Tables at the end of Function 67Q)
1 2 3 4 5 6 7 8	30581 32706 34831 36956 39081 41206 43331 45324	100	Sec	W	0-3000/0.01	67Q #2 Time Adder
1 2 3 4 5 6 7 8	30582 32707 34832 36957 39082 41207 43332 45325	100	Sec	W	0-100/0.01	67Q #2 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30583 32708 34833 36958 39083 41208 43333 45326	100	Sec	W	0-100/0.01	67Q #2 Minimum Response Time Adder (High) High bytes of 32-bit register

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8433 10733 13033 15333 17633 19933 22233 24533	100	V	W	500-2000/0.01	67Q #2 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6952 25648 25811 27406 27725 27925 28251 29287	100	S	W	1-60000/0.01	67Q.2.MAXOPTM
1 2 3 4 5 6 7 8	6953 25649 25812 27407 27726 27926 28252 29288	1	-	W	0-1/1	67Q.2.MAXOPTMENA
1 2 3 4 5 6 7 8	47158 49458 51758 54058 56358 58658 60958 63258	1	—	W	0-4294967295/1	67Q #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47159 49459 51759 54059 56359 58659 60959 63259	1	—	W	0-4294967295/1	67Q #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8435 10735 13035 15335 17635 19935 22235 24535	1	—	W	0-4095/1	67Q #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8436 10736 13036 15336 17636 19936 22236 24536	—	—	W	0-1/1	67Q #3 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8437 10737 13037 15337 17637 19937 22237 24537	—	—	W	0-65535/1	67Q #3 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8438 10738 13038 15338 17638 19938 22238 24538	100	A	W	1-2000/0.01	67Q #3 Definite Time Pickup
1 2 3 4 5 6 7 8	30585 32710 34835 36960 39085 41210 43335 45328	100	A	W	1-320/0.01	67Q #3 Inverse Time Pickup
1 2 3 4 5 6 7 8	8439 10739 13039 15339 17639 19939 22239 24539	100	Sec	W	0-60000/0.01	67Q #3 Definite Time Delay

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8440 10740 13040 15340 17640 19940 22240 24540	1	Degree	W	0-359/1	67Q #3 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30586 32711 34836 36961 39086 41211 43336 45329	1	Degree	W	5-90/1	67Q #3 Angle Band+
1 2 3 4 5 6 7 8	30587 32712 34837 36962 39087 41212 43337 45330	1	—	W	0-71/1	67Q #3 Curves (See the Reference Tables at the end of Function 67Q)
1 2 3 4 5 6 7 8	30588 32713 34838 36963 39088 41213 43338 45331	1	—	W	0-1/1	67Q #3 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30589 32714 34839 36964 39089 41214 43339 45332	1000	Sec	W	1-60000/0.001	67Q #3 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30590 32715 34840 36965 39090 41215 43340 45333	1000	Sec	W	1-60000/0.001	67Q #3 Reset Coefficient (High) High bytes of 32-bit register

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30591 32716 34841 36966 39091 41216 43341 45334	100	—	W	5-100/0.01	67Q #3 Time Multiplier Range of this point changes based on 67Q Curve setting (See the Reference Tables at the end of Function 67Q)
1 2 3 4 5 6 7 8	30592 32717 34842 36967 39092 41217 43342 45335	100	Sec	W	0-3000/0.01	67Q #3 Time Adder
1 2 3 4 5 6 7 8	30593 32718 34843 36968 39093 41218 43343 45336	100	Sec	W	0-100/0.01	67Q #3 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30594 32719 34844 36969 39094 41219 43344 45337	100	Sec	W	0-100/0.01	67Q #3 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8441 10741 13041 15341 17641 19941 22241 24541	100	V	W	500-2000/0.01	67Q #3 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6954 10746 25813 27408 27727 27927 28253 29289	100	S	W	1-60000/0.01	67Q.3.MAXOPTM

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6955 32721 25814 27409 27728 27928 28254 29290	1	-	W	0-1/1	67Q.3.MAXOPTMENA
1 2 3 4 5 6 7 8	47160 49460 51760 54060 56360 58660 60960 63260	1	—	W	0-4294967295/1	67Q #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47161 49461 51761 54061 56361 58661 60961 63261	1	—	W	0-4294967295/1	67Q #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8443 10743 13043 15343 17643 19943 22243 24543	1	—	W	0-4095/1	67Q #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8444 10744 13044 15344 17644 19944 22244 24544	—	—	W	0-1/1	67Q #4 Enable Bit-0 Enable-1; Disable-0

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8445 10745 13045 15345 17645 19945 22245 24545	—	—	W	0-65535/1	67Q #4 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused
1 2 3 4 5 6 7 8	8446 10746 13046 15346 17646 19946 22246 24546	100	A	W	1-2000/0.01	67Q #4 Definite Time Pickup
1 2 3 4 5 6 7 8	30596 32721 34846 36971 39096 41221 43346 45339	100	A	W	1-320/0.01	67Q #4 Inverse Time Pickup
1 2 3 4 5 6 7 8	8447 10747 13047 15347 17647 19947 22247 24547	100	Sec	W	0-60000/0.01	67Q #4 Definite Time Delay
1 2 3 4 5 6 7 8	8448 10748 13048 15348 17648 19948 22248 24548	1	Degree	W	0-359/1	67Q #4 Maximum Sensitivity Angle 1

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30597 32722 34847 36972 39097 41222 43347 45340	1	Degree	W	5-90/1	67Q #4 Angle Band+
1 2 3 4 5 6 7 8	30598 32723 34848 36973 39098 41223 43348 45341	1	—	W	0-71/1	67Q #4 Curves (See the Reference Tables at the end of Function 67Q)
1 2 3 4 5 6 7 8	30599 32724 34849 36974 39099 41224 43349 45342	1	—	W	0-1/1	67Q #4 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30600 32725 34850 36975 39100 41225 43350 45343	1000	Sec	W	1-60000/0.001	67Q #4 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30601 32726 34851 36976 39101 41226 43351 45344	1000	Sec	W	1-60000/0.001	67Q #4 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30602 32727 34852 36977 39102 41227 43352 45345	100	—	W	5-100/0.01	67Q #4 Time Multiplier Range of this point changes based on 67Q Curve setting (See the Reference Tables at the end of Function 67Q)

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30603 32728 34853 36978 39103 41228 43353 45346	100	Sec	W	0-3000/0.01	67Q #4 Time Adder
1 2 3 4 5 6 7 8	30604 32729 34854 36979 39104 41229 43354 45347	100	Sec	W	0-100/0.01	67Q #4 Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30605 32730 34855 36980 39105 41230 43355 45348	100	Sec	W	0-100/0.01	67Q #4 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8449 10749 13049 15349 17649 19949 22249 24549	100	V	W	500-2000/0.01	67Q #4 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6956 25652 25815 27410 27729 27929 28255 29291	100	S	W	1-60000/0.01	67Q.4.MAXOPTM
1 2 3 4 5 6 7 8	6957 25653 25816 27411 27730 27930 28256 29292	1	-	W	0-1/1	67Q.4.MAXOPTMENA

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47162 49462 51762 54062 56362 58662 60962 63262	1	—	W	0-4294967295/1	67Q #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47163 49463 51763 54063 56363 58663 60963 63263	1	—	W	0-4294967295/1	67Q #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8451 10751 13051 15351 17651 19951 22251 24551	1	—	W	0-4095/1	67Q #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8452 10752 13052 15352 17652 19952 22252 24552	—	—	W	0-1/1	67Q #5 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8453 10753 13053 15353 17653 19953 22253 24553	—	—	W	0-65535/1	67Q #5 Enable Direction, Polarization Voltage selection, Action if Below setting and Type of function to use Bit 0 – Enable Direction Bit 4 – 0 = Use Definite Time Function 1 = Use Inverse Time Function Bit 5 – Enable Max. Sensitivity Angle 2 Bit 8,10 – Polarization Voltage is V2 (set both bits to 1) Bit 15 – 0 = Action if Below is Block Trip 1 = Action if Below is Trip Rest of the bits are unused

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8454 10754 13054 15354 17654 19954 22254 24554	100	A	W	1-2000/0.01	67Q #5 Definite Time Pickup
1 2 3 4 5 6 7 8	30607 32732 34857 36982 39107 41232 43357 45350	100	A	W	1-320/0.01	67Q #5 Inverse Time Pickup
1 2 3 4 5 6 7 8	8455 10755 13055 15355 17655 19955 22255 24555	100	Sec	W	0-60000/0.01	67Q #5 Definite Time Delay
1 2 3 4 5 6 7 8	8456 10756 13056 15356 17656 19956 22256 24556	1	Degree	W	0-359/1	67Q #5 Maximum Sensitivity Angle 1
1 2 3 4 5 6 7 8	30608 32733 34858 36983 39108 41233 43358 45351	1	Degree	W	5-90/1	67Q #5 Angle Band+
1 2 3 4 5 6 7 8	30609 32734 34859 36984 39109 41234 43359 45352	1	—	W	0-71/1	67Q #5 Curves (See the Reference Tables at the end of Function 67Q)

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30610 32735 34860 36985 39110 41235 43360 45353	1	—	W	0-1/1	67Q #5 Electromechanical Reset Enable:1, Disable: 0
1 2 3 4 5 6 7 8	30611 32736 34861 36986 39111 41236 43361 45354	1000	Sec	W	1-60000/0.001	67Q #5 Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	30612 32737 34862 36987 39112 41237 43362 45355	1000	Sec	W	1-60000/0.001	67Q #5 Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	30613 32738 34863 36988 39113 41238 43363 45356	100	—	W	5-100/0.01	67Q #5 Time Multiplier Range of this point changes based on 67Q Curve setting (See the Reference Tables at the end of Function 67Q)
1 2 3 4 5 6 7 8	30614 32739 34864 36989 39114 41239 43364 45357	100	Sec	W	0-3000/0.01	67Q #5 Time Adder
1 2 3 4 5 6 7 8	30615 32740 34865 36990 39115 41240 43365 45358	100	Sec	W	0-100/0.01	67Q #5 Minimum Response Time Adder (Low) Low bytes of 32-bit register

Table 2.28 Function 67Q Setpoints

Function 67Q Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30616 32741 34866 36991 39116 41241 43366 45359	100	Sec	W	0-100/0.01	67Q #5 Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8457 10757 13057 15357 17657 19957 22257 24557	100	V	W	500-2000/0.01	67Q #5 Minimum Polarization Voltage
1 2 3 4 5 6 7 8	6958 25654 25817 27412 27731 27931 28257 29293	100	S	W	1-60000/0.01	67Q.5.MAXOPTM
1 2 3 4 5 6 7 8	6959 25655 25818 27413 27732 27932 28258 29294	1	-	W	0-1/1	67Q.5.MAXOPTMENA

Table 2.28 Function 67Q Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “*Inverse Time Curves – Time Multiplier Ranges*” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “*Inverse Time Curves – Time Multiplier Ranges*” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP-101(A)
38	120(Y)		69	BSCP-101(A)
39	121(G)		70	BFCG-101(A)
40	122(H)		71	BSCG-101(A)
41	131(9)		68 & 69	This bit numbers are invalid for Ground/Neutral functions
			70 & 71	This bit numbers are invalid for Phase functions

Inverse Time Curves – Bit Number Reference Table

Table 2.28 Function 67Q Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4 68 – BFCP - 101(A) 69 – BSCP - 101(A) 70 – BFCG - 101(A) 71 – BSCG - 101(A)	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.28 Function 67Q Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30922 33047 35172 37297 39422 41547 43672 45665	1	—	W	0-63/1	79 Independent Phase Mode Option
1 2 3 4 5 6 7 8	47164 49464 51764 54064 56364 58664 60964 63264	1	—	W	0-4294967295 / 1	79 Phase ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47165 49465 51765 54065 56365 58665 60965 63265	1	—	W	0-4294967295 / 1	79 Phase ABC Blocking Inputs .H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8469 10769 13069 15369 17669 19969 22269 24569	1	—	W	0-1/1	79 Phase ABC F79 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8470 10770 13070 15370 17670 19970 22270 24570	1	—	W	0-7/1	79 Phase ABC Sequence Coordination

Table 2.29 Function 79 Setpoints

Function 79 Setpoints																		
PROFILES #1 to #8																		
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.																		
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION												
1 2 3 4 5 6 7 8	8471 10771 13071 15371 17671 19971 22271 24571	1	Sec	W	0-1800/1	79 Phase ABC Reset Time after Auto Reclose												
1 2 3 4 5 6 7 8	8472 10772 13072 15372 17672 19972 22272 24572	1	Sec	W	0-1800/1	79 Phase ABC Reset Time from Lockout												
1 2 3 4 5 6 7 8	8473 10773 13073 15373 17673 19973 22273 24573	1	—	W	0-65535/1	79 Phase ABC Recloser Count Low Byte: Max Number of phase trips High Byte: Max number of GND/Resid.Trips <table><tr><td>Setting value (high or low byte)</td><td>Actual counts</td></tr><tr><td>0</td><td>1</td></tr><tr><td>1</td><td>2</td></tr><tr><td>2</td><td>3</td></tr><tr><td>3</td><td>4</td></tr><tr><td>4</td><td>5</td></tr></table> Example: setting value is 1026 = 0x0402 Phase trips value = 2 -> Actual counts 3 GND trips value = 4 -> Actual counts 5	Setting value (high or low byte)	Actual counts	0	1	1	2	2	3	3	4	4	5
Setting value (high or low byte)	Actual counts																	
0	1																	
1	2																	
2	3																	
3	4																	
4	5																	
1 2 3 4 5 6 7 8	8474 10774 13074 15374 17674 19974 22274 24574	1	—	W	0-3/1	79 Phase ABC Phase Ground Enable												
1 2 3 4 5 6 7 8	7145 9445 11745 14045 16345 18645 20945 23245	1	—	W	0-1/1	79.OPTION												

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47166 49466 51766 54066 56366 58666 60966 63266	1	—	W	0-4294967295 / 1	79 Phase A Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47167 49467 51767 54067 56367 58667 60967 63267	1	—	W	0-4294967295 / 1	79 Phase A Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	30924 33049 35174 37299 39424 41549 43674 45667	1	—	W	0-1/1	79 Phase A F79 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30925 33050 35175 37300 39425 41550 43675 45668	1	—	W	0-7/1	79 Phase A Sequence Coordination
1 2 3 4 5 6 7 8	30926 33051 35176 37301 39426 41551 43676 45669	1	Sec	W	1-1800/1	79 Phase A Reset Time after Auto Reclose
1 2 3 4 5 6 7 8	30927 33052 35177 37302 39427 41552 43677 45670	1	Sec	W	0-1800/1	79 Phase A Reset Time from Lockout

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30928 33053 35178 37303 39428 41553 43678 45671	1	—	W	0-65535/1	79 Phase A Recloser Count See “79 Phase ABC Recloser Count” for decoding details
1 2 3 4 5 6 7 8	30929 33054 35179 37304 39429 41554 43679 45672	1	—	W	0-3/1	79 Phase A Phase Ground Enable
1 2 3 4 5 6 7 8	7146 9446 11746 14046 16346 18646 20946 23246	1	-	W	0-1/11	79.A.OPTION
1 2 3 4 5 6 7 8	47168 49468 51768 54068 56368 58668 60968 63268	1	—	W	0-4294967295 / 1	79 Phase B Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47169 49469 51769 54069 56369 58669 60969 63269	1	—	W	0-4294967295 / 1	79 Phase B Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30931 33056 35181 37306 39431 41556 43681 45674	1	—	W	0-1/1	79 Phase B F79 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30932 33057 35182 37307 39432 41557 43682 45675	1	—	W	0-7/1	79 Phase B Sequence Coordination
1 2 3 4 5 6 7 8	30933 33058 35183 37308 39433 41558 43683 45676	1	Sec	W	1-1800/1	79 Phase B Reset Time after Auto Reclose
1 2 3 4 5 6 7 8	30934 33059 35184 37309 39434 41559 43684 45677	1	Sec	W	0-1800/1	79 Phase B Reset Time from Lockout
1 2 3 4 5 6 7 8	30935 33060 35185 37310 39435 41560 43685 45678	1	—	W	0-65535/1	79 Phase B Recloser Count See “79 Phase ABC Recloser Count” for decoding details
1 2 3 4 5 6 7 8	30936 33061 35186 37311 39436 41561 43686 45679	1	—	W	0-3/1	79 Phase B Phase Ground Enable

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7147 9447 11747 14047 16347 18647 20947 23247	1	-	W	0-1/1	79.B.OPTION
1 2 3 4 5 6 7 8	47170 49470 51770 54070 56370 58670 60970 63270	1	—	W	0-4294967295 / 1	79 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47171 49471 51771 54071 56371 58671 60971 63271	1	—	W	0-4294967295 / 1	79 Phase C Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	30938 33063 35188 37313 39438 41563 43688 45681	1	—	W	0-1/1	79 Phase C F79 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	30939 33064 35189 37314 39439 41564 43689 45682	1	—	W	0-7/1	79 Phase C Sequence Coordination

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30940 33065 35190 37315 39440 41565 43690 45683	1	Sec	W	1-1800/1	79 Phase C Reset Time after Auto Reclose
1 2 3 4 5 6 7 8	30941 33066 35191 37316 39441 41566 43691 45684	1	Sec	W	0-1800/1	79 Phase C Reset Time from Lockout
1 2 3 4 5 6 7 8	30942 33067 35192 37317 39442 41567 43692 45685	1	—	W	0-65535/1	79 Phase C Recloser Count See “79 Phase ABC Recloser Count” for decoding details
1 2 3 4 5 6 7 8	30943 33068 35193 37318 39443 41568 43693 45686	1	—	W	0-3/1	79 Phase C Phase Ground Enable
1 2 3 4 5 6 7 8	7148 9448 11748 14048 16348 18648 20948 23248	1	-	W	0-1/1	79.C.OPTION
1 2 3 4 5 6 7 8	8475 10775 13075 15375 17675 19975 22275 24575	100	Amps	W	10-10000/0.01	79 Trip #1 Phase ABC High Current Lockout Phase Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8476 10776 13076 15376 17676 19976 22276 24576	100	Amps	W	3-10000/0.01	79 Trip #1 Phase ABC High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	9015 11315 13615 15915 18215 20515 22815 25115	1000	Amps	W	1-160/0.001	79 Trip #1 Phase ABC High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	9016 11316 13616 15916 18216 20516 22816 25116	100	Amps	W	3-10000/0.01	79 Trip #1 Phase ABC High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	8477 10777 13077 15377 17677 19977 22277 24577	100	Sec	W	0-60000/0.01	79 Trip #1 Phase ABC High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	8478 10778 13078 15378 17678 19978 22278 24578	100	Sec	W	0-60000/0.01	79 Trip #1 Phase ABC High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	8479 10779 13079 15379 17679 19979 22279 24579	1	—	W	0-3/1	79 Trip #1 Phase ABC HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8480 10780 13080 15380 17680 19980 22280 24580	100	Amps	W	10-10000/0.01	79 Trip #2 Phase ABC High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	8481 10781 13081 15381 17681 19981 22281 24581	100	Amps	W	3-10000/0.01	79 Trip #2 Phase ABC High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	9017 11317 13617 15917 18217 20517 22817 25117	1000	Amps	W	1-160/0.001	79 Trip #2 Phase ABC High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	9018 11318 13618 15918 18218 20518 22818 25118	100	Amps	W	3-10000/0.01	79 Trip #2 Phase ABC High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	8482 10782 13082 15382 17682 19982 22282 24582	100	Sec	W	0-60000/0.01	79 Trip #2 Phase ABC High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	8483 10783 13083 15383 17683 19983 22283 24583	100	Sec	W	0-60000/0.01	79 Trip #2 Phase ABC High Current Lockout Ground Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8484 10784 13084 15384 17684 19984 22284 24584	1	—	W	0-3/1	79 Trip #2 Phase ABC HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	8485 10785 13085 15385 17685 19985 22285 24585	100	Amps	W	10-10000/0.01	79 Trip #3 Phase ABC High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	8486 10786 13086 15386 17686 19986 22286 24586	100	Amps	W	3-10000/0.01	79 Trip #3 Phase ABC High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	9019 11319 13619 15919 18219 20519 22819 25119	1000	Amps	W	1-160/0.001	79 Trip #3 Phase ABC High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	9020 11320 13620 15920 18220 20520 22820 25120	100	Amps	W	3-10000/0.01	79 Trip #3 Phase ABC High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	8487 10787 13087 15387 17687 19987 22287 24587	100	Sec	W	0-60000/0.01	79 Trip #3 Phase ABC High Current Lockout Phase Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8488 10788 13088 15388 17688 19988 22288 24588	100	Sec	W	0-60000/0.01	79 Trip #3 Phase ABC High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	8489 10789 13089 15389 17689 19989 22289 24589	1	—	W	0-3/1	79 Trip #3 Phase ABC HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	8490 10790 13090 15390 17690 19990 22290 24590	100	Amps	W	10-10000/0.01	79 Trip #4 Phase ABC High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	8491 10791 13091 15391 17691 19991 22291 24591	100	Amps	W	3-10000/0.01	79 Trip #4 Phase ABC High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	9021 11321 13621 15921 18221 20521 22821 25121	1000	Amps	W	1-160/0.001	79 Trip #4 Phase ABC High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	9022 11322 13622 15922 18222 20522 22822 25122	100	Amps	W	3-10000/0.01	79 Trip #4 Phase ABC High Current Lockout Neutral Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8492 10792 13092 15392 17692 19992 22292 24592	100	Sec	W	0-60000/0.01	79 Trip #4 Phase ABC High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	8493 10793 13093 15393 17693 19993 22293 24593	100	Sec	W	0-60000/0.01	79 Trip #4 Phase ABC High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	8494 10794 13094 15394 17694 19994 22294 24594	1	–	W	0-3/1	79 Trip #4 Phase ABC HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	8495 10795 13095 15395 17695 19995 22295 24595	100	Amps	W	10-10000/0.01	79 Trip #5 Phase ABC High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	8496 10796 13096 15396 17696 19996 22296 24596	100	Amps	W	3-10000/0.01	79 Trip #5 Phase ABC High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	9023 11323 13623 15923 18223 20523 22823 25123	1000	Amps	W	1-160/0.001	79 Trip #5 Phase ABC High Current Lockout Sensitive Ground Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9024 11324 13624 15924 18224 20524 22824 25124	100	Amps	W	3-10000/0.01	79 Trip #5 Phase ABC High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	8497 10797 13097 15397 17697 19997 22297 24597	100	Sec	W	0-60000/0.01	79 Trip #5 Phase ABC High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	8498 10798 13098 15398 17698 19998 22298 24598	100	Sec	W	0-60000/0.01	79 Trip #5 Phase ABC High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	8499 10799 13099 15399 17699 19999 22299 24599	1	–	W	0-3/1	79 Trip #5 Phase ABC HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30944 33069 35194 37319 39444 41569 43694 45687	100	A	W	10-10000/0.01	79 Trip #1 Phase A High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30945 33070 35195 37320 39445 41570 43695 45688	100	Sec	W	0-60000/0.01	79 Trip #1 Phase A High Current Lockout Phase Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30946 33071 35196 37321 39446 41571 43696 45689	1	—	W	0-3/1	79 Trip #1 Phase A HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30947 33072 35197 37322 39447 41572 43697 45690	100	A	W	10-10000/0.01	79 Trip #1 Phase B High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30948 33073 35198 37323 39448 41573 43698 45691	100	Sec	W	0-60000/0.01	79 Trip #1 Phase B High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	30949 33074 35199 37324 39449 41574 43699 45692	1	—	W	0-3/1	79 Trip #1 Phase B HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30950 33075 35200 37325 39450 41575 43700 45693	100	A	W	10-10000/0.01	79 Trip #1 Phase C High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30951 33076 35201 37326 39451 41576 43701 45694	100	Sec	W	0-60000/0.01	79 Trip #1 Phase C High Current Lockout Phase Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30952 33077 35202 37327 39452 41577 43702 45695	1	—	W	0-3/1	79 Trip #1 Phase C HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30953 33078 35203 37328 39453 41578 43703 45696	100	A	W	10-10000/0.01	79 Trip #2 Phase A High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30954 33079 35204 37329 39454 41579 43704 45697	100	Sec	W	0-60000/0.01	79 Trip #2 Phase A High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	30955 33080 35205 37330 39455 41580 43705 45698	1	—	W	0-3/1	79 Trip #2 Phase A HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30956 33081 35206 37331 39456 41581 43706 45699	100	A	W	10-10000/0.01	79 Trip #2 Phase B High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30957 33082 35207 37332 39457 41582 43707 45700	100	Sec	W	0-60000/0.01	79 Trip #2 Phase B High Current Lockout Phase Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30958 33083 35208 37333 39458 41583 43708 45701	1	–	W	0-3/1	79 Trip #2 Phase B HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30959 33084 35209 37334 39459 41584 43709 45702	100	A	W	10-10000/0.01	79 Trip #2 Phase C High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30960 33085 35210 37335 39460 41585 43710 45703	100	Sec	W	0-60000/0.01	79 Trip #2 Phase C High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	30961 33086 35211 37336 39461 41586 43711 45704	1	–	W	0-3/1	79 Trip #2 Phase C HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30962 33087 35212 37337 39462 41587 43712 45705	100	A	W	10-10000/0.01	79 Trip #3 Phase A High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30963 33088 35213 37338 39463 41588 43713 45706	100	Sec	W	0-60000/0.01	79 Trip #3 Phase A High Current Lockout Phase Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30964 33089 35214 37339 39464 41589 43714 45707	1	—	W	0-3/1	79 Trip #3 Phase A HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30965 33090 35215 37340 39465 41590 43715 45708	100	A	W	10-10000/0.01	79 Trip #3 Phase B High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30966 33091 35216 37341 39466 41591 43716 45709	100	Sec	W	0-60000/0.01	79 Trip #3 Phase B High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	30967 33092 35217 37342 39467 41592 43717 45710	1	—	W	0-3/1	79 Trip #3 Phase B HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30968 33093 35218 37343 39468 41593 43718 45711	100	A	W	10-10000/0.01	79 Trip #3 Phase C High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30969 33094 35219 37344 39469 41594 43719 45712	100	Sec	W	0-60000/0.01	79 Trip #3 Phase C High Current Lockout Phase Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30970 33095 35220 37345 39470 41595 43720 45713	1	—	W	0-3/1	79 Trip #3 Phase C HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30971 33096 35221 37346 39471 41596 43721 45714	100	A	W	10-10000/0.01	79 Trip #4 Phase A High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30972 33097 35222 37347 39472 41597 43722 45715	100	Sec	W	0-60000/0.01	79 Trip #4 Phase A High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	30973 33098 35223 37348 39473 41598 43723 45716	1	—	W	0-3/1	79 Trip #4 Phase A HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30974 33099 35224 37349 39474 41599 43724 45717	100	A	W	10-10000/0.01	79 Trip #4 Phase B High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30975 33100 35225 37350 39475 41600 43725 45718	100	Sec	W	0-60000/0.01	79 Trip #4 Phase B High Current Lockout Phase Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30976 33101 35226 37351 39476 41601 43726 45719	1	—	W	0-3/1	79 Trip #4 Phase B HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30977 33102 35227 37352 39477 41602 43727 45720	100	A	W	10-10000/0.01	79 Trip #4 Phase C High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30978 33103 35228 37353 39478 41603 43728 45721	100	Sec	W	0-60000/0.01	79 Trip #4 Phase C High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	30979 33104 35229 37354 39479 41604 43729 45722	1	—	W	0-3/1	79 Trip #4 Phase C HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30980 33105 35230 37355 39480 41605 43730 45723	100	A	W	10-10000/0.01	79 Trip #5 Phase A High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30981 33106 35231 37356 39481 41606 43731 45724	100	Sec	W	0-60000/0.01	79 Trip #5 Phase A High Current Lockout Phase Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30982 33107 35232 37357 39482 41607 43732 45725	1	–	W	0-3/1	79 Trip #5 Phase A HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30983 33108 35233 37358 39483 41608 43733 45726	100	A	W	10-10000/0.01	79 Trip #5 Phase B High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30984 33109 35234 37359 39484 41609 43734 45727	100	Sec	W	0-60000/0.01	79 Trip #5 Phase B High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	30985 33110 35235 37360 39485 41610 43735 45728	1	–	W	0-3/1	79 Trip #5 Phase B HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	30986 33111 35236 37361 39486 41611 43736 45729	100	A	W	10-10000/0.01	79 Trip #5 Phase C High Current Lockout Phase Reference (Pickup) Current
1 2 3 4 5 6 7 8	30987 33112 35237 37362 39487 41612 43737 45730	100	Sec	W	0-60000/0.01	79 Trip #5 Phase C High Current Lockout Phase Definite Time Delay

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30988 33113 35238 37363 39488 41613 43738 45731	1	—	W	0-3/1	79 Trip #5 Phase C HICURLOAPPLY Bit 0 – Phase HCL Enable Bit 1 – Ground HCL Enable
1 2 3 4 5 6 7 8	31096 33220 35346 37470 39596 41720 43846 45839	100	A	W	3-10000/0.01	79 Trip #1 Phase A High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31097 33221 35347 37471 39597 41721 43847 45840	1000	A	W	1-160/0.001	79 Trip #1 Phase A High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31098 33222 35348 37472 39598 41722 43848 45841	100	A	W	3-10000/0.01	79 Trip #1 Phase A High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31099 33223 35349 37473 39599 41723 43849 45842	100	Sec	W	0-60000/0.01	79 Trip #1 Phase A High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31100 33224 35350 37474 39600 41724 43850 45843	100	A	W	3-10000/0.01	79 Trip #1 Phase B High Current Lockout Ground Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31101 33225 35351 37475 39601 41725 43851 45844	1000	A	W	1-160/0.001	79 Trip #1 Phase B High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31102 33226 35352 37476 39602 41726 43852 45845	100	A	W	3-10000/0.01	79 Trip #1 Phase B High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31103 33227 35353 37477 39603 41727 43853 45846	100	Sec	W	0-60000/0.01	79 Trip #1 Phase B High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31104 33228 35354 37478 39604 41728 43854 45847	100	A	W	3-10000/0.01	79 Trip #1 Phase C High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31105 33229 35355 37479 39605 41729 43855 45848	1000	A	W	1-160/0.001	79 Trip #1 Phase C High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31106 33230 35356 37480 39606 41730 43856 45849	100	A	W	3-10000/0.01	79 Trip #1 Phase C High Current Lockout Neutral Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31107 33231 35357 37481 39607 41731 43857 45850	100	Sec	W	0-60000/0.01	79 Trip #1 Phase C High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31108 33232 35358 37482 39608 41732 43858 45851	100	A	W	3-10000/0.01	79 Trip #2 Phase A High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31109 33233 35359 37483 39609 41733 43859 45852	1000	A	W	1-160/0.001	79 Trip #2 Phase A High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31110 33234 35360 37484 39610 41734 43860 45853	100	A	W	3-10000/0.01	79 Trip #2 Phase A High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31111 33235 35361 37485 39611 41735 43861 45854	100	Sec	W	0-60000/0.01	79 Trip #2 Phase A High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31112 33236 35362 37486 39612 41736 43862 45855	100	A	W	3-10000/0.01	79 Trip #2 Phase B High Current Lockout Ground Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31113 33237 35363 37487 39613 41737 43863 45856	1000	A	W	1-160/0.001	79 Trip #2 Phase B High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31114 33238 35364 37488 39614 41738 43864 45857	100	A	W	3-10000/0.01	79 Trip #2 Phase B High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31115 33239 35365 37489 39615 41739 43865 45858	100	Sec	W	0-60000/0.01	79 Trip #2 Phase B High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31116 33240 35366 37490 39616 41740 43866 45859	100	A	W	3-10000/0.01	79 Trip #2 Phase C High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31117 33241 35367 37491 39617 41741 43867 45860	1000	A	W	1-160/0.001	79 Trip #2 Phase C High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31118 33242 35368 37492 39618 41742 43868 45861	100	A	W	3-10000/0.01	79 Trip #2 Phase C High Current Lockout Neutral Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31119 33243 35369 37493 39619 41743 43869 45862	100	Sec	W	0-60000/0.01	79 Trip #2 Phase C High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31120 33244 35370 37494 39620 41744 43870 45863	100	A	W	3-10000/0.01	79 Trip #3 Phase A High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31121 33245 35371 37495 39621 41745 43871 45864	1000	A	W	1-160/0.001	79 Trip #3 Phase A High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31122 33246 35372 37496 39622 41746 43872 45865	100	A	W	3-10000/0.01	79 Trip #3 Phase A High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31123 33247 35373 37497 39623 41747 43873 45866	100	Sec	W	0-60000/0.01	79 Trip #3 Phase A High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31124 33248 35374 37498 39624 41748 43874 45867	100	A	W	3-10000/0.01	79 Trip #3 Phase B High Current Lockout Ground Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31125 33249 35375 37499 39625 41749 43875 45868	1000	A	W	1-160/0.001	79 Trip #3 Phase B High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31126 33250 35376 37500 39626 41750 43876 45869	100	A	W	3-10000/0.01	79 Trip #3 Phase B High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31127 33251 35377 37501 39627 41751 43877 45870	100	Sec	W	0-60000/0.01	79 Trip #3 Phase B High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31128 33252 35378 37502 39628 41752 43878 45871	100	A	W	3-10000/0.01	79 Trip #3 Phase C High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31129 33253 35379 37503 39629 41753 43879 45872	1000	A	W	1-160/0.001	79 Trip #3 Phase C High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31130 33254 35380 37504 39630 41754 43880 45873	100	A	W	3-10000/0.01	79 Trip #3 Phase C High Current Lockout Neutral Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31131 33255 35381 37505 39631 41755 43881 45874	100	Sec	W	0-60000/0.01	79 Trip #3 Phase C High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31132 33256 35382 37506 39632 41756 43882 45875	100	A	W	3-10000/0.01	79 Trip #4 Phase A High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31133 33257 35383 37507 39633 41757 43883 45876	1000	A	W	1-160/0.001	79 Trip #4 Phase A High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31134 33258 35384 37508 39634 41758 43884 45877	100	A	W	3-10000/0.01	79 Trip #4 Phase A High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31135 33259 35385 37509 39635 41759 43885 45878	100	Sec	W	0-60000/0.01	79 Trip #4 Phase A High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31136 33260 35386 37510 39636 41760 43886 45879	100	A	W	3-10000/0.01	79 Trip #4 Phase B High Current Lockout Ground Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31137 33261 35387 37511 39637 41761 43887 45880	1000	A	W	1-160/0.001	79 Trip #4 Phase B High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31138 33262 35388 37512 39638 41762 43888 45881	100	A	W	3-10000/0.01	79 Trip #4 Phase B High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31139 33263 35389 37513 39639 41763 43889 45882	100	Sec	W	0-60000/0.01	79 Trip #4 Phase B High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31140 33264 35390 37514 39640 41764 43890 45883	100	A	W	3-10000/0.01	79 Trip #4 Phase C High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31141 33265 35391 37515 39641 41765 43891 45884	1000	A	W	1-160/0.001	79 Trip #4 Phase C High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31142 33266 35392 37516 39642 41766 43892 45885	100	A	W	3-10000/0.01	79 Trip #4 Phase C High Current Lockout Neutral Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31143 33267 35393 37517 39643 41767 43893 45886	100	Sec	W	0-60000/0.01	79 Trip #4 Phase C High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31144 33268 35394 37518 39644 41768 43894 45887	100	A	W	3-10000/0.01	79 Trip #5 Phase A High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31145 33269 35395 37519 39645 41769 43895 45888	1000	A	W	1-160/0.001	79 Trip #5 Phase A High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31146 33270 35396 37520 39646 41770 43896 45889	100	A	W	3-10000/0.01	79 Trip #5 Phase A High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31147 33271 35397 37521 39647 41771 43897 45890	100	Sec	W	0-60000/0.01	79 Trip #5 Phase A High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31148 33272 35398 37522 39648 41772 43898 45891	100	A	W	3-10000/0.01	79 Trip #5 Phase B High Current Lockout Ground Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31149 33273 35399 37523 39649 41773 43899 45892	1000	A	W	1-160/0.001	79 Trip #5 Phase B High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31150 33274 35400 37524 39650 41774 43900 45893	100	A	W	3-10000/0.01	79 Trip #5 Phase B High Current Lockout Neutral Reference (Pickup) Current
1 2 3 4 5 6 7 8	31151 33275 35401 37525 39651 41775 43901 45894	100	Sec	W	0-60000/0.01	79 Trip #5 Phase B High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	31152 33276 35402 37526 39652 41776 43902 45895	100	A	W	3-10000/0.01	79 Trip #5 Phase C High Current Lockout Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31153 33277 35403 37527 39653 41777 43903 45896	1000	A	W	1-160/0.001	79 Trip #5 Phase C High Current Lockout Sensitive Ground Reference (Pickup) Current
1 2 3 4 5 6 7 8	31154 33278 35404 37528 39654 41778 43904 45897	100	A	W	3-10000/0.01	79 Trip #5 Phase C High Current Lockout Neutral Reference (Pickup) Current

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31155 33279 35405 37529 39655 41779 43905 45898	100	Sec	W	0-60000/0.01	79 Trip #5 Phase C High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	8500 10800 13100 15400 17700 20000 22300 24600	1	—	W	0-1/1	79 Phase ABC Enable 27 Bus Side Voltage Supervision
1 2 3 4 5 6 7 8	8501 10801 13101 15401 17701 20001 22301 24601	100	V	W	0-30000/0.01	79 Phase ABC 27BSVS Minimum Closing Voltage
1 2 3 4 5 6 7 8	8502 10802 13102 15402 17702 20002 22302 24602	100	Sec	W	0-60000/0.01	79 Phase ABC 27BSVS Time Delay
1 2 3 4 5 6 7 8	31013 33138 35263 37388 39513 41638 43763 45756	1	—	W	0-1/1	79 Phase A Enable 27 Bus Side Voltage Supervision
1 2 3 4 5 6 7 8	31014 33139 35264 37389 39514 41639 43764 45757	100	V	W	0-30000/0.01	79 Phase A 27BSVS Minimum Closing Voltage

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31015 33140 35265 37390 39515 41640 43765 45758	100	Sec	W	0-60000/0.01	79 Phase A 27BSVS Time Delay
1 2 3 4 5 6 7 8	31016 33141 35266 37391 39516 41641 43766 45759	1	—	W	0-1/1	79 Phase B Enable 27 Bus Side Voltage Supervision
1 2 3 4 5 6 7 8	31017 33142 35267 37392 39517 41642 43767 45760	100	V	W	0-30000/0.01	79 Phase B 27BSVS Minimum Closing Voltage
1 2 3 4 5 6 7 8	31018 33143 35268 37393 39518 41643 43768 45761	100	Sec	W	0-60000/0.01	79 Phase B 27BSVS Time Delay
1 2 3 4 5 6 7 8	31019 33144 35269 37394 39519 41644 43769 45762	1	—	W	0-1/1	79 Phase C Enable 27 Bus Side Voltage Supervision
1 2 3 4 5 6 7 8	31020 33145 35270 37395 39520 41645 43770 45763	100	V	W	0-30000/0.01	79 Phase C 27BSVS Minimum Closing Voltage

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31021 33146 35271 37396 39521 41646 43771 45764	100	Sec	W	0-60000/0.01	79 Phase C 27BSVS Time Delay
1 2 3 4 5 6 7 8	8503 10803 13103 15403 17703 20003 22303 24603	100	Sec	W	1-60000/0.01	79 Reclose #1 Phase ABC Time Delay for Phase Fault
1 2 3 4 5 6 7 8	8504 10804 13104 15404 17704 20004 22304 24604	100	Sec	W	1-60000/0.01	79 Reclose #1 Phase ABC Time Delay for Ground Fault
1 2 3 4 5 6 7 8	8505 10805 13105 15405 17705 20005 22305 24605	100	Sec	W	1-60000/0.01	79 Reclose #2 Phase ABC Time Delay for Phase Fault
1 2 3 4 5 6 7 8	8506 10806 13106 15406 17706 20006 22306 24606	100	Sec	W	1-60000/0.01	79 Reclose #2 Phase ABC Time Delay for Ground Fault
1 2 3 4 5 6 7 8	8507 10807 13107 15407 17707 20007 22307 24607	100	Sec	W	1-60000/0.01	79 Reclose #3 Phase ABC Time Delay for Phase Fault

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8508 10808 13108 15408 17708 20008 22308 24608	100	Sec	W	1-60000/0.01	79 Reclose #3 Phase ABC Time Delay for Ground Fault
1 2 3 4 5 6 7 8	8509 10809 13109 15409 17709 20009 22309 24609	100	Sec	W	1-60000/0.01	79 Reclose #4 Phase ABC Time Delay for Phase Fault
1 2 3 4 5 6 7 8	8510 10810 13110 15410 17710 20010 22310 24610	100	Sec	W	1-60000/0.01	79 Reclose #4 Phase ABC Time Delay for Ground Fault
1 2 3 4 5 6 7 8	30989 33114 35239 37364 39489 41614 43739 45732	100	Sec	W	1-60000/0.01	79 Reclose #1 Phase A Time Delay for Phase Fault
1 2 3 4 5 6 7 8	30990 33115 35240 37365 39490 41615 43740 45733	100	Sec	W	1-60000/0.01	79 Reclose #1 Phase A Time Delay for Ground Fault
1 2 3 4 5 6 7 8	30991 33116 35241 37366 39491 41616 43741 45734	100	Sec	W	1-60000/0.01	79 Reclose #2 Phase A Time Delay for Phase Fault

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30992 33117 35242 37367 39492 41617 43742 45735	100	Sec	W	1-60000/0.01	79 Reclose #2 Phase A Time Delay for Ground Fault
1 2 3 4 5 6 7 8	30993 33118 35243 37368 39493 41618 43743 45736	100	Sec	W	1-60000/0.01	79 Reclose #3 Phase A Time Delay for Phase Fault
1 2 3 4 5 6 7 8	30994 33119 35244 37369 39494 41619 43744 45737	100	Sec	W	1-60000/0.01	79 Reclose #3 Phase A Time Delay for Ground Fault
1 2 3 4 5 6 7 8	30995 33120 35245 37370 39495 41620 43745 45738	100	Sec	W	1-60000/0.01	79 Reclose #4 Phase A Time Delay for Phase Fault
1 2 3 4 5 6 7 8	30996 33121 35246 37371 39496 41621 43746 45739	100	Sec	W	1-60000/0.01	79 Reclose #4 Phase A Time Delay for Ground Fault
1 2 3 4 5 6 7 8	30997 33122 35247 37372 39497 41622 43747 45740	100	Sec	W	1-60000/0.01	79 Reclose #1 Phase B Time Delay for Phase Fault

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	30998 33123 35248 37373 39498 41623 43748 45741	100	Sec	W	1-60000/0.01	79 Reclose #1 Phase B Time Delay for Ground Fault
1 2 3 4 5 6 7 8	30999 33124 35249 37374 39499 41624 43749 45742	100	Sec	W	1-60000/0.01	79 Reclose #2 Phase B Time Delay for Phase Fault
1 2 3 4 5 6 7 8	31000 33125 35250 37375 39500 41625 43750 45743	100	Sec	W	1-60000/0.01	79 Reclose #2 Phase B Time Delay for Ground Fault
1 2 3 4 5 6 7 8	31001 33126 35251 37376 39501 41626 43751 45744	100	Sec	W	1-60000/0.01	79 Reclose #3 Phase B Time Delay for Phase Fault
1 2 3 4 5 6 7 8	31002 33127 35252 37377 39502 41627 43752 45745	100	Sec	W	1-60000/0.01	79 Reclose #3 Phase B Time Delay for Ground Fault
1 2 3 4 5 6 7 8	31003 33128 35253 37378 39503 41628 43753 45746	100	Sec	W	1-60000/0.01	79 Reclose #4 Phase B Time Delay for Phase Fault

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31004 33129 35254 37379 39504 41629 43754 45747	100	Sec	W	1-60000/0.01	79 Reclose #4 Phase B Time Delay for Ground Fault
1 2 3 4 5 6 7 8	31005 33130 35255 37380 39505 41630 43755 45748	100	Sec	W	1-60000/0.01	79 Reclose #1 Phase C Time Delay for Phase Fault
1 2 3 4 5 6 7 8	31006 33131 35256 37381 39506 41631 43756 45749	100	Sec	W	1-60000/0.01	79 Reclose #1 Phase C Time Delay for Ground Fault
1 2 3 4 5 6 7 8	31007 33132 35257 37382 39507 41632 43757 45750	100	Sec	W	1-60000/0.01	79 Reclose #2 Phase C Time Delay for Phase Fault
1 2 3 4 5 6 7 8	31008 33133 35258 37383 39508 41633 43758 45751	100	Sec	W	1-60000/0.01	79 Reclose #2 Phase C Time Delay for Ground Fault
1 2 3 4 5 6 7 8	31009 33134 35259 37384 39509 41634 43759 45752	100	Sec	W	1-60000/0.01	79 Reclose #3 Phase C Time Delay for Phase Fault

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31010 33135 35260 37385 39510 41635 43760 45753	100	Sec	W	1-60000/0.01	79 Reclose #3 Phase C Time Delay for Ground Fault
1 2 3 4 5 6 7 8	31011 33136 35261 37386 39511 41636 43761 45754	100	Sec	W	1-60000/0.01	79 Reclose #4 Phase C Time Delay for Phase Fault
1 2 3 4 5 6 7 8	31012 33137 35262 37387 39512 41637 43762 45755	100	Sec	W	1-60000/0.01	79 Reclose #4 Phase C Time Delay for Ground Fault
1 2 3 4 5 6 7 8	8511 10811 13111 15411 17711 20011 22311 24611	1	-	W	0-65535/1	79.Lockout
1 2 3 4 5 6 7 8	31162 33286 35412 37536 39662 41786 43923 45905	1	-	W	0-65535/1	79.A.Lockout
1 2 3 4 5 6 7 8	31163 33287 35413 37537 39663 41787 43924 45906	1	-	W	0-65535/1	79.B.Lockout

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31164 33288 35414 37538 39664 41788 43925 45907	1	-	W	0-65535/1	79.C.Lockout
1 2 3 4 5 6 7 8	8512 10812 13112 15412 17712 20012 22312 24612	1	Sec	W	0-7/1	79 Phase ABC Supervision Function Bit 0 – Enable 27Vx Bit 1 – Enable 25 Sync Bit 2 – Enable Remote Permission Writing 1 to Bit 0 and Bit 1 will enable the F27Vx and F25 functions respectively to participate in supervising the Close Contact.
1 2 3 4 5 6 7 8	8513 10813 13113 15413 17713 20013 43916 24613	100	Sec	W	0-60000/0.01	79 Phase ABC Supervision Time
1 2 3 4 5 6 7 8	31156 33280 35406 37530 39656 41780 43917 45899	1	Sec	W	0-7/1	79 Phase A Supervision Function Bit 0 – Enable 27Vx for Phase A Bit 1 – Enable 25 Sync for Phase A Bit 2 – Enable Remote Permission for Phase A Writing 1 to Bit 0 and Bit 1 will enable the F27Vx and F25 functions respectively to participate in supervising the Close Contact.
1 2 3 4 5 6 7 8	31157 33281 35407 37531 39657 41781 43918 45900	100	Sec	W	0-60000/0.01	79 Phase A Supervision Time

Table 2.29 Function 79 Setpoints

Function 79 Setpoints PROFILES #1 to #8 * Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31158 33282 35408 37532 39658 41782 43919 45901	1	Sec	W	0-7/1	79 Phase B Supervision Function Bit 0 – Enable 27Vx for Phase B Bit 1 – Enable 25 Sync for Phase B Bit 2 – Enable Remote Permission for Phase B Writing 1 to Bit 0 and Bit 1 will enable the F27Vx and F25 functions respectively to participate in supervising the Close Contact.
1 2 3 4 5 6 7 8	31159 33283 35409 37533 39659 41783 43920 45902	100	Sec	W	0-60000/0.01	79 Phase B Supervision Time
1 2 3 4 5 6 7 8	31160 33284 35410 37534 39660 41784 43921 45903	1	Sec	W	0-7/1	79 Phase C Supervision Function Bit 0 – Enable 27Vx for Phase C Bit 1 – Enable 25 Sync for Phase C Bit 2 – Enable Remote Permission for Phase C Writing 1 to Bit 0 and Bit 1 will enable the F27Vx and F25 functions respectively to participate in supervising the Close Contact.
1 2 3 4 5 6 7 8	31161 33285 35411 37535 39661 41785 43922 45904	100	Sec	W	0-60000/0.01	79 Phase C Supervision Time

Table 2.29 Function 79 Setpoints

Function F79 Additional Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46098 48398 50698 52998 55298 57598 59898 62198	1	—	W	0-1/1	F79 Logic Reclose Enable Phases ABC Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46099 48399 50699 52999 55299 57599 59899 62199	100	Sec	W	0-60000/0.01	F79 Logic Reclose Maximum time delay Phases ABC
1 2 3 4 5 6 7 8	46100 48400 50700 53000 55300 57600 59900 62200	1	—	W	0-80/1	F79 Logic Reclose IPSLogic Selection Phases ABC
1 2 3 4 5 6 7 8	46101 48401 50701 53001 55301 57601 59901 62201	1	—	W	0-80/1	79.TRLOGIC.IPSLDSEL
1 2 3 4 5 6 7 8	46102 48402 50702 53002 55302 57602 59902 62202	1	—	W	0-1/1	F79 Skipshot Enable Phases ABC Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46103 48403 50703 53003 55303 57603 59903 62203	1	—	W	0-80/1	F79 Skipshot IPS Logic Selection Phases ABC

Table 2.30 Function F79 Additional Setpoints

Function F79 Additional Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46104 48404 50704 53004 55304 57604 59904 62204	1	—	W	1-65535/1	F79 Skipshot State Selection Phases ABC Bit 0 – Not Used Bit 8 – Reclose #4 Bit 1 – Reclose #1 Bit 9 – Reclose #4 Bit 2 – Reclose #1 Bit 10 – Not used Bit 3 – Reclose #2 Bit 11 – Not used Bit 4 – Reclose #2 Bit 12 – Not used Bit 5 – Reclose #3 Bit 13 – Not used Bit 6 – Reclose #3 Bit 14 – Not used Bit 7 – Reclose #3 Bit 15 – Not used
1 2 3 4 5 6 7 8	46105 48405 50705 53005 55305 57605 59905 62205	1	—	W	0-1/1	F79 Logic Reclose Enable Phase A. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46106 48406 50706 53006 55306 57606 59906 62206	100	Sec	W	0-60000/0.01	F79 Logic Reclose Maximum time delay Phase A
1 2 3 4 5 6 7 8	46107 48407 50707 53007 55307 57607 59907 62207	1	—	W	0-65535/1	F79 Logic Reclose IPS Logic Selection Phase A
1 2 3 4 5 6 7 8	46108 48408 50708 53008 55308 57608 59908 62208	1	—	W	0-65535/1	79.A.TRLOGIC.IPSLDSEL
1 2 3 4 5 6 7 8	46109 48409 50709 53009 55309 57609 59909 62209	1	—	W	0-1/1	F79 Skipshot Enable Phase A Bit 0 Enable: 1, Disable: 0

Table 2.30 Function F79 Additional Setpoints

Function F79 Additional Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46110 48410 50710 53010 55310 57610 59910 62210	1	—	W	0-80/1	F79 Skipshot IPS Logic Selection Phase A.
1 2 3 4 5 6 7 8	46111 48411 50711 53011 55311 57611 59911 62211	1	—	W	1-65535/1	F79 Skipshot State Selection Phase A. Bit description same as Reg No. :46104
1 2 3 4 5 6 7 8	46112 48412 50712 53012 55312 57612 59912 62212	1	—	W	0-1/1	F79 Logic Reclose Enable Phase B. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46113 48413 50713 53013 55313 57613 59913 62213	100	Sec	W	0-60000/0.01	F79 Logic Reclose Maximum time delay Phase B
1 2 3 4 5 6 7 8	46114 48414 50714 53014 55314 57614 59914 62214	1	—	W	0-65535/1	F79 Logic Reclose IPS Logic Selection Phase B
1 2 3 4 5 6 7 8	46115 48415 50715 53015 55315 57615 59915 62215	1	—	W	0-65535/1	79.B.TRLOGIC.IPSLDSEL

Table 2.30 Function F79 Additional Setpoints

Function F79 Additional Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46116 48416 50716 53016 55316 57616 59916 62216	1	—	W	0-1/1	F79 Skipshot Enable Phase B. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46117 48417 50717 53017 55317 57617 59917 62217	1	-	W	0-80/1	F79 Skipshot IPS Logic Selection Phase B.
1 2 3 4 5 6 7 8	46118 48418 50718 53018 55318 57618 59918 62218	1	—	W	1-65535/1	F79 Skipshot State Selection Phase B. Bit description same as Reg No. :46104
1 2 3 4 5 6 7 8	46119 48419 50719 53019 55319 57619 59919 62219	1	—	W	0-1/1	F79 Logic Reclose Enable Phase C. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46120 48420 50720 53020 55320 57620 59920 62220	100	Sec	W	0-60000/0.01	F79 Logic Reclose Maximum time delay Phase C.
1 2 3 4 5 6 7 8	46121 48421 50721 53021 55321 57621 59921 62221	1	—	W	0-65535/1	F79 Logic Reclose IPS Logic Selection Phase C.

Table 2.30 Function F79 Additional Setpoints

Function F79 Additional Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46122 48422 50722 53022 55322 57622 59922 62222	1	—	W	0-65535/1	79.C.TRLOGIC.IPSLDSEL
1 2 3 4 5 6 7 8	46123 48423 50723 53023 55323 57623 59923 62223	1	—	W	0-1/1	F79 Skipshot Enable Phase C. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46124 48424 50724 53024 55324 57624 59924 62224	1	—	W	0-80/1	F79 Skipshot IPS Logic Selection Phase C
1 2 3 4 5 6 7 8	46125 48425 50725 53025 55325 57625 59925 62225	1	—	W	1-65535/1	F79 Skipshot State Selection Phase C. Bit description same as Reg No. :46104
1 2 3 4 5 6 7 8	31165 33289 35415 37539 39665 41789 43926 45908	1	—	W	0-1/1	F79 Target Reset Timer Enable. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	31166 33290 35416 37540 39666 41790 43927 45909	1	Sec	W	0-65000/1	F79 Target Reset Timer

Table 2.30 Function F79 Additional Setpoints

Function F79 Additional Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46098 48398 50698 52998 55298 57598 59898 62198	1	—	W	0-1/1	F79 Logic Reclose Enable Phases ABC Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46099 48399 50699 52999 55299 57599 59899 62199	100	Sec	W	0-60000/0.01	F79 Logic Reclose Maximum time delay Phases ABC
1 2 3 4 5 6 7 8	46100 48400 50700 53000 55300 57600 59900 62200	1	—	W	0-80/1	F79 Logic Reclose IPSLogic Selection Phases ABC
1 2 3 4 5 6 7 8	46101 48401 50701 53001 55301 57601 59901 62201	1	—	W	0-80/1	79.TRLOGIC.IPSLDSEL
1 2 3 4 5 6 7 8	46102 48402 50702 53002 55302 57602 59902 62202	1	—	W	0-1/1	F79 Skipshot Enable Phases ABC Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46103 48403 50703 53003 55303 57603 59903 62203	1	—	W	0-80/1	F79 Skipshot IPS Logic Selection Phases ABC

Table 2.31 Function F79 Additional Setpoints

Function F79 Additional Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46104 48404 50704 53004 55304 57604 59904 62204	1	—	W	1-65535/1	F79 Skipshot State Selection Phases ABC Bit 0 – Not Used Bit 8 – Reclose #4 Bit 1 – Reclose #1 Bit 9 – Reclose #4 Bit 2 – Reclose #1 Bit 10 – Not used Bit 3 – Reclose #2 Bit 11 – Not used Bit 4 – Reclose #2 Bit 12 – Not used Bit 5 – Reclose #3 Bit 13 – Not used Bit 6 – Reclose #3 Bit 14 – Not used Bit 7 – Reclose #3 Bit 15 – Not used
1 2 3 4 5 6 7 8	46105 48405 50705 53005 55305 57605 59905 62205	1	—	W	0-1/1	F79 Logic Reclose Enable Phase A. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46106 48406 50706 53006 55306 57606 59906 62206	100	Sec	W	0-60000/0.01	F79 Logic Reclose Maximum time delay Phase A
1 2 3 4 5 6 7 8	46107 48407 50707 53007 55307 57607 59907 62207	1	—	W	0-65535/1	F79 Logic Reclose IPS Logic Selection Phase A
1 2 3 4 5 6 7 8	46109 48409 50709 53009 55309 57609 59909 62209	1	—	W	0-1/1	F79 Skipshot Enable Phase A Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46110 48410 50710 53010 55310 57610 59910 62210	1	—	W	0-80/1	F79 Skipshot IPS Logic Selection Phase A.

Table 2.31 Function F79 Additional Setpoints

Function F79 Additional Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46111 48411 50711 53011 55311 57611 59911 62211	1	—	W	1-65535/1	F79 Skipshot State Selection Phase A. Bit description same as Reg No. :46104
1 2 3 4 5 6 7 8	46112 48412 50712 53012 55312 57612 59912 62212	1	—	W	0-1/1	F79 Logic Reclose Enable Phase B. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46113 48413 50713 53013 55313 57613 59913 62213	100	Sec	W	0-60000/0.01	F79 Logic Reclose Maximum time delay Phase B
1 2 3 4 5 6 7 8	46114 48414 50714 53014 55314 57614 59914 62214	1	—	W	0-65535/1	F79 Logic Reclose IPS Logic Selection Phase B
1 2 3 4 5 6 7 8	46116 48416 50716 53016 55316 57616 59916 62216	1	—	W	0-1/1	F79 Skipshot Enable Phase B. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46117 48417 50717 53017 55317 57617 59917 62217	1	-	W	0-80/1	F79 Skipshot IPS Logic Selection Phase B.

Table 2.31 Function F79 Additional Setpoints

Function F79 Additional Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46118 48418 50718 53018 55318 57618 59918 62218	1	—	W	1-65535/1	F79 Skipshot State Selection Phase B. Bit description same as Reg No. :46104
1 2 3 4 5 6 7 8	46119 48419 50719 53019 55319 57619 59919 62219	1	—	W	0-1/1	F79 Logic Reclose Enable Phase C. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46120 48420 50720 53020 55320 57620 59920 62220	100	Sec	W	0-60000/0.01	F79 Logic Reclose Maximum time delay Phase C.
1 2 3 4 5 6 7 8	46121 48421 50721 53021 55321 57621 59921 62221	1	—	W	0-65535/1	F79 Logic Reclose IPS Logic Selection Phase C.
1 2 3 4 5 6 7 8	46123 48423 50723 53023 55323 57623 59923 62223	1	—	W	0-1/1	F79 Skipshot Enable Phase C. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46124 48424 50724 53024 55324 57624 59924 62224	1	—	W	0-80/1	F79 Skipshot IPS Logic Selection Phase C

Table 2.31 Function F79 Additional Setpoints

Function F79 Additional Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46125 48425 50725 53025 55325 57625 59925 62225	1	—	W	1-65535/1	F79 Skipshot State Selection Phase C. Bit description same as Reg No. :46104
1 2 3 4 5 6 7 8	31165 33289 35415 37539 39665 41789 43926 45908	1	—	W	0-1/1	F79 Target Reset Timer Enable. Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	31166 33290 35416 37540 39666 41790 43927 45909	1	Sec	W	0-65000/1	F79 Target Reset Timer

Table 2.31 Function F79 Additional Setpoints

Sectionalizer Setpoints

PROFILES #1 to #8

* These Registers are not available in M-7651A

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47284 49584 51884 54184 56484 58784 61084 63384	1	-	W	0-4294967295/1	Sectionalizer Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47285 49585 51885 54185 56485 58785 61085 63385	1	-	W	0-4294967295/1	Sectionalizer Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46136 48436 50736 53036 55336 57636 59936 62236	1	-	W	0-1/1	Sectionalizer Enable for Single and Three Phase Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46137 48437 50737 53037 55337 57637 59937 62237	1	-	W	1-4/1	Sectionalizer Maximum Trips for Three Phase
1 2 3 4 5 6 7 8	46138 48438 50738 53038 55338 57638 59938 62238	1	-	W	0-127/1	Sectionalizer Inrush Current Restraint Enable. Bit 0 –Disable Bit 8 – Not used Bit 1 – Not used Bit 9 – Not used Bit 2 – Not used Bit 10 – Not used Bit 3 – Enable Bit 11 – Not used Bit 4 – Not used Bit 12 – Not used Bit 5 – Not used Bit 13 – Not used Bit 6 – Not used Bit 14 – Not used Bit 7 – Not used Bit 15 – Not used

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46139 48439 50739 53039 55339 57639 59939 62239	100	Sec	W	1-30000/0.01	Sectionalizer Phase duration for Three Phase.[Low register]
1 2 3 4 5 6 7 8	46140 48440 50740 53040 55340 57640 59940 62240	100	Sec	W	1-30000/0.01	Sectionalizer Phase duration for Three Phase[High] High byte register
1 2 3 4 5 6 7 8	46141 48441 50741 53041 55341 57641 59941 62241	100	Sec	W	1-30000/0.01	Sectionalizer Ground duration for Three Phase[Low]
1 2 3 4 5 6 7 8	46142 48442 50742 53042 55342 57642 59942 62242	100	Sec	W	1-30000/0.01	Sectionalizer Ground duration for Three Phase[High] High byte register
1 2 3 4 5 6 7 8	46143 48443 50743 53043 55343 57643 59943 62243	100	-	W	0.01-60.00/0.01	Sectionalizer Phase Current Multiplier for Three Phase[Low]
1 2 3 4 5 6 7 8	46144 48444 50744 53044 55344 57644 59944 62244	100	Sec	W	1-60000/0.01	Sectionalizer Ground Multiplier for Three Phase

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46145 48445 50745 53045 55345 57645 59945 62245	100	Sec	W	1-60000/0.01	Sectionalizer Reset Timer for Three Phase
1 2 3 4 5 6 7 8	46146 48446 50746 53046 55346 57646 59946 62246	100	Sec	W	1-60000/0.01	Sectionalizer Voltage Loss delay for Three Phase
1 2 3 4 5 6 7 8	46147 48447 50747 53047 55347 57647 59947 62247	1	-	W	0-2097151/1	Sectionalizer Phase Instantaneous/ Definite time overcurrent for Three Phase [Low]
1 2 3 4 5 6 7 8	46148 48448 50748 53048 55348 57648 59948 62248	1	-	W	0-2097151/1	Sectionalizer Phase Instantaneous/ Definite Time Overcurrent Function for Three Phase[High] High byte register
1 2 3 4 5 6 7 8	46149 48449 50749 53049 55349 57649 59949 62249	1	-	W	0-65535/1	Sectionalizer Phase Under Voltage Function for Three Phase
1 2 3 4 5 6 7 8	46150 48450 50750 53050 55350 57650 59950 62250	1	-	W	0-1/1	Sectionalizer Switch Enable for Three Phase Bit 0 Enable: 1, Disable: 0

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46202 48502 50802 53102 55402 57702 60002 62302	1	-	W	0-65535/1	Sequence coordination selections
1 2 3 4 5 6 7 8	47286 49586 51886 54186 56486 58786 61086 63386	1	-	W	0-4294967295/1	Sectionalizer Inputs Phase A Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47287 49587 51887 54187 56487 58787 61087 63387	1	-	W	0-4294967295/1	Sectionalizer Inputs Phase A. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46152 48452 50752 53052 55352 57652 59952 62252	1	-	W	0-1/1	Sectionalizer Enable Phase A Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46153 48453 50753 53053 55353 57653 59953 62253	1	-	W	1-4/1	Sectionalizer Maximum Trips Phase A

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46154 48454 50754 53054 55354 57654 59954 62254	1	-	W	0-127/1	Sectionalizer Inrush Current Restraint Phase A Disable: 0
1 2 3 4 5 6 7 8	46155 48455 50755 53055 55355 57655 59955 62255	100	Sec	W	1-30000/0.01	Sectionalizer Phase duration Phase A.[Low]
1 2 3 4 5 6 7 8	46156 48456 50756 53056 55356 57656 59956 62256	100	Sec	W	1-30000/0.01	Sectionalizer Phase duration Phase A[High] High byte register
1 2 3 4 5 6 7 8	46157 48457 50757 53057 55357 57657 59957 62257	100	Sec	W	1-30000/0.01	Sectionalizer Ground duration Phase A[Low].
1 2 3 4 5 6 7 8	46158 48458 50758 53058 55358 57658 59958 62258	100	Sec	W	1-30000/0.01	Sectionalizer Ground Duration Phase A [High] High byte register.
1 2 3 4 5 6 7 8	46159 48459 50759 53059 55359 57659 59959 62259	100	Sec	W	1-6000/0.01	Sectionalizer Phase duration for Phase A

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46160 48460 50760 53060 55360 57660 59960 62260	100	Sec	W	1-60000/0.01	Sectionalizer Ground Multiplier Phase A
1 2 3 4 5 6 7 8	46161 48461 50761 53061 55361 57661 59961 62261	100	Sec	W	1-60000/0.01	Sectionalizer Reset Timer for Phase A
1 2 3 4 5 6 7 8	46162 48462 50762 53062 55362 57662 59962 62262	100	Sec	W	1-60000/0.01	Sectionalizer Voltage Loss Delay for Phase A
1 2 3 4 5 6 7 8	46163 48463 50763 53063 55363 57663 59963 62263	1	-	W	0-2097151/1	Sectionalizer phase Instantaneous/ Definite Time Overcurrent Function Phase A [Low]
1 2 3 4 5 6 7 8	46164 48464 50764 53064 55364 57664 59964 62264	1	-	W	0-2097151/1	Sectionalizer phase Instantaneous/ Definite Time Overcurrent Function Phase A [High] High byte register.
1 2 3 4 5 6 7 8	46165 48465 50765 53065 55365 57665 59965 62265	1	-	W	0-65535/1	Sectionalizer Phase Under Voltage function Phase A

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46166 48466 50766 53066 55366 57666 59966 62266	1	-	W	0-1/1	Sectionalizer Switch Enable in Phase A Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46203 48503 50803 53103 55403 57703 60003 62303	1	-	W	0-65535/1	Sequence coordinator selections phase A
1 2 3 4 5 6 7 8	47288 49588 51888 54188 56488 58788 61088 63388	1	-	W	0-4294967295/1	Sectionalizer Phase B Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47289 49589 51889 54189 56489 58789 61089 63389	1	-	W	0-4294967295/1	Sectionalizer Phase B Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46168 48468 50768 53068 55368 57668 59968 62268	1	-	W	0-1/1	Sectionalizer Enable Phase B Bit 0 Enable: 1, Disable: 0

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46169 48469 50769 53069 55369 57669 59969 62269	1	-	W	1-4/1	Sectionalizer Maximum Tips Phase B
1 2 3 4 5 6 7 8	46170 48470 50770 53070 55370 57670 59970 62270	1	-	W	0-127/1	Sectionalizer Inrush Current Restraint Phase B Enable Bit 0 –Disable Bit 8 – Not used Bit 1 – Not used Bit 9 – Not used Bit 2 – Not used Bit 10 – Not used Bit 3 – Enable Bit 11 – Not used Bit 4 – Not used Bit 12 – Not used Bit 5 – Not used Bit 13 – Not used Bit 6 – Not used Bit 14 – Not used Bit 7 – Not used Bit 15 – Not used
1 2 3 4 5 6 7 8	46171 48471 50771 53071 55371 57671 59971 62271	100	Sec	W	1-30000/0.01	Sectionalizer Phase Duration Phase B[Low]
1 2 3 4 5 6 7 8	46172 48472 50772 53072 55372 57672 59972 62272	100	Sec	W	1-30000/0.01	Sectionalizer Phase Duration Phase B[High] High byte register
1 2 3 4 5 6 7 8	46173 48473 50773 53073 55373 57673 59973 62273	100	Sec	W	1-30000/0.01	Sectionalizer Ground Duration Phase B[Low]
1 2 3 4 5 6 7 8	46174 48474 50774 53074 55374 57674 59974 62274	100	Sec	W	1-30000/0.01	Sectionalizer Ground Duration Phase B[High] High byte register

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46175 48475 50775 53075 55375 57675 59975 62275	100	Sec	W	1-6000/0.01	Sectionalizer Phase Duration Phase B
1 2 3 4 5 6 7 8	46176 48476 50776 53076 55376 57676 59976 62276	100	Sec	W	1-6000/0.01	Sectionalizer Ground Multiplier Phase B
1 2 3 4 5 6 7 8	46177 48477 50777 53077 55377 57677 59977 62277	100	Sec	W	1-60000/0.01	Sectionalizer Rest Timer Phase B
1 2 3 4 5 6 7 8	46178 48478 50778 53078 55378 57678 59978 62278	100	Sec	W	1-60000/0.01	Sectionalizer Voltage Loss Delay Phase B
1 2 3 4 5 6 7 8	46179 48479 50779 53079 55379 57679 59979 62279	1	-	W	0-2097151/1	Sectionalizer Phase instantaneous/ Definite Time Overcurrent Phase B[Low]
1 2 3 4 5 6 7 8	46180 48480 50780 53080 55380 57680 59980 62280	1	-	W	0-2097151/1	Sectionalizer Phase instantaneous/ Definite Time Overcurrent Phase B[High] High byte register

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46181 48481 50781 53081 55381 57681 59981 62281	1	-	W	0-65535/1	Sectionalizer Phase Under Voltage Phase B
1 2 3 4 5 6 7 8	46182 48482 50782 53082 55382 57682 59982 62282	1	-	W	0-1/1	Sectionalizer Switch Enable Phase B Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46204 48504 50804 53104 55404 57704 60004 62304	1	-	W	0-65535/1	Sequence coordinator selections phase B
1 2 3 4 5 6 7 8	47290 49590 51890 54190 56490 58790 61090 63390	1	-	W	0-4294967295/1	Sectionalizer Inputs Phase C Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47291 49591 51891 54191 56491 58791 61091 63391	1	-	W	0-4294967295/1	Sectionalizer Inputs Phase C.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46184 48484 50784 53084 55384 57684 59984 62284	1	-	W	0-1/1	Sectionalizer Enable Phase C Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46185 48485 50785 53085 55385 57685 59985 62285	1	-	W	1-4/1	Sectionalizer Maximum Trips Phase C
1 2 3 4 5 6 7 8	46186 48486 50786 53086 55386 57686 59986 62286	1	-	W	0-127/1	Sectionalizer Inrush Current Restraint Phase C Enable Bit 0 –Disable Bit 8 – Not used Bit 1 – Not used Bit 9 – Not used Bit 2 – Not used Bit 10 – Not used Bit 3 – Enable Bit 11 – Not used Bit 4 – Not used Bit 12 – Not used Bit 5 – Not used Bit 13 – Not used Bit 6 – Not used Bit 14 – Not used Bit 7 – Not used Bit 15 – Not used
1 2 3 4 5 6 7 8	46187 48487 50787 53087 55387 57687 59987 62287	100	Sec	W	1-30000/0.01	Sectionalizer Phase Duration Phase C [Low]
1 2 3 4 5 6 7 8	46188 48488 50788 53088 55388 57688 59988 62288	100	Sec	W	1-30000/0.01	Sectionalizer Phase Duration Phase C [High] high Byte Register

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46189 48489 50789 53089 55389 57689 59989 62289	100	Sec	W	1-30000/0.01	Sectionalizer Ground Duration Phase C [Low]
1 2 3 4 5 6 7 8	46190 48490 50790 53090 55390 57690 59990 62290	100	Sec	W	1-30000/0.01	Sectionalizer Ground Duration Phase C [High] High byte register
1 2 3 4 5 6 7 8	46191 48491 50791 53091 55391 57691 59991 62291	100	Sec	W	1-6000/0.01	Sectionalizer Phase Duration C
1 2 3 4 5 6 7 8	46192 48492 50792 53092 55392 57692 59992 62292	100	Sec	W	1-60000/0.01	Sectionalizer Ground Multiplier Phase C
1 2 3 4 5 6 7 8	46193 48493 50793 53093 55393 57693 59993 62293	100	Sec	W	1-60000/0.01	Sectionalizer Reset Timer Phase C
1 2 3 4 5 6 7 8	46194 48494 50794 53094 55394 57694 59994 62294	100	Sec	W	1-60000/0.01	Sectionalizer Voltage Loss Delay Phase C

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46195 48495 50795 53095 55395 57695 59995 62295	1	-	W	0-2097151/1	Sectionalizer Phase Instantaneous/ Definite time Overcurrent Function Phase C[Low]
1 2 3 4 5 6 7 8	46196 48496 50796 53096 55396 57696 59996 62296	1	-	W	0-2097151/1	Sectionalizer Phase Instantaneous/ Definite time Overcurrent Function Phase C[High] High byte register
1 2 3 4 5 6 7 8	46197 48497 50797 53097 55397 57697 59997 62297	1	-	W	0-65535/1	Sectionalizer Phase Under voltage Function Phase C
1 2 3 4 5 6 7 8	46198 48498 50798 53098 55398 57698 59998 62298	1	-	W	0-1/1	Sectionalizer Switch Enable Phase C Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46205 48505 50805 53105 55405 57705 60005 62305	1	-	W	0-65535/1	Sequence coordinator selections phase C
1 2 3 4 5 6 7 8	46199 48499 50799 53099 55399 57699 59999 62299	1	-	W	0-2/1	Sectionalizer Operation Mode for Three Phase

Table 2.32 Sectionalizer Setpoints

Sectionalizer Setpoints PROFILES #1 to #8 * These Registers are not available in M-7651A						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46200 48500 50800 53100 55400 57700 60000 62300	1	-	W	0-1/1	Sectionalizer Target Reset Timer Enable for Single and Three Phase Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46201 48501 50801 53101 55401 57701 60001 62301	1	Sec	W	0-65000/1	Sectionalizer Target Timer for Single and Three Phase
1 2 3 4 5 6 7 8	46202 48502 50802 53102 55402 57702 60002 62302	10	%	W	0-1000/0.1	Sectionalizer Deadline/Deadbus Current Level.
1 2 3 4 5 6 7 8	46203 48503 50803 53103 55403 57703 60003 62303	10	%	W	0-1000/0.1	Sectionalizer Deadline/Deadbus Voltage Level.
1 2 3 4 5 6 7 8	46204 48504 50804 53104 55404 57704 60004 62304	100	Sec	W	0-60000/0.01	Sectionalizer Deadline/Deadbus Duration.

Table 2.32 Sectionalizer Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47172 49472 51772 54072 56372 58672 60972 63272	1	—	W	0-4294967295 / 1	81 Frequency #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47173 49473 51773 54073 56373 58673 60973 63273	1	—	W	0-4294967295 / 1	81 Frequency #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8563 10863 13163 15463 17763 20063 22363 24663	1	—	W	0-4095/1	81 Frequency #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8564 10864 13164 15464 17764 20064 22364 24664	1	—	W	0-1/1	81 Frequency #1 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8565 10865 13165 15465 17765 20065 22365 24665	100	Hz	W	4000-6500/0.01	81 Frequency #1 Pickup

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8566 10866 13166 15466 17766 20066 22366 24666	100	Sec	W	0-60000/0.01	81 Frequency #1 Definite Time
1 2 3 4 5 6 7 8	8567 10867 13167 15467 17767 20067 22367 24667	10	Hz	W	0-1/0.1	81 Frequency #1 Hysteresis
1 2 3 4 5 6 7 8	8568 10868 13168 15468 17768 20068 22368 24668	100	V	W	100-18000/0.01	81 Frequency #1 Minimum Voltage
1 2 3 4 5 6 7 8	8569 10869 13169 15469 17769 20069 22369 24669	100	Amps	W	0-4000/0.01	81 Frequency #1 Minimum Load Current
1 2 3 4 5 6 7 8	8570 10870 13170 15470 17770 20070 22370 24670	1	—	W	0-7/1	81 Frequency #1 Enable Undervoltage Block, Minimum Load and Operating Voltage Side Bit 0 – Enable Undervoltage Block Bit 1 – Enable Minimum Load Bit 2 – 0 = Y-Side, 1 = Z-Side
1 2 3 4 5 6 7 8	47174 49474 51774 54074 56374 58674 60974 63274	1	—	W	0-4294967295 / 1	81 Frequency #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47175 49475 51775 54075 56375 58675 60975 63275	1	—	W	0-4294967295 / 1	81 Frequency #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8572 10872 13172 15472 17772 20072 22372 24672	1	—	W	0-4095/1	81 Frequency #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8573 10873 13173 15473 17773 20073 22373 24673	1	—	W	0-1/1	81 Frequency #2 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8574 10874 13174 15474 17774 20074 22374 24674	100	Hz	W	4000-6500/0.01	81 Frequency #2 Pickup
1 2 3 4 5 6 7 8	8575 10875 13175 15475 17775 20075 22375 24675	100	Sec	W	0-60000/0.01	81 Frequency #2 Definite Time
1 2 3 4 5 6 7 8	8576 10876 13176 15476 17776 20076 22376 24676	10	Hz	W	0-10/0.1	81 Frequency #2 Hysteresis

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8577 10877 13177 15477 17777 20077 22377 24677	100	V	W	100-18000/0.01	81 Frequency #2 Minimum Voltage
1 2 3 4 5 6 7 8	8578 10878 13178 15478 17778 20078 22378 24678	100	Amps	W	0-4000/0.01	81 Frequency #2 Minimum Load Current
1 2 3 4 5 6 7 8	8579 10879 13179 15479 17779 20079 22379 24679	1	—	W	0-7/1	81 Frequency #2 Enable Undervoltage Block, Minimum Load and Operating Voltage Side Bit 0 – Enable Undervoltage Block Bit 1 – Enable Minimum Load Bit 2 – 0 = Y-Side, 1 = Z-Side
1 2 3 4 5 6 7 8	47176 49476 51776 54076 56376 58676 60976 63276	1	—	W	0-4294967295 / 1	81 Frequency #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47177 49477 51777 54077 56377 58677 60977 63277	1	—	W	0-4294967295 / 1	81 Frequency #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8581 10881 13181 15481 17781 20081 22381 24681	1	—	W	0-4095/1	81 Frequency #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8582 10882 13182 15482 17782 20082 22382 24682	1	—	W	0-1/1	81 Frequency #3 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8583 10883 13183 15483 17783 20083 22383 24683	100	Hz	W	4000-6500/0.01	81 Frequency #3 Pickup
1 2 3 4 5 6 7 8	8584 10884 13184 15484 17784 20084 22384 24684	100	Sec	W	0-60000/0.01	81 Frequency #3 Definite Time
1 2 3 4 5 6 7 8	8585 10885 13185 15485 17785 20085 22385 24685	10	Hz	W	0-10/0.1	81 Frequency #3 Hysteresis
1 2 3 4 5 6 7 8	8586 10886 13186 15486 17786 20086 22386 24686	100	V	W	100-18000/0.01	81 Frequency #3 Minimum Voltage

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8587 10887 13187 15487 17787 20087 22387 24687	100	Amps	W	0-4000/0.01	81 Frequency #3 Minimum Load Current
1 2 3 4 5 6 7 8	8588 10888 13188 15488 17788 20088 22388 24688	1	—	W	0-7/1	81 Frequency #3 Enable Undervoltage Block, Minimum Load and Operating Voltage Side Bit 0 – Enable Undervoltage Block Bit 1 – Enable Minimum Load Bit 2 – 0 = Y-Side, 1 = Z-Side
1 2 3 4 5 6 7 8	47178 49478 51778 54078 56378 58678 60978 63278	1	—	W	0-4294967295 / 1	81 Frequency #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47179 49479 51779 54079 56379 58679 60979 63279	1	—	W	0-4294967295 / 1	81 Frequency #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8590 10890 13190 15490 17790 20090 22390 24690	1	—	W	0-4095/1	81 Frequency #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8591 10891 13191 15491 17791 20091 22391 24691	1	—	W	0-1/1	81 Frequency #4 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	8592 10892 13192 15492 17792 20092 22392 24692	100	Hz	W	4000-6500/0.01	81 Frequency #4 Pickup
1 2 3 4 5 6 7 8	8593 10893 13193 15493 17793 20093 22393 24693	100	Sec	W	0-60000/0.01	81 Frequency #4 Definite Time
1 2 3 4 5 6 7 8	8594 10894 13194 15494 17794 20094 22394 24694	10	Hz	W	0-1/0.1	81 Frequency #4 Hysteresis
1 2 3 4 5 6 7 8	8595 10895 13195 15495 17795 20095 22395 24695	100	V	W	100-18000/0.01	81 Frequency #4 Minimum Voltage
1 2 3 4 5 6 7 8	8596 10896 13196 15496 17796 20096 22396 24696	100	Amps	W	0-4000/0.01	81 Frequency #4 Minimum Load Current

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8597 10897 13197 15497 17797 20097 22397 24697	1	—	W	0-7/1	81 Frequency #4 Enable Undervoltage Block, Minimum Load and Operating Voltage Side Bit 0 – Enable Undervoltage Block Bit 1 – Enable Minimum Load Bit 2 – 0 = Y-Side, 1 = Z-Side
1 2 3 4 5 6 7 8	47180 49480 51780 54080 56380 58680 60980 63280	1	—	W	0-4294967295 / 1	81 Frequency #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47181 49481 51781 54081 56381 58681 60981 63281	1	—	W	0-4294967295 / 1	81 Frequency #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46711 49011 51311 53611 55911 58211 60511 62811	1	—	W	0-4095/1	81 Frequency #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46712 49012 51312 53612 55912 58212 60512 62812	1	—	W	0-1/1	81 Frequency #5 Enable Bit 0 Enable: 1, Disable: 0

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46713 49013 51313 53613 55913 58213 60513 62813	100	Hz	W	4000-6500/0.01	81 Frequency #5 Pickup
1 2 3 4 5 6 7 8	46714 49014 51314 53614 55914 58214 60514 62814	100	Sec	W	0-60000/0.01	81 Frequency #5 Definite Time
1 2 3 4 5 6 7 8	46715 49015 51315 53615 55915 58215 60515 62815	10	Hz	W	0-1/0.1	81 Frequency #5 Hysteresis
1 2 3 4 5 6 7 8	46716 49016 51316 53616 55916 58216 60516 62816	100	V	W	100-18000/0.01	81 Frequency #5 Minimum Voltage
1 2 3 4 5 6 7 8	46717 49017 51317 53617 55917 58217 60517 62817	100	Amps	W	0-4000/0.01	81 Frequency #5 Minimum Load Current
1 2 3 4 5 6 7 8	46718 49018 51318 53618 55918 58218 60518 62818	1	—	W	0-7/1	81 Frequency #5 Enable Under Voltage Block, Minimum Load and Operating Voltage Side Bit 0 – Enable Under Voltage Block Bit 1 – Enable Minimum Load Bit 2 – 0 = Y-Side, 1 = Z-Side

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47182 49482 51782 54082 56382 58682 60982 63282	1	—	W	0-4294967295 / 1	81 Frequency #6 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47183 49483 51783 54083 56383 58683 60983 63283	1	—	W	0-4294967295 / 1	81 Frequency #6 Blocking Inputs Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46720 49020 51320 53620 55920 58220 60520 62820	1	—	W	0-4095/1	81 Frequency #6 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46721 49021 51321 53621 55921 58221 60521 62821	1	—	W	0-1/1	81 Frequency #6 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46722 49022 51322 53622 55922 58222 60522 62822	100	Hz	W	4000-6500/0.01	81 Frequency #6 Pickup

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46723 49023 51323 53623 55923 58223 60523 62823	100	Sec	W	0-60000/0.01	81 Frequency #6 Definite Time
1 2 3 4 5 6 7 8	46724 49024 51324 53624 55924 58224 60524 62824	10	Hz	W	0-1/0.1	81 Frequency #6 Hysteresis
1 2 3 4 5 6 7 8	46725 49025 51325 53625 55925 58225 60525 62825	100	V	W	100-18000/0.01	81 Frequency #6 Minimum Voltage
1 2 3 4 5 6 7 8	46726 49026 51326 53626 55926 58226 60526 62826	100	Amps	W	0-4000/0.01	81 Frequency #6 Minimum Load Current
1 2 3 4 5 6 7 8	46727 49027 51327 53627 55927 58227 60527 62827	1	–	W	0-7/1	81 Frequency #6 Enable Under Voltage Block, Minimum Load and Operating Voltage Side Bit 0 – Enable Under Voltage Block Bit 1 – Enable Minimum Load Bit 2 – 0 = Y-Side, 1 = Z-Side
1 2 3 4 5 6 7 8	47184 49484 51784 54084 56384 58684 60984 63284	1	–	W	0-4294967295/1	81 Frequency #7 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47185 49485 51785 54085 56385 58685 60985 63285	1	—	W	0-4294967295/1	81 Frequency #7 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46729 49029 51329 53629 55929 58229 60529 62829	1	—	W	0-4095/1	81 Frequency #7Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46730 49030 51330 53630 55930 58230 60530 62830	1	—	W	0-1/1	81 Frequency #7 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46731 49031 51331 53631 55931 58231 60531 62831	100	Hz	W	4000-6500/0.01	81 Frequency #7 Pickup
1 2 3 4 5 6 7 8	46732 49032 51332 53632 55932 58232 60532 62832	100	Sec	W	0-60000/0.01	81 Frequency #7 Definite Time
1 2 3 4 5 6 7 8	46733 49033 51333 53633 55933 58233 60533 62833	10	Hz	W	0-1/0.1	81 Frequency #7 Hysteresis

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46734 49034 51334 53634 55934 58234 60534 62834	100	V	W	100-18000/0.01	81 Frequency #7 Minimum Voltage
1 2 3 4 5 6 7 8	46735 49035 51335 53635 55935 58235 60535 62835	100	Amps	W	0-4000/0.01	81 Frequency #7 Minimum Load Current
1 2 3 4 5 6 7 8	46736 49036 51336 53636 55936 58236 60536 62836	1	–	W	0-7/1	81 Frequency #7 Enable Under Voltage Block, Minimum Load and Operating Voltage Side Bit 0 – Enable Under Voltage Block Bit 1 – Enable Minimum Load Bit 2 – 0 = Y-Side, 1 = Z-Side
1 2 3 4 5 6 7 8	47186 49486 51786 54086 56386 58686 60986 63286	1	–	W	0-4294967295/1	81 Frequency #8 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47187 49487 51787 54087 56387 58687 60987 63287	1	–	W	0-4294967295/1	81 Frequency #8 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46738 49038 51338 53638 55938 58238 60538 62838	1	—	W	0-4095/1	81 Frequency #7 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46739 49039 51339 53639 55939 58239 60539 62839	1	—	W	0-1/1	81 Frequency #8 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46740 49040 51340 53640 55940 58240 60540 62840	100	Hz	W	4000-6500/0.01	81 Frequency #8 Pickup
1 2 3 4 5 6 7 8	46741 49041 51341 53641 55941 58241 60541 62841	100	Sec	W	0-60000/0.01	81 Frequency #8 Definite Time
1 2 3 4 5 6 7 8	46742 49042 51342 53642 55942 58242 60542 62842	10	Hz	W	0-1/0.1	81 Frequency #8 Hysteresis
1 2 3 4 5 6 7 8	46743 49043 51343 53643 55943 58243 60543 62843	100	V	W	100-18000/0.01	81 Frequency #8 Minimum Voltage

Table 2.33 Function 81 Setpoints

Function 81 Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46744 49044 51344 53644 55944 58244 60544 62844	100	Amps	W	0-4000/0.01	81 Frequency #8 Minimum Load Current
1 2 3 4 5 6 7 8	46745 49045 51345 53645 55945 58245 60545 62845	1	—	W	0-7/1	81 Frequency #8 Enable Under Voltage Block, Minimum Load and Operating Voltage Side Bit 0 – Enable Under Voltage Block Bit 1 – Enable Minimum Load Bit 2 – 0 = Y-Side, 1 = Z-Side

Table 2.33 Function 81 Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47190 49490 51790 54090 56390 58690 60990 63290	1	—	W	0-4294967295/1	81R #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47191 49491 51791 54091 56391 58691 60991 63291	1	—	W	0-4294967295/1	81R #1 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8673 10973 13273 15573 17873 20173 22473 24773	1	—	W	0-4095/1	81R #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8674 10974 13274 15574 17874 20174 22474 24774	1	—	W	0-1/1	81R #1 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8675 10975 13275 15575 17875 20175 22475 24775	100	Hz/s	W	20-500/0.01	81R #1 Pickup
1 2 3 4 5 6 7 8	8676 10976 13276 15576 17876 20176 22476 24776	100	Sec	W	0-200/0.01	81R #1 Definite Time

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8677 10977 13277 15577 17877 20177 22477 24777	100	Hz	W	20-80/0.01	81R #1 Maximum Frequency
1 2 3 4 5 6 7 8	8681 10981 13281 15581 17881 20181 22481 24781	100	Hz	W	20-80/0.01	81R.1.MINFREQ
1 2 3 4 5 6 7 8	8678 10978 13278 15578 17878 20178 22478 24778	100	A	W	0-2000/0.01	81R #1 Minimum Current
1 2 3 4 5 6 7 8	8679 10979 13279 15579 17879 20179 22479 24779	100	V	W	0-30000/0.01	81R #1 Minimum Voltage
1 2 3 4 5 6 7 8	8680 10980 13280 15580 17880 20180 22480 24780	1	—	W	3-15/1	81R #1 Pickup Cycle Number
1 2 3 4 5 6 7 8	8690 10990 13290 15590 17890 20190 22490 24790	1	—	W	0-1/1	81R #1 Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47192 49492 51792 54092 56392 58692 60992 63292	1	—	W	0-4294967295/1	81R #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47193 49493 51793 54093 56393 58693 60993 63293	1	—	W	0-4294967295/1	81R #2 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8682 10982 13282 15582 17882 20182 22482 24782	1	—	W	0-4095/1	81R #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	8683 10983 13283 15583 17883 20183 22483 24783	1	—	W	0-1/1	81R #2 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8684 10984 13284 15584 17884 20184 22484 24784	100	Hz/s	W	20-500/0.01	81R #2 Pickup
1 2 3 4 5 6 7 8	8685 10985 13285 15585 17885 20185 22485 24785	100	Sec	W	0-200/0.01	81R #2 Definite Time

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8686 10986 13286 15586 17886 20186 22486 24786	100	Hz	W	20-80/0.01	81R #2 Maximum Frequency
1 2 3 4 5 6 7 8	8692 10992 13292 15581 17892 20192 22492 24792	100	Hz	W	20-80/0.01	81R.2.MINFREQ
1 2 3 4 5 6 7 8	8687 10987 13287 15587 17887 20187 22487 24787	100	A	W	0-2000/0.01	81R #2 Minimum Current
1 2 3 4 5 6 7 8	8688 10988 13288 15588 17888 20188 22488 24788	100	V	W	0-30000/0.01	81R #2 Minimum Voltage
1 2 3 4 5 6 7 8	8689 10989 13289 15589 17889 20189 22489 24789	1	—	W	3-15/1	81R #2 Pickup Cycle Number
1 2 3 4 5 6 7 8	8691 10991 13291 15591 17891 20191 22491 24791	1	—	W	0-1/1	81R #2 Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47194 49494 51794 54094 56394 58694 60994 63294	1	—	W	0-4294967295/1	81R #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47195 49495 51795 54095 56395 58695 60995 63295	1	—	W	0-4294967295/1	81R #3 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46747 49047 51347 53647 55947 58247 60547 62847	1	—	W	0-4095/1	81R #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46748 49048 51348 53648 55948 58248 60548 62848	1	—	W	0-1/1	81R #3 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46749 49049 51349 53649 55949 58249 60549 62849	100	Hz/s	W	20-500/0.01	81R #3 Pickup
1 2 3 4 5 6 7 8	46750 49050 51350 53650 55950 58250 60550 62850	100	Sec	W	0-200/0.01	81R #3 Definite Time

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46751 49051 51351 53651 55951 58251 60551 62851	100	Hz	W	20-80/0.01	81R #3 Maximum Frequency
1 2 3 4 5 6 7 8	46756 49056 51356 53656 55956 58256 60556 62856	100	Hz	W	20-80/0.01	81R.3.MINFREQ
1 2 3 4 5 6 7 8	46752 49052 51352 53652 55952 58252 60552 62852	100	A	W	0-2000/0.01	81R #3 Minimum Current
1 2 3 4 5 6 7 8	46753 49053 51353 53653 55953 58253 60553 62853	100	V	W	0-30000/0.01	81R #3 Minimum Voltage
1 2 3 4 5 6 7 8	46754 49054 51354 53654 55954 58254 60554 62854	1	—	W	3-15/1	81R #3 Pickup Cycle Number
1 2 3 4 5 6 7 8	46755 49055 51355 53655 55955 58255 60555 62855	1	—	W	0-1/1	81R #3 Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47196 49496 51796 54096 56396 58696 60996 63296	1	—	W	0-4294967295/1	81R #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47197 49497 51797 54097 56397 58697 60997 63297	1	—	W	0-4294967295/1	81R #4 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46757 49057 51357 53657 55957 58257 60557 62857	1	—	W	0-4095/1	81R #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46758 49058 51358 53658 55958 58258 60558 62858	1	—	W	0-1/1	81R #4 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46759 49059 51359 53659 55959 58259 60559 62859	100	Hz/s	W	20-500/0.01	81R #4 Pickup
1 2 3 4 5 6 7 8	46760 49060 51360 53660 55960 58260 60560 62860	100	Sec	W	0-200/0.01	81R #4 Definite Time

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46761 49061 51361 53661 55961 58261 60561 62861	100	Hz	W	20-80/0.01	81R #4 Maximum Frequency
1 2 3 4 5 6 7 8	46766 49066 51366 53666 55966 58266 60566 62866	100	Hz	W	20-80/0.01	81R.4.MINFREQ
1 2 3 4 5 6 7 8	46762 49062 51362 53662 55962 58262 60562 62862	100	A	W	0-2000/0.01	81R #4 Minimum Current
1 2 3 4 5 6 7 8	46763 49063 51363 53663 55963 58263 60563 62863	100	V	W	0-30000/0.01	81R #4 Minimum Voltage
1 2 3 4 5 6 7 8	46764 49064 51364 53664 55964 58264 60564 62864	1	—	W	3-15/1	81R #4 Pickup Cycle Number
1 2 3 4 5 6 7 8	46765 49065 51365 53665 55965 58265 60565 62865	1	—	W	0-1/1	81R #4 Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47198 49498 51798 54098 56398 58698 60998 63298	1	—	W	0-4294967295/1	81R #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47199 49499 51799 54099 56399 58699 60999 63299	1	—	W	0-4294967295/1	81R #5 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46767 49067 51367 53667 55967 58267 60567 62867	1	—	W	0-4095/1	81R #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46768 49068 51368 53668 55968 58268 60568 62868	1	—	W	0-1/1	81R #5 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46769 49069 51369 53669 55969 58269 60569 62869	100	Hz/s	W	20-500/0.01	81R #5 Pickup
1 2 3 4 5 6 7 8	46770 49070 51370 53670 55970 58270 60570 62870	100	Sec	W	0-200/0.01	81R #5 Definite Time

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46771 49071 51371 53671 55971 58271 60571 62871	100	Hz	W	20-80/0.01	81R #5 Maximum Frequency
1 2 3 4 5 6 7 8	46776 49076 51376 53676 55976 58276 60576 62876	100	Hz	W	20-80/0.01	81R.5.MINFREQ
1 2 3 4 5 6 7 8	46772 49072 51372 53672 55972 58272 60572 62872	100	A	W	0-2000/0.01	81R #5 Minimum Current
1 2 3 4 5 6 7 8	46773 49073 51373 53673 55973 58273 60573 62873	100	V	W	0-30000/0.01	81R #5 Minimum Voltage
1 2 3 4 5 6 7 8	46774 49074 51374 53674 55974 58274 60574 62874	1	—	W	3-15/1	81R #5 Pickup Cycle Number
1 2 3 4 5 6 7 8	46775 49075 51375 53675 55975 58275 60575 62875	1	—	W	0-1/1	81R #5 Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47200 49500 51800 54100 56400 58700 61000 63300	1	—	W	0-4294967295/1	81R #6 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47201 49501 51801 54101 56401 58701 61001 63301	1	—	W	0-4294967295/1	81R #6 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46777 49077 51377 53677 55977 58277 60577 62877	1	—	W	0-4095/1	81R #6 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46778 49078 51378 53678 55978 58278 60578 62878	1	—	W	0-1/1	81R #6 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46779 49079 51379 53679 55979 58279 60579 62879	100	Hz/s	W	20-500/0.01	81R #6 Pickup
1 2 3 4 5 6 7 8	46780 49080 51380 53680 55980 58280 60580 62880	100	Sec	W	0-200/0.01	81R #6 Definite Time

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46781 49081 51381 53681 55981 58281 60581 62881	100	Hz	W	20-80/0.01	81R #6 Maximum Frequency
1 2 3 4 5 6 7 8	46786 49086 51386 53686 55986 58286 60586 62886	100	Hz	W	20-80/0.01	81R.6.MINFREQ
1 2 3 4 5 6 7 8	46782 49082 51382 53682 55982 58282 60582 62882	100	A	W	0-2000/0.01	81R #6 Minimum Current
1 2 3 4 5 6 7 8	46783 49083 51383 53683 55983 58283 60583 62883	100	V	W	0-30000/0.01	81R #6 Minimum Voltage
1 2 3 4 5 6 7 8	46784 49084 51384 53684 55984 58284 60584 62884	1	—	W	3-15/1	81R #6 Pickup Cycle Number
1 2 3 4 5 6 7 8	46785 49085 51385 53685 55985 58285 60585 62885	1	—	W	0-1/1	81R #6 Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47202 49502 51802 54102 56402 58702 61002 63302	1	—	W	0-4294967295/1	81R #7 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47203 49503 51803 54103 56403 58703 61003 63303	1	—	W	0-4294967295/1	81R #7 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46787 49087 51387 53687 55987 58287 60587 62887	1	—	W	0-4095/1	81R #7 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46788 49088 51388 53688 55988 58288 60588 62888	1	—	W	0-1/1	81R #7 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46789 49089 51389 53689 55989 58289 60589 62889	100	Hz/s	W	20-500/0.01	81R #7 Pickup
1 2 3 4 5 6 7 8	46790 49090 51390 53690 55990 58290 60590 62890	100	Sec	W	0-200/0.01	81R #7 Definite Time

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46791 49091 51391 53691 55991 58291 60591 62891	100	Hz	W	20-80/0.01	81R #7 Maximum Frequency
1 2 3 4 5 6 7 8	46796 49096 51396 53696 55996 58296 60596 62906	100	Hz	W	20-80/0.01	81R.7.MINFREQ
1 2 3 4 5 6 7 8	46792 49092 51392 53692 55992 58292 60592 62892	100	A	W	0-2000/0.01	81R #7 Minimum Current
1 2 3 4 5 6 7 8	46793 49093 51393 53693 55993 58293 60593 62893	100	V	W	0-30000/0.01	81R #7 Minimum Voltage
1 2 3 4 5 6 7 8	46794 49094 51394 53694 55994 58294 60594 62894	1	—	W	3-15/1	81R #7 Pickup Cycle Number
1 2 3 4 5 6 7 8	46795 49095 51395 53695 55995 58295 60595 62895	1	—	W	0-1/1	81R #7 Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47204 49504 51804 54104 56404 58704 61004 63304	1	—	W	0-4294967295/1	81R #8 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47205 49505 51805 54105 56405 58705 61005 63305	1	—	W	0-4294967295/1	81R #8 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46797 49097 51397 53697 55997 58297 60597 62897	1	—	W	0-4095/1	81R #8 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46798 49098 51398 53698 55998 58298 60598 62898	1	—	W	0-1/1	81R #8 Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46799 49099 51399 53699 55999 58299 60599 62899	100	Hz/s	W	20-500/0.01	81R #8 Pickup
1 2 3 4 5 6 7 8	46800 49100 51400 53700 56000 58300 60600 62900	100	Sec	W	0-200/0.01	81R #8 Definite Time

Table 2.34 Function 81R Setpoints

Function 81R Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46801 49101 51401 53701 56001 58301 60601 62901	100	Hz	W	20-80/0.01	81R #8 Maximum Frequency
1 2 3 4 5 6 7 8	46806 49106 51406 53706 56006 58306 60606 62902	100	Hz	W	20-80/0.01	81R.8.MINFREQ
1 2 3 4 5 6 7 8	46802 49102 51402 53702 56002 58302 60602 62902	100	A	W	0-2000/0.01	81R #8 Minimum Current
1 2 3 4 5 6 7 8	46803 49103 51403 53703 56003 58303 60603 62903	100	V	W	0-30000/0.01	81R #8 Minimum Voltage
1 2 3 4 5 6 7 8	46804 49104 51404 53704 56004 58304 60604 62904	1	—	W	3-15/1	81R #8 Pickup Cycle Number
1 2 3 4 5 6 7 8	46805 49105 51405 53705 56005 58305 60605 62905	1	—	W	0-1/1	81R #8 Operating Voltage Side 0 – Y Side 1 – Z Side NOTE: This Register is available with a 6LEA Hardware Option.

Table 2.34 Function 81R Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8608 10908 13208 15508 17808 20108 22408 24708	1	—	W	0-1/1	Cold Load Pickup Enable 1 = Enable 0 = Disable
1 2 3 4 5 6 7 8	47188 49488 51788 54088 56388 58688 60988 63288	1	—	W	0-4294967295/1	Cold Load Pickup Breaker Input Status Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47189 49489 51789 54089 56389 58689 60989 63289	1	—	W	0-4294967295/1	Cold Load Pickup Breaker Input Status.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	8610 10910 13210 15510 17810 20110 22410 24710	1	—	W	0-4/1	Cold Load Pickup Maximum Number of Trips Value Number of Trips 0 1 1 2 2 3 3 4 4 5
1 2 3 4 5 6 7 8	8611 10911 13211 15511 17811 20111 22411 24711	1	Sec	W	1-60000/1	Cold Load Pickup - Time Locked Out to Activate Cold Load
1 2 3 4 5 6 7 8	8612 10912 13212 15512 17812 20112 22412 24712	100	Sec	W	1-60000/0.01	Cold Load Pickup - Transient Time delay to exit Cold Load state

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8613 10913 13213 15513 17813 20113 22413 24713	1	-	W	0-5/1	CLDLD.CURSEL
1 2 3 4 5 6 7 8	8614 10914 13214 15514 17814 20114 22414 24714	1	Sec	W	1-10000/1	Cold Load Pickup Active Duration
1 2 3 4 5 6 7 8	8615 10915 13215 15515 17815 20115 22415 24715	100	A	W	0.08-100/0.01	CLDLD.IPU
1 2 3 4 5 6 7 8	8616 10916 13216 15516 17816 20116 22416 24716	1	%	W	0-100/1	Cold Load Pickup Minimum Phase Current Setting
1 2 3 4 5 6 7 8	8617 10917 13217 15517 17817 20117 22417 24717	1	%	W	0-100/1	Cold Load Pickup Minimum Ground Current Setting
1 2 3 4 5 6 7 8	8618 10918 13218 15518 17818 20118 22418 24718	1	—	W	0-1/1	Cold Load Pickup Enable 50P Bit-0 Enable-1; Disable-0

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8619 10919 13219 15519 17819 20119 22419 24719	100	Amps	W	2-2000/0.01	Cold Load Pickup 50P Pickup
1 2 3 4 5 6 7 8	8620 10920 13220 15520 17820 20120 22420 24720	100	Sec	W	0-60000/0.01	Cold Load Pickup 50P Definite Time
1 2 3 4 5 6 7 8	31172 33296 35422 37546 39672 41796 43933 45915	1	—	W	0-1/1	Cold Load Pickup Enable 50P (Phase A) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	31175 33299 35425 37549 39675 41799 43936 45918	1	—	W	0-1/1	Cold Load Pickup Enable 50P (Phase B) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	31178 33302 35428 37552 39678 41802 43939 45921	1	—	W	0-1/1	Cold Load Pickup Enable 50P (Phase C) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8621 10921 13221 15521 17821 20121 22421 24721	1	—	W	0-1/1	Cold Load Pickup Enable 50G Bit-0 Enable-1; Disable-0

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8624 10924 13224 15524 17824 20124 22424 24724	1	—	W	0-1/1	Cold Load Pickup Enable 51P Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8625 10925 13225 15525 17825 20125 22425 24725	100	Amps	W	2-320/0.01	Cold Load Pickup 51P Pickup
1 2 3 4 5 6 7 8	8626 10926 13226 15526 17826 20126 22426 24726	1	—	W	0-67 / 1	Cold Load Pickup 51P Inverse Time Curve (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	8627 10927 13227 15527 17827 20127 22427 24727	1	—	W	0-1/1	Cold Load Pickup 51P Electromechanical Reset
1 2 3 4 5 6 7 8	8628 10928 13228 15528 17828 20128 22428 24728	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51P Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8629 10929 13229 15529 17829 20129 22429 24729	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51P Reset Coefficient (High) High bytes of 32-bit register

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8630 10930 13230 15530 17830 20130 22430 24730	100	—	W	5 – 3000/0.01	Cold Load Pickup 51P Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	8631 10931 13231 15531 17831 20131 22431 24731	100	Sec	W	1-3000/0.01	Cold Load Pickup 51P Time Adder
1 2 3 4 5 6 7 8	8632 10932 13232 15532 17832 20132 22432 24732	100	Sec	W	1 – 100/0.01	Cold Load Pickup 51P Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8633 10933 13233 15533 17833 20133 22433 24733	100	Sec	W	1 – 100/0.01	Cold Load Pickup 51P Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8634 10934 13234 15534 17834 20134 22434 24734	1	s	W	0.1-30/1	CLDLD.51P.TMDIALRESET
1 2 3 4 5 6 7 8	31181 33305 35431 37555 39681 41805 43942 45924	1	—	W	0-1/1	Cold Load Pickup Enable 51P (Phase A) Bit-0 Enable-1; Disable-0

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31183 33307 35433 37557 39683 41807 43944 45926	1	—	W	0-67 / 1	Cold Load Pickup 51P Inverse Time Curve (Phase A) (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	31184 33308 35434 37558 39684 41808 43945 45927	1	—	W	0-1/1	Cold Load Pickup 51P Electromechanical Reset (Phase A)
1 2 3 4 5 6 7 8	31185 33309 35435 37559 39685 41809 43946 45928	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51P Reset Coefficient (Low) (Phase A) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	31186 33310 35436 37560 39686 41810 43947 45929	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51P Reset Coefficient (High) (Phase A) High bytes of 32-bit register
1 2 3 4 5 6 7 8	31187 33311 35437 37561 39687 41811 43948 45930	100	—	W	5 – 3000/0.01	Cold Load Pickup 51P Time Multiplier (Phase A) Range of this point changes based on 51P Curve setting (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	31188 33312 35438 37562 39688 41812 43949 45931	100	Sec	W	1-3000/0.01	Cold Load Pickup 51P Time Adder (Phase A)

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31189 33313 35439 37563 39689 41813 43950 45932	100	Sec	W	1 – 100/0.01	Cold Load Pickup 51P Minimum Response Time Adder (High) (Phase A) High bytes of 32-bit register
1 2 3 4 5 6 7 8	31190 33314 35440 37564 39690 41814 43951 45933	100	Sec	W	1 – 100/0.01	Cold Load Pickup 51P Minimum Response Time Adder (Low) (Phase A) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	31191 33315 35441 37565 39691 41815 43952 45934	1	s	W	0-30/1	CLDLD.51P.A.TMDIALRESET
1 2 3 4 5 6 7 8	31192 33316 35442 37566 39692 41816 43953 45935	1	–	W	0-1/1	Cold Load Pickup Enable 51P (Phase B) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	31194 33318 35444 37568 39694 41818 43955 45937	1	–	W	0-67 / 1	Cold Load Pickup 51P Inverse Time Curve (Phase B) (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	31195 33319 35445 37569 39695 41819 43956 45938	1	–	W	0-1/1	Cold Load Pickup 51P Electromechanical Reset (Phase B)

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31196 33320 35446 37570 39696 41820 43957 45939	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51P Reset Coefficient (Low) (Phase B) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	31197 33321 35447 37571 39697 41821 43958 45940	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51P Reset Coefficient (High) (Phase B) High bytes of 32-bit register
1 2 3 4 5 6 7 8	31198 33322 35448 37572 39698 41822 43959 45941	100	—	W	5 – 3000/0.01	Cold Load Pickup 51P Time Multiplier (Phase B) Range of this point changes based on 51P Curve setting (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	31199 33323 35449 37573 39699 41823 43960 45942	100	Sec	W	1-3000/0.01	Cold Load Pickup 51P Time Adder (Phase B)
1 2 3 4 5 6 7 8	31200 33324 35450 37574 39700 41824 43961 45943	100	Sec	W	1 – 100/0.01	Cold Load Pickup 51P Minimum Response Time Adder (High) (Phase B) High bytes of 32-bit register
1 2 3 4 5 6 7 8	31201 33325 35451 37575 39701 41825 43962 45944	100	Sec	W	1 – 100/0.01	Cold Load Pickup 51P Minimum Response Time Adder (Low) (Phase B) Low bytes of 32-bit register

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31202 33326 35452 37576 39702 41826 43963 45945	1	s	W	0.1-30/1	CLDLD.51P.B.TMDIALRESET
1 2 3 4 5 6 7 8	31203 33327 35453 37577 39703 41827 43964 45946	1	—	W	0-1/1	Cold Load Pickup Enable 51P (Phase C) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	31205 33329 35455 37579 39705 41829 43966 45948	1	—	W	0-67 / 1	Cold Load Pickup 51P Inverse Time Curve (Phase C) (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	31206 33330 35456 37580 39706 41830 43967 45949	1	—	W	0-1/1	Cold Load Pickup 51P Electromechanical Reset (Phase C)
1 2 3 4 5 6 7 8	31207 33331 35457 37581 39707 41831 43968 45950	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51P Reset Coefficient (Low) (Phase C) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	31208 33332 35458 37582 39708 41832 43969 45951	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51P Reset Coefficient (High) (Phase C) High bytes of 32-bit register

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31209 33333 35459 37583 39709 41833 43970 45952	100	—	W	5 – 3000/0.01	Cold Load Pickup 51P Time Multiplier (Phase C) Range of this point changes based on 51P Curve setting (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	31210 33334 35460 37584 39710 41834 43971 45953	100	Sec	W	0-3000/0.01	Cold Load Pickup 51P Time Adder (Phase C)
1 2 3 4 5 6 7 8	31211 33335 35461 37585 39711 41835 43972 45954	100	Sec	W	0 – 100/0.01	Cold Load Pickup 51P Minimum Response Time Adder (High) (Phase C) High bytes of 32-bit register
1 2 3 4 5 6 7 8	31212 33336 35462 37586 39712 41836 43973 45955	100	Sec	W	0 – 100/0.01	Cold Load Pickup 51P Minimum Response Time Adder (Low) (Phase C) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	31213 33337 35463 37587 39713 41837 43974 45956	1	s	W	0.1-30/1	CLDLD.51P.C.TMDIALRESET
1 2 3 4 5 6 7 8	8635 10935 13235 15535 17835 20135 22435 24735	1	—	W	0-1/1	Cold Load Pickup Enable 51G Bit-0 Enable-1; Disable-0

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8637 10937 13237 15537 17837 20137 22437 24737	1	—	W	0-67 / 1	Cold Load Pickup 51G Inverse Time Curve (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	8638 10938 13238 15538 17838 20138 22438 24738	1	—	W	0-1/1	Cold Load Pickup 51G Electromechanical Reset
1 2 3 4 5 6 7 8	8639 10939 13239 15539 17839 20139 22439 24739	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51G Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8640 10940 13240 15540 17840 20140 22440 24740	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51G Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8641 10941 13241 15541 17841 20141 22441 24741	100	—	W	5-109/0.01	Cold Load Pickup 51G Time Multiplier Range of this point changes based on 51G Curve setting (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	8642 10942 13242 15542 17842 20142 22442 24742	100	Sec	W	0-3000/0.01	Cold Load Pickup 51G Time Adder

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8643 10943 13243 15543 17843 20143 22443 24743	100	Sec	W	0 – 100/0.01	Cold Load Pickup 51G Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8644 10944 13244 15544 17844 20144 22444 24744	100	Sec	W	0 – 100/0.01	Cold Load Pickup 51G Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8645 10945 13245 15545 17845 20145 22445 24745	1	s	W	0.1-30/1	CLDLD.51G.TMDIALRESET
1 2 3 4 5 6 7 8	8646 10946 13246 15546 17846 20146 22446 24746	1	–	W	0-1/1	Cold Load Pickup High Current Lockout Phase Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8647 10947 13247 15547 17847 20147 22447 24747	1	–	W	0-1/1	Cold Load Pickup High Current Lockout Ground Enable Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8648 10948 13248 15548 17848 20148 22448 24748	100	Amps	W	1-10000/0.01	Cold Load Pickup High Current Lockout Phase Pickup

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8649 10949 13249 15549 17849 20149 22449 24749	100	Amps	W	3-10000/0.01	Cold Load Pickup High Current Lockout Ground Pickup
1 2 3 4 5 6 7 8	9025 11325 13625 15925 18225 20525 22825 25125	1000	Amps	W	1-160/0.001	Cold Load Pickup High Current Lockout Sensitive Ground Pickup
1 2 3 4 5 6 7 8	9026 11326 13626 15926 18226 20526 22826 25126	100	Amps	W	3-10000/0.01	Cold Load Pickup High Current Lockout Neutral Pickup
1 2 3 4 5 6 7 8	8650 10950 13250 15550 17850 20150 22450 24750	100	Sec	W	0-60000/0.01	Cold Load Pickup High Current Lockout Phase Definite Time Delay
1 2 3 4 5 6 7 8	8651 10951 13251 15551 17851 20151 22451 24751	100	Sec	W	0-60000/0.01	Cold Load Pickup High Current Lockout Ground Definite Time Delay
1 2 3 4 5 6 7 8	8652 10952 13252 15552 17852 20152 22452 24752	100	Sec	W	1-60000/0.01	Cold Load Pickup Reclose Timer 1

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8653 10953 13253 15553 17853 20153 22453 24753	100	Sec	W	1-60000/0.01	Cold Load Pickup Reclose Timer 2
1 2 3 4 5 6 7 8	8654 10954 13254 15554 17854 20154 22454 24754	100	Sec	W	1-60000/0.01	Cold Load Pickup Reclose Timer 3
1 2 3 4 5 6 7 8	8655 10955 13255 15555 17855 20155 22455 24755	100	Sec	W	1-60000/0.01	Cold Load Pickup Reclose Timer 4
1 2 3 4 5 6 7 8	8658 10958 13258 15558 17858 20158 22458 24758	1	—	W	0-1/1	Cold Load Pickup Enable 50N Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8661 10961 13261 15561 17861 20161 22461 24761	1	—	W	0-1/1	Cold Load Pickup Enable 51N Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8663 10963 13263 15563 17863 20163 22463 24763	1	—	W	0-67 / 1	Cold Load Pickup 51N Inverse Time Curve (See the Reference Tables at the end of Cold Load Pickup Setpoints)

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8664 10964 13264 15564 17864 20164 22464 24764	1	—	W	0-1/1	Cold Load Pickup 51N Electromechanical Reset
1 2 3 4 5 6 7 8	8665 10965 13265 15565 17865 20165 22465 24765	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51N Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8666 10966 13266 15566 17866 20166 22466 24766	1000	Sec	W	1-60000/0.001	Cold Load Pickup 51N Reset Coefficient (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8667 10967 13267 15567 17867 20167 22467 24767	100	—	W	5-109/0.01	Cold Load Pickup 51N Time Multiplier Range of this point changes based on 51N Curve setting (See the Reference Tables at the end of Cold Load Pickup Setpoints)
1 2 3 4 5 6 7 8	8668 10968 13268 15568 17868 20168 22468 24768	100	Sec	W	0-3000/0.01	Cold Load Pickup 51N Time Adder
1 2 3 4 5 6 7 8	8669 10969 13269 15569 17869 20169 22469 24769	100	Sec	W	0 – 100/0.01	Cold Load Pickup 51N Minimum Response Time Adder (High) High bytes of 32-bit register

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8670 10970 13270 15570 17870 20170 22470 24770	100	Sec	W	0 – 100/0.01	Cold Load Pickup 51N Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8671 10971 13271 15571 17871 20171 22471 24771	10	Sec	W	1 – 300/0.1	COLD LOAD PICKUP.51N.TMDIALRESET
1 2 3 4 5 6 7 8	47362 49662 51962 54262 56562 58862 61162 63512	1	Sec	W	1 – 60000/1	Cold Load Pickup Time Open to Arm Cold Load
1 2 3 4 5 6 7 8	47462 49762 52063 54362 56662 58962 61262 63612	10	Sec	W	1 – 100000/0.1	Cold Load Pickup Cold Load Active Duration
1 2 3 4 5 6 7 8	47463 49763 52062 54363 56663 58963 61263 63613	10	Sec	W	1 – 100000/0.1	CLDLD.AUTOACTTM.H
1 2 3 4 5 6 7 8	47364 49664 51964 54264 56564 58864 61164 63514	1	Sec	W	1 – 10000/1	Cold Load Pickup Remote/Manual Cold Load Active Duration

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47365 49665 51965 54265 56565 58865 61165 63515	1	%	W	1 – 100/1	Cold Load Pickup Phase Trip
1 2 3 4 5 6 7 8	47366 49666 51966 54266 56566 58866 61166 63516	1	%	W	1 – 100/1	Cold Load Pickup Ground Trip
1 2 3 4 5 6 7 8	47367 49667 51967 54267 56567 58867 61167 63517	100	Sec	W	1 – 60000/0.01	Cold Load Pickup Phase Time
1 2 3 4 5 6 7 8	47368 49668 51968 54268 56568 58868 61168 63518	100	Sec	W	1 – 60000/0.01	Cold Load Pickup Ground Time
1 2 3 4 5 6 7 8	47369 49669 51969 54269 56569 58869 61169 63519	1			1 – 100/1	Cold Load Pickup Neutral Trip
1 2 3 4 5 6 7 8	47370 49670 51970 54270 56570 58870 61170 63520	100			1 – 60000/0.01	Cold Load Pickup Neutral Time

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47373 49673 51973 54273 56573 58873 61173 63523	1	-	W	0 – 80/1	Cold Load Pickup IPSLogic Initiate Selection
1 2 3 4 5 6 7 8	47374 49674 51974 54274 56574 58874 61174 63524	1	-	W	0 – 63/1	Cold Load Pickup Options Bit 0 – Populate Values to all Three Phases Settings Bit 1 – Cold Load Active For Bit 2 – Remote/Manual Cold Load Active For Bit 3 – Phase current is below Bit 4 – Residual (N) is below Bit 5 – ground (GS) is below
1 2 3 4 5 6 7 8	31173 33297 35423 37547 39673 41797 43934 45916	100	Amps	W	1-2000/0.01	Cold Load Pickup 50P Pickup (Phase A)
1 2 3 4 5 6 7 8	31174 33298 35424 37548 39674 41798 43935 45917	100	Sec	W	0-60000/0.01	Cold Load Pickup 50P Definite Time (Phase A)
1 2 3 4 5 6 7 8	47375 49675 51975 54275 56575 58875 61175 63525	1	-	W	0 – 31/1	Cold Load Pickup 50P Element Selection (Phase A)
1 2 3 4 5 6 7 8	31176 33300 35426 37550 39676 41800 43937 45919	100	Amps	W	1-2000/0.01	Cold Load Pickup 50P Pickup (Phase B)

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	31177 33301 35427 37551 39677 41801 43938 45920	100	Sec	W	0-60000/0.01	Cold Load Pickup 50P Definite Time (Phase B)
1 2 3 4 5 6 7 8	47381 49681 51981 54281 56581 58881 61181 63531	1	-	W	0 – 31/1	Cold Load Pickup 50P Elements Selection (Phase B)
1 2 3 4 5 6 7 8	31179 33303 35429 37553 39679 41803 43940 45922	100	Amps	W	1-2000/0.01	Cold Load Pickup 50P Pickup (Phase C)
1 2 3 4 5 6 7 8	31180 33304 35430 37554 39680 41804 43941 45923	100	Sec	W	0-60000/0.01	Cold Load Pickup 50P Definite Time (Phase C)
1 2 3 4 5 6 7 8	47387 49687 51987 54287 56587 58887 61187 63537	1	-	W	0 – 31/1	Cold Load Pickup 50P Elements (#1 - #5) Selection (Phase C)
1 2 3 4 5 6 7 8	8622 10922 13222 15522 17822 20122 22422 24722	100	Amps	W	2-2000/0.01	Cold Load Pickup 50G Pickup

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8623 10923 13223 15523 17823 20123 22423 24723	100	Sec	W	0-60000/0.01	Cold Load Pickup 50G Definite Time
1 2 3 4 5 6 7 8	47393 49693 51993 54293 56593 58893 61193 63543	1	-	W	0 – 31/1	Cold Load Pickup 50G Elements Selection
1 2 3 4 5 6 7 8	8656 10956 13256 15556 17856 20156 22456 24756	1000	Amps	W	1-160/0.001	Cold Load Pickup 50GS Pickup
1 2 3 4 5 6 7 8	8659 10959 13259 15559 17859 20159 22459 24759	100	Amps	W	1-2000/0.01	Cold Load Pickup 50N Pickup
1 2 3 4 5 6 7 8	8660 10960 13260 15560 17860 20160 22460 24760	100	Sec	W	0-60000/0.01	Cold Load Pickup 50N Definite Time
1 2 3 4 5 6 7 8	47399 49699 51999 54299 56599 58899 61199 63549	1	-	W	0 – 31/1	Cold Load Pickup 50N Elements Selection

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47405 49705 52005 54305 56605 58905 61205 63555	100	Amps	W	1 – 2000/0.01	Cold Load Pickup 50Q Pickup
1 2 3 4 5 6 7 8	47406 49706 52006 54306 56606 58906 61206 63556	100	Sec	W	0 – 60000/0.01	Cold Load Pickup 50Q Definite Time
1 2 3 4 5 6 7 8	47407 49707 52007 54307 56607 58907 61207 63557	1	-	W	0 – 31/1	Cold Load Pickup 50Q Elements Selection
1 2 3 4 5 6 7 8	47413 49713 52013 54313 56613 58913 61213 63563	100	Amps	W	2 – 2000/0.01	Cold Load Pickup High Current Lockout Phase Pickup
1 2 3 4 5 6 7 8	47414 49714 52014 54314 56614 58914 61214 63564	100	Sec	W	0 – 60000/0.01	Cold Load Pickup High Current Lockout Phase Definite Time
1 2 3 4 5 6 7 8	47415 49715 52015 54315 56615 58915 61215 63565	1	-	W	0 – 31/1	Cold Load Pickup High Current Lockout Elements Selection

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47421 49721 52021 54321 56621 58921 61221 63571	100	Amps	W	3 – 10000/0.01	Cold Load Pickup High Current Lockout Ground Pickup
1 2 3 4 5 6 7 8	47422 49722 52022 54322 56622 58922 61222 63572	100	Sec	W	0 – 60000/0.01	Cold Load Pickup High Current Lockout Ground Definite Time
1 2 3 4 5 6 7 8	47423 49723 52023 54323 56623 58923 61223 63573	1	-	W	0 – 31/1	Cold Load Pickup High Current Lockout Ground Elements Selection
1 2 3 4 5 6 7 8	47429 49729 52029 54329 56629 58929 61229 63579	1000	Amps	W	1 – 160/0.001	Cold Load Pickup High Current Lockout Sensitive Ground Pickup
1 2 3 4 5 6 7 8	47475 49775 52075 54375 56675 58975 61275 63625	100	Amps	W	3 – 10000/0.01	Cold Load Pickup High Current Lockout Neutral Pickup
1 2 3 4 5 6 7 8	31182 33306 35432 37556 39682 41806 43943 45925	100	Amps	W	1-320/0.01	Cold Load Pickup 51P Pickup (Phase A)

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47430 49730 52030 54330 56630 58930 61230 63580	1	-	W	0 – 31/1	Cold Load Pickup 51P Elements Selection (Phase A)
1 2 3 4 5 6 7 8	31193 33317 35443 37567 39693 41817 43954 45936	100	Amps	W	1-320/0.01	Cold Load Pickup 51P Pickup (Phase B)
1 2 3 4 5 6 7 8	47436 49736 52036 54336 56636 58936 61236 63586	1	-	W	0 – 31/1	COLD LOAD PICKUP .51P.B.SEL
1 2 3 4 5 6 7 8	31204 33328 35454 37578 39704 41828 43965 45947	100	Amps	W	1-320/0.01	Cold Load Pickup 51P Pickup (Phase C) Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	47442 49742 52042 54342 56642 58942 61242 63592	1	-	W	0 – 31/1	Cold Load Pickup 51P Elements Selection (Phase C)
1 2 3 4 5 6 7 8	8636 10936 13236 15536 17836 20136 22436 24736	100	Amps	W	2-320/0.01	Cold Load Pickup 51G Pickup

Table 2.35 Cold Load Pickup (CLP) Setpoints

Cold Load Pickup (CLP) Setpoints

PROFILES #1 to #8

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47448 49748 52048 54348 56648 58948 61248 63598	1	-	W	0 – 31/1	Cold Load Pickup 51G Elements Selection
1 2 3 4 5 6 7 8	8657 10957 13257 15557 17857 20157 22457 24757	1000	Amps	W	1-160/0.001	Cold Load Pickup 51G Pickup
1 2 3 4 5 6 7 8	8662 10962 13262 15562 17862 20162 22462 24762	100	Amps	W	1-320/0.01	Cold Load Pickup 51N Pickup
1 2 3 4 5 6 7 8	47454 49754 52054 54354 56654 58954 61254 63604	1	-	W	0 – 31/1	Cold Load Pickup 51N Elements Selection
1 2 3 4 5 6 7 8	47460 49760 52060 54360 56660 58960 61260 63610	100	Amps	W	1 – 320/0.01	Cold Load Pickup 51Q Pickup
1 2 3 4 5 6 7 8	47461 49761 52061 54361 56661 58961 61261 63611	1	-	W	0 – 31/1	Cold Load Pickup 51Q Elements Selection

Table 2.35 Cold Load Pickup (CLP) Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		40	122(H)
1	IEC Very Inverse		41	131(9)
2	IEC Extremely Inverse		42	132(E)
10	US Moderately Inverse		43	133(C)
11	US Standard Inverse		44	134(Z)
12	US Very Inverse		45	135(2)
13	US Extremely Inverse		46	136(6)
14	US Shot Time Inverse		47	137(V)
15	IEEE Moderately Inverse		48	138(W)
16	IEEE Very Inverse		49	139(16)
17	IEEE Extremely Inverse		50	140(3)
22	101(A)		51	141(11)
23	102(1)		52	142(13)
24	103(17)		53	151(18)
25	104(N)		54	152(7)
26	105(R)		55	161(T)
27	106(4)		56	162(KP)
28	107(L)		57	163(F)
29	111(8*)		58	164(J)
30	112(15)		59	165(KG)
31	113(8)		60	200
32	114(5)		61	201
33	115(P)		62	202
34	116(D)		63	Definite Time
35	117(B)		64	Custom Curve 1
36	118(M)		65	Custom Curve 2
37	119(14)		66	Custom Curve 3
38	120(Y)		67	Custom Curve 4
39	121(G)			

Inverse Time Curves – Bit Number Reference Table

Table 2.35 Cold Load Pickup (CLP) Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.35 Cold Load Pickup (CLP) Setpoints

Hot Line Tag (HLT) Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8774 11074 13374 15674 17974 20274 22574 24874	1	—	W	0-1/1	Hot Line Tag Enable 50P Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8775 11075 13375 15675 17975 20275 22575 24875	100	Amps	W	1-2000/0.01	Hot Line Tag 50P Pickup
1 2 3 4 5 6 7 8	8776 11076 13376 15676 17976 20276 22576 24876	100	Sec	W	0-6000/0.01	Hot Line Tag 50P Definite Time
1 2 3 4 5 6 7 8	8777 11077 13377 15677 17977 20277 22577 24877	1	—	W	0-1/1	Hot Line Tag Enable 50G Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8778 11078 13378 15678 17978 20278 22578 24878	100	Amps	W	2-2000/0.01	Hot Line Tag 50G Pickup
1 2 3 4 5 6 7 8	8779 11079 13379 15679 17979 20279 22579 24879	100	Sec	W	0-60000/0.01	Hot Line Tag 50G Definite Time

Table 2.36 Hot Line Tag (HLT) Setpoints

Hot Line Tag (HLT) Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8780 11080 13380 15680 17980 20280 22580 24880	1	—	W	0-1/1	Hot Line Tag Enable 51P Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	8781 11081 13381 15681 17981 20281 22581 24881	100	Amps	W	1-320/0.01	Hot Line Tag 51P Pickup
1 2 3 4 5 6 7 8	8782 11082 13382 15682 17982 20282 22582 24882	1	—	W	0-71/1	Hot Line Tag 51P Inverse Time Curves (See the Reference Tables at the end of Hot Line Tag Setpoints)
1 2 3 4 5 6 7 8	8783 11083 13383 15683 17983 20283 22583 24883	1	—	W	0-1/1	Hot Line Tag 51P Electromechanical Reset
1 2 3 4 5 6 7 8	8784 11084 13384 15684 17984 20284 22584 24884	1000	Sec	W	1-60000/0.001	Hot Line Tag 51P Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8785 11085 13385 15685 17985 20285 22585 24885	1000	Sec	W	1-60000/0.001	Hot Line Tag 51P Reset Coefficient (High) High bytes of 32-bit register

Table 2.36 Hot Line Tag (HLT) Setpoints

Hot Line Tag (HLT) Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8786 11086 13386 15686 17986 20286 22586 24886	100	—	W	5 – 3000/0.01	Hot Line Tag 51P Time Multiplier Range of this point changes based on 51P Curve setting (See the Reference Tables at the end of Hot Line Tag Setpoints)
1 2 3 4 5 6 7 8	8787 11087 13387 15687 17987 20287 22587 24887	100	Sec	W	1-3000/0.01	Hot Line Tag 51P Time Adder
1 2 3 4 5 6 7 8	8788 11088 13388 15688 17988 20288 22588 24888	100	Sec	W	1 – 100/0.01	Hot Line Tag 51P Minimum Response Time Adder (High) High bytes of 32-bit register
1 2 3 4 5 6 7 8	8789 11089 13389 15689 17989 20289 22589 24889	100	Sec	W	1 – 100/0.01	Hot Line Tag 51P Minimum Response Time Adder (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	6968 25664 25827 27422 27741 27941 28267 23514	1000	s	W	1-60000/0.01	HLT.51P.MAXOPTM
1 2 3 4 5 6 7 8	6969 25665 25828 27423 27742 27942 28268 23515	1	—	W	0-1/1	HLT.51P.MAXOPTMENA

Table 2.36 Hot Line Tag (HLT) Setpoints

Hot Line Tag (HLT) Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8791 11091 13391 15691 17991 20291 22591 24891	1	—	W	0-1/1	Hot Line Tag Enable 51G
1 2 3 4 5 6 7 8	8792 11092 13392 15692 17992 20292 22592 24892	100	Amps	W	2-320/0.01	Hot Line Tag 51G Pickup
1 2 3 4 5 6 7 8	8793 11093 13393 15693 17993 20293 22593 24893	1	—	W	0-71/ 1	Hot Line Tag 51G Inverse Time Curves (See the Reference Tables at the end of Hot Line Tag Setpoints)
1 2 3 4 5 6 7 8	8794 11094 13394 15694 17994 20294 22594 24894	1	—	W	0-1/1	Hot Line Tag 51G Electromechanical Reset
1 2 3 4 5 6 7 8	8795 11095 13395 15695 17995 20295 22595 24895	1000	Sec	W	1-60000/0.001	Hot Line Tag 51G Reset Coefficient (Low) Low bytes of 32-bit register
1 2 3 4 5 6 7 8	8796 11096 13396 15696 17996 20296 22596 24896	1000	Sec	W	1-60000/0.001	Hot Line Tag 51G Reset Coefficient (High) High bytes of 32-bit register

Table 2.36 Hot Line Tag (HLT) Setpoints

Hot Line Tag (HLT) Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8797 11097 13397 15697 17997 20297 22597 24897	100	—	W	5-109/0.01	Hot Line Tag 51G Time Multiplier Range of this point changes based on 51G Curve setting (See the Reference Tables at the end of Hot Line Tag Setpoints)
1 2 3 4 5 6 7 8	8798 11098 13398 15698 17998 20298 22598 24898	100	Sec	W	0-3000/0.01	Hot Line Tag 51G Time Adder
1 2 3 4 5 6 7 8	8799 11099 13399 15699 17999 20299 22599 24899	100	Sec	W	0 – 100/0.01	Hot Line Tag MRTA High (Gnd Time OC)
1 2 3 4 5 6 7 8	8800 11100 13400 15700 18000 20300 22600 24900	100	Sec	W	0 – 100/0.01	Hot Line Tag MRTA Low (Gnd Time OC)
1 2 3 4 5 6 7 8	8801 11101 13401 15701 18001 20301 22601 24901	1	s	W	0.1-30/1	HLT.51G.TMDIALRESET
1 2 3 4 5 6 7 8	6970 25666 25829 27424 27743 27943 28269 23516	100	Sec	W	1-60000/0.01	HLT.51G.MAXOPTM

Table 2.36 Hot Line Tag (HLT) Setpoints

Hot Line Tag (HLT) Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6971 25667 25830 27425 27744 27944 28270 23517	1	-	W	0-1/1	HLT.51G.MAXOPTMENA
1 2 3 4 5 6 7 8	8802 11102 13402 15702 18002 20302 22602 24902	1000	Amps	W	1-160/0.001	Hot Line Tag 50GS Pickup
1 2 3 4 5 6 7 8	8803 11103 13403 15703 18003 20303 22603 24903	1000	Amps	W	1-160/0.001	Hot Line Tag 51GS Pickup
1 2 3 4 5 6 7 8	9049 11349 13649 15949 18249 20549 28249 25149	100	Sec	W	1-60000/0.01	HLT.51G.MAXOPTM
1 2 3 4 5 6 7 8	9050 11350 13650 15950 18250 20550 28250 25150	1	-	W	0-1/1	HLT.51GS.MAXOPTMENA
1 2 3 4 5 6 7 8	8804 11104 13404 15704 18004 20304 22604 24904	1	--	W	0-1/1	Enable F50N in HLT

Table 2.36 Hot Line Tag (HLT) Setpoints

Hot Line Tag (HLT) Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8805 11105 13405 15705 18005 20305 22605 24905	100	A	W	0.01-20/0.01	F50N Pickup in HLT
1 2 3 4 5 6 7 8	8806 11106 13406 15706 18006 20306 22606 24906	100	s	W	0-600/0.01	F50N Definite time in HLT
1 2 3 4 5 6 7 8	8807 11107 13407 15707 18007 20307 22607 22907	1	--	W	0-1/1	Enable F51N in HLT
1 2 3 4 5 6 7 8	8808 11108 13408 15708 18008 20308 22608 24908	100	A	W	0.01-3.2	F51N Pickup in HLT
1 2 3 4 5 6 7 8	8809 11109 13409 15709 18009 20309 22609 24909	--	--	--	0-71/1	F51N Curve selection in HLT
1 2 3 4 5 6 7 8	8810 11110 13410 15710 18010 20310 22610 24910	1000	s	W	0.001-60/0.001	F51N Reset Coeff in HLT

Table 2.36 Hot Line Tag (HLT) Setpoints

Hot Line Tag (HLT) Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8811 11111 13411 15711 18011 20311 22611 24911	1000	s	W	0.001-60/0.001	F51N Reset Coeff in HLT H
1 2 3 4 5 6 7 8	8822 11122 13422 15722 18022 20322 22622 24922	--	--	--	0-1/1	Enable Electromechanical Reset for F51N in HLT
1 2 3 4 5 6 7 8	8823 11123 13423 15723 18023 20323 22623 24923	--	--	--	0.5-30/0.01	F51N Time Multiplier in HLT
1 2 3 4 5 6 7 8	8824 11124 13424 15724 18024 20324 22624 24924	--	s	--	0-30/0.01	F51N Time Adder in HLT
1 2 3 4 5 6 7 8	8825 11125 13425 15725 18025 20325 22625 24925	--	s	--	0-1/0.01	F51N Min response time adder in HLT
1 2 3 4 5 6 7 8	8826 11126 13426 15726 18026 20326 22626 24926	--	s	---	0-1/0.01	F51N Min response time adder in HLT H

Table 2.36 Hot Line Tag (HLT) Setpoints

Hot Line Tag (HLT) Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6972 25668 25831 27426 27745 27945 28271 23518	100	S	W	1-60000/0.01	HLT.51N.MAXOPTM
1 2 3 4 5 6 7 8	6973 25669 25832 27427 27746 27946 28272 23519	1	-	W	0-1/1	HLT.51N.MAXOPTMENA
1 2 3 4 5 6 7 8	47482 49782 52082 54382 56682 58982 61282 63632	1	--	W	0-63/1	HLT.OPTION

Table 2.36 Hot Line Tag (HLT) Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP—101(A)
38	120(Y)		69	BSCP—101(A)
39	121(G)		70	BFCG—101(A)
40	122(H)		71	BSCG—101(A)
41	131(9)		68 & 69	This bit numbers are invalid for Ground/Neutral functions
			70 & 71	This bit numbers are invalid for Phase functions

Inverse Time Curves – Bit Number Reference Table

Table 2.36 Hot Line Tag (HLT) Setpoints

INVERSE TIME CURVES – Time Multiplier Ranges		
REFERENCE REGISTER VALUE	SCALE FACTOR	RANGE/INCREMENT
0 – IEC Inverse 1 – IEC Very Inverse 2 – IEC Extremely Inverse	1	5-100/0.01
10 – US Moderately Inverse 11 – US Standard Inverse 12 – US Very Inverse 13 – US Extremely Inverse 14 – US Short Time Inverse	1	5-1500/0.01
15 – IEEE Moderately Inverse 16 – IEEE Very Inverse 17 – IEEE Extremely Inverse	1	10-2500/0.01
BECO Curves: 22 – 101 35 – 117 49 – 139 23 – 102 36 – 118 50 – 140 24 – 103 37 – 119 51 – 141 25 – 104 38 – 120 52 – 142 26 – 105 39 – 121 53 – 152 27 – 106 40 – 122 54 – 153 28 – 107 41 – 131 55 – 161 29 – 111 42 – 132 56 – 162 30 – 112 43 – 133 57 – 163 31 – 113 44 – 134 58 – 164 32 – 114 45 – 135 59 – 165 33 – 115 46 – 136 60 – 200 34 – 116 47 – 137 61 – 201 48 – 138 62 – 202	1	10-200/0.01
63 – Definite Time Curve	1	10-10000/0.01
64 – Custom Curve 1 65 – Custom Curve 2 66 – Custom Curve 3 67 – Custom Curve 4 68 – BFCP - 101(A) 69 – BSCP - 101(A) 70 – BFCG - 101(A) 71 – BSCG - 101(A)	NA	NA

Inverse Time Curves – Time Multiplier Ranges Reference Table

Table 2.36 Hot Line Tag (HLT) Setpoints

Auto Restoration Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8832 11132 13432 15732 18032 20332 22632 24932	1	–	W	0-7/1	Auto Restoration Enable Bit 0 – Enable the option to use both Voltage AND Frequency Restoration Limits Bit 1 – Enable Under Frequency Loadshed Restoration Bit 2 – Enable Undervoltage/ Overvoltage Loadshed Restoration
1 2 3 4 5 6 7 8	8833 11133 13433 15733 18033 20333 22633 24933	100	V,Sec	W	1000-30000/0.01	Auto Restoration High Voltage Limit
1 2 3 4 5 6 7 8	8834 11134 13434 15734 18034 20334 22634 24934	100	V,Sec	W	1000-30000/0.01	Auto Restoration Low Voltage Limit
1 2 3 4 5 6 7 8	8835 11135 13435 15735 18035 20335 22635 24935	100	Hz	W	Nom. Frequency is 50 Hz = 4000-5000/0.01 Nom. Frequency is 60 Hz = 5000-6000/0.01	Auto Restoration Low Frequency Limit 0 – 50 Hz Nominal Frequency 1 – 60 Hz Nominal Frequency
1 2 3 4 5 6 7 8	8836 11136 13436 15736 18036 20336 22636 24936	100	Hz	W	Nom. Frequency is 50 Hz = 5000-6000/0.01 Nom. Frequency is 60 Hz = 6000-7000/0.01	Auto Restoration High Frequency Limit 0 – 50 Hz Nominal Frequency 1 – 60 Hz Nominal Frequency
1 2 3 4 5 6 7 8	8837 11137 13437 15737 18037 20337 22637 24937	1	--	W	1-60000/1	Auto Restoration Schedule Time

Table 2.37 Auto Restoration Setpoints

Auto Restoration Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8838 11138 13438 15738 18038 20338 22638 24938	1	--	W	1-60000/1	Auto Restoration Abort Time
1 2 3 4 5 6 7 8	8840 11140 13440 15740 18040 20340 22640 24940	1	–	W	0-127/1	Auto Restoration – has two options included: one to enable use of both Frequency and Voltage Limits, and another to change the Mode of Operation. Bit 0 – Enable option to use both Frequency and Voltage Restoration Limits Bit 1 – Change Mode of Operation (Three Phase/Single Phase) 0 =Three Phase 1 =Single Phase Note: To use Bit 0, both Bit 1 and Bit 2 should be set in “Auto Restoration Enable”
1 2 3 4 5 6 7 8	8841 11141 13441 15741 18041 20341 22641 24941	1	–	W	0-65535/1	Auto Restoration Enable 27 in Auto Restoration Logic Bit 0 – F27 Element #1 Phase A Bit 1 – F27 Element #1 Phase B Bit 2 – F27 Element #1 Phase C Bit 3 – F27 Element #2 Phase A Bit 4 – F27 Element #2 Phase B Bit 5 – F27 Element #2 Phase C Bit 6 – F27 Element #3 Phase A Bit 7 – F27 Element #3 Phase B Bit 8 – F27 Element #3 Phase C Bit 9 – F27 Element #4 Phase A Bit 10 – F27 Element #4 Phase B Bit 11 – F27 Element #4 Phase C Bit 12 – F27 Element #5 3Ph Phase Bit 13 – F27 Element #6 3Ph Phase Bit 14 – F27 Element #7 3Ph Phase Bit 15 – F27 Element #8 3Ph Phase

Table 2.37 Auto Restoration Setpoints

Auto Restoration Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	8842 11142 13442 15742 18042 20342 22642 24942	1	–	W	0-65535/1	Auto Restoration Enable 59 in Auto Restoration Logic Bit 0 – F59 Element #1 Phase A Bit 1 – F59 Element #1 Phase B Bit 2 – F59 Element #1 Phase C Bit 3 – F59 Element #2 Phase A Bit 4 – F59 Element #2 Phase B Bit 5 – F59 Element #2 Phase C Bit 6 – F59 Element #3 Phase A Bit 7 – F59 Element #3 Phase B Bit 8 – F59 Element #3 Phase C Bit 9 – F59 Element #4 Phase A Bit 10 – F59 Element #4 Phase B Bit 11 – F59 Element #4 Phase C Bit 12 – F59 Element #5 3Ph Phase Bit 13 – F59 Element #6 3Ph Phase Bit 14 – F59 Element #7 3Ph Phase Bit 15 – F59 Element #8 3Ph Phase
1 2 3 4 5 6 7 8	8843 11143 13443 15743 18043 20343 22643 24943	1	–	W	0-4095/1	Auto Restoration Enable 81 in Auto Restoration Logic Bit 0 – F81 Element #1 Phase A Bit 1 – F81 Element #1 Phase B Bit 2 – F81 Element #1 Phase C Bit 3 – F81 Element #2 Phase A Bit 4 – F81 Element #2 Phase B Bit 5 – F81 Element #2 Phase C Bit 6 – F81 Element #3 Phase A Bit 7 – F81 Element #3 Phase B Bit 8 – F81 Element #3 Phase C Bit 9 – F81 Element #4 Phase A Bit 10 – F81 Element #4 Phase B Bit 11 – F81 Element #4 Phase C
1 2 3 4 5 6 7 8	8844 11144 13444 15744 18044 20344 22644 24944	1	–	W	0-80/1	AUTORESTORE.IPSLINIT
1 2 3 4 5 6 7 8	7049 9349 11649 13949 16249 18549 20849 23149	1	–	W	0-4294967295/1	AUTORESTORE.INPUTS

Table 2.37 Auto Restoration Setpoints

Auto Restoration Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7050 9350 11650 13950 16250 18550 20850 23150	1	—	W	0-4294967295/1	AUTORESTORE.INPUTS.H
1 2 3 4 5 6 7 8	7051 9351 11651 13951 16251 18551 20851 23151	1	—	W	0-4095/1	AUTORESTORE.OUTPUTS

Table 2.37 Auto Restoration Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47258 49558 51858 54158 56458 58758 61058 63358	1	—	W	0-4294967295/1	IPSlogic #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47259 49559 51859 54159 56459 58759 61059 63359	1	—	W	0-4294967295/1	IPSlogic #1 Blocking Inputs .H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9101 11401 13701 16001 18301 20601 22901 25201	1	—	W	0-4095/1	IPSlogic #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9102 11402 13702 16002 18302 20602 22902 25202	1	—	W	0-1/1	IPSlogic #1 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9103 11403 13703 16003 18303 20603 22903 25203	100	Sec	W	0-60000/0.01	IPSlogic #1 Time Delay

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9132 11432 13732 16032 18332 20632 22932 25232	1	—	W	0-8/1	IPSlogic #1 Profile Switching Bit 0 – None Bit 1 – Profile 1 Bit 2 – Profile 2 Bit 3 – Profile 3 Bit 4 – Profile 4 Bit 5 – Profile 5 Bit 6 – Profile 6 Bit 7 – Profile 7 Bit 8 – Profile 8
1 2 3 4 5 6 7 8	46065 48365 50665 52965 55265 57565 59865 62165	1	—	W	0-8/1	IPSlogic #1 Custom Message option Allows the user to choose which custom message can be used for this IPSlogic element as a Virtual output. Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
1 2 3 4 5 6 7 8	46073 48373 50673 52973 55273 57573 59873 62173	1	—	W	0-1/1	IPSlogic #1 Hot Line Tag option Allows the user to choose whether to activate Hot Line Tag based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Activate Hot Line Tag when this IPSlogic becomes true
1 2 3 4 5 6 7 8	46074 48374 50674 52974 55274 57574 59874 62174	1	—	W	0-4/1	IPSlogic #1 Trip/Lockout option Allows the user to choose whether to send a Trip Command to the Breaker based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Trip All Phases Bit 2 – Trip Phase A Bit 3 – Trip Phase B Bit 4 – Trip Phase C
1 2 3 4 5 6 7 8	46335 48635 50935 53235 55535 57835 60135 62435	1	—	W	0-255	IPSLOGIC.1.BLOCKCOMMAND

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9163 11463 13763 16063 18363 20663 22963 25263	1	—	W	0-65535	IPSLOGIC.1.RST_COUNTERS
1 2 3 4 5 6 7 8	47260 49560 51860 54160 56460 58760 61060 63360	1	—	W	0-4294967295/1	IPSlogic #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47261 49561 51861 54161 56461 58761 61061 63361	1	—	W	0-4294967295/1	IPSlogic #2 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9105 11405 13705 16005 18305 20605 22905 25205	1	—	W	0-4095/1	IPSlogic #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9106 11406 13706 16006 18306 20606 22906 25206	1	—	W	0-1/1	IPSlogic #2 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9107 11407 13707 16007 18307 20607 22907 25207	100	Sec	W	0-60000/0.01	IPSlogic #2 Time Delay

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9133 11433 13733 16033 18333 20633 22933 25233	1	—	W	0-8/1	IPSlogic #2 Profile Switching Bit 0 – None Bit 1 – Profile 1 Bit 2 – Profile 2 Bit 3 – Profile 3 Bit 4 – Profile 4 Bit 5 – Profile 5 Bit 6 – Profile 6 Bit 7 – Profile 7 Bit 8 – Profile 8
1 2 3 4 5 6 7 8	46066 48366 50666 52966 55266 57566 59866 62166	1	—	W	0-8/1	IPSlogic #2 Custom Message option Allows the user to choose which custom message can be used for this IPSlogic element as a Virtual output. Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
1 2 3 4 5 6 7 8	46075 48375 50675 52975 55275 57575 59875 62175	1	—	W	0-1/1	IPSlogic #2 Hot Line Tag option Allows the user to choose whether to activate Hot Line Tag based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Activate Hot Line Tag when this IPSlogic becomes true
1 2 3 4 5 6 7 8	46076 48376 50676 52976 55276 57576 59876 62176	1	—	W	0-4/1	IPSlogic #2 Trip/Lockout option Allows the user to choose whether to send a Trip Command to the Breaker based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Trip All Phases Bit 2 – Trip Phase A Bit 3 – Trip Phase B Bit 4 – Trip Phase C
1 2 3 4 5 6 7 8	46336 48636 50936 53236 55536 57836 60136 62436	1	—	W	0-255	IPSLOGIC.2.BLOCKCOMMAND

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9164 11464 13764 16064 18364 20664 22964 25264	1	—	W	0-65535	IPSLOGIC.2.RST_COUNTERS
1 2 3 4 5 6 7 8	47262 49562 51862 54162 56462 58762 61062 63362	1	—	W	0-4294967295/1	IPSlogic #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47263 49563 51863 54163 56463 58763 61063 63363	1	—	W	0-4294967295/1	IPSlogic #3 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9109 11409 13709 16009 18309 20609 22909 25209	1	—	W	0-4095/1	IPSlogic #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9110 11410 13710 16010 18310 20610 22910 25210	1	—	W	0-1/1	IPSlogic #3 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9111 11411 13711 16011 18311 20611 22911 25211	100	Sec	W	0-60000/0.01	IPSlogic #3 Time Delay

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9134 11434 13734 16034 18334 20634 22934 25234	1	—	W	0-8/1	IPSlogic #3 Profile Switching Bit 0 – None Bit 1 – Profile 1 Bit 2 – Profile 2 Bit 3 – Profile 3 Bit 4 – Profile 4 Bit 5 – Profile 5 Bit 6 – Profile 6 Bit 7 – Profile 7 Bit 8 – Profile 8
1 2 3 4 5 6 7 8	46067 48367 50667 52967 55267 57567 59867 62167	1	—	W	0-8/1	IPSlogic #3 Custom Message option Allows the user to choose which custom message can be used for this IPSlogic element as a Virtual output. Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
1 2 3 4 5 6 7 8	46077 48377 50677 52977 55277 57577 59877 62177	1	—	W	0-1/1	IPSlogic #3 Hot Line Tag option Allows the user to choose whether to activate Hot Line Tag based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Activate Hot Line Tag when this IPSlogic becomes true
1 2 3 4 5 6 7 8	46078 48378 50678 52978 55278 57578 59878 62178	1	—	W	0-4/1	IPSlogic #3 Trip/Lockout option Allows the user to choose whether to send a Trip Command to the Breaker based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Trip All Phases Bit 2 – Trip Phase A Bit 3 – Trip Phase B Bit 4 – Trip Phase C
1 2 3 4 5 6 7 8	46337 48637 50937 53237 55537 57837 60137 62437	1	—	W	0-255	IPSLOGIC.3.BLOCKCOMMAND

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9165 11465 13765 16065 18365 20665 22965 25265	1	—	W	0-65535/1	IPSLOGIC.3.RST_COUNTERS
1 2 3 4 5 6 7 8	47264 49564 51864 54164 56464 58764 61064 63364	1	—	W	0-4294967295/1	IPSlogic #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47265 49565 51865 54165 56465 58765 61065 63365	1	—	W	0-4294967295/1	IPSlogic #4 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9113 11413 13713 16013 18313 20613 22913 25213	1	—	W	0-4095/1	IPSlogic #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9114 11414 13714 16014 18314 20614 22914 25214	1	—	W	0-1/1	IPSlogic #4 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9115 11415 13715 16015 18315 20615 22915 25215	100	Sec	W	0-60000/0.01	IPSlogic #4 Time Delay

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9135 11435 13735 16035 18335 20635 22935 25235	1	—	W	0-8/1	IPSlogic #4 Profile Switching Bit 0 – None Bit 1 – Profile 1 Bit 2 – Profile 2 Bit 3 – Profile 3 Bit 4 – Profile 4 Bit 5 – Profile 5 Bit 6 – Profile 6 Bit 7 – Profile 7 Bit 8 – Profile 8
1 2 3 4 5 6 7 8	46068 48368 50668 52968 55268 57568 59868 62168	1	—	W	0-8/1	IPSlogic #4 Custom Message option Allows the user to choose which custom message can be used for this IPSlogic element as a Virtual output. Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
1 2 3 4 5 6 7 8	46079 48379 50679 52979 55279 57579 59879 62179	1	—	W	0-1/1	IPSlogic #4 Hot Line Tag option Allows the user to choose whether to activate Hot Line Tag based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Activate Hot Line Tag when this IPSlogic becomes true
1 2 3 4 5 6 7 8	46080 48380 50680 52980 55280 57580 59880 62180	1	—	W	0-4/1	IPSlogic #4 Trip/Lockout option Allows the user to choose whether to send a Trip Command to the Breaker based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Trip All Phases Bit 2 – Trip Phase A Bit 3 – Trip Phase B Bit 4 – Trip Phase C
1 2 3 4 5 6 7 8	46338 48638 50938 53238 55538 57838 60138 62438	1	—	W	0-255	IPSLOGIC.4.BLOCKCOMMAND

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9166 11466 13766 16066 18366 20666 22966 25266	1	—	W	0-65535/1	IPSLOGIC.4.RST_COUNTERS
1 2 3 4 5 6 7 8	47266 49566 51866 54166 56466 58766 61066 63366	1	—	W	0-4294967295/1	IPSlogic #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47267 49567 51867 54167 56467 58767 61067 63367	1	—	W	0-4294967295/1	IPSlogic #5 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9117 11417 13717 16017 18317 20617 22917 25217	1	—	W	0-4095/1	IPSlogic #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9118 11418 13718 16018 18318 20618 22918 25218	1	—	W	0-1/1	IPSlogic #5 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9119 11419 13719 16019 18319 20619 22919 25219	100	Sec	W	0-60000/0.01	IPSlogic #5 Time Delay

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9136 11436 13736 16036 18336 20636 22936 25236	1	—	W	0-8/1	IPSlogic #5 Profile Switching Bit 0 – None Bit 1 – Profile 1 Bit 2 – Profile 2 Bit 3 – Profile 3 Bit 4 – Profile 4 Bit 5 – Profile 5 Bit 6 – Profile 6 Bit 7 – Profile 7 Bit 8 – Profile 8
1 2 3 4 5 6 7 8	46069 48369 50669 52969 55269 57569 59869 62169	1	—	W	0-8/1	IPSlogic #5 Custom Message option Allows the user to choose which custom message can be used for this IPSlogic element as a Virtual output. Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
1 2 3 4 5 6 7 8	46081 48381 50681 52981 55281 57581 59881 62181	1	—	W	0-1/1	IPSlogic #5 Hot Line Tag option Allows the user to choose whether to activate Hot Line Tag based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Activate Hot Line Tag when this IPSlogic becomes true
1 2 3 4 5 6 7 8	46082 48382 50682 52982 55282 57582 59882 62182	1	—	W	0-4/1	IPSlogic #5 Trip/Lockout option Allows the user to choose whether to send a Trip Command to the Breaker based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Trip All Phases Bit 2 – Trip Phase A Bit 3 – Trip Phase B Bit 4 – Trip Phase C
1 2 3 4 5 6 7 8	46339 48639 50939 53239 55539 57839 60139 62439	1	—	W	0-255	IPSLOGIC.5.BLOCKCOMMAND

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9167 11467 13767 16067 18367 20667 22967 25267	1	—	W	0-65535/1	IPSLOGIC.5.RST_COUNTERS
1 2 3 4 5 6 7 8	47268 49568 51868 54168 56468 58768 61068 63368	1	—	W	0-4294967295/1	IPSlogic #6 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47269 49569 51869 54169 56469 58769 61069 63369	1	—	W	0-4294967295/1	IPSlogic #6 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9121 11421 13721 16021 18321 20621 22921 25221	1	—	W	0-4095/1	IPSlogic #6 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9122 11422 13722 16022 18322 20622 22922 25222	1	—	W	0-1/1	IPSlogic #6 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9123 11423 13723 16023 18323 20623 22923 25223	100	Sec	W	0-60000/0.01	IPSlogic #6 Time Delay

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9137 11437 13737 16037 18337 20637 22937 25237	1	—	W	0-8/1	IPSlogic #6 Profile Switching Bit 0 – None Bit 1 – Profile 1 Bit 2 – Profile 2 Bit 3 – Profile 3 Bit 4 – Profile 4 Bit 5 – Profile 5 Bit 6 – Profile 6 Bit 7 – Profile 7 Bit 8 – Profile 8
1 2 3 4 5 6 7 8	46070 48370 50670 52970 55270 57570 59870 62170	1	—	W	0-8/1	IPSlogic #6 Custom Message option Allows the user to choose which custom message can be used for this IPSlogic element as a Virtual output. Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
1 2 3 4 5 6 7 8	46083 48383 50683 52983 55283 57583 59883 62183	1	—	W	0-1/1	IPSlogic #6 Hot Line Tag option Allows the user to choose whether to activate Hot Line Tag based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Activate Hot Line Tag when this IPSlogic becomes true
1 2 3 4 5 6 7 8	46084 48384 50684 52984 55284 57584 59884 62184	1	—	W	0-4/1	IPSlogic #6 Trip/Lockout option Allows the user to choose whether to send a Trip Command to the Breaker based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Trip All Phases Bit 2 – Trip Phase A Bit 3 – Trip Phase B Bit 4 – Trip Phase C
1 2 3 4 5 6 7 8	46340 48640 50940 53240 55540 57840 60140 62440	1	W	—	0-255	IPSLOGIC.6.BLOCKCOMMAND

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9168 11468 13768 16068 18368 20668 22968 25268	1	—	W	0-65535/1	IPSLOGIC.6.RST_COUNTERS
1 2 3 4 5 6 7 8	47270 49570 51870 54170 56470 58770 61070 63370	1	—	W	0-4294967295/1	IPSlogic #7 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47271 49571 51871 54171 56471 58771 61071 63371	1	—	W	0-4294967295/1	IPSlogic #7 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9125 11425 13725 16025 18325 20625 22925 25225	1	—	W	0-4095/1	IPSlogic #7 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9126 11426 13726 16026 18326 20626 22926 25226	1	—	W	0-1/1	IPSlogic #7 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9127 11427 13727 16027 18327 20627 22927 25227	100	Sec	W	0-60000/0.01	IPSlogic #7 Time Delay

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9138 11438 13738 16038 18338 20638 22938 25238	1	—	W	0-8/1	IPSlogic #7 Profile Switching Bit 0 – None Bit 1 – Profile 1 Bit 2 – Profile 2 Bit 3 – Profile 3 Bit 4 – Profile 4 Bit 5 – Profile 5 Bit 6 – Profile 6 Bit 7 – Profile 7 Bit 8 – Profile 8
1 2 3 4 5 6 7 8	46071 48371 50671 52971 55271 57571 59871 62171	1	—	W	0-8/1	IPSlogic #7 Custom Message option Allows the user to choose which custom message can be used for this IPSlogic element as a Virtual output. Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
1 2 3 4 5 6 7 8	46085 48385 50685 52985 55285 57585 59885 62185	1	—	W	0-1/1	IPSlogic #7 Hot Line Tag option Allows the user to choose whether to activate Hot Line Tag based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Activate Hot Line Tag when this IPSlogic becomes true
1 2 3 4 5 6 7 8	46086 48386 50686 52986 55286 57586 59886 62186	1	—	W	0-4/1	IPSlogic #7 Trip/Lockout option Allows the user to choose whether to send a Trip Command to the Breaker based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Trip All Phases Bit 2 – Trip Phase A Bit 3 – Trip Phase B Bit 4 – Trip Phase C
1 2 3 4 5 6 7 8	46341 48641 50941 53241 55541 57841 60141 62441	1	—	W	0-255	IPSLOGIC.7.BLOCKCOMMAND

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9169 11469 13769 16069 18369 20669 22969 25269	1	—	W	0-65535/1	IPSLOGIC.7.RST_COUNTERS
1 2 3 4 5 6 7 8	47272 49572 51872 54172 56472 58772 61072 63372	1	—	W	0-4294967295/1	IPSlogic #8 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
1 2 3 4 5 6 7 8	47273 49573 51873 54173 56473 58773 61073 63373	1	—	W	0-4294967295/1	IPSlogic #8 Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	9129 11429 13729 16029 18329 20629 22929 25229	1	—	W	0-4095/1	IPSlogic #8 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	9130 11430 13730 16030 18330 20630 22930 25230	1	—	W	0-1/1	IPSlogic #8 Enable Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	9131 11431 13731 16031 18331 20631 22931 25231	100	Sec	W	0-60000/0.01	IPSlogic #8 Time Delay

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9139 11439 13739 16039 18339 20639 22939 25239	1	—	W	0-8/1	IPSlogic #8 Profile Switching Bit 0 – None Bit 1 – Profile 1 Bit 2 – Profile 2 Bit 3 – Profile 3 Bit 4 – Profile 4 Bit 5 – Profile 5 Bit 6 – Profile 6 Bit 7 – Profile 7 Bit 8 – Profile 8
1 2 3 4 5 6 7 8	46072 48372 50672 52972 55272 57572 59872 62172	1	—	W	0-8/1	IPSlogic #8 Custom Message option Allows the user to choose which custom message can be used for this IPSlogic element as a Virtual output. Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
1 2 3 4 5 6 7 8	46087 48387 50687 52987 55287 57587 59887 62187	1	—	W	0-1/1	IPSlogic #8 Hot Line Tag option Allows the user to choose whether to activate Hot Line Tag based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Activate Hot Line Tag when this IPSlogic becomes true
1 2 3 4 5 6 7 8	46088 48388 50688 52988 55288 57588 59888 62188	1	—	W	0-4/1	IPSlogic #8 Trip/Lockout option Allows the user to choose whether to send a Trip Command to the Breaker based on this IPSlogic element state. Bit 0 – No Action Bit 1 – Trip All Phases Bit 2 – Trip Phase A Bit 3 – Trip Phase B Bit 4 – Trip Phase C
1 2 3 4 5 6 7 8	46342 48642 50942 53242 55542 57842 60142 62442	1	—	W	0-255	IPSLOGIC.8.BLOCKCOMMAND

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9170 11470 13770 16070 18370 20670 22970 25270	1	—	W	0-65535/1	IPSLOGIC.8.RST_COUNTERS
All Profiles	6200-6209	-	-	W	0-65535/1	IPSLogic Custom Message 1 Line 1 2 ASCII characters of 20 character Example: "Beckwith Electric P1" Now 'B' and 'e' ASCII values are stored in 6200 register, 'c' and 'k' in 6201 and so on until 'P' and '1' in 6209. User should make sure that all 10 registers are written at the same time to get the correct string.
All Profiles	6210-6219	-	-	W	0-65535/1	IPSLogic Custom Message 1 Line 2 Same as 6200-6209
All Profiles	6220-6229	-	-	W	0-65535/1	IPSLogic Custom Message 2 Line 1 Same as 6200-6209
All Profiles	6230-6239	-	-	W	0-65535/1	IPSLogic Custom Message 2 Line 2 Same as 6200-6209
All Profiles	6240-6249	-	-	W	0-65535/1	IPSLogic Custom Message 3 Line 1 Same as 6200-6209
All Profiles	6250-6259	-	-	W	0-65535/1	IPSLogic Custom Message 3 Line 2 Same as 6200-6209
All Profiles	6260-6269	-	-	W	0-65535/1	IPSLogic Custom Message 4 Line 1 Same as 6200-6209
All Profiles	6270-6279	-	-	W	0-65535/1	IPSLogic Custom Message 4 Line 2 Same as 6200-6209
All Profiles	6280-6289	-	-	W	0-65535/1	IPSLogic Custom Message 5 Line 1 Same as 6200-6209
All Profiles	6290-6299	-	-	W	0-65535/1	IPSLogic Custom Message 5 Line 2 Same as 6200-6209
All Profiles	6300-6309	-	-	W	0-65535/1	IPSLogic Custom Message 6 Line 1 Same as 6200-6209
All Profiles	6310-6319	-	-	W	0-65535/1	IPSLogic Custom Message 6 Line 2 Same as 6200-6209
All Profiles	6320-6329	-	-	W	0-65535/1	IPSLogic Custom Message 7 Line 1 Same as 6200-6209
All Profiles	6330-6339	-	-	W	0-65535/1	IPSLogic Custom Message 7 Line 2 Same as 6200-6209

Table 2.38 IPSlogic Setpoints

IPSlogic Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
All Profiles	6340-6349	-	-	W	0-65535/1	IPSLogic Custom Message 8 Line 1 Same as 6200-6209
All Profiles	6350-6359	-	-	W	0-65535/1	IPSLogic Custom Message 8 Line 2 Same as 6200-6209

Table 2.38 IPSlogic Setpoints

Load Encroachment Logic (LEL) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9174 11474 13774 16074 18374 20674 22974 25274	1	–	W	0-1/1	LEL (Load Encroachment Logic) Enable
1 2 3 4 5 6 7 8	9175 11475 13775 16075 18375 20675 22975 25275	1	–	W	0-5/1	LEL (Load Encroachment Logic) 67P Directional Element Allows the user to set which element of 67P can be used as a directional element for LEL to function. Bit 0 – is asserted (always true) Bit 1 – F67P #1 Bit 2 – F67P #2 Bit 3 – F67P #3 Bit 4 – F67P #4 Bit 5 – F67P #5
1 2 3 4 5 6 7 8	9176 11476 13776 16076 18376 20676 22976 25276	1	Ohm	W	1-200/1	LEL (Load Encroachment Logic) Forward Impedance
1 2 3 4 5 6 7 8	9177 11477 13777 16077 18377 20677 22977 25277	1	Ohm	W	1-200/1	LEL (Load Encroachment Logic) Reverse Impedance
1 2 3 4 5 6 7 8	9178 11478 13778 16078 18378 20678 22978 25278	1	Degree	W	-90-90/1	LEL (Load Encroachment Logic) Max Positive Angle Forward

Table 2.39 Load Encroachment Logic (LEL) Setpoints

Load Encroachment Logic (LEL) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	9179 11479 13779 16079 18379 20679 22979 25279	1	Degree	W	90-270/1	LEL (Load Encroachment Logic) Max Positive Angle Reverse
1 2 3 4 5 6 7 8	9180 11480 13780 16080 18380 20680 22980 25280	1	Degree	W	-90-90/1	LEL (Load Encroachment Logic) Max Negative Angle Forward
1 2 3 4 5 6 7 8	9181 11481 13781 16081 18381 20681 22981 25281	1	Degree	W	90-270/1	LEL (Load Encroachment Logic) Max Negative Angle Reverse

Table 2.39 Load Encroachment Logic (LEL) Setpoints

Breaker Monitor (BM) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47282 49582 51882 54182 56482 58782 61082 63382	1	—	W	0-4294967295 / 1	Breaker Monitor #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47283 49583 51883 54183 56483 58783 61083 63383	1	—	W	0-4294967295 / 1	Breaker Monitor #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46044 48344 50644 52944 55244 57544 59844 62144	1	—	W	0-4095/1	Breaker Monitor #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46045 48345 50645 52945 55245 57545 59845 62145	1	—	W	0-1/1	Breaker Monitor #1 Enable 0 – Disable 1 – Enable
1 2 3 4 5 6 7 8	46052 48352 50652 52952 55252 57552 59852 62152	1	kAMPS	W	1-60000/1	Breaker Monitor Pickup [Not Used]

Table 2.40 Breaker Monitor (BM) Setpoints

Breaker Monitor (BM) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46053 48353 50653 52953 55253 57553 59853 62153	1	s	W	0-60000/0.01	Breaker Monitor #1 Time Delay
1 2 3 4 5 6 7 8	47467 49767 52067 54367 56667 58967 61267 63617	1	-	W	1-100/1	Breaker Monitor #1 Open Pickup
1 2 3 4 5 6 7 8	47468 49768 52068 54368 56668 58968 61268 63618	1	-	W	0-1/1	Breaker Monitor Option 0 – Life Remaining 1 – Life Used
1 2 3 4 5 6 7 8	47469 49769 52069 54369 56669 58969 61269 63619	1	–	W	0-4294967295 / 1	Breaker Monitor #2 Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47470 49770 52070 54370 56670 58970 61270 63620	1	–	W	0-4294967295 / 1	Breaker Monitor #2 Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.40 Breaker Monitor (BM) Setpoints

Breaker Monitor (BM) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47471 49771 52071 54371 56671 58971 61271 63621	1	—	W	0-4095/1	Breaker Monitor #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	47472 49772 52072 54372 56672 58972 61272 63622	1	—	W	0-1/1	Breaker Monitor #2 Enable 0 – Disable 1 – Enable
1 2 3 4 5 6 7 8	47473 49773 52073 54373 56673 58973 61273 63623	100	kAMPS	W	0-60000/1	Breaker Monitor #2 Definite Time
1 2 3 4 5 6 7 8	47474 49774 52074 54374 56674 58974 61274 63624	1	—	W	1-100/1	Breaker Monitor #2 Open Pickup
1 2 3 4 5 6 7 8	46054 48354 50654 52954 55254 57554 59854 62154	1	ms	W	0-2000/1	Breaker Open Arc Current Delay
1 2 3 4 5 6 7 8	46055 48355 50655 52955 55255 57555 59855 62155	1	cycle	W	0-20/1	Breaker Monitor Arc Current Cycle

Table 2.40 Breaker Monitor (BM) Setpoints

Breaker Monitor (BM) Setpoints

Profiles #1 to #8

MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.

PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: Breaker Monitor Phase A Registers indicate Pole 1 Setpoints, Phase B Registers indicate Pole 2 Setpoints						
1 2 3 4 5 6 7 8	47476 49776 52076 54376 56676 58976 61276 63626	1	-	W	0-4294967295/1	Breaker Monitor Input Initiate Phase A (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47477 49777 52077 54377 56677 58977 61277 63627	1	-	W	0-4294967295/1	Breaker Monitor Input Initiate Phase A .H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	47478 49778 52078 54378 56678 58978 61278 63628	1	-	W	0-4294967295/1	Breaker Monitor Input Initiate Phase B (or Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47479 49779 52079 54379 56679 58979 61279 63629	1	-	W	0-4294967295/1	Breaker Monitor Input Initiate Phase B .H (or Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.40 Breaker Monitor (BM) Setpoints

Breaker Monitor (BM) Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47480 49780 52080 54380 56680 58980 61280 63630	1	-	W	0-4294967295/1	Breaker Monitor Input Initiate Phase C Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47481 49781 52081 54381 56681 58981 61281 63631	1	-	W	0-4294967295/1	Breaker Monitor Input Initiate Phase C .H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46049 48349 50649 52949 55249 57549 59849 62149	1	-	W	0-4095/1	Breaker Monitor Output Initiate Phase A (or Pole 1) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46050 48350 50650 52950 55250 57550 59850 62150	1	-	W	0-4095/1	Breaker Monitor Output Initiate Phase B (or Pole 2) Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46051 48351 50651 52951 55251 57551 59851 62151	1	-	W	0-4095/1	Breaker Monitor Output Initiate Phase C Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12

Table 2.40 Breaker Monitor (BM) Setpoints

Function 79 Fast And Slow Curves Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46267 48567 50867 53167 55467 57767 60067 62367	1	-	W	0-1	BFCP Curve Time Modifier Enable
1 2 3 4 5 6 7 8	46268 48568 50868 53168 55468 57768 60068 62368	1	-	W	0-67	BFCP Curve Selection
1 2 3 4 5 6 7 8	46269 48569 50869 53169 55469 57769 60069 62369	100	S	W	10-200/0.01	BFCP Curve Time Multiplier
1 2 3 4 5 6 7 8	46270 48570 50870 53170 55470 57770 60070 62370	100	S	W	0-3000/0.01	BFCP Curve Time Adder
1 2 3 4 5 6 7 8	46271 48571 50871 53171 55471 57771 60071 62371	100	S	W	0-100/0.01	BFCP Curve Min. Response Time Adder
1 2 3 4 5 6 7 8	46272 48572 50872 53172 55472 57772 60072 62372	1	-	W	0-1	BFCP Curve Electromechanical Reset Enable

Table 2.41 Function 79 Fast And Slow Curves Setpoints

Function 79 Fast And Slow Curves Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46273 48573 50873 53173 55473 57773 60073 62373	1000	S	W	1-60000/0.001	BFCP Curve Reset Coefficient
1 2 3 4 5 6 7 8	46274 48574 50874 53174 55474 57774 60074 62374	1000	S	W	1-60000/0.001	BFCP Curve Reset Coefficient.H
1 2 3 4 5 6 7 8	6960 25656 25819 27414 27733 27933 28259 29295	100	S	W	100-60000/0.01	79.BFCP.MAXOPTM
1 2 3 4 5 6 7 8	6961 25657 25820 24715 27734 27934 28260 29296	1	-	W	0-1	79.BFCP.MAXOPTMENA
1 2 3 4 5 6 7 8	46275 48575 50875 53175 55475 57775 60075 62375	1	-	W	0-1	BSCP Curve Time Modifier Enable
1 2 3 4 5 6 7 8	46276 48576 50876 53176 55476 57776 60076 62376	1	-	W	0-67	BSCP Curve Selection

Table 2.41 Function 79 Fast And Slow Curves Setpoints

Function 79 Fast And Slow Curves Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46277 48577 50877 53177 55477 57777 60077 62377	100	S	W	10-200/0.01	BSCP Curve Time Multiplier
1 2 3 4 5 6 7 8	46278 48578 50878 53178 55478 57778 60078 62378	100	S	W	0-3000/0.01	BSCP Curve Time Adder
1 2 3 4 5 6 7 8	46279 48579 50879 53179 55479 57779 60079 62379	100	S	W	0-100/0.01	BSCP Curve Min. Response Time Adder
1 2 3 4 5 6 7 8	46280 48580 50880 53180 55480 57780 60080 62380	1	-	W	0-1	BSCP Curve Electromechanical Reset Enable
1 2 3 4 5 6 7 8	46281 48581 50881 53181 55481 57781 60081 62381	1000	S	W	1-60000/0.001	BSCP Curve Reset Coefficient
1 2 3 4 5 6 7 8	46282 48582 50882 53182 55482 57782 60082 62382	1000	S	W	1-60000/0.001	BSCP Curve Reset Coefficient.H

Table 2.41 Function 79 Fast And Slow Curves Setpoints

Function 79 Fast And Slow Curves Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6962 25658 25821 27416 27735 27935 28261 29297	100	S	W	100-60000/0.01	79.BSCP.MAXOPTM
1 2 3 4 5 6 7 8	6963 25659 25822 27417 27736 27936 28262 29298	1	-	W	0-1	79.BSCP.MAXOPTMENA
1 2 3 4 5 6 7 8	46283 48583 50883 53183 55483 57783 60083 62383	1	-	W	0-1	BFCG Curve Time Modifier Enable
1 2 3 4 5 6 7 8	46284 48584 50884 53184 55484 57784 60084 62384	1	-	W	0-67	BFCG Curve Selection
1 2 3 4 5 6 7 8	46285 48585 50885 53185 55485 57785 60085 62385	100	S	W	10-200/0.01	BFCG Curve Time Multiplier
1 2 3 4 5 6 7 8	46286 48586 50886 53186 55486 57786 60086 62386	100	S	W	0-3000/0.01	BFCG Curve Time Adder

Table 2.41 Function 79 Fast And Slow Curves Setpoints

Function 79 Fast And Slow Curves Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46287 48587 50887 53187 55487 57787 60087 62387	100	S	W	0-100/0.01	BFCG Curve Min. Response Time Adder
1 2 3 4 5 6 7 8	46288 48588 50888 53188 55488 57788 60088 62388	1	-	W	0-1	BFCG Curve Electromechanical Reset Enable
1 2 3 4 5 6 7 8	46289 48589 50889 53189 55489 57789 60089 62389	1000	S	W	1-60000/0.001	BFCG Curve Reset Coefficient
1 2 3 4 5 6 7 8	46290 48590 50890 53190 55490 57790 60090 62390	1000	S	W	1-60000/0.001	BFCG Curve Reset Coefficient.H
1 2 3 4 5 6 7 8	6966 25662 25825 27420 27739 27939 28265 29301	100	S	W	100-60000/0.01	79.BFCG.MAXOPTM
1 2 3 4 5 6 7 8	6967 25663 25826 27421 27740 27940 28266 29302	1	-	W	0-1	79.BFCG.MAXOPTMENA

Table 2.41 Function 79 Fast And Slow Curves Setpoints

Function 79 Fast And Slow Curves Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46291 48591 50891 53191 55491 57791 60091 62391	1	-	W	0-1	BSCG Curve Time Modifier Enable
1 2 3 4 5 6 7 8	46292 48592 50892 53192 55492 57792 60092 62392	1	-	W	0-67	BSCG Curve Selection
1 2 3 4 5 6 7 8	46293 48593 50893 53193 55493 57793 60093 62393	100	S	W	10-200/0.01	BSCG Curve Time Multiplier
1 2 3 4 5 6 7 8	46294 48594 50894 53194 55494 57794 60094 62394	100	S	W	0-3000/0.01	BSCG Curve Time Adder
1 2 3 4 5 6 7 8	46295 48595 50895 53195 55495 57795 60095 62395	100	S	W	0-100/0.01	BSCG Curve Min. Response Time Adder
1 2 3 4 5 6 7 8	46296 48596 50896 53196 55496 57796 60096 62396	1	-	W	0-1	BSCG Curve Electromechanical Reset Enable

Table 2.41 Function 79 Fast And Slow Curves Setpoints

Function 79 Fast And Slow Curves Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46297 48597 50897 53197 55497 57797 60097 62397	1000	S	W	1-60000/0.001	BSCG Curve Reset Coefficient
1 2 3 4 5 6 7 8	46298 48598 50898 53198 55498 57798 60098 62398	1000	S	W	1-60000/0.001	BSCG Curve Reset Coefficient.H
1 2 3 4 5 6 7 8	6966 25662 25825 27420 27739 27939 28265 29301	100	S	W	100-60000/0.01	79.BSCG.MAXOPTM
1 2 3 4 5 6 7 8	6967 25663 25826 27421 27740 27940 28266 29302	1	-	W	0-1	79.BSCG.MAXOPTMENA

Table 2.41 Function 79 Fast And Slow Curves Setpoints

Arc Flash Setpoints Profiles #1 to #8 * These Registers are ONLY available in M-7651A						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46214 48514 50814 53114 55414 57714 60014 62314	1	—	W	0-65535/1	Arc Flash #1 Binary Inputs
1 2 3 4 5 6 7 8	46215 48515 50815 53115 55415 57715 60015 62315	1	—	W	0-65535/1	Arc Flash #1 Outputs
1 2 3 4 5 6 7 8	46216 48516 50816 53116 55416 57716 60016 62316	1	—	W	0-1/1	Arc Flash #1 Enable
1 2 3 4 5 6 7 8	46217 48517 50817 53117 55417 57717 60017 62317	100	A	W	2-2000/0.01	Arc Flash #1 Phase Pickup
1 2 3 4 5 6 7 8	46218 48518 50818 53118 55418 57718 60018 62318	100	A	W	2-2000/0.01	Arc Flash #1 Neutral Pickup
1 2 3 4 5 6 7 8	46219 48519 50819 53119 55419 57719 60019 62319	10	mS	W	2-160/0.1	Arc Flash #1, Arc Light Definite Time

Table 2.42 Arc Flash Setpoints

Arc Flash Setpoints Profiles #1 to #8 * These Registers are ONLY available in M-7651A						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46220 48520 50820 53120 55420 57720 60020 62320	10	mS	W	2-160/0.1	Arc Flash #1, Arc Light Time Delay
1 2 3 4 5 6 7 8	46221 48521 50821 53121 55421 57721 60021 62321	1	—	W	0-65535/1	Arc Flash #1 Overcurrent Enable
1 2 3 4 5 6 7 8	46222 48522 50822 53122 55422 57722 60022 62322	10	ms	W	2-160/0.1	Arc Flash #1 Overcurrent Definite Time
1 2 3 4 5 6 7 8	46223 48523 50823 53123 55423 57723 60023 62323	10	ms	W	2-160/0.1	Arc Flash #1 Overcurrent time delay
1 2 3 4 5 6 7 8	46224 48524 50824 53124 55424 57724 60024 62324	1	—	W	0-255/1	Arc Flash #1, Arc Light Sensitivity
1 2 3 4 5 6 7 8	46225 48525 50825 53125 55425 57725 60025 62325	1	—	W	0-65535/1	Arc Flash #2 Binary Inputs

Table 2.42 Arc Flash Setpoints

Arc Flash Setpoints Profiles #1 to #8 * These Registers are ONLY available in M-7651A						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46226 48526 50826 53126 55426 57726 60026 62326	1	—	W	0-65535/1	Arc Flash #2 Outputs
1 2 3 4 5 6 7 8	46227 48527 50827 53127 55427 57727 60027 62327	1	—	W	0-1/1	Arc Flash #2 Enable
1 2 3 4 5 6 7 8	46228 48528 50828 53128 55428 57728 60028 62328	100	A	W	2-2000/0.01	Arc Flash #2 Phase Pickup
1 2 3 4 5 6 7 8	46229 48529 50829 53129 55429 57729 60029 62329	100	A	W	2-2000/0.01	Arc Flash #2 Neutral Pickup
1 2 3 4 5 6 7 8	46230 48530 50830 53130 55430 57730 60030 62330	10	mS	W	2-160/0.1	Arc Flash #2, Arc Light Definite Time
1 2 3 4 5 6 7 8	46231 48531 50831 53131 55431 57731 60031 62331	10	mS	W	2-160/0.1	Arc Flash #2, Arc Light Time Delay

Table 2.42 Arc Flash Setpoints

Arc Flash Setpoints Profiles #1 to #8 * These Registers are ONLY available in M-7651A						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46232 48532 50832 53132 55432 57732 60032 62332	1	—	W	0-65535/1	Arc Flash #2 Overcurrent Enable
1 2 3 4 5 6 7 8	46233 48533 50833 53133 55433 57733 60033 62333	10	ms	W	2-160/0.1	Arc Flash #2 Overcurrent Definite Time
1 2 3 4 5 6 7 8	46234 48534 50834 53134 55434 57734 60034 62334	10	ms	W	2-160/0.1	Arc Flash #2 Overcurrent time delay
1 2 3 4 5 6 7 8	46235 48535 50835 53135 55435 57735 60035 62335	1	—	W	0-255/1	Arc Flash #2, Arc Light Sensitivity
1 2 3 4 5 6 7 8	46236 48536 50836 53136 55436 57736 60036 62336	1	—	W	0-65535/1	Arc Flash #3 Binary Inputs
1 2 3 4 5 6 7 8	46237 48537 50837 53137 55437 57737 60037 62337	1	—	W	0-65535/1	Arc Flash #3 Outputs

Table 2.42 Arc Flash Setpoints

Arc Flash Setpoints						
Profiles #1 to #8						
* These Registers are ONLY available in M-7651A						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46238 48538 50838 53138 55438 57738 60038 62338	1	—	W	0-1/1	Arc Flash #3 Enable
1 2 3 4 5 6 7 8	46239 48539 50839 53139 55439 57739 60039 62339	100	A	W	2-2000/0.01	Arc Flash #3 Phase Pickup
1 2 3 4 5 6 7 8	46240 48540 50840 53140 55440 57740 60040 62340	100	A	W	2-2000/0.01	Arc Flash #3 Neutral Pickup
1 2 3 4 5 6 7 8	46241 48541 50841 53141 55441 57741 60041 62341	10	mS	W	2-160/0.1	Arc Flash #3, Arc Light Definite Time
1 2 3 4 5 6 7 8	46242 48542 50842 53142 55442 57742 60042 62342	10	mS	W	2-160/0.1	Arc Flash #3, Arc Light Time Delay
1 2 3 4 5 6 7 8	46243 48543 50843 53143 55443 57743 60043 62343	1	—	W	0-65535/1	Arc Flash #3 Overcurrent Enable

Table 2.42 Arc Flash Setpoints

Arc Flash Setpoints Profiles #1 to #8 * These Registers are ONLY available in M-7651A						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46244 48544 50844 53144 55444 57744 60044 62344	10	ms	W	2-160/0.1	Arc Flash #3 Overcurrent Definite Time
1 2 3 4 5 6 7 8	46245 48545 50845 53145 55445 57745 60045 62345	10	ms	W	2-160/0.1	Arc Flash #3 Overcurrent time delay
1 2 3 4 5 6 7 8	46246 48546 50846 53146 55446 57746 60046 62346	1	—	W	0-255/1	Arc Flash #3, Arc Light Sensitivity
1 2 3 4 5 6 7 8	46247 48547 50847 53147 55447 57747 60047 62347	1	—	W	0-65535/1	Arc Flash #4 Binary Inputs
1 2 3 4 5 6 7 8	46248 48548 50848 53148 55448 57748 60048 62348	1	—	W	0-65535/1	Arc Flash #4 Outputs
1 2 3 4 5 6 7 8	46249 48549 50849 53149 55449 57749 60049 62349	1	—	W	0-1/1	Arc Flash #4 Enable

Table 2.42 Arc Flash Setpoints

Arc Flash Setpoints Profiles #1 to #8 * These Registers are ONLY available in M-7651A						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46250 48550 50850 53150 55450 57750 60050 62350	100	A	W	2-2000/0.01	Arc Flash #4 Phase Pickup
1 2 3 4 5 6 7 8	46251 48551 50851 53151 55451 57751 60051 62351	100	A	W	2-2000/0.01	Arc Flash #4 Neutral Pickup
1 2 3 4 5 6 7 8	46252 48552 50852 53152 55452 57752 60052 62352	10	mS	W	2-160/0.1	Arc Flash #4, Arc Light Definite Time
1 2 3 4 5 6 7 8	46253 48553 50853 53153 55453 57753 60053 62353	10	mS	W	2-160/0.1	Arc Flash #4, Arc Light Time Delay
1 2 3 4 5 6 7 8	46254 48554 50854 53154 55454 57754 60054 62354	1	—	W	0-65535/1	Arc Flash #4 Overcurrent Enable
1 2 3 4 5 6 7 8	46255 48555 50855 53155 55455 57755 60055 62355	10	ms	W	2-160/0.1	Arc Flash #4 Overcurrent Definite Time

Table 2.42 Arc Flash Setpoints

Arc Flash Setpoints Profiles #1 to #8 * These Registers are ONLY available in M-7651A						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46256 48556 50856 53156 55456 57756 60056 62356	10	ms	W	2-160/0.1	Arc Flash #4 Overcurrent time delay
1 2 3 4 5 6 7 8	46257 48557 50857 53157 55457 57757 60057 62357	1	—	W	0-255/1	Arc Flash #4, Arc Light Sensitivity

Table 2.42 Arc Flash Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: standard Loop Scheme (LS) Registers indicate Pole 1 Setpoints						
1 2 3 4 5 6 7 8	47292 49592 51892 54192 56492 58792 61092 63392	1	–	W	0-4294967295 / 1	Loop Scheme Inputs (or Pole 1) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47293 49593 51893 54193 56493 58793 61093 63393	1	–	W	0-4294967295 / 1	Loop Scheme Inputs.H (or Pole 1) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46319 48619 50919 53219 55519 57819 60119 62419	1	–	W	0-1/1	Loop Scheme Enable (or Pole 1)
1 2 3 4 5 6 7 8	46320 48620 50920 53220 55520 57820 60120 62420	1	–	W	0-2/1	Loop Scheme Application Type (or Pole 1) Bit 0 – Sectionalizing Recloser (NC) Bit 1 – Tie Recloser (NC) Bit 2 – Midpoint Recloser (NO)
1 2 3 4 5 6 7 8	46321 48621 50921 53221 55521 57821 60121 62421	1	–	W	0-511/1	Loop Scheme Action on Voltage Option (or Pole 1) Loop Scheme Action on Dead Line: (3 Phase) Bit 0 – Vy = Auto Trip Bit 1 –Vy = Change to Profile Bit 2 –Vz = Auto Close Bit 3 –Vz = Change to Profile Bit 4 – Dual Voltage Loss = Auto-Trip Loop Scheme Restore on Live Line: (3 Phase) Bit 5 – Vy = Auto Close Bit 6 –Vy = Change to Profile Bit 7 –Vz = Auto Close Bit 8 –Vz = Change to Profile

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46322 48622 50922 53222 55522 57822 60122 62422	1	–	W	0-63/1	LS Reset Options (or Pole 1) Reset on: Bit 0 – Voltage Restored and no Fault Bit 1 – IPSLogic Enable Bit 2 – Manual Close Bit 3 – Manual Trip Bit 4 – After reset Auto Close Bit 5 – After reset return to Profile with Fwd power
1 2 3 4 5 6 7 8	46323 48623 50923 53223 55523 57823 60123 62423	1	–	W	0-7/1	LS After Reset Options (or Pole 1) Bit 0 – Ground Trip Block Bit 1 – Reclosing Block Bit 2 – Profile Switch Enable
1 2 3 4 5 6 7 8	46324 48624 50924 53224 55524 57824 60124 62424	1	–	W	0-31/1	LS Supervision (or Pole 1) Bit 0 – Enable Bit 1 – F59N Enable Bit 2 – F59Q Enable Bit 3 – IPSLogic Enable Bit 4 – Profile Switch Enable
1 2 3 4 5 6 7 8	46325 48625 50925 53225 55525 57825 60125 62425	1	–	W	0-20560/1	Loop Scheme IPSlogic selection (or Pole 1) Loop Scheme RESET -> IPSlogic #1 to CS IPSLOGIC #8 -> (0-15) Loop Scheme SUPV -> IPSlogic #1 to CS IPSLOGIC #8 -> (256-3840)
1 2 3 4 5 6 7 8	46326 48626 50926 53226 55526 57826 60126 62426	1	S	W	0-9000/1	Loop Scheme (or Pole 1) Live Line Delay Time
1 2 3 4 5 6 7 8	46327 48627 50927 53227 55527 57827 60127 62427	1	–	W	0-15/1	Loop Scheme Option (or Pole 1) Bit 0 – Enable Live Line Restore window Bit 1 – Enable Keep LS Status on LS Profile Switch Bit 2 – Enable 3 Phase Dead Line Only

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46328 48628 50928 53228 55528 57828 60128 62428	100	Sec	W	0-9000/0.01	Loop Scheme Dead Line Time Delay (or Pole 1) Y Side
1 2 3 4 5 6 7 8	46333 48633 50933 53233 55533 57833 60133 62433	100	Sec	W	0-9000/0.01	Loop Scheme DEAD LINE DELAY TIME Z SIDE (or Pole 1)
1 2 3 4 5 6 7 8	46329 48629 50929 53229 55529 57829 60129 62429	1	Sec	W	0-300/1	LS Gnd Trip Block Duration (or Pole 1)
1 2 3 4 5 6 7 8	46330 48630 50930 53230 55530 57830 60130 62430	1	Sec	W	0-300/1	LS Reclose Block Duration (or Pole 1)

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	46331	—	—	W	0-268435455	Loop Scheme Profile Switch (or Pole 1) LS Action On Dead Line Source 1 Vy Bit2 Bit1 Bit0 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 3 Not used
2	48631					LS Action On Dead Line Source 2 Vz Bit6 Bit5 Bit4 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 7 Not used
3	50931					LS Restore On Live Line Source 1 Vy Bit10 Bit9 Bit8 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 11 Not used
4	53231					LS Restore On Live Line Source 2 Vz Bit14 Bit13 Bit12 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 15 Not used
5	55531					
6	57831					
7	60131					
8	62431					

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints						
Profiles #1 to #8						
MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46332 48632 50932 53232 55532 57832 60132 62432	—	—	W	0-268435455	Loop Scheme Profile Switch.H (or Pole 1) After Reset Bit18Bit17Bit16 Profile 1000 Profile 2001 Profile 3010 Profile 4011 Profile 5100 Profile 6101 Profile 7110 Profile 8111 Bit 19 Not used LS Tie SUPV Bit22Bit21Bit20 Profile 1000 Profile 2001 Profile 3010 Profile 4011 Profile 5100 Profile 6101 Profile 7110 Profile 8111 Bit 23 Not used After LS Bit26Bit25Bit24 Profile 1000 Profile 2001 Profile 3010 Profile 4011 Profile 5100 Profile 6101 Profile 7110 Profile 8111 Bit 24 Not used
1 2 3 4 5 6 7 8	46310 48610 50910 53210 55510 57810 60110 62410	100	V	W	1000-30000/0.01	Loop Scheme Dead Line Sensing Source (or Pole 1) Y side Pickup

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46311 48611 50911 53211 55511 57811 60111 62411	100	Sec	W	0-60000/0.01	Loop Scheme Dead Line Sensing Source (or Pole 1) Y side Time Delay
1 2 3 4 5 6 7 8	46312 48612 50912 53212 55512 57812 60112 62412	100	V	W	1000-30000/0.01	Loop Scheme Dead Line Sensing Load (or Pole 1) Z side Pickup
1 2 3 4 5 6 7 8	46313 48613 50913 53213 55513 57813 60113 62413	100	Sec	W	0-60000/0.01	Loop Scheme Dead Line Sensing Load (or Pole 1) Z side Time Delay
1 2 3 4 5 6 7 8	46314 48614 50914 53214 55514 57814 60114 62414	100	V	W	1000-30000/0.01	Loop Scheme Voltage Restore Source (or Pole 1) Y side Pickup
1 2 3 4 5 6 7 8	46315 48615 50915 53215 55515 57815 60115 62415	100	Sec	W	0-60000/0.01	Loop Scheme Voltage Restore Source (or Pole 1) Y side Time Delay
1 2 3 4 5 6 7 8	46316 48616 50916 53216 55516 57816 60116 62416	100	V	W	1000-30000/0.01	Loop Scheme Voltage Restore Load (or Pole 1) Z side Pickup

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46317 48617 50917 53217 55517 57817 60117 62417	100	Sec	W	0-60000/0.01	Loop Scheme Voltage Restore Load (or Pole 1) Z side Time Delay
1 2 3 4 5 6 7 8	46334 48634 50934 53234 55534 57834 60134 62434	1	s	W	0-900/1	LS.RESTORE CONFIRMED TIMER Y-SIDE (LS Action on Live Line) (or Pole 1)
1 2 3 4 5 6 7 8	46343 48643 50943 53243 55543 57843 60143 62443	1	s	W	0-900/1	LS.RESTORE CONFIRMED TIMER Z-SIDE (LS Action on Live Line) (or Pole 1)
1 2 3 4 5 6 7 8	47483 49783 52083 54383 56683 58983 61283 63633	1	–	W	0-127/1	LS.MIDPOWER.OPTION Bit 0 – Enable Bit 1 – Return to Bit 2 to 4 – Profile Switch Bit 5 – Reserved
1 2 3 4 5 6 7 8	47484 49784 52084 54384 56684 58984 61284 63634	0.1	W	W	5-10000/0.1	LS.MIDPOWER.PU
1 2 3 4 5 6 7 8	47485 49785 52085 54385 56685 58985 61285 63635	0.1	W	W	5-10000/0.1	LS.MIDPOWER.PU.H

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47486 49786 52086 54386 56686 58986 61286 63636	0.01	s	W	0-600/0.01	LS.MIDPOWER.DEFTM
1 2 3 4 5 6 7 8	47487 49787 52087 54387 56687 58987 61287 63637	1	–	W	0-511/1	LS.TIEPOWER.OPTION Bit 0 – Enable Bit 1 – Return to Bit 2 to 4 – Profile Switch Bit 5 – Reserved Bit 6 – UnderOverPowerSelection Bit 7 – AutoOpenEnable
1 2 3 4 5 6 7 8	47488 49788 52088 54388 56688 58988 61288 63638	0.1	W	W	(-10000)-10000/0.1	LS.TIEPOWER.PU
1 2 3 4 5 6 7 8	47489 49789 52089 54389 56689 58989 61289 63639	0.1	W	W	(-10000)-10000/0.1	LS.TIEPOWER.PU.H
1 2 3 4 5 6 7 8	47490 49790 52090 54390 56690 58990 61290 63640	0.01	s	W	0-600/0.01	LS.TIEPOWER.DEFTM
1 2 3 4 5 6 7 8	47491 49791 52091 54391 56691 58991 61291 63641	0.1	W	W	(-10000)-(-5)/0.1	LS.TIESUPVPOWER.PU

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47492 49792 52092 54392 56692 58992 61292 63642	1	W	–W	(-10000)-(-5)/0.1	LS.TIESUPVPOWER.PU.H
1 2 3 4 5 6 7 8	47493 49793 52093 54393 56693 58993 61293 63643	0.01	s	W	0-600/0.01	LS.TIESUPVPOWER.DEFTM
1 2 3 4 5 6 7 8	47505 49805 52105 54405 56705 59005 61305 63655	1	–	W	0-1	LS.TIESUPERPOWER.OPTION
Loop Scheme.2 (LS.2) Registers are only available with Option P and indicate Pole 2 Setpoints						
1 2 3 4 5 6 7 8	47294 49594 51894 54194 56494 58794 61094 63394	1	–	W	0-4294967295 / 1	Loop Scheme.2 Inputs (Pole 2) Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
1 2 3 4 5 6 7 8	47295 49595 51895 54195 56495 58795 61095 63395	1	–	W	0-4294967295 / 1	Loop Scheme.2 Inputs.H (Pole 2) Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46401 48701 51001 53301 55601 57901 60201 62501	1	–	W	0-1/1	Loop Scheme.2 Enable (Pole 2) Bit 0 Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46402 48702 51002 53302 55602 57902 60202 62502	1	–	W	0-2/1	Loop Scheme.2 Application Type (Pole 2) Bit 0 – Sectionalizing Recloser(NC) Bit 1 – Tie Recloser (NC) Bit 2 – Midpoint Recloser (NO)
1 2 3 4 5 6 7 8	46403 48703 51003 53303 55603 57903 60203 62503	1	–	W	0-511/1	Loop Scheme.2 Action on Voltage Option (Pole 2) Loop Scheme.2 Action on Dead Line: (3 Phase) Bit 0 – Vy->Auto Trip Bit 1 –Vy->Change to Profile Bit 2 –Vz->Auto Close Bit 3 –Vz->Change to Profile Bit 4 – Dual Voltage Loss->Auto-Trip Loop Scheme.2 Restore on Live Line: (3 Phase) Bit 5 – Vy->Auto Close Bit 6 –Vy->Change to Profile Bit 7 –Vz->Auto Close Bit 8 –Vz->Change to Profile
1 2 3 4 5 6 7 8	46404 48704 51004 53304 55604 57904 60204 62504	1	–	W	0-63/1	LS.2 Reset Options (Pole 2) Reset on: Bit 0 – Voltage Restored and no Fault Bit 1 – IPSLogic Enable Bit 2 – Manual Close Bit 3 – Manual Trip Bit 4 – After reset Auto Close Bit 5 – After reset return to Profile with Fwd. power
1 2 3 4 5 6 7 8	46405 48705 51005 53305 55605 57905 60205 62505	1	–	W	0-7/1	LS.2 After Reset Options (Pole 2) Bit 0 – Ground Trip Block Bit 1 – Reclosing Block Bit 2 – Profile Switch Enable

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46406 48706 51006 53306 55606 57906 60206 62506	1	–	W	0-31/1	LS.2 Supervision (Pole 2) Bit 0 – Enable Bit 1 – F59NEnable Bit 2 – F59QEnable Bit 3 – IPSLogic Enable Bit 4 – Profile Switch Enable
1 2 3 4 5 6 7 8	46407 48707 51007 53307 55607 57907 60207 62507	1	–	W	0-20560/1	Loop Scheme.2 IPSLogic selection (Pole 2) Loop Scheme RESET->IPSLOGIC #1 to CS IPSLOGIC #8-> (0-15) Loop Scheme SUPV->IPSLOGIC #1 to CS IPSLOGIC #8->(256-3840)
1 2 3 4 5 6 7 8	46408 48708 51008 53308 55608 57908 60208 62508	1	s	W	0-9000/1	Loop Scheme.2 Live Line Delay Time (Pole 2)
1 2 3 4 5 6 7 8	46409 48709 51009 53309 55609 57909 60209 62509	1	–	W	0-15/1	Loop Scheme.2 Option (Pole 2) Bit 0 – Enable Live Line Restore window Bit 1 – Enable Keep LS Status on LS Profile Switch Bit 2 – Enable 3 Phase Dead Line Only
1 2 3 4 5 6 7 8	46410 48710 51010 53310 55610 57910 60210 62510	100	Sec	W	0-9000/0.01	Loop Scheme.2 Dead Line Time Delay Y Side (Pole 2)
1 2 3 4 5 6 7 8	46411 48711 51011 53311 55611 57911 60211 62511	100	Sec	W	0-9000/0.01	Loop Scheme.2 Dead Line Delay Time Z Side (Pole 2)

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46412 48712 51012 53312 55612 57912 60212 62512	1	Sec	W	0-300/1	LS.2 Gnd Trip Block Duration (Pole 2)
1 2 3 4 5 6 7 8	46413 48713 51013 53313 55613 57913 60213 62513	1	Sec	W	0-300/1	LS.2 Reclose Block Duration (Pole 2)

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1	46414	1	—	W	0-268435455	Loop Scheme.2 Profile Switch (Pole 2) LS Action On Dead Line Source 1 Vy Bit2 Bit1 Bit0 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 3 Not used
2	48714					
3	51014					
4	53314					
5	55614					
6	57914					
7	60214					
8	62514					
						LS.2 Action On Dead Line Source 2 Vz Bit6 Bit5 Bit4 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 7 Not used
						LS.2 Restore On Live Line Source 1 Vy Bit10 Bit9 Bit8 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 11 Not used
						LS.2 Restore On Live Line Source 2 Vz Bit14 Bit13 Bit12 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 15 Not used

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46415 48715 51015 53315 55615 57915 60215 62515	1	—	W	0-268435455	Loop Scheme.2 Profile Switch.H (Pole 2) After Reset Bit18 Bit17 Bit16 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 19 Not used LS.2 Tie SUPV Bit22 Bit21 Bit20 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 23 Not used After LS.2 Bit26 Bit25 Bit24 Profile 1 0 0 0 Profile 2 0 0 1 Profile 3 0 1 0 Profile 4 0 1 1 Profile 5 1 0 0 Profile 6 1 0 1 Profile 7 1 1 0 Profile 8 1 1 1 Bit 24 Not used
1 2 3 4 5 6 7 8	46416 48716 51016 53316 55616 57916 60216 62516	100	V	W	1000-30000/0.01	Loop Scheme.2 Dead line Sensing Source Y Side Pickup (Pole 2)

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46417 48717 51017 53317 55617 57917 60217 62517	100	Sec	W	0-60000/0.01	Loop Scheme.2 Dead line Sensing Source Y Side Time Delay (Pole 2)
1 2 3 4 5 6 7 8	46418 48718 51018 53318 55618 57918 60218 62518	100	V	W	1000-30000/0.01	Loop Scheme.2 Dead line Sensing Load Z Side Pickup (Pole 2)
1 2 3 4 5 6 7 8	46419 48719 51019 53319 55619 57919 60219 62519	100	Sec	W	0-60000/0.01	Loop Scheme.2 Dead line Sensing Load Z Side Time Delay (Pole 2)
1 2 3 4 5 6 7 8	46420 48720 51020 53320 55620 57920 60220 62520	100	V	W	1000-30000/0.01	Loop Scheme.2 Voltage Restore Source Y Side Pickup (Pole 2)
1 2 3 4 5 6 7 8	46421 48721 51021 53321 55621 57921 60221 62521	100	Sec	W	0-60000/0.01	Loop Scheme.2 Voltage Restore Source Y Side Time Delay (Pole 2)
1 2 3 4 5 6 7 8	46422 48722 51022 53322 55622 57922 60222 62522	100	V	W	1000-30000/0.01	Loop Scheme.2 Voltage Restore Load Z Side Pickup (Pole 2)

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46423 48723 51023 53323 55623 57923 60223 62523	100	Sec	W	0-60000/0.01	Loop Scheme.2 Voltage Restore Load Z Side Time Delay (Pole 2)
1 2 3 4 5 6 7 8	46424 48724 51024 53324 55624 57924 60224 62524	1	s	W	0-900/1	LS.2 Restore Confirmed Timer Y-Side (Pole 2) (LS Action on Live Line)
1 2 3 4 5 6 7 8	46425 48725 51025 53325 55625 57925 60225 62525	1	s	W	0-900/1	LS.2 Restore Confirmed Timer Z-Side (Pole 2) (LS Action on Live Line)
1 2 3 4 5 6 7 8	47494 49794 52094 54394 56694 58994 61294 63644	1	—	W	0-127/1	LS.2.MIDPOWER.OPTION
1 2 3 4 5 6 7 8	47495 49795 52095 54395 56695 58995 61295 63645	0.1	W	W	50-10000/0.1	LS.2.MIDPOWER.PU
1 2 3 4 5 6 7 8	47496 49796 52096 54396 56696 58996 61296 63646	0.1	W	W	50-10000/0.1	LS.2.MIDPOWER.PU.H

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47497 49797 52097 54397 56697 58997 61297 63647	0.01	s	W	0-600/0.01	LS.2.MIDPOWER.DEFTM
1 2 3 4 5 6 7 8	47498 49798 52098 54398 56698 58998 61298 63648	1	—	W	0-511/1	LS.2.TIEPOWER.OPTION
1 2 3 4 5 6 7 8	47499 49799 52099 54399 56699 58999 61299 63649	0.1	W	W	(-10000)-10000/0.1	LS.2.TIEPOWER.PU
1 2 3 4 5 6 7 8	47500 49800 52100 54400 56700 59000 61300 63650	0.1	W	W	(-10000)-10000/0.1	LS.2.TIEPOWER.PU.H
1 2 3 4 5 6 7 8	47501 49801 52101 54401 56701 59001 61301 63651	0.01	s	W	0-600/0.01	LS.2.TIEPOWER.DEFTM
1 2 3 4 5 6 7 8	47502 49802 52102 54402 56702 59002 61302 63652	0.1	W	W	(-10000)-(-5)/0.1	LS.2.TIESUPVPOWER.PU

Table 2.43 Loop Scheme Setpoints

Loop Scheme Setpoints Profiles #1 to #8 MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47503 49803 52103 54403 56703 59003 61303 63653	1	W	W	(-10000)-(-5)/1	LS.2.TIESUPVPOWER.PU.H
1 2 3 4 5 6 7 8	47504 49804 52104 54404 56704 59004 61304 63654	0.01	s	W	0-600/0.01	LS.2.TIESUPVPOWER.DEFTM
1 2 3 4 5 6 7 8	47506 49806 52106 54406 56706 59006 61306 63656	1	—	W	0-1	LS.2.TIESUOVPOWER.OPTION

Table 2.43 Loop Scheme Setpoints

Function Inrush Harmonic Restraint Setpoints PROFILES #1 to #8						
PROF.	MODBUS REG- ISTER*	SCALE FAC- TOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46300 48600 50900 53200 55500 57800 60100 62400	10	%	W	0.1-100.0/0.1	IHR Pickup
1 2 3 4 5 6 7 8	46301 48601 50901 53201 55501 57801 60101 62401	10	%	W	0.1-100.0/0.1	IHR Dropout
1 2 3 4 5 6 7 8	46302 48602 50902 53202 55502 57802 60102 62402	100	Sec	W	0.01-600.00/0.01	IHR Active Time
1 2 3 4 5 6 7 8	46303 48603 50903 53203 55503 57803 60103 62403	1	-	W	0-65535/1	IHR Function 50P
1 2 3 4 5 6 7 8	46304 48604 50904 53204 55504 57804 60104 62404	1	-	W	0-65535/1	IHR Function 50N,50G,46DT
1 2 3 4 5 6 7 8	46305 48605 50905 53205 55505 57805 60105 62405	1	-	W	0-65535/1	IHR Function 51P

Table 2.44 Function Inrush Harmonic Restraint Setpoints

Function Inrush Harmonic Restraint Setpoints PROFILES #1 to #8						
PROF.	MODBUS REG- ISTER*	SCALE FAC- TOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46306 48606 50906 53206 55506 57806 60106 62406	1	-	W	0-65535/1	IHR Function 51N,51G,46IT
1 2 3 4 5 6 7 8	46307 48607 50907 53207 55507 57807 60107 62407	1	-	W	0-65535/1	IHR Function 67P
1 2 3 4 5 6 7 8	46308 48608 50908 53208 55508 57808 60108 62408	1	-	W	0-65535/1	IHR Function 67N,67G,67Q

Table 2.44 Function Inrush Harmonic Restraint Setpoints

Overcurrent Fault Detection PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46390 48690 50990 53290 55590 57890 60190 62490	1	--	W	0-65535/1	OCFD.TRIGGERS1 Bit 0- 50PA #1 Bit 1- 50PA #2 Bit 2- 50PA #3 Bit 3- 50PA #4 Bit 4- 50PA #5 Bit 5- 51PA #1 Bit 6- 51PA #2 Bit 7- 51PA #3 Bit 8- 51PA #4 Bit 9- 51PA #5 Bit 10- 67PA #1 Bit 11- 67PA #2 Bit 12- 67PA #3 Bit 13- 67PA #4 Bit 14- 67PA #5 Bit 15- None
1 2 3 4 5 6 7 8	46391 48691 50991 53291 55591 57891 60191 62491	1	--	W	0-65535/1	OCFD.TRIGGERS2 Bit 0- 50PB #1 Bit 1- 50PB #2 Bit 2- 50PB #3 Bit 3- 50PB #4 Bit 4- 50PB #5 Bit 5- 51PB #1 Bit 6- 51PB #2 Bit 7- 51PB #3 Bit 8- 51PB #4 Bit 9- 51PB #5 Bit 10- 67PB #1 Bit 11- 67PB #2 Bit 12- 67PB #3 Bit 13- 67PB #4 Bit 14- 67PB #5 Bit 15- None
1 2 3 4 5 6 7 8	46392 48692 50992 53292 55592 57892 60192 62492	1	--	W	0-65535/1	OCFD.TRIGGERS3 Bit 0- 50PC #1 Bit 1- 50PC #2 Bit 2- 50PC #3 Bit 3- 50PC #4 Bit 4- 50PC #5 Bit 5- 51PC #1 Bit 6- 51PC #2 Bit 7- 51PC #3 Bit 8- 51PC #4 Bit 9- 51PC #5 Bit 10- 67PC #1 Bit 11- 67PC #2 Bit 12- 67PC #3 Bit 13- 67PC #4 Bit 14- 67PC #5 Bit 15- None

Table 2.45 Overcurrent Fault Detection

Overcurrent Fault Detection PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46393 48693 50993 53293 55593 57893 60193 62493	1	--	W	0-65535/1	OCFD.TRIGGERS4 Bit 0- 46DT #1 Bit 1- 46DT #2 Bit 2- 46DT #3 Bit 3- 46DT #4 Bit 4- 46DT #5 Bit 5- 46IT #1 Bit 6- 46IT #2 Bit 7- 46IT #3 Bit 8- 46IT #4 Bit 9- 46IT #5 Bit 10- 67Q #1 Bit 11- 67Q #2 Bit 12- 67Q #3 Bit 13- 67Q #4 Bit 14- 67Q #5 Bit 15- None
1 2 3 4 5 6 7 8	46394 48694 50994 53294 55594 57894 60194 62494	1	--	W	0-65535/1	OCFD.TRIGGERS5 Bit 0- 50GS #1 Bit 1- 50GS #2 Bit 2- 50GS #3 Bit 3- 50GS #4 Bit 4- 50GS #5 Bit 5- 51GS #1 Bit 6- 51GS #2 Bit 7- 51GS #3 Bit 8- 51GS #4 Bit 9- 51GS #5 Bit 10- 67GS #1 Bit 11- 67GS #2 Bit 12- 67GS #3 Bit 13- 67GS #4 Bit 14- 67GS #5 Bit 15- None
1 2 3 4 5 6 7 8	46395 48695 50995 53295 55595 57895 60195 62495	1	--	W	0-65535/1	OCFD.TRIGGERS6 Bit 0- 50N #1 Bit 1- 50N #2 Bit 2- 50N #3 Bit 3- 50N #4 Bit 4- 50N #5 Bit 5- 51N #1 Bit 6- 51N #2 Bit 7- 51N #3 Bit 8- 51N #4 Bit 9- 51N #5 Bit 10- 67N #1 Bit 11- 67N #2 Bit 12- 67N #3 Bit 13- 67N #4 Bit 14- 67N #5 Bit 15- None

Table 2.45 Overcurrent Fault Detection

Overcurrent Fault Detection PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46396 48696 50996 53296 55596 57896 60196 62496	1	--	W	0-65535/1	OCFD.TRIGGERS7 Bit 0- HLT50PA Bit 1- HLT50PB Bit 2- HLT50PC Bit 3- HLT50GS Bit 4- HLT51PA Bit 5- HLT51PB Bit 6- HLT51PC Bit 7- HLT51GS Bit 8- HLT50N Bit 9- HLT51N Bit 10 to 15-None
1 2 3 4 5 6 7 8	46397 48697 50997 53297 55597 57897 60197 62497	1	--	W	0-65535/1	OCFD.TRIGGERS8

With Option P- Overcurrent Fault Detection PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46390 48690 50990 53290 55590 57890 60190 62490	1	--	W	0-65535/1	OCFD.TRIGGERS1 Bit 0- P1 50P #1 Bit 1- P1 50P #2 Bit 2- P1 50P #3 Bit 3- P1 50P #4 Bit 4- None Bit 5- P1 51P #1 Bit 6- P1 51P #2 Bit 7- P1 51P #3 Bit 8- P1 51P #4 Bit 9 to 15-None
1 2 3 4 5 6 7 8	46391 48691 50991 53291 55591 57891 60191 62491	1	--	W	0-65535/1	OCFD.TRIGGERS2 Bit 0-P2 50P #1 Bit 1-P2 50P #2 Bit 2-P2 50P #3 Bit 3-P2 50P #4 Bit 4-None Bit 5-P2 51P #1 Bit 6-P2 51P #2 Bit 7-P2 51P #3 Bit 8-P2 51P #4 Bit 9 to 15-None

Table 2.45 Overcurrent Fault Detection

With Option P- Overcurrent Fault Detection PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46396 48696 50996 53296 55596 57896 60196 62496	1	--	W	0-65535/1	OCFD.TRIGGERS7 Bit 0-P1 HLT50P Bit 1-P2 HLT50P Bit 2-None Bit 3-None Bit 4-P1 HLT51P Bit 5-P2 HLT51P Bit 6 to 9-None Bit 10-P1 SECT 50P Bit 11-P2 SECT 50P Bit 12-P1 SECT 51P Bit 13-P2 SECT 51P Bit 14-P1 79 51P Bit 15-P2 79 51P
1 2 3 4 5 6 7 8	46397 48697 50997 53297 55597 57897 60197 62497	1	--	W	0-65535/1	OCFD.TRIGGERS8 Bit 0-P1 79 HCT Bit 1-P2 79 HCT Bit 2-P1 79 HCL Bit 3-P2 79 HCL Bit 4 to 15-None

Table 2.45 Overcurrent Fault Detection

Two Poles Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46430 48730 51030 53330 55630 57930 60230 62530	1	—	W	0-65535/1	Two Poles Ganged Op Mode Single Bit 0-CLP Bit1-F79 Bit2-F25 Bit3-F59I Bit 4-F50BF Bit 5-Not used Bit 6-Not used Bit 7-F50HLT Bit 8-F51HLT Bit 9-F27VzS Bit 10-F59VzS Bit 11-LoadcurrentDetection Bit 12-Not used
1 2 3 4 5 6 7 8	46431 48731 51031 53331 55631 57931 60231 62531	1	—	W	0-15/1	Two Poles Ganged Op Mode F27 Bit 0-F27#1 2Ph Ganged operation Bit1- F27#2 2Ph Ganged operation Bit2- F27#3 2Ph Ganged operation Bit3- F27#4 2Ph Ganged operation
1 2 3 4 5 6 7 8	46432 48732 51032 53332 55632 57932 60232 62532	1	—	W	0-15/1	Two Poles Ganged Op Mode F32 Bit 0-F32#1 2Ph Ganged operation Bit1- F32#2 2Ph Ganged operation Bit2- F32#3 2Ph Ganged operation Bit3- F32#4 2Ph Ganged operation
1 2 3 4 5 6 7 8	46433 48733 51033 53333 55633 57933 60233 62533	1	—	W	0-15/1	Two Poles Ganged Op Mode F59 Bit 0-F59#1 2Ph Ganged operation Bit1- F59#2 2Ph Ganged operation Bit2- F59#3 2Ph Ganged operation Bit3- F59#4 2Ph Ganged operation
1 2 3 4 5 6 7 8	46434 48734 51034 53334 55634 57934 60234 62534	1	—	W	0-15/1	Two Poles Ganged Op Mode F50 Bit 0-F50#1 2Ph Ganged operation Bit1- F50#2 2Ph Ganged operation Bit2- F50#3 2Ph Ganged operation Bit3- F50#4 2Ph Ganged operation

Table 2.46 Two Poles Setpoints

Two Poles Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46435 48735 51035 53335 55635 57935 60235 62535	1	—	W	0-15/1	Two Poles Ganged Op Mode F51 Bit 0-F51#1 2Ph Ganged operation Bit1- F51#2 2Ph Ganged operation Bit2- F51#3 2Ph Ganged operation Bit3- F51#4 2Ph Ganged operation
1 2 3 4 5 6 7 8	46436 48736 51036 53336 55636 57936 60236 62536	1	—	W	0-15/1	Two Poles Ganged Op Mode F67 Bit 0-F67#1 2Ph Ganged operation Bit1- F67#2 2Ph Ganged operation Bit2- F67#3 2Ph Ganged operation Bit3- F67#4 2Ph Ganged operation
1 2 3 4 5 6 7 8	46437 48737 51037 53337 55637 57937 60237 62537	1	—	W	0-65535/1	Two Poles Use Pole1 Single Bit 0-CLP Bit1-F79 Bit2-F25 Bit3-F59I Bit 4-F50BF Bit 5-Not used Bit 6-Not used Bit 7-F50HLT Bit 8-F51HLT Bit 9-F27VzS Bit 10-F59VzS Bit 11-LoadcurrentDetection Bit 12-Not used
1 2 3 4 5 6 7 8	46438 48738 51038 53338 55638 57938 60238 62538	1	—	W	0-15/1	Two Poles Use Pole1 F27 Bit 0-F27#1 Use pole1 settings for Both Poles Bit1- F27#2 Use pole1 settings for Both Poles Bit2- F27#3 Use pole1 settings for Both Poles Bit3- F27#4 Use pole1 settings for Both Poles
1 2 3 4 5 6 7 8	46439 48739 51039 53339 55639 57939 60239 62539	1	—	W	0-15/1	Two Poles Use Pole1 F32 Bit 0-F32#1 Use pole1 settings for Both Poles Bit1- F32#2 Use pole1 settings for Both Poles Bit2- F32#3 Use pole1 settings for Both Poles Bit3- F32#4 Use pole1 settings for Both Poles

Table 2.46 Two Poles Setpoints

Two Poles Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46440 48740 51040 53340 55640 57940 60240 62540	1	—	W	0-15/1	Two Poles Use Pole1 F59 Bit 0-F59#1 Use pole1 settings for Both Poles Bit1- F59#2 Use pole1 settings for Both Poles Bit2- F59#3 Use pole1 settings for Both Poles Bit3- 59#4 Use pole1 settings for Both Poles
1 2 3 4 5 6 7 8	46441 48741 51041 53341 55641 57941 60241 62541	1	—	W	0-15/1	Two Poles Use Pole1 F50 Bit 0-F50#1 Use pole1 settings for Both Poles Bit1- F50#2 Use pole1 settings for Both Poles Bit2- F50#3 Use pole1 settings for Both Poles Bit3- 50#4 Use pole1 settings for Both Poles
1 2 3 4 5 6 7 8	46442 48742 51042 53342 55642 57942 60242 62542	1	—	W	0-15/1	Two Poles Use Pole1 F51 Bit 0-F51#1 Use pole1 settings for Both Poles Bit1- F51#2 Use pole1 settings for Both Poles Bit2- F51#3 Use pole1 settings for Both Poles Bit3- 51#4 Use pole1 settings for Both Poles
1 2 3 4 5 6 7 8	46443 48743 51043 53343 55643 57943 60243 62543	1	—	W	0-15/1	Two Poles Use Pole1 F67 Bit 0-F67#1 Use pole1 settings for Both Poles Bit1- F67#2 Use pole1 settings for Both Poles Bit2- F67#3 Use pole1 settings for Both Poles Bit3- 67#4 Use pole1 settings for Both Poles

Table 2.46 Two Poles Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47296 49596 51896 54196 56496 58796 61096 63396	1	—	W	0-4294967295/1	79U Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 69 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47297 49597 51897 54197 56497 58797 61097 63397	1	—	W	0-4294967295/1	79U Blocking Inputs Pole1. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46451 48751 51051 53351 55651 57951 60251 62551	1	—	W	0-1/1	79U ENABLE Pole1 Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46452 48752 51052 53352 55652 57952 60252 62552	1	—	W	0-7/1	79U SEQCORD Pole1 Bit 0 – None Bit 2 – 1 Bit 3 – 2 Bit 7 – 3
1 2 3 4 5 6 7 8	46453 48753 51053 53353 55653 57953 60253 62553	1	S	W	1-1800/1	79U Reset Time After Auto Reclose Pole1
1 2 3 4 5 6 7 8	46454 48754 51054 53354 55654 57954 60254 62554	1	S	W	0-1800/1	79U Reset Time From Lockout Pole1

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46455 48755 51055 53355 55655 57955 60255 62555	100	S	W	0.00-600/0.01	79U TR.1.TMDL Pole1
1 2 3 4 5 6 7 8	46456 48756 51056 53356 55656 57956 60256 62556	1	—	W	0-71/1	79U TR.1.51P.CRV Pole1 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69
1 2 3 4 5 6 7 8	46457 48757 51057 53357 55657 57957 60257 62557	1	—	W	0-15/1	79U TR.1.ENABLE Pole1
1 2 3 4 5 6 7 8	46458 48758 51058 53358 55658 57958 60258 62558	100	S	W	0.00-600/0.01	79U TR.2.TMDL Pole1
1 2 3 4 5 6 7 8	46459 48759 51059 53359 55659 57959 60259 62559	1	—	W	0-71/1	79U TR.2.51P.CRV Pole1 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69
1 2 3 4 5 6 7 8	46460 48760 51060 53360 55660 57960 60260 62560	1	—	W	0-15/1	79U TR.2.ENABLE Pole1

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46461 48761 51061 53361 55661 57961 60261 62561	100	S	W	0.00-600/0.01	79U TR.3.TMDL Pole1
1 2 3 4 5 6 7 8	46462 48762 51062 53362 55662 57962 60262 62562	1	—	W	0-71/1	79U TR.3.51P.CRV Pole1 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69
1 2 3 4 5 6 7 8	46463 48763 51063 53363 55663 57963 60263 62563	1	—	W	0-15/1	79U TR.3.ENABLE Pole1
1 2 3 4 5 6 7 8	46464 48764 51064 53364 55664 57964 60264 62564	100	S	W	0.00-600/0.01	79U TR.4.TMDL Pole1
1 2 3 4 5 6 7 8	46465 48765 51065 53365 55665 57965 60265 62565	1	—	W	0-71/1	79U TR.4.51P.CRV Pole1 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69
1 2 3 4 5 6 7 8	46466 48766 51066 53366 55666 57966 60266 62566	1	—	W	0-15/1	79U TR.4.ENABLE Pole1

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46468 48768 51068 53368 55668 57968 60268 62568	1	—		0-71/1	79U TR.5.51P.CRV Pole1 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69
1 2 3 4 5 6 7 8	46469 48769 51069 53369 55669 57969 60269 62569	1	—	W	0-15/1	79U TR.5.ENABLE Pole1
1 2 3 4 5 6 7 8	46470 48770 51070 53370 55670 57970 60270 62570	100	A	W	0.01-3.2/0.01	79U 51P.PU Pole1
1 2 3 4 5 6 7 8	46471 48771 51071 53371 55671 57971 60271 62571	100	A	W	0.01-20/0.01	79U 50PHCT.PU Pole1
1 2 3 4 5 6 7 8	46472 48772 51072 53372 55672 57972 60272 62572	100	S	W	0-600/0.01	79U 50PHCT.DEFTM Pole1
1 2 3 4 5 6 7 8	46473 48773 51073 53373 55673 57973 60273 62573	100	A	W	0.1-100/0.01	79U 50PHCL.PU Pole1

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46474 48774 51074 53374 55674 57974 60274 62574	100	S	W	0-600/0.01	79U 50PHCL.DEFTM Pole1
1 2 3 4 5 6 7 8	46475 48775 51075 53375 55675 57975 60275 62575	100	V	W	0-300/0.01	79U 27BSVS.PU Pole1
1 2 3 4 5 6 7 8	46476 48776 51076 53376 55676 57976 60276 62576	100	S	W	0-600/0.01	79U 27BSVS.DEFTM Pole1
1 2 3 4 5 6 7 8	46477 48777 51077 53377 55677 57977 60277 62577	1	—	W	0-80/1	79U IPSLSEL Pole1
1 2 3 4 5 6 7 8	46478 48778 51078 53378 55678 57978 60278 62578	1	—	W	0-1/1	79U BUSSUPENA Pole1
1 2 3 4 5 6 7 8	46479 48779 51079 53379 55679 57979 60279 62579	1	—	W	0-65535/1	79U BUSSUPSEL Pole1

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46480 48780 51080 53380 55680 57980 60280 62580	100	S	W	0-600/0.01	79U BUSSUPTM Pole1
1 2 3 4 5 6 7 8	46481 48781 51081 53381 55681 57981 60281 62581	1	—	W	0-65535/1	79U LOCKOUTSEL Pole1
1 2 3 4 5 6 7 8	46482 48782 51082 53382 55682 57982 60282 62582	1	—	W	0-1/1	79U TRLOGIC.ENABLE Pole1
1 2 3 4 5 6 7 8	46483 48783 51083 53383 55683 57983 60283 62583	1	—	W	0-80/1	79U TRLOGIC.IPSTOSEL Pole1
1 2 3 4 5 6 7 8	46485 48785 51085 53385 55685 57985 60285 62585	100	S	W	0-600/0.01	79U TRLOGIC.MAXTM Pole1
1 2 3 4 5 6 7 8	46486 48786 51086 53386 55686 57986 60286 62586	1	—	W	0-1/1	79U SKIPSHOT.ENABLE Pole1 Checked – 1 Unchecked – 0

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46487 48787 51087 53387 55687 57987 60287 62587	1	—	W	0-80/1	79U SKIPSHOT.IPSLSEL Pole1
1 2 3 4 5 6 7 8	46488 48788 51088 53388 55688 57988 60288 62588	1	—	W	0-510/1	79U SKIPSHOT.STATE Pole1 Bit 0 – Shot 1 Bit 8 – Shot 3 Bit 1 – Shot 2 Bit 9 – Shot 4
1 2 3 4 5 6 7 8	46489 48789 51089 53389 55689 57989 60289 62589	1	—	W	0-1/1	79U BFCP.TMMOD.ENABLE Pole1
1 2 3 4 5 6 7 8	46490 48790 51090 53390 55690 57990 60290 62590	1	—	W	0-67/1	79U BFCP.CRV Pole1
1 2 3 4 5 6 7 8	46491 48791 51091 53391 55691 57991 60291 62591	100	S	W	0.1-2.00/0.01	79U BFCP.TMMUL Pole1
1 2 3 4 5 6 7 8	46492 48792 51092 53392 55692 57992 60292 62592	100	S	W	0-30.00/0.01	79U BFCP.TMADDER Pole1

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46493 48793 51093 53393 55693 57993 60293 62593	100	S	W	0-1.00/0.01	79U BFCP.MINRESTMADDER Pole1
1 2 3 4 5 6 7 8	46494 48794 51094 53394 55694 57994 60294 62594	1	—	W	0-1/1	79U BFCP.ELECMECHRESET.ENABLE Pole1
1 2 3 4 5 6 7 8	46495 48795 51095 53395 55695 57995 60295 62595	1000	S	W	0.001-60.000/0.001	79U BFCP.RESETCOEFF Pole1
1 2 3 4 5 6 7 8	46496 48796 51096 53396 55696 57996 60296 62596	1000	S	W	0.001-60.000/0.001	79U BFCP.RESETCOEFF.H Pole1
1 2 3 4 5 6 7 8	6974 25670 25833 14320 27747 27947 28273 23520	100	S	W	1-60000/0.01	79U.1.BFCP.MAXOPTM
1 2 3 4 5 6 7 8	6975 25671 25834 14321 27748 27948 28274 23521	1	s	W	0-1/1	79U.1.BFCP.MAXOPTMENA

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46497 48797 51097 53397 55697 57997 60297 62597	1	—	W	0-1/1	79U BSCP.TMMOD.ENABLE Pole1
1 2 3 4 5 6 7 8	46498 48798 51098 53398 55698 57998 60298 62598	1	—	W	0-67/1	79U BSCP.CRV Pole1
1 2 3 4 5 6 7 8	46499 48799 51099 53399 55699 57999 60299 62599	100	S	W	0.1-2.00/0.01	79U BSCP.TMMUL Pole1
1 2 3 4 5 6 7 8	46500 48800 51100 53400 55700 58000 60300 62600	100	S	W	0-30.00/0.01	79U BSCP.TMADDER Pole1
1 2 3 4 5 6 7 8	46501 48801 51101 53401 55701 58001 60301 62601	100	S	W	0-1/0.01	79U BSCP.MINRESTMADDER Pole1
1 2 3 4 5 6 7 8	46502 48802 51102 53402 55702 58002 60302 62602	1	—	W	0-1/1	79U BSCP.ELECMECHRESET.ENABLE Pole1

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46503 48803 51103 53403 55703 58003 60303 62603	1000	S	W	0.001-60.000/0.001	79U BSCP.RESETCOEFF Pole1
1 2 3 4 5 6 7 8	46504 48804 51104 53404 55704 58004 60304 62604	1000	S	W	0.001-60.000/0.001	79U BSCP.RESETCOEFF.H Pole1
1 2 3 4 5 6 7 8	6976 25672 25835 27428 27749 27949 28275 23522	100	S	W	1-600.00/0.01	79U.1.BSCP.MAXOPTM
1 2 3 4 5 6 7 8	6977 25673 25836 27429 27750 27950 28276 23523	1	—	W	0-1/1	79U.1.BSCP.MAXOPTMENA
1 2 3 4 5 6 7 8	46505 48805 51105 53405 55705 58005 60305 62605	1	—	W	0-1/1	79U ENABLETARGETRSTIMER Pole1
1 2 3 4 5 6 7 8	46506 48806 51106 53406 55706 58006 60306 62606	1	S	W	0-65000/1	79U TARGETRSTIMER Pole1

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7149 9449 11749 14049 16349 18649 20949 23249	1	-	W	0-1/1	79U.1.OPTION
1 2 3 4 5 6 7 8	47298 49598 51898 54198 56498 58798 61098 63398	1	—	W	0-4294967295/1	79U INPUTS Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47299 49599 51899 54199 56499 58799 61099 63399	1	—	W	0-4294967295/1	79U INPUTS Pole2. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46508 48808 51108 53408 55708 58008 60308 62608	1	—	W	0-1/1	79U ENABLE Pole2 Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46509 48809 51109 53409 55709 58009 60309 62609	1	—	W	0-7/1	79U SEQCORD Pole2 Bit 0 – None Bit 2 – 1 Bit 3 – 2 Bit 7 – 3
1 2 3 4 5 6 7 8	46510 48810 51110 53410 55710 58010 60310 62610	1	S	W	1-1800/1	79U Reset Time After Auto Reclose Pole2

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46511 48811 51111 53411 55711 58011 60311 62611	1	S	W	0-1800/1	79U Reset Time From Lockout Pole2
1 2 3 4 5 6 7 8	46512 48812 51112 53412 55712 58012 60312 62612	100	S	W	0.01-600/0.01	79U TR.1.TMDL Pole2
1 2 3 4 5 6 7 8	46513 48813 51113 53413 55713 58013 60313 62613	1	—	W	0-71/1	79U TR.1.51P.CRV Pole2 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69
1 2 3 4 5 6 7 8	46514 48814 51114 53414 55714 58014 60314 62614	1	—	W	0-15/1	79U TR.1.ENABLE Pole2
1 2 3 4 5 6 7 8	46515 48815 51115 53415 55715 58015 60315 62615	100	S	W	0.01-600/0.01	79U TR.2.TMDL Pole2
1 2 3 4 5 6 7 8	46516 48816 51116 53416 55716 58016 60316 62616	1	—	W	0-71/1	79U TR.2.51P.CRV Pole2 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46517 48817 51117 53417 55717 58017 60317 62617	1	—	W	0-15/1	79U TR.2.ENABLE Pole2
1 2 3 4 5 6 7 8	46518 48818 51118 53418 55718 58018 60318 62618	100	S	W	0.01-600/0.01	79U TR.3.TMDL Pole2
1 2 3 4 5 6 7 8	46519 48819 51119 53419 55719 58019 60319 62619	1	—	W	0-71/1	79U TR.3.51P.CRV Pole2 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69
1 2 3 4 5 6 7 8	46520 48820 51120 53420 55720 58020 60320 62620	1	—	W	0-15/1	79U TR.3.ENABLE Pole2
1 2 3 4 5 6 7 8	46521 48821 51121 53421 55721 58021 60321 62621	100	S	W	0.01-600/0.01	79U TR.4.TMDL Pole2
1 2 3 4 5 6 7 8	46522 48822 51122 53422 55722 58022 60322 62622	1	—	W	0-71/1	79U TR.4.51P.CRV Pole2 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46523 48823 51123 53423 55723 58023 60323 62623	1	—	W	0-15/1	79U TR.4.ENABLE Pole2
1 2 3 4 5 6 7 8	46525 48825 51125 53425 55725 58025 60325 62625	1	—	W	0-71/1	79U TR.5.51P.CRV Pole2 None-0 BFCP IEC Very inverse-68 BSCP IEC Inverse -69
1 2 3 4 5 6 7 8	46526 48826 51126 53426 55726 58026 60326 62626	1	—	W	0-15/1	79U TR.5.ENABLE Pole2
1 2 3 4 5 6 7 8	46527 48827 51127 53427 55727 58027 60327 62627	100	A	W	0.01-3.2/0.01	79U 51P.PU Pole2
1 2 3 4 5 6 7 8	46528 48828 51128 53428 55728 58028 60328 62628	100	A	W	0.01-20/0.01	79U 50PHCT.PU Pole2
1 2 3 4 5 6 7 8	46529 48829 51129 53429 55729 58029 60329 62629	100	s	W	0-600/0.01	79U 50PHCT.DEFTM Pole2

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46530 48830 51130 53430 55730 58030 60330 62630	100	S	W	0.1-100/0.01	79U 50PHCL.PU Pole2
1 2 3 4 5 6 7 8	46531 48831 51131 53431 55731 58031 60331 62631	100	s	W	0-600/0.01	79U 50PHCL.DEFTM Pole2
1 2 3 4 5 6 7 8	46532 48832 51132 53432 55732 58032 60332 62632	100	V	W	0-300/0.01	79U 27BSVS.PU Pole2
1 2 3 4 5 6 7 8	46533 48833 51133 53433 55733 58033 60333 62633	100	s	W	0-600/0.01	79U 27BSVS.DEFTM Pole2
1 2 3 4 5 6 7 8	46534 48834 51134 53434 55734 58034 60334 62634	1	—	W	0-80/1	79U IPSLSEL Pole2
1 2 3 4 5 6 7 8	46535 48835 51135 53435 55735 58035 60335 62635	1	—	W	0-1/1	79U BUSSUPENA Pole2

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46536 48836 51136 53436 55736 58036 60336 62636	1	-	W	0-65535/1	79U BUSSUPSEL Pole2
1 2 3 4 5 6 7 8	46537 48837 51137 53437 55737 58037 60337 62637	100	s	W	0-600/0.01	79U BUSSUPTM Pole2
1 2 3 4 5 6 7 8	46538 48838 51138 53438 55738 58038 60338 62638	1	—	W	0-65535/1	79U LOCKOUTSEL Pole2
1 2 3 4 5 6 7 8	46539 48839 51139 53439 55739 58039 60339 62639	1	—	W	0-1/1	79U TRLOGIC.ENABLE Pole2
1 2 3 4 5 6 7 8	46540 48840 51140 53440 55740 58040 60340 62640	1	—	W	0-80/1	79U TRLOGIC.IPSTOSEL Pole2
1 2 3 4 5 6 7 8	46542 48842 51142 53442 55742 58042 60342 62642	100	S	W	0-1/1	79U TRLOGIC.MAXTM Pole2

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46543 48843 51143 53443 55743 58043 60343 62643	1	—	W	0-1/1	79U SKIPSHOT.ENABLE Pole2
1 2 3 4 5 6 7 8	46544 48844 51144 53444 55744 58044 60344 62644	1	—	W	0-80/1	79U SKIPSHOT.IPSLSEL Pole2
1 2 3 4 5 6 7 8	46545 48845 51145 53445 55745 58045 60345 62645	1	—	W	0-510/1	79U SKIPSHOT.STATE Pole2
1 2 3 4 5 6 7 8	46546 48846 51146 53446 55746 58046 60346 62646	1	—	W	0-1/1	79U BFCP.TMMOD.ENABLE Pole2
1 2 3 4 5 6 7 8	46547 48847 51147 53447 55747 58047 60347 62647	1	—	W	0-67/1	79U BFCP.CRV Pole2
1 2 3 4 5 6 7 8	46548 48848 51148 53448 55748 58048 60348 62648	100	S	W	0.1-2.00/0.01	79U BFCP.TMMUL Pole2

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46549 48849 51149 53449 55749 58049 60349 62649	100	S	W	0-30.00/0.01	79U BFCP.TMADDER Pole2
1 2 3 4 5 6 7 8	46550 48850 51150 53450 55750 58050 60350 62650	100	S	W	0-1.00/0.01	79U BFCP.MINRESTMADDER Pole2
1 2 3 4 5 6 7 8	46551 48851 51151 53451 55751 58051 60351 62651	1	—	W	0-1/1	79U BFCP.ELECMECHRESET.ENABLE Pole2
1 2 3 4 5 6 7 8	46552 48852 51152 53452 55752 58052 60352 62652	1000	S	W	0.001-60.000/0.001	79U BFCP.RESETCOEFF Pole2
1 2 3 4 5 6 7 8	46553 48853 51153 53453 55753 58053 60353 62653	1000	S	W	0.001-60.000/0.001	79U BFCP.RESETCOEFF.H Pole2
1 2 3 4 5 6 7 8	6978 25674 25837 27430 27751 27951 28277 23524	100	S	W	1-60.00/0.01	79U.2.BFCP.MAXOPTM

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6979 25675 25838 27431 27752 27952 28278 63657	1	-	W	0-1/1	79U.2.BFCP.MAXOPTMENA
1 2 3 4 5 6 7 8	46554 48854 51154 53454 55754 58054 60354 62654	1	—	W	0-1/1	79U BSCP.TMMOD.ENABLE Pole2
1 2 3 4 5 6 7 8	46555 48855 51155 53455 55755 58055 60355 62655	1	—	W	0-67/1	79U BSCP.CRV Pole2
1 2 3 4 5 6 7 8	46556 48856 51156 53456 55756 58056 60356 62656	100	S	W	0.1-2.00/0.01	79U BSCP.TMMUL Pole2
1 2 3 4 5 6 7 8	46557 48857 51157 53457 55757 58057 60357 62657	100	S	W	0-30.00/0.01	79U BSCP.TMADDER Pole2
1 2 3 4 5 6 7 8	46558 48858 51158 53458 55758 58058 60358 62658	100	S	W	0-1.00/0.01	79U BSCP.MINRESTMADDER Pole2

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46559 48859 51159 53459 55759 58059 60359 62659	1	—	W	0-1/1	79U BSCP.ELECMECHRESET.ENABLE Pole2
1 2 3 4 5 6 7 8	46560 48860 51160 53460 55760 58060 60360 62660	1000	S	W	0.001-60.000/0.001	79U BSCP.RESETCOEFF Pole2
1 2 3 4 5 6 7 8	46561 48861 51161 53461 55761 58061 60361 62661	1000	S	W	0.001-60.00/0.001	79U BSCP.RESETCOEFF.H Pole2
1 2 3 4 5 6 7 8	6980 25676 25839 27432 27753 27953 28279 63658	100	S	W	1-600.00/0.01	79U.2.BSCP.MAXOPTM
1 2 3 4 5 6 7 8	6981 25677 25840 27433 27754 27954 28280 63659	1	-	W	0-1/1	79U.2.BSCP.MAXOPTMENA
1 2 3 4 5 6 7 8	46562 48862 51162 53462 55762 58062 60362 62662	1	—	W	0-1/1	79U ENABLETARGETRSTIMER Pole2

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-79 Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46563 48863 51163 53463 55763 58063 60363 62663	1	S	W	0-65000/1	79U TARGETRSTIMER Pole2
1 2 3 4 5 6 7 8	7150 9450 11750 14050 16350 18650 20950 23250	1	-	W	0-1/1	79U.2.OPTION

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		42	132(E)
1	IEC Very Inverse		43	133(C)
2	IEC Extremely Inverse		44	134(Z)
10	US Moderately Inverse		45	135(2)
11	US Standard Inverse		46	136(6)
12	US Very Inverse		47	137(V)
13	US Extremely Inverse		48	138(W)
14	US Shot Time Inverse		49	139(16)
15	IEEE Moderately Inverse		50	140(3)
16	IEEE Very Inverse		51	141(11)
17	IEEE Extremely Inverse		52	142(13)
22	101(A)		53	151(18)
23	102(1)		54	152(7)
24	103(17)		55	161(T)
25	104(N)		56	162(KP)
26	105(R)		57	163(F)
27	106(4)		58	164(J)
28	107(L)		59	165(KG)
29	111(8*)		60	200
30	112(15)		61	201
31	113(8)		62	202
32	114(5)		63	Definite Time
33	115(P)		64	Custom Curve 1
34	116(D)		65	Custom Curve 2
35	117(B)		66	Custom Curve 3
36	118(M)		67	Custom Curve 4
37	119(14)		68	BFCP
38	120(Y)		69	BSCP
39	121(G)		70	BFCG
40	122(H)		71	BSCG
41	131(9)		68 & 69	This bit numbers are invalid for Ground /Neutral functions
			70 & 71	This bit numbers are invalid for Phase functions

Inverse Time Curves – Bit Number Reference Table

Table 2.47 Option P Only-79 Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46571 48871 51171 53471 55771 58071 60371 60671	1	—	W	0-1/1	CLPU.1 Enable Pole1 Bit 0 – Enable: 1 Bit 1-- Disable: 0
1 2 3 4 5 6 7 8	46572 48872 51172 53472 55772 58072 60372 60672	1	%	W	0-100/1	CLPU.1.IREST Pole1
1 2 3 4 5 6 7 8	46573 48873 51173 53473 55773 58073 60373 60673	1	s	W	1-10000/1	CLPU.1.CLDTM Pole1
1 2 3 4 5 6 7 8	46574 48874 51174 53474 55774 58074 60374 60674	100	s	W	0.01-600.00/0.01	CLPU.1.RESTTM Pole1
1 2 3 4 5 6 7 8	46575 48875 51175 53475 55775 58075 60375 60675	1	s	W	1-60000/1	CLPU.1.LOCKTM Pole1

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46576 48876 51176 53476 55776 58076 60376 60676	1	—	W	0-4/1	CLPU.1.RECOUNT Pole1 Bit 0-0 Bit 1-1 Bit 2-2 Bit 3-3
1 2 3 4 5 6 7 8	46577 48877 51177 53477 55777 58077 60377 60677	1	—	W	0-1/1	CLPU.1.HICURLO.ENABLE Pole1
1 2 3 4 5 6 7 8	46578 48878 51178 53478 55778 58078 60378 60678	100	A	W	0.1-100/0.01	CLPU.1.HICURLO.PU Pole1
1 2 3 4 5 6 7 8	46579 48879 51179 53479 55779 58079 60379 60679	100	A	W	0-600/0.01	CLPU.1.HICURLO.DEFTM Pole1
1 2 3 4 5 6 7 8	46580 48880 51180 53480 55780 58080 60380 60680	1	A	W	0-1/1	CLPU.1.50P.ENABLE Pole1 0- Disable 1- Enable
1 2 3 4 5 6 7 8	46581 48881 51181 53481 55781 58081 60381 62681	100	A	W	0.01-20/0.01	CLPU.1.50P.PU Pole1

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46582 48882 51182 53482 55782 58082 60382 60682	100	S	W	0-600/0.01	CLPU.1.50P.DEFTM Pole1
1 2 3 4 5 6 7 8	46583 48883 51183 53483 55783 58083 60383 60683	1	—	W	0-1/1	CLPU.1.51P.ENABLE Pole1 Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46584 48884 51184 53484 55784 58084 60384 62684	100	A	W	0.01-3.2/0.01	CLPU.1.51P.PU Pole1
1 2 3 4 5 6 7 8	46585 48885 51185 53485 55785 58085 60385 60685	1	—	W	0-67/1	CLPU.1.51P.CRV Pole1 (See the Reference Tables at the end of Function CLPU)
1 2 3 4 5 6 7 8	46586 48886 51186 53486 55786 58086 60386 60686	1	—	W	0-1/1	CLPU.1.51P.ELECMECHRESET Pole1 Bit 0- 0 unchecked Bit 1- 1 checked
1 2 3 4 5 6 7 8	46587 48887 51187 53487 55787 58087 60387 62687	1000	S	W	0.001-60.000/0.001	CLPU.1.51P.RESETCOEFF Pole1

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46588 48888 51188 53488 55788 58088 60388 62688	1000	S	W	0.001-60.000/0.001	CLPU.1.51P.RESETCOEFF.H Pole1
1 2 3 4 5 6 7 8	46589 48889 51189 53489 55789 58089 60389 60689	100	—	W	0.5-30/0.01	CLPU.1.51P.TMMUL Pole1
1 2 3 4 5 6 7 8	46590 48890 51190 53490 55790 58090 60390 60690	100	S	W	0-30/0.01	CLPU.1.51P.TMADDER Pole1
1 2 3 4 5 6 7 8	46591 48891 51191 53491 55791 58091 60391 60691	100	S	W	0-1/0.01	CLPU.1.51P.MINRESTMADDER Pole1
1 2 3 4 5 6 7 8	46592 48892 51192 53492 55792 58092 60392 60692	100	S	W	0-1/0.01	CLPU.1.51P.MINRESTMADDER.H Pole1
1 2 3 4 5 6 7 8	6982 25678 25841 27434 27755 27955 28281 63660	100	S	W	1-60000/0.01	CLPU.1.51P.MAXOPTM

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	6983 25679 25842 27435 27756 27956 28282 63661	1	-	W	0-1/1	CLPU.1.51P.MAXOPTMENA
1 2 3 4 5 6 7 8	46566 48866 51166 53466 55766 58066 60366 62666	100	S	W	0.01-600/0.01	CLPU.1.RECTMDL.1 Pole1
1 2 3 4 5 6 7 8	46567 48867 51167 53467 55767 58067 60367 62667	100	S	W	0.01-600/0.01	CLPU.1.RECTMDL.2 Pole1
1 2 3 4 5 6 7 8	46568 48868 51168 53468 55768 58068 60368 62668	100	S	W	0.01-600/0.01	CLPU.1.RECTMDL.3 Pole1
1 2 3 4 5 6 7 8	46569 48869 51169 53469 55769 58069 60369 62669	100	S	W	0.01-600/0.01	CLPU.1.RECTMDL.4 Pole1
1 2 3 4 5 6 7 8	46594 48894 51194 53494 55794 58094 60394 60694	1	—	W	0-1/1	CLPU.2.ENABLE Pole2 Bit-0 Enable-1; Disable-0

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46595 48895 51195 53495 55795 58095 60395 60695	1	%	W	0-100/1	CLPU.2.IREST Pole2
1 2 3 4 5 6 7 8	46596 48896 51196 53496 55796 58096 60396 60696	1	S	W	1-10000/1	CLPU.2.CLDTM Pole2
1 2 3 4 5 6 7 8	46597 48897 51197 53497 55797 58097 60397 60697	100	S	W	0.01-600.00/0.01	CLPU.2.RESTTM Pole2
1 2 3 4 5 6 7 8	46598 48898 51198 53498 55798 58098 60398 60698	1	S	W	1-60000/1	CLPU.2.LOCKTM Pole2
1 2 3 4 5 6 7 8	46599 48899 51199 53499 55799 58099 60399 60699	1	—	W	0-4/1	CLPU.2.RECOUNT Pole2
1 2 3 4 5 6 7 8	46600 48900 51200 53500 55800 58100 60400 60700	1	—	W	0-1/1	CLPU.2.HICURLO.ENABLE Pole2 Bit 0 – Enable: 1, Disable: 0

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46601 48901 51201 53501 55801 58101 60401 60701	100	A	W	0.1-100/0.01	CLPU.2.HICURLO.PU Pole2
1 2 3 4 5 6 7 8	46602 48902 51202 53502 55802 58102 60402 60702	100	S	W	0-600/0.01	CLPU.2.HICURLO.DEFTM Pole2
1 2 3 4 5 6 7 8	46603 48903 51203 53503 55803 58103 60403 60703	1	—	W	0-1/1	CLPU.2.50P.ENABLE Pole2 Bit 0 – Enable: 1, Disable: 0
1 2 3 4 5 6 7 8	46604 48904 51204 53504 55804 58104 60404 62704	100	A	W	0.01-20/0.01	CLPU.2.50P.PU Pole2
1 2 3 4 5 6 7 8	46605 48905 51205 53505 55805 58105 60405 60705	100	S	W	0-600/0.01	CLPU.2.50P.DEFTM Pole2
1 2 3 4 5 6 7 8	46606 48906 51206 53506 55806 58106 60406 60706	1	—	W	0-1/1	CLPU.2.51P.ENABLE Pole2 Bit 0 – Enable: 1, Disable: 0

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46607 48907 51207 53507 55807 58107 60407 62707	100	A	W	0.01-3.2/0.01	CLPU.2.51P.PU Pole2
1 2 3 4 5 6 7 8	46608 48908 51208 53508 55808 58108 60408 60708	1	—	W	0-67/1	CLPU.2.51P.CRV Pole2 (See the Reference Tables at the end of Function CLPU)
1 2 3 4 5 6 7 8	46609 48909 51209 53509 55809 58109 60409 60709	1	—	W	0-1/1	CLPU.2.51P.ELECMECHRESET Pole2 Bit 0- 0 unchecked Bit 1- 1 checked
1 2 3 4 5 6 7 8	46610 48910 51210 53510 55810 58110 60410 62710	1000	S	W	0.001-60.000/0.001	CLPU.2.51P.RESETCOEFF Pole2
1 2 3 4 5 6 7 8	46611 48911 51211 53511 55811 58111 60411 62711	1000	S	W	0.001-60.000/0.001	CLPU.2.51P.RESETCOEFF.H Pole2
1 2 3 4 5 6 7 8	46612 48912 51212 53512 55812 58112 60412 60712	100	—	W	0.5-30/0.01	CLPU.2.51P.TMMU Pole2

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46613 48913 51213 53513 55813 58113 60413 60713	100	S	W	0-30/0.01	CLPU.2.51P.TMADDER Pole2
1 2 3 4 5 6 7 8	46614 48914 51214 53514 55814 58114 60414 60714	100	S	W	0-1/0.01	CLPU.2.51P.MINRESTMADDER Pole2
1 2 3 4 5 6 7 8	46615 48915 51215 53515 55815 58115 60415 60715	100	S	W	0-1/0.01	CLPU.2.51P.MINRESTMADDER.H Pole2
1 2 3 4 5 6 7 8	6984 25680 25843 27436 27757 27957 28283 63662	100	S	W	1-600.00/0.01	CLPU.2.51P.MAXOPTM
1 2 3 4 5 6 7 8	6985 25681 25844 27437 27758 27958 28284 63663	1	-	W	0-1	CLPU.2.51P.MAXOPTMENA
1 2 3 4 5 6 7 8	46616 48916 51216 53516 55816 58116 60416 60716	100	S	W	0.01-600/0.01	CLPU.2.RECTMDL.1 Pole2

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only-CLP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46617 48917 51217 53517 55817 58117 60417 60717	100	S	W	0.01-600/0.01	CLPU.2.RECTMDL.2 Pole2
1 2 3 4 5 6 7 8	46618 48918 51218 53518 55818 58118 60418 60718	100	S	W	0.01-600/0.01	CLPU.2.RECTMDL.3 Pole2
1 2 3 4 5 6 7 8	46619 48919 51219 53519 55819 58119 60419 60719	100	S	W	0.01-600/0.01	CLPU.2.RECTMDL.4 Pole2

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Inverse Time Curve Reference and Time Multiplier Range Tables

The Inverse Time Multiplier range is a **variable**, based on the Inverse Time Curve selection. The Curve selection Register value is referenced below. This value is used to identify the applicable Time Multiplier Range in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding row shows the Range/Increment for the referenced Time Curve Register value.

Example: 51P Time Curve Register value = 1. As illustrated below, this corresponds to “IEC Very Inverse”. Use this value of “1” to identify the corresponding Time Multiplier Range/Increment in the “Inverse Time Curves – Time Multiplier Ranges” Reference Table. The corresponding range/increment is “5-100/0.01”.

Inverse Time Curves – Bit Number Table				
0	IEC Inverse		40	122(H)
1	IEC Very Inverse		41	131(9)
2	IEC Extremely Inverse		42	132(E)
10	US Moderately Inverse		43	133(C)
11	US Standard Inverse		44	134(Z)
12	US Very Inverse		45	135(2)
13	US Extremely Inverse		46	136(6)
14	US Shot Time Inverse		47	137(V)
15	IEEE Moderately Inverse		48	138(W)
16	IEEE Very Inverse		49	139(16)
17	IEEE Extremely Inverse		50	140(3)
22	101(A)		51	141(11)
23	102(1)		52	142(13)
24	103(17)		53	151(18)
25	104(N)		54	152(7)
26	105(R)		55	161(T)
27	106(4)		56	162(KP)
28	107(L)		57	163(F)
29	111(8*)		58	164(J)
30	112(15)		59	165(KG)
31	113(8)		60	200
32	114(5)		61	201
33	115(P)		62	202
34	116(D)		63	Definite Time
35	117(B)		64	Custom Curve 1
36	118(M)		65	Custom Curve 2
37	119(14)		66	Custom Curve 3
38	120(Y)		67	Custom Curve 4
39	121(G)			

Inverse Time Curves – Bit Number Reference Table

Table 2.48 Option P Only-CLP Unbalanced Operation Setpoints

Option P Only- 50BF Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47300 49600 51900 54200 56500 58800 61100 63400	1	—	W	0-4294967295/1	50BFU Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47301 49601 51901 54201 56501 58801 61101 63401	1	—	W	0-4294967295/1	50BFU Blocking Inputs Pole1. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46621 48921 51221 53521 55821 58121 60421 62721	1	—	W	0-4095/1	50BFU Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46622 48922 51222 53522 53822 58122 60422 62722	1	—	W	0-1/1	50BFU ENABLE Pole1 Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46623 48923 51223 53523 53823 58123 60423 62723	100	A	W	0.01-2.00/0.01	50BFU Phase Current Pole1
1 2 3 4 5 6 7 8	46624 48924 51224 53524 53824 58124 60424 62724	100	S	W	0.01-600/0.01	50BFU DEFTM Pole1

Table 2.49 Option P Only- 50BF Unbalanced Operation Setpoints

Option P Only- 50BF Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46625 48925 51225 53525 53825 58125 60425 62725	1	—	W	0-1/1	50BFU Enable Pole1
1 2 3 4 5 6 7 8	46626 48926 51226 53526 53826 58126 60426 62726	100	S	W	0.01-600/0.01	50BFU RETRIPTM Pole1
1 2 3 4 5 6 7 8	46812 49112 51412 53712 56012 58312 60612 62912	1	—	W	0-4294967295/1	50BFU Input Initiate Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	46813 49113 51413 53713 56013 58313 60613 62913	1	—	W	0-4294967295/1	50BFU Input Initiate Pole1. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46628 48928 51228 53528 53828 58128 60428 62728	1	—	W	0-4095/1	50BFU OUTPUTINIT Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7052 9352 11652 13952 16252 18552 20852 23152	1	—	W	0-4294967295/1	50BFU.1.RETRIPINIT

Table 2.49 Option P Only- 50BF Unbalanced Operation Setpoints

Option P Only- 50BF Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	7053 9353 11653 13953 16253 18553 20853 23153	1	—	W	0-4294967295/1	50BFU.1.RETRIPINIT.H
1 2 3 4 5 6 7 8	47302 49602 51902 54202 56502 58802 61102 63402	1	—	W	0-4294967295/1	50BFU INPUTS Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47303 49603 51903 54203 56503 58803 61103 63403	1	—	W	0-4294967295/1	50BFU INPUTS Pole2. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46630 48930 51230 53530 53830 58130 60430 62730	1	—	W	0-4095/1	50BFU OUTPUTS Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46631 48931 51231 53531 53831 58131 60431 62731	1	—	W	0-1/1	50BFU ENABLE Pole2 Bit-0 Enable-1; Disable-0

Table 2.49 Option P Only- 50BF Unbalanced Operation Setpoints

Option P Only- 50BF Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46632 48932 51232 53532 55832 58132 60432 62732	100	A	W	0.01-2.00/0.01	50BFU Phase Current Pole2
1 2 3 4 5 6 7 8	46633 48933 51233 53533 53833 58133 60433 62733	100	S	W	0.01-600/0.01	50BFU DEFTM Pole2
1 2 3 4 5 6 7 8	46634 48934 51234 53534 53834 58134 60434 62734	1	—	W	0-1/1	50BFU Enable Pole2
1 2 3 4 5 6 7 8	46635 48935 51235 53535 53835 58135 60435 62735	100	S	W	0.01-600/0.01	50BFU RETRIPTM Pole2
1 2 3 4 5 6 7 8	46814 49114 51414 53714 56014 58314 60614 62914	1	—	W	0-4294967295/1	50BFU Input Initiate Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3

Table 2.49 Option P Only- 50BF Unbalanced Operation Setpoints

Option P Only- 50BF Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46815 49115 51415 53715 56015 58315 60615 62915	1	—	W	0-4294967295/1	50BFU Input Initiate Pole2.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46637 48937 51237 53537 53837 58137 60437 62737	1	—	W	0-4095/1	50BFU OUTPUTINIT Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	7054 9354 11654 13954 16254 18554 20854 23154	1	—	W	0-4294967295	50BFU.2.RETRIPINIT
1 2 3 4 5 6 7 8	7055 9355 11655 13955 16255 18555 20855 23155	1	—	W	0-4294967295	50BFU.2.RETRIPINIT.H

Table 2.49 Option P Only- 50BF Unbalanced Operation Setpoints

Option P Only- LCP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47304 49604 51904 54204 56504 58804 61104 63404	1	—	W	0-4294967295/1	LCP INPUTS Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 69 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47305 49605 51905 54205 56505 58805 61105 63405	1	—	W	0-4294967295/1	LCP INPUTS Pole1.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46639 48939 51239 53539 55839 58139 60439 62739	1	—	W	0-4095/1	LCP OUTPUTS Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46640 48940 51240 53540 55840 58140 60440 62740	1	—	W	0-1/1	LCP ENABLE Pole1 Enable-1 Disable-0
1 2 3 4 5 6 7 8	46641 48941 51241 53541 55841 58141 60441 62741	100	A	W	0.02-1.00/0.01	LCP PU Pole1
1 2 3 4 5 6 7 8	46642 48942 51242 53542 55842 58142 60442 62742	100	S	W	0.01-600/0.01	LCP DEFTM Pole1

Table 2.50 Option P Only- LCP Unbalanced Operation Setpoints

Option P Only- LCP Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47306 49606 51906 54206 56506 58806 61106 63406	1	—	W	0-4294967295/1	LCP INPUTS Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47307 49607 51907 54207 56507 58807 61107 63407	1	—	W	0-4294967295/1	LCP INPUTS Pole2. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46644 48944 51244 53544 55844 58144 60444 62744	1	—	W	0-4095/1	LCP OUTPUTS Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
1 2 3 4 5 6 7 8	46645 48945 51245 53545 55845 58145 60445 62745	1	—	W	0-1/1	LCP ENABLE Pole2 Enable-1 Disable-0
1 2 3 4 5 6 7 8	46646 48946 51246 53546 55846 58146 60446 62746	100	A	W	0.02-1.00/0.01	LCP PU Pole2
1 2 3 4 5 6 7 8	46647 48947 51247 53547 55847 58147 60447 62747	100	S	W	0.01-600/0.01	LCP DEFTM Pole2

Table 2.50 Option P Only- LCP Unbalanced Operation Setpoints

Option P Only- HCA Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46650 48950 51250 53550 55850 58150 60450 62750	1	-	W	0-1/1	HCA.1.ENABLE Pole1 Enable-1 Disable-0
1 2 3 4 5 6 7 8	46651 48951 51251 53551 55851 58151 60451 62751	100	A	W	0.02-2.00/0.01	HCA.1.PU Pole1
1 2 3 4 5 6 7 8	46652 48952 51252 53552 55852 58152 60452 62752	100	S	W	0.01-600/0.01	HCA.1.DEFTM Pole1
1 2 3 4 5 6 7 8	46653 48953 51253 53553 55853 58153 60453 62753	1	-	W	0-1/1	HCA.2.ENABLE Pole2 Enable-1 Disable-0
1 2 3 4 5 6 7 8	46654 48954 51254 53554 55854 58154 60454 62754	100	A	W	0.02-2.00/0.01	HCA.2.PU Pole2
1 2 3 4 5 6 7 8	46655 48955 51255 53555 55855 58155 60455 62755	100	S	W	0.01-600/0.01	HCA.2.DEFTM Pole2

Table 2.51 Option P Only- HCA Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47308 49608 51908 54208 56508 58808 61108 63408	1	—	W	0-4294967295/1	SECTU INPUTS Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47309 49609 51909 54209 56509 58809 61109 63409	1	—	W	0-4294967295/1	SECTU INPUTS Pole1.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46657 48957 51257 53557 55857 58157 60457 62757	1	—	W	0-1/1	SECTU ENABLE Pole1 Bit-0 Enable-1; Disable-0
1 2 3 4 5 6 7 8	46658 48958 51258 53558 55858 58158 60458 62758	1	—	W	0-127/1	SECTU TRIG_RESTRAINT Pole1

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46659 48959 51259 53559 55859 58159 60459 62759	1	—	W	1-4/1	SECTU MAX_TRIPS Pole1
1 2 3 4 5 6 7 8	46660 48960 51260 53560 55860 58160 60460 62760	100	S	W	0.01-600/0.01	SECTU RESET_TIMER Pole1
1 2 3 4 5 6 7 8	46661 48961 51261 53561 55861 58161 60461 62761	100	S	W	0.01-600/0.01	SECTU VOLT_LOSS_DELAY Pole1
1 2 3 4 5 6 7 8	46662 48962 51262 53562 55862 58162 60462 62762	100	S	W	0.01-300/0.01	SECTU PH_DURATION Pole1
1 2 3 4 5 6 7 8	46663 48963 51263 53563 55863 58163 60463 62763	100	—	W	0.01-60.00/0.01	SECTU PH_MULTIPLIER Pole1
1 2 3 4 5 6 7 8	46664 48964 51264 53564 55864 58164 60464 62764	100	V, Sec	W	10-300/0.01	SECTU 27.PU Pole1

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46665 48965 51265 53565 55865 58165 60465 62765	100	S	W	0-600/0.01	SECTU 27.DEFTM Pole1
1 2 3 4 5 6 7 8	46666 48966 51266 53566 55866 58166 60466 62766	100	A	W	0.01-20/0.01	SECTU.1.50.PU
1 2 3 4 5 6 7 8	46667 48967 51267 53567 55867 58167 60467 62767	100	S	W	0-600/0.01	SECTU 50.DEFTM Pole1
1 2 3 4 5 6 7 8	46668 48968 51268 53568 55868 58168 60468 62768	100	V, sec	W	10-300/0.01	SECTU 59.PU Pole1
1 2 3 4 5 6 7 8	46669 48969 51269 53569 55869 58169 60469 62769	100	Sec	W	0-600/0.01	SECTU 59.DEFTM Pole1
1 2 3 4 5 6 7 8	46670 48970 51270 53570 55870 58170 60470 62770	100	A	W	0.01-3.2/0.01	SECTU 51.PU Pole1

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46671 48971 51271 53571 55871 58171 60471 62771	1	—	W	0-71/1	SECTU 51.CRV Pole1 (See the Reference Tables at the end of Function SECTU)
1 2 3 4 5 6 7 8	46672 48972 51272 53572 55872 58172 60472 62772	100	—	W	0.05-1/0.01	SECTU 51.TMMUL Pole1
1 2 3 4 5 6 7 8	46673 48973 51273 53573 55873 58173 60473 62773	1	—	W	0-1/1	SECTU 51.ELECMECHRESET Pole1 Enable-1 Disable-0
1 2 3 4 5 6 7 8	46674 48974 51274 53574 55874 58174 60474 62774	1	—	W	0-1/1	SECTU 51.LELSET Pole1
1 2 3 4 5 6 7 8	46675 48975 51275 53575 55875 58175 60475 62775	100	S	W	0-30.00/0.01	SECTU 51.TMADDER Pole1
1 2 3 4 5 6 7 8	46676 48976 51276 53576 55876 58176 60476 62776	100	S	W	0-1/0.01	SECTU 51.MINRESTMADDER Pole1

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46677 48977 51277 53577 55877 58177 60477 62777	100	S	W	0-1/0.01	SECTU 51.MINRESTMADDER.H Pole1
1 2 3 4 5 6 7 8	46678 48978 51278 53578 55878 58178 60478 62778	1000	S	W	0-60.000/0.001	SECTU 51.RESETCOEFF Pole1
1 2 3 4 5 6 7 8	46679 48979 51279 53579 55879 58179 60479 62779	1000	S	W	0-60.000/0.001	SECTU 51.RESETCOEFF.H Pole1
1 2 3 4 5 6 7 8	6986 25682 25845 27438 27759 27959 28285 63664	100	s	W	1-600.00/0.01	SECTU.1.51.MAXOPTM
1 2 3 4 5 6 7 8	6987 25683 25846 27439 27760 27960 28286 63665	1	—	W	0-1/1	SECTU.1.51.MAXOPTMENA
1 2 3 4 5 6 7 8	46680 48980 51280 53580 55880 58180 60480 62780	1	—	W	0-1/1	SECTU ENABLETARGETRSTIMER Pole1 Enable-1 Disable-0

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46681 48981 51281 53581 55881 58181 60481 62781	1	S	W	0-65000/1	SECTU TARGETRSTIMER Pole1
1 2 3 4 5 6 7 8	46708 49008 51308 53608 55908 58208 60508 62808	1	—	W	0-1/1	SECTU SWITCH.ENABLE Pole1 Enable-1 Disable-0
1 2 3 4 5 6 7 8	47310 49610 51910 54210 56510 58810 61110 63410	1	—	W	0- 4294967295/1	SECTU INPUTS Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47311 49611 51911 54211 56511 58811 61111 63411	1	—	W	0- 4294967295/1	SECTU INPUTS Pole2. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46683 48983 51283 53583 55883 58183 60483 62783	1	—	W	0-1/1	SECTU ENABLE Pole2 Enable-1 Disable-0

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46684 48984 51284 53584 55884 58184 60484 62784	1	—	W	0-127/1	SECTU TRIG_RESTRAINT Pole2
1 2 3 4 5 6 7 8	46685 48985 51285 53585 55885 58185 60485 62785	1	—	W	1-4/1	SECTU MAX_TRIPS Pole2
1 2 3 4 5 6 7 8	46686 48986 51286 53586 55886 58186 60486 62786	100	S	W	0.01-600/0.01	SECTU RESET_TIMER Pole2
1 2 3 4 5 6 7 8	46687 48987 51287 53587 55887 58187 60487 62787	100	S	W	0.01-600/0.01	SECTU VOLT_LOSS_DELAY Pole2
1 2 3 4 5 6 7 8	46688 48988 51288 53588 55888 58188 60488 62788	100	S	W	0.01-300/0.01	SECTU PH_DURATION Pole2
1 2 3 4 5 6 7 8	46689 48989 51289 53589 55889 58189 60489 62789	100	—	W	0.01-60.00/0.01	SECTU PH_MULTIPLIER Pole2

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46690 48990 51290 53590 55890 58190 60490 62790	100	V, Sec	W	10-300/0.01	SECTU 27.PU Pole2
1 2 3 4 5 6 7 8	46691 48991 51291 53591 55891 58191 60491 62791	100	S	W	0-600/0.01	SECTU 27.DEFTM Pole2
1 2 3 4 5 6 7 8	46692 48992 51292 53592 55892 58192 60492 62792	100	A	W	0.01-20/0.01	SECTU 50.PU Pole2
1 2 3 4 5 6 7 8	46693 48993 51293 53593 55893 58193 60493 62793	100	S	W	0-600/0.01	SECTU 50.DEFTM Pole2
1 2 3 4 5 6 7 8	46694 48994 51294 53594 55894 58194 60494 62794	100	V, Sec	W	10-300/0.01	SECTU 59.PU Pole2
1 2 3 4 5 6 7 8	46695 48995 51295 53595 55895 58195 60495 62795	100	S	W	0-600/0.01	SECTU 59.DEFTM Pole2

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46696 48996 51296 53596 55896 58196 60496 62796	100	A	W	0.01-3.2/0.01	SECTU 51.PU Pole2
1 2 3 4 5 6 7 8	46697 48997 51297 53597 55897 58197 60497 62797	1	—	W	0-71/1	SECTU 51.CRV Pole2 (See the Reference Tables at the end of Function SECTU)
1 2 3 4 5 6 7 8	46698 48998 51298 53598 55898 58198 60498 62798	100	—	W	0.05-1/0.01	SECTU 51.TMMUL Pole2
1 2 3 4 5 6 7 8	46699 48999 51299 53599 55899 58199 60499 62799	1	—	W	0-1/1	SECTU 51.ELECMECHRESET Pole2 Enable-1 Disable-0
1 2 3 4 5 6 7 8	46700 49000 51300 53600 55900 58200 60500 62800	1	—	W	0-1/1	SECTU 51.LELSET Pole2
1 2 3 4 5 6 7 8	46701 49001 51301 53601 55901 58201 60501 62801	100	S	W	0-30.00/0.01	SECTU 51.TMADDER Pole2

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46702 49002 51302 53602 55902 58202 60502 62802	100	S	W	0-1/0.01	SECTU 51.MINRESTMADDER Pole2
1 2 3 4 5 6 7 8	46703 49003 51303 53603 55903 58203 60503 62803	100	S	W	0-1/0.01	SECTU 51.MINRESTMADDER.H Pole2
1 2 3 4 5 6 7 8	46704 49004 51304 53604 55904 58204 60504 62804	1000	S	W	0-60.000/0.001	SECTU 51.RESETCOEFF Pole2
1 2 3 4 5 6 7 8	46705 49005 51305 53605 55905 58205 60505 62805	1000	S	W	0-60.000/0.001	SECTU 51.RESETCOEFF.H Pole2
1 2 3 4 5 6 7 8	6988 25684 25847 27442 27761 27961 28287 63666	100	S	W	1-600.00/0.01	SECTU.2.51.MAXOPTM
1 2 3 4 5 6 7 8	6989 25685 25848 27443 27762 27962 28288 63667	1	—	W	0-1/1	SECTU.2.51.MAXOPTMENA

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Option P Only- Sectionalizer Unbalanced Operation Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46706 49006 51306 53606 55906 58206 60506 62806	1	—	W	0-1/1	SECTU ENABLETARGETRSTIMER Pole2
1 2 3 4 5 6 7 8	46707 49007 51307 53607 55907 58207 60507 62807	1	S	W	0-65000/1	SECTU TARGETRSTIMER Pole2
1 2 3 4 5 6 7 8	46709 49009 51309 53609 55909 58209 60509 60809	1	—	W	0-1/1	SECTU SWITCH.ENABLE Pole2 Bit-0 Enable-1; Disable-0

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Inverse Time Curves – Bit Number Table			
0	IEC Inverse	42	132(E)
1	IEC Very Inverse	43	133(C)
2	IEC Extremely Inverse	44	134(Z)
10	US Moderately Inverse	45	135(2)
11	US Standard Inverse	46	136(6)
12	US Very Inverse	47	137(V)
13	US Extremely Inverse	48	138(W)
14	US Shot Time Inverse	49	139(16)
15	IEEE Moderately Inverse	50	140(3)
16	IEEE Very Inverse	51	141(11)
17	IEEE Extremely Inverse	52	142(13)
22	101(A)	53	151(18)
23	102(1)	54	152(7)
24	103(17)	55	161(T)
25	104(N)	56	162(KP)
26	105(R)	57	163(F)
27	106(4)	58	164(J)
28	107(L)	59	165(KG)
29	111(8*)	60	200
30	112(15)	61	201
31	113(8)	62	202
32	114(5)	63	Definite Time
33	115(P)	64	Custom Curve 1
34	116(D)	65	Custom Curve 2
35	117(B)	66	Custom Curve 3
36	118(M)	67	Custom Curve 4
37	119(14)	68	BFCP
38	120(Y)	69	BSCP
39	121(G)	70	BFCG
40	122(H)	71	BSCG
41	131(9)		

Inverse Time Curves – Bit Number Reference Table

Table 2.52 Option P Only- Sectionalizer Unbalanced Operation Setpoints

Function 46BC Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47312 49612 51912 54212 56512 58812 61112 63412	1	—	W	0-4294967295 / 1	46BC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12- In FL Bit 5 – In 6 Bit 13- In V1 Bit 6 – In 7 Bit 14- In V2 Bit 7 – In 8 Bit 15- In V3
1 2 3 4 5 6 7 8	47313 49613 51913 54213 56513 58813 61113 63413	1	—	W	0-4294967295 / 1	46BC Blocking Inputs. H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
1 2 3 4 5 6 7 8	46807 49107 51407 53707 56007 58307 60607 62907	1	—	W	0-4095/ 1	46BC Outputs
1 2 3 4 5 6 7 8	46808 49108 51408 53708 56008 58308 60608 62908	1	—	W	0-1 / 1	46BC Enable
1 2 3 4 5 6 7 8	46809 49109 51409 53709 56009 58309 60609 62909	1	%	W	1-100 / 1	46BC Pickup
1 2 3 4 5 6 7 8	46810 49110 51410 53710 56010 58310 60610 62910	100	s	W	0-600/ 0.01	46BC Time Delay

Table 2.53 Function 46BC Setpoints

Function 46BC Setpoints PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46811 49111 51411 53711 56011 58311 60611 62911	1000	A	W	0.005-20.000/0.001	46BC.MINNEGI2SEQ
1 2 3 4 5 6 7 8	7056 9356 11656 13956 16256 18556 20856 23156	100	V, Sec	W	0-300.00/0.01	46BC.NEGSEQVOLRES
1 2 3 4 5 6 7 8	7057 9357 11657 13957 16257 18557 20857 23157	1	–	W	0-1/1	46BC.OPTION

Table 2.53 Function 46BC Setpoints

Function 79 Lockout Setpoints

Profiles #1 to #8

MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.

PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47320 49620 51920 54220 56520 58820 61120 63470	1	—	W	0-31/1	79COM.1.R0.50HCLSEL
1 2 3 4 5 6 7 8	47321 49621 51921 54221 56521 58821 61121 63471	1	—	W	0-31/1	79COM.1.R0.50GHCLSEL
1 2 3 4 5 6 7 8	47322 49622 51922 54222 56522 58822 61122 63472	1	—	W	0-80/1	79COM.1.R0.TRIPIPSLSEL
1 2 3 4 5 6 7 8	47323 49623 51923 54223 56523 58823 61123 63473	1	—	W	0-31/1	79COM.1.R1.50HCLSEL
1 2 3 4 5 6 7 8	47324 49624 51924 54224 56524 58824 61124 63474	1	—	W	0-31/1	79COM.1.R1.50GHCLSEL
1 2 3 4 5 6 7 8	47325 49625 51925 54225 56525 58825 61125 63475	1	—	W	0-80/1	79COM.1.R1.TRIPIPSLSEL

Table 2.54 Function 79 Lockout Setpoints

Function 79 Lockout Setpoints

Profiles #1 to #8

MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.

PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47326 49626 51926 54226 56526 58826 61126 63476	1	—	W	0-31/1	79COM.1.R2.50HCLSEL
1 2 3 4 5 6 7 8	47327 49627 51927 54227 56527 58827 61127 63477	1	—	W	0-31/1	79COM.1.R2.50GHCLSEL
1 2 3 4 5 6 7 8	47328 49628 51928 54228 56528 58828 61128 63478	1	—	W	0-80/1	79COM.1.R2.TRIPIPSLSEL
1 2 3 4 5 6 7 8	47329 49629 51929 54229 56529 58829 61129 63479	1	—	W	0-31/1	79COM.1.R3.50HCLSEL
1 2 3 4 5 6 7 8	47330 49630 51930 54230 56530 58830 61130 63480	1	—	W	0-31/1	79COM.1.R3.50GHCLSEL
1 2 3 4 5 6 7 8	47331 49631 51931 54231 56531 58831 61131 63481	1	—	W	0-80/1	79COM.1.R3.TRIPIPSLSEL

Table 2.54 Function 79 Lockout Setpoints

Function 79 Lockout Setpoints

Profiles #1 to #8

MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.

PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47332 49632 51932 54232 56532 58832 61132 63482	1	–	W	0-31/1	79COM.1.R4.50HCLSEL
1 2 3 4 5 6 7 8	47333 49633 51933 54233 56533 58833 61133 63483	1	–	W	0-31/1	79COM.1.R4.50GHCLSEL
1 2 3 4 5 6 7 8	47334 49634 51934 54234 56534 58834 61134 63484	1	–	W	0-80/1	79COM.1.R4.TRIPIPSLSEL
1 2 3 4 5 6 7 8	47335 49635 51935 54235 56535 58835 61135 63485	1	–	W	0-31/1	79COM.2.R0.50HCLSEL
1 2 3 4 5 6 7 8	47336 49636 51936 54236 56536 58836 61136 63486	1	–	W	0-31/1	79COM.2.R0.50GHCLSEL
1 2 3 4 5 6 7 8	47337 49637 51937 54237 56537 58837 61137 63487	1	–	W	0-80/1	79COM.2.R0.TRIPIPSLSEL

Table 2.54 Function 79 Lockout Setpoints

Function 79 Lockout Setpoints

Profiles #1 to #8

MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.

PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47338 49638 51938 54238 56538 58838 61138 63488	1	—	W	0-31/1	79COM.2.R1.50HCLSEL
1 2 3 4 5 6 7 8	47339 49639 51939 54239 56539 58839 61139 63489	1	—	W	0-31/1	79COM.2.R1.50GHCLSEL
1 2 3 4 5 6 7 8	47340 49640 51940 54240 56540 58840 61140 63490	1	—	W	0-80/1	79COM.2.R1.TRIPIPSLSEL
1 2 3 4 5 6 7 8	47341 49641 51941 54241 56541 58841 61141 63491	1	—	W	0-31/1	79COM.2.R2.50HCLSEL
1 2 3 4 5 6 7 8	47342 49642 51942 54242 56542 58842 61142 63492	1	—	W	0-31/1	79COM.2.R2.50GHCLSEL
1 2 3 4 5 6 7 8	47343 49643 51943 54243 56543 58843 61143 63493	1	—	W	0-80/1	79COM.2.R2.TRIPIPSLSEL

Table 2.54 Function 79 Lockout Setpoints

Function 79 Lockout Setpoints

Profiles #1 to #8

MODBUS Registers are available based on the M-76XX Model and Factory Options purchased.

PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	47344 49644 51944 54244 56544 58844 61144 63494	1	—	W	0-31/1	79COM.2.R3.50HCLSEL
1 2 3 4 5 6 7 8	47345 49645 51945 54245 56545 58845 61145 63495	1	—	W	0-31/1	79COM.2.R3.50GHCLSEL
1 2 3 4 5 6 7 8	47346 49646 51946 54246 56546 58846 61146 63496	1	—	W	0-80/1	79COM.2.R3.TRIPIPSLSEL
1 2 3 4 5 6 7 8	47347 49647 51947 54247 56547 58847 61147 63497	1	—	W	0-31/1	79COM.2.R4.50HCLSEL
1 2 3 4 5 6 7 8	47348 49648 51948 54248 56548 58848 61148 63498	1	—	W	0-31/1	79COM.2.R4.50GHCLSEL
1 2 3 4 5 6 7 8	47349 49649 51949 54249 56549 58849 61149 63499	1	—	W	0-80/1	79COM.2.R4.TRIPIPSLSEL

Table 2.54 Function 79 Lockout Setpoints

Fault Detector PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46390 48690 50990 53290 55590 57890 60190 62490	1	--	W	0-65535/1	FAULTDETECT.TRIGGERS1 Bit 0- 27A#1 Bit 1- 27B#1 Bit 2- 27C#1 Bit 3- 27A#2 Bit 4- 27B#2 Bit 5- 27C#2 Bit 6- 27A#3 Bit 7- 27B#3 Bit 8- 27C#3 Bit 9- 27A#4 Bit 10- 27B#4 Bit 11- 27C#4 Bit 12- 27PPA Bit 13- 27PPB Bit 14- 27PPC Bit 15- None
1 2 3 4 5 6 7 8	46391 48691 50991 53291 55591 57891 60191 62491	1	--	W	0-65535/1	FAULTDETECT.TRIGGERS2 Bit 0- 32A#1 Bit 1- 32B#1 Bit 2- 32C#1 Bit 3- 32A#2 Bit 4- 32B#2 Bit 5- 32C#2 Bit 6- 32A#3 Bit 7- 32B#3 Bit 8- 32C#3 Bit 9- 32A#4 Bit 10- 32B#4 Bit 11- 32C#4 Bit 12- 50PA#1 Bit 13- 50PB#1 Bit 14- 50PC#1 Bit 15- None
1 2 3 4 5 6 7 8	46392 48692 50992 53292 55592 57892 60192 62492	1	--	W	0-65535/1	FAULTDETECT.TRIGGERS3 Bit 0- 50PA#2 Bit 1- 50PB#2 Bit 2- 50PC#2 Bit 3- 50PA#3 Bit 4- 50PB#3 Bit 5- 50PC#3 Bit 6- 50PA#4 Bit 7- 50PB#4 Bit 8- 50PC#4 Bit 9- 50PA#5 Bit 10- 50PB#5 Bit 11- 50PC#5 Bit 12- 50N#1 Bit 13- 50N#2 Bit 14- 50N#3 Bit 15- 50N#4

Table 2.54 Fault Detector

Fault Detector PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46393 48693 50993 53293 55593 57893 60193 62493	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS4 Bit 0- 50N#5 Bit 1- 50GS#1 Bit 2- 50GS#2 Bit 3- 50GS#3 Bit 4- 50GS#4 Bit 5- 50GS#5 Bit 6- 46DT#1 Bit 7- 46DT#2 Bit 8- 46DT#3 Bit 9- 46DT#4 Bit 10- 46DT#5 Bit 11- 50BF Bit 12- 51PA#1 Bit 13- 51PB#1 Bit 14- 51PC# Bit 15- 51PA#2
1 2 3 4 5 6 7 8	46394 48694 50994 53294 55594 57894 60194 62494	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS5 Bit 0- 51PB#2 Bit 1- 51PC#2 Bit 2- 51PA#3 Bit 3- 51PB#3 Bit 4- 51PC#3 Bit 5- 51PA#4 Bit 6- 51PB#4 Bit 7- 51PC#4 Bit 8- 51PA#5 Bit 9- 51PB#5 Bit 10- 51PC#5 Bit 11- 51N#1 Bit 12- 51N#2 Bit 13- 51N#3 Bit 14- 51N#4 Bit 15- 51N#5
1 2 3 4 5 6 7 8	46395 48695 50995 53295 55595 57895 60195 62495	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS6 Bit 0- 51GS#1 Bit 1- 51GS#2 Bit 2- 51GS#3 Bit 3- 51GS#4 Bit 4- 51GS#5 Bit 5- 46IT#1 Bit 6- 46IT#2 Bit 7- 46IT#3 Bit 8- 46IT#4 Bit 9- 46IT#5 Bit 10- 59A#1 Bit 11- 59B#1 Bit 12- 59C#1 Bit 13- 59A#2 Bit 14- 59B#2 Bit 15- 59C#2

Table 2.54 Fault Detector

Fault Detector PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46396 48696 50996 53296 55596 57896 60196 62496	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS7 Bit 0- 59A#3 Bit 1- 59B#3 Bit 2- 59C#3 Bit 3- 59A#4 Bit 4- 59B#4 Bit 5- 59C#4 Bit 6- 59PPA Bit 7- 59PPB Bit 8- 59PPC Bit 9- 59N#1 Bit 10- 47 Bit 11- 67PA#1 Bit 12- 67PB#1 Bit 13- 67PC#1 Bit 14- 67PA#2 Bit 15- None
1 2 3 4 5 6 7 8	46397 48697 50997 53297 55597 57897 60197 62497	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS8 Bit 0- 67PB#2 Bit 1- 67PC#2 Bit 2- 67PA#3 Bit 3- 67PB#3 Bit 4- 67PC#3 Bit 5- 67PA#4 Bit 6- 67PB#4 Bit 7- 67PC#4 Bit 8- 67PA#5 Bit 9- 67PB#5 Bit 10- 67PC#5 Bit 11- 67N#1 Bit 12- 67N#2 Bit 13- 67N#3 Bit 14- 67N#4 Bit 15- 67N#5
1 2 3 4 5 6 7 8	46398 46399 50998 53298 55598 57898 60198 62498	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS9 Bit 0- 67GS#1 Bit 1- 67GS#2 Bit 2- 67GS#3 Bit 3- 67GS#4 Bit 4- 67GS#5 Bit 5- 67Q#1 Bit 6- 67Q#2 Bit 7- 67Q#3 Bit 8- 67Q#4 Bit 9- 67Q#5 Bit 10- 81#1 Bit 11- 81#2 Bit 12- 81#3 Bit 13- None Bit 14- None Bit 15- None

Table 2.54 Fault Detector

Fault Detector PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46399 48699 50999 53299 55599 57899 60199 62499	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS10 Bit 0- 81#4 Bit 1- 81R#1 Bit 2- 81R#2 Bit 3- IPS#1 Bit 4- IPS#2 Bit 5- IPS#3 Bit 6- IPS#4 Bit 7- IPS#5 Bit 8- IPS#6 Bit 9- IPS#7 Bit 10- IPS#8 Bit 11 to 15- None
1 2 3 4 5 6 7 8	46400 48700 51000 53300 55600 57900 60200 62500	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS11 Bit 0- 59IA Bit 1- 59IB Bit 2- 59IC Bit 3 to 15- None
1 2 3 4 5 6 7 8	46426 48726 51026 53326 55256 57926 60226 62526	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS12 Bit 0- HLT50PA Bit 1- HLT50PB Bit 2- HLT50PC Bit 3- HLT50GS Bit 4- HLT51PA Bit 5- HLT51PB Bit 6- HLT51PC Bit 7- HLT51GS Bit 8 to 15- None
1 2 3 4 5 6 7 8	46427 48727 51027 53327 55627 57927 60227 62527	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS13 Bit 0- 27#5 3PH Bit 1- 27#6 3PH Bit 2- 59N#2 Bit 3 to 15- None
1 2 3 4 5 6 7 8	46428 48728 51028 53328 55628 57928 60228 62528	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS14 Bit 0- 27#7 3PH Bit 1- 27#8 3PH Bit 2- 59 #5 3PH Bit 3- 59 #6 3PH Bit 4- 59 #7 3PH Bit 5- 59 #8 3PH Bit 6- HLT50N Bit 7- HLT51N Bit 8 to 15- None

Table 2.54 Fault Detector

Fault Detector PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1 2 3 4 5 6 7 8	46429 48729 51029 53329 55629 57929 60229 62529	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS15 Bit 0- 81#5 Bit 1 to 15- None
1 2 3 4 5 6 7 8	46444 48744 51044 53344 55644 57944 60244 62544	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS16 Bit 0- 81 #6 Bit 1- 81 #7 Bit 2- 81 #8 Bit 3- 81R #3 Bit 4- HCLA Bit 5- HCLB Bit 6- HCLC Bit 7- HCLG_N Bit 8 to 15 -None
1 2 3 4 5 6 7 8	46445 48745 51045 53345 55645 57945 60245 62546	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS17 Bit 0- 46BC Bit 1- 81R #4 Bit 2- 81R #5 Bit 3- 81R #6 Bit 4- 81R #7 Bit 5- 81R #8 Bit 6 to 15- None
1 2 3 4 5 6 7 8	46446 48746 51046 53346 55646 57946 60246 62546	1	--	W	0-65535/1	FAULTDEFECT.TRIGGERS18 Bit 0 to 15-None
Common Setpoints						
1	63500	--	--	--	0-65535	FAULTDETECT.GTRIGGERS1
2	63501	--	--	--	0-65535	FAULTDETECT.GTRIGGERS2
3	63502	--	--	--	0-65535	FAULTDETECT.GTRIGGERS3
4	63503	--	--	--	0-65535	FAULTDETECT.GTRIGGERS4
5	63504	--	--	--	0-65535	FAULTDETECT.GTRIGGERS5
6	63505	--	--	--	0-65535	FAULTDETECT.GTRIGGERS6
7	63506	--	--	--	0-65535	FAULTDETECT.GTRIGGERS7
8	63507	--	--	--	0-65535	FAULTDETECT.GTRIGGERS8
9	63508	--	--	--	0-65535	FAULTDETECT.GTRIGGERS9

Table 2.54 Fault Detector

Fault Detector PROFILES #1 to #8						
PROF.	MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
10	63509	--	--	--	0-65535	FAULTDETECT.GTRIGGERS10 Bit 0- 60FL Bit 1 to 15-None
11	63510	--	--	--	0-65535	FAULTDETECT.GTRIGGERS11
12	63511	--	--	--	0-65535	FAULTDETECT.GTRIGGERS12
13	63526	--	--	--	0-65535	FAULTDETECT.GTRIGGERS13 Bit 0- CS IPS #1 Bit 1- CS IPS #2 Bit 2- CS IPS #3 Bit 3- CS IPS #4 Bit 4- CS IPS #5 Bit 5- CS IPS #6 Bit 6- CS IPS #7 Bit 7- CS IPS #8 Bit 8- SGI Bit 9 to 15-None
14	63527	--	--	--	0-65535	FAULTDETECT.GTRIGGERS14
15	63528	--	--	--	0-65535	FAULTDETECT.GTRIGGERS15
16	63529	--	--	--	0-65535	FAULTDETECT.GTRIGGERS16
17	63530	--	--	--	0-65535	FAULTDETECT.GTRIGGERS17
18	63532	--	--	--	0-65535	FAULTDETECT.GTRIGGERS18

Table 2.54 Fault Detector

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
TCM/CCM – Trip/Close Circuit Monitor					
63414	1	–	W	0-4294967295/1	Trip Circuit Monitor (TCM) Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63415	1	–	W	0-4294967295/1	Trip Circuit Monitor (TCM) Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
25431	–	–	W	0-4095/1	Trip Circuit Monitor (TCM) Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
25432	1	–	W	0-1/1	Trip Circuit Monitor (TCM) Enable Bit 0 Enable: 1, Disable: 0
63464	1	–	W	0-4294967295/1	Trip Circuit Monitor (TCM) Trip Coil Input Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – Not Used Bit 6 – In 7 Bit 14 – Not Used Bit 7 – In 8 Bit 15 – Not Used
63465	1	–	W	0-4294967295/1	Trip Circuit Monitor (TCM) Trip Coil Input.H [Not Used]
25434	100	S	W	1-60000/0.01	Trip Circuit Monitor (TCM) Time Delay

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
63416	1	—	W	0-4294967295 / 1	Close Circuit Monitor (CCM) Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63417	1	—	W	0-4294967295 / 1	Close Circuit Monitor (CCM) Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
25436	1	—	W	0-4095/1	Close Circuit Monitor (CCM) Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
25437	1	—	W	0-1/1	Close Circuit Monitor (CCM) Enable Bit 0 Enable: 1, Disable: 0
63466	1	—	W	0-4294967295 / 1	Close Circuit Monitor (CCM) Close Coil Input Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – Not Used Bit 6 – In 7 Bit 14 – Not Used Bit 7 – In 8 Bit 15 – Not Used
63467	1	—	W	0-4294967295 / 1	Close Circuit Monitor (CCM) Close Coil Input.H [Not Used]
25439	100	S	W	1-60000/0.01	Close Circuit Monitor (CCM) Definite Time

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
PSBC – IED Power Supply/Battery Charger Monitor					
63418	1	–	W	0-4294967295/1	IED Power Supply Test Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63419	1	–	W	0-4294967295/1	IED Power Supply Test Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
25456	1	–	W	0-4095/1	IED Power Supply Test Blocking Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
25457	1	–	W	0-1/1	IED Power Supply Test Enable Bit 0 Enable: 1, Disable: 0
25458	1	–	W	0-2/1	IED Power Supply Type 0 – Low Voltage DC 1 – High Voltage AC 2 – High Voltage DC
25459	100	S	W	0-60000/0.01	IED Power Supply Test Time Delay

Table 3 Common Setpoints

Common Setpoints																				
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.																				
MODBUS REGISTER *	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION															
25460	10	V	W	18-3150/0.1	IED Power Supply Test Reference High Voltage Range/Scale Factor/Increment of this point changes based on IED Power Supply Type (See the Table below)															
<table><tr><th colspan="3">IED Power Supply Test Reference High Voltage</th></tr><tr><th>Description</th><th>Scale Factor</th><th>Range/Increment</th></tr><tr><td>Factory Hardware Power Supply Type is Low Voltage DC</td><td>1</td><td>180-1000/0.1</td></tr><tr><td>Factory Hardware Power Supply Type is High Voltage AC</td><td>1</td><td>600-2800/0.1</td></tr><tr><td>Factory Hardware Power Supply Type is High Voltage DC</td><td>1</td><td>600-3150/0.1</td></tr></table>						IED Power Supply Test Reference High Voltage			Description	Scale Factor	Range/Increment	Factory Hardware Power Supply Type is Low Voltage DC	1	180-1000/0.1	Factory Hardware Power Supply Type is High Voltage AC	1	600-2800/0.1	Factory Hardware Power Supply Type is High Voltage DC	1	600-3150/0.1
IED Power Supply Test Reference High Voltage																				
Description	Scale Factor	Range/Increment																		
Factory Hardware Power Supply Type is Low Voltage DC	1	180-1000/0.1																		
Factory Hardware Power Supply Type is High Voltage AC	1	600-2800/0.1																		
Factory Hardware Power Supply Type is High Voltage DC	1	600-3150/0.1																		
25461	10	V	W	18-2500/0.1	IED Power Supply Test Reference Low Voltage Range/Scale Factor/Increment of this point changes based on IED Power Supply Type (See the Table below)															
<table><tr><th colspan="3">IED Power Supply Test Reference Low Voltage</th></tr><tr><th>Description</th><th>Scale Factor</th><th>Range/Increment</th></tr><tr><td>Factory Hardware Power Supply Type is Low Voltage DC</td><td>1</td><td>180-600/0.1</td></tr><tr><td>Factory Hardware Power Supply Type is High Voltage AC</td><td>1</td><td>600-2500/0.1</td></tr><tr><td>Factory Hardware Power Supply Type is High Voltage DC</td><td>1</td><td>600-2500/0.1</td></tr></table>						IED Power Supply Test Reference Low Voltage			Description	Scale Factor	Range/Increment	Factory Hardware Power Supply Type is Low Voltage DC	1	180-600/0.1	Factory Hardware Power Supply Type is High Voltage AC	1	600-2500/0.1	Factory Hardware Power Supply Type is High Voltage DC	1	600-2500/0.1
IED Power Supply Test Reference Low Voltage																				
Description	Scale Factor	Range/Increment																		
Factory Hardware Power Supply Type is Low Voltage DC	1	180-600/0.1																		
Factory Hardware Power Supply Type is High Voltage AC	1	600-2500/0.1																		
Factory Hardware Power Supply Type is High Voltage DC	1	600-2500/0.1																		
6505	1	Hr	W	0-23/1	Battery Charger Time to perform Load Test Bit 0 – 12 AM Bit 12 – 12 PM Bit 1 – 1 AM Bit 13 – 1 PM Bit 2 – 2 AM Bit 14 – 2 PM Bit 3 – 3 AM Bit 15 – 3 PM Bit 4 – 4 AM Bit 16 – 4 PM Bit 5 – 5 AM Bit 17 – 5 PM Bit 6 – 6 AM Bit 18 – 6 PM Bit 7 – 7 AM Bit 19 – 7 PM Bit 8 – 8 AM Bit 20 – 8 PM Bit 9 – 9 AM Bit 21 – 9 PM Bit 10 – 10 AM Bit 22 – 10 PM Bit 11 – 11 AM Bit 23 – 11 PM															
6506	100	V	W	1000-3000/0.01	Minimum Battery Voltage to Shut Off IED (Vmin Battery)															
6507	1	–	W	0-1/1	Enable Battery Charger															

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6508	1	–	W	0-1/1	Battery Charger Load Test A command to start the battery charger load test Writing a value of 1 will initiate the battery charger load test
6509	1	–	W	0-1/1	Battery Charger Auxiliary Output Control 0 – Disable Auxiliary Output on the Battery Charger board 1 – Enable Auxiliary Output on the Battery Charger board
6510	1	–		0-1/1	Battery Charger Calibration
6511	1	–	W	0-6/1	Battery Charger Model 0 – M-2032A 1 – EXT Contact 2 – BECO Drive (M-2034) 3 – M-2032B 4 – M-2035 5 – M-2035-Ext 6 – M-2035 Voltage Only
6512	1	Sec	W	0-3600/1	Battery Charger Load Test Ind Len
6515	1	C	W	0-100/1	Battery Charger Max Temperature C
6516	1	ms	W	0-65535/1	M2035 AC Power Loss Delay
6820	1	–	W	0-1/1	Battery Charger Auto Load Test Enable
6821	1	–	W	1-24/1	Battery Charger number Tests per 24 Hrs
6822	1	C	W	-100 to 100 /1	Hubbell Min Temperature
6823	1	C	W	-100 to 100 /1	Hubbell Max Temperature
6824	1	C	W	-100 to 100 /1	Hubbell High Temperature
6825	0.01	V	W	1000-3000/100	Hubbell Low Voltage
6826	100	V	W	0-32000/1	Hubbell Cap Low Voltage
60FL – Fuse-Loss Detection					
63420	1	–	W	0-4294967295/1	60FL Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3

Table 3 Common Setpoints

Common Setpoints

* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.

MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
63421	1	–	W	0-4294967295/1	60FL Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
25486	1	–	W	0-4095/1	60FL Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
25487	1	–	W	0-1/1	60FL Enable
25488	100	S	W	3-60000/0.01	60FL Time Delay
25489	1	–	W	0-1/1	60FL 3-Phase Fuse Loss Detection 0 – Disable 1 – Enable
63468	1	–	W	0-4294967295/1	60FL Input Initiate Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63469	1	–	W	0-4294967295/1	60FL Input Initiate.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
THD/TDD – Total Harmonic Distortion/Total Demand Distortion					
63422	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63423	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28001	1	–	W	0-4095/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
28002	1	–	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 ABC Enable
28003	10	%	W	30-100/0.1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 ABC Limit
28004	100	Sec	W	0-60000/0.01	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 ABC Time Delay
28005	1	–	W	0-2/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 ABC Operating quantity and type of functionality Bit 0 – 0 = THD Current; 1 = THD Voltage Bit 1 – 0 = THD; 1 = TDD

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
28006	1	–	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Individual Phase Enable Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
63424	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 ABC Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63425	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 ABC Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28008	1	–	W	0-4095/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 ABC Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
28009	1	–	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 ABC Enable
28010	10	%	W	30-100/0.1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 ABC Limit
28011	100	Sec	W	0-60000/0.01	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 ABC Time Delay
28012	1	–	W	0-2/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 ABC Operating quantity and type of functionality Bit 0 – 0 = THD Current; 1 = THD Voltage Bit 1 – 0 = THD; 1 = TDD

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
28013	1	—	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Individual Phase Enable Enable: 1, Disable: 0 NOTE: This point must be enabled before writing to Individual Phase settings.
With Option P: Standard Function Phase A Registers indicate Pole 1 Setpoints					
63426	1	—	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase A Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63427	1	—	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase A) Blocking Inputs Pole1.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28015	1	—	W	0-4095/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase A Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
28016	1	—	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase A Enable Pole1
28017	10	%	W	3-100/0.1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase A Limit Pole1
28018	100	Sec	W	0-60000/0.01	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase A Time Delay Pole1

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
28019	1	–	W	0-2/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase A Operating quantity and type of functionality Pole1 Bit 0 – 0 = THD Current; 1 = THD Voltage Bit 1 – 0 = THD; 1 = TDD
With Option P: Standard Function Phase B Registers indicate Pole 2 Setpoints					
63428	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63429	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase B Blocking Inputs Pole2.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28021	1	–	W	0-4095/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
28022	1	–	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase B (or Pole 2) Enable
28023	10	%	W	3-100/0.1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase B Limit Pole2
28024	100	Sec	W	0-60000/0.01	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase B Time Delay Pole2
28025	1	–	W	0-2/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase B Operating quantity and type of functionality Pole2 Bit 0 – 0 = THD Current; 1 = THD Voltage Bit 1 – 0 = THD; 1 = TDD

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: Standard Function Phase C Registers indicate Pole 2 Setpoints					
63430	1	–	W	0-4294967295/1	Total Harmonic Distortion(THD)/ Total Demand Distortion(TDD) #1 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63431	1	–	W	0-4294967295/1	Total Harmonic Distortion(THD)/ Total Demand Distortion(TDD) #1 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28027	1	–	W	0-4095/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
28028	1	–	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase C Enable
28029	10	%	W	3-100/0.1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase C Limit
28030	100	Sec	W	0-60000/0.01	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase C Time Delay
28031	1	–	W	0-2/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #1 Phase C Operating quantity and type of functionality Bit 0 – 0 = THD Current; 1 = THD Voltage Bit 1 – 0 = THD; 1 = TDD

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: Standard Function Phase A Registers indicate Pole 1 Setpoints					
63432	1	—	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase A Blocking Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63433	1	—	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase A Blocking Inputs Pole1.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28033	1	—	W	0-4095/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase A Outputs Pole1 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
28034	1	—	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase A Enable Pole1
28035	10	%	W	3-100/0.1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase A Limit Pole1
28036	100	Sec	W	0-60000/0.01	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase A Time Delay Pole1
28037	1	—	W	0-2/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase A Operating quantity and type of functionality Pole1 Bit 0 – 0 = THD Current; 1 = THD Voltage Bit 1 – 0 = THD; 1 = TDD

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: Standard Function Phase B Registers indicate Pole 2 Setpoints					
63434	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase B Blocking Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63435	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase B Blocking Inputs Pole2.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28039	1	–	W	0-4095/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase B Outputs Pole2 Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
28040	1	–	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase B Enable Pole2
28041	10	%	W	3-100/0.1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase B Limit Pole2
28042	100	Sec	W	0-60000/0.01	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase B Time Delay Pole2
28043	1	–	W	0-2/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase B Operating quantity and type of functionality Pole2 Bit 0 – 0 = THD Current; 1 = THD Voltage Bit 1 – 0 = THD; 1 = TDD

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: Standard Function Phase C Registers indicate Pole 2 Setpoints					
63436	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase C Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63437	1	–	W	0-4294967295/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase C Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28045	1	–	W	0-4095/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase C Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
28046	1	–	W	0-1/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase C Enable
28047	10	%	W	30-100/0.1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase C Limit
28048	100	Sec	W	0-60000/0.01	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase C Time Delay
28049	1	–	W	0-2/1	Total Harmonic Distortion (THD)/ Total Demand Distortion (TDD) #2 Phase C Operating quantity and type of functionality Bit 0 – 0 = THD Current; 1 = THD Voltage Bit 1 – 0 = THD; 1 = TDD

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
Close Block					
63438	1	–	W	0-4294967295/1	Close Block ABC Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63439	1	–	W	0-4294967295/1	Close Block ABC Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28060	1	–	W	0-1	Close Block ABC Enable
28061	1	–	W	0-65535	Close Block ABC Voltage & Frequency limits Enable
28062	100	V l-g	W	1000-30000/0.01	Close Block ABC Upper Voltage Limit
28063	100	V l-g	W	1000-30000/0.01	Close Block ABC Lower Voltage Limit
28064	100	Hz	W	4000-6500/0.01	Close Block ABC Upper Frequency Limit
28065	100	Hz	W	4000-6500/0.01	Close Block ABC Lower Frequency
28066	100	s	W	0-60000/0.01	Close Block ABC Definite Time
28067	100	s	W	1-60000/0.01	Close Block ABC Close Block Override Time
29067	1	–	W	0-80/1	Close Block ABC IPSlogic Selection
29068	100	s	W	0-60000/0.01	Close Block ABC Upper Voltage Definite Time
29069	100	s	W	0-60000/0.01	Close Block ABC Lower Voltage Definite Time
29070	100	s	W	0-60000/0.01	Close Block ABC Frequency Definite Time
29071	100	s	W	0-60000/0.01	Close Block ABC IPSlogic Definite Time
29072	100	s	W	1-60000/0.01	Close Block ABC Active Time

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: Standard Function Phase A Registers indicate Pole 1 & Pole 2 Setpoints					
63440	1	–	W	0-4294967295/1	Close Block A Inputs Pole1 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63441	1	–	W	0-4294967295/1	Close Block A Inputs Pole1.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28069	1	–	W	0-1	Close Block A Enable Pole1
28070	1	–	W	0-65535	Close Block A Voltage & Frequency Limits Enable Pole1
28071	100	V l-g	W	1000-30000/0.01	Close Block A Upper Voltage Limit Pole1
28072	100	V l-g	W	1000-30000/0.01	Close Block A Lower Voltage Limit Pole1
28073	100	Hz	W	4000-6500/0.01	Close Block A Upper Frequency Pole1
28074	100	Hz	W	4000-6500/0.01	Close Block A Lower Frequency Pole1
28075	100	s	W	0-60000/0.01	Close Block A Definite Time Pole1
28076	100	s	W	1-60000/0.01	Close Block A Close Block Override Time Pole1
29073	1	–	W	0-80/1	Close Block A IPSlogic Selection
29074	100	s	W	0-60000/0.01	Close Block A Upper Voltage Definite Time
29075	100	s	W	0-60000/0.01	Close Block A Lower Voltage Definite Time
29076	100	s	W	0-60000/0.01	Close Block A Frequency Definite Time
29077	100	s	W	0-60000/0.01	Close Block A IPSlogic Definite Time
29078	100	s	W	1-60000/0.01	Close Block A Active Time

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: Standard Function Phase B Registers indicate Pole 1 & Pole 2 Setpoints					
63442	1	–	W	0-4294967295/1	Close Block B Inputs Pole2 Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63443	1	–	W	0-4294967295/1	Close Block B Inputs Pole2.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28078	1	–	W	0-1	Close Block B Enable Pole2
28079	1	–	W	0-65535	Close Block B Voltage & Frequency Limits Enable Pole2
28080	100	V l-g	W	1000-30000/0.01	Close Block B Upper Voltage Limit Pole2
28081	100	V l-g	W	1000-30000/0.01	Close Block B Lower Voltage Limit Pole2
28082	100	Hz	W	4000-6500/0.01	Close Block B Upper Frequency Pole2
28083	100	Hz	W	4000-6500/0.01	Close Block B Lower Frequency Pole2
28084	100	S	W	0-60000/0.01	Close Block B Definite Time Pole2
28085	100	S	W	1-60000/0.01	Close Block B Close Block Override Time Pole2
29079	1	–	W	0-80/1	Close Block B IPSlogic Selection
29080	100	s	W	0-60000/0.01	Close Block B Upper Voltage Definite Time
29081	100	s	W	0-60000/0.01	Close Block B Lower Voltage Definite Time
29082	100	s	W	0-60000/0.01	Close Block B Frequency Definite Time
29083	100	s	W	0-60000/0.01	Close Block B IPSlogic Definite Time
29084	100	s	W	1-60000/0.01	Close Block B Active Time

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
With Option P: Standard Function Phase C Registers indicate Pole 1 & Pole 2 Setpoints					
63444	1	–	W	0-4294967295/1	Close Block C Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63445	1	–	W	0-4294967295/1	Close Block C Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
28087	1	–	W	0-1	Close Block C Enable
28088	1	–	W	0-65535	Close Block C Voltage & Frequency Limits Enable
28089	100	V l-g	W	1000-30000/0.01	Close Block C Upper Voltage Limit
28090	100	V l-g	W	1000-30000/0.01	Close Block C Lower Voltage Limit
28091	100	Hz	W	4000-6500/0.01	Close Block C Upper Frequency
28092	100	Hz	W	4000-6500/0.01	Close Block C Lower Frequency
28093	100	s	W	0-60000/0.01	Close Block C Definite Time
28094	100	s	W	1-60000/0.01	Close Block C Close Block Override Time
29085	1	–	W	0-80/1	Close Block C IPSlogic Selection
29086	100	s	W	0-60000/0.01	Close Block C Upper Voltage Definite Time
29087	100	s	W	0-60000/0.01	Close Block C Lower Voltage Definite Time
29088	100	s	W	0-60000/0.01	Close Block C Frequency Definite Time
29089	100	s	W	0-60000/0.01	Close Block C IPSlogic Definite Time
29090	100	s	W	1-60000/0.01	Close Block C Active Time
28095	1	–	W	0-1	Close Block Operating Voltage

Table 3 Common Setpoints

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* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
Harmonic Trigger Setup					
29000	–	–	W	0-65535	HIF Harmonic Enable
29001	–	–	W	2-63	HIF Harmonic Selection 1
29002	–	–	W	2-63	HIF Harmonic Selection 2
29003	–	–	W	2-63	HIF Harmonic Selection 3
29004	–	–	W	2-63	HIF Harmonic Selection 4
29005	–	–	W	2-63	HIF Harmonic Selection 5
29006	–	–	W	2-63	HIF Harmonic Selection 6
29007	–	–	W	2-63	HIF Harmonic Selection 7
29008	–	–	W	2-63	HIF Harmonic Selection 8
29009	–	–	W	2-63	HIF Harmonic Selection 9
29010	–	–	W	2-63	HIF Harmonic Selection 10
29011	10	%	W	0-600/0.1	HIF Harmonic Threshold 1
29012	10	%	W	0-600/0.1	HIF Harmonic Threshold 2
29013	10	%	W	0-600/0.1	HIF Harmonic Threshold 3
29014	10	%	W	0-600/0.1	HIF Harmonic Threshold 4
29015	10	%	W	0-600/0.1	HIF Harmonic Threshold 5
29016	10	%	W	0-600/0.1	HIF Harmonic Threshold 6
29017	10	%	W	0-600/0.1	HIF Harmonic Threshold 7
29018	10	%	W	0-600/0.1	HIF Harmonic Threshold 8
29019	10	%	W	0-600/0.1	HIF Harmonic Threshold 9
29020	10	%	W	0-600/0.1	HIF Harmonic Threshold 10
29021	100	s	W	0-60000/0.01	HIF Duration
29022	10	%	W	10-100/0.1	HIF Current Min Level
29023	10	%	W	10-100/0.1	HIF Voltage Min Level
29024	100	–	–	0-600/0.01	HIF.DURATION2
29025	100	–	–	0-600/0.01	HIF.DURATION3
29026	100	–	–	0-600/0.01	HIF.DURATION4
29027	100	–	–	0-600/0.01	HIF.DURATION5
29028	100	–	–	0-600/0.01	HIF.DURATION6

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
29029	100	–	–	0-600/0.01	HIF.DURATION7
29030	100	–	–	0-600/0.01	HIF.DURATION8
Sensitive Ground Indicator					
63446	1	–	W	0-4294967295/1	SGI Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63447	1	–	W	0-4294967295/1	SGI Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
29051	1	–	W	0-4095	SGI Outputs
29052	1	–	W	0-1	SGI Enable
29053	100	S	W	0-3000/0.01	SGI Reset Time
29054	100	S	W	0-1000/0.01	SGI Time Delay
29055	100	S	W	1000/0.01	SGITIMEWINDOW
29056	1	–	W	0-31	SGIF50GSSEL
29057	1	–	W	0-80	SGI. INITLOGICSEL
29058	1	–	W	0-80	SGI.SUPVLOGICSEL
29059	1000	A	W	5-8000/0.0001	SGI.DELTAIGPICKUP
29060	100	S	W	0-600/0.01	SGI.DELTAIGDROPTIMEDELAY
29061	1	Deg	W	0-359	SGI.DIRANGLE
29062	1	Deg	W	5-90	SGI.DIRANGLEBAND
29063	100	S	W	0-60000/0.01	SGI.DIRTIMEDELAY
29064	1	–	W	0-31	SGI.OPTION
29065	100	S	W	0-1000/0.01	SGI.LATCHLOGICRESETTIME
29066	1	Cycles	W	1-60	SGI Delta Avg window (Old)

Table 3 Common Setpoints

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* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
29066	1	Cycles	W	1-60	SGI.PRETRIGGERAVGWINDOW
29120	1	Cycles	–	0-30	SGI.PRETRIGGERDELAY
29121	1	–	–	0-2	SGI.DELTAIGDIRECTION
29122	10000	A	–	5-1600/0.0001	SGI.F50GSPICKUP
29123	100	s	–	0-60000/0.01	SGI.F50GSTIMEDELAY
29124	100	s	–	0-60000/0.01	SGI.IGTHIRDHARM.PU
29125	100	s	–	0-60000/0.01	SGI.IGTHIRDHARM.DEFTM
29126	100	%	–	0-60000/0.01	SGI.DELTAIGTHIRDHARM.PU
29127	1	–	–	0-1	SGI.ENABLETARGETRST
29128	1	s	–	1-300/1	SGI.TARGETRSTTIMER
Global IPSlogic Logic					
64800-64809	–	–	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 1 Line L1 2 ASCII characters of 20 character Example: "Beckwith Electric P1" Now 'B' and 'e' ASCII values are stored in 64800 register, 'c' and 'k' in 64801 and so on until 'P' and '1' in 6209. User should make sure that all 10 registers are written at the same time to get the correct string.
64810-64819	–	–	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 1 Line L2 Same as 64800-64809
64820-64829	–	–	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 2 Line L1 Same as 64800-64809
64830-64839	–	–	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 2 Line 2 Same as 64800-64809
64840-64849	–	–	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 3 Line 1 Same as 64800-64809
64850-64859	–	–	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 3 Line 2 Same as 64800-64809
64860-64869	–	–	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 4 Line 1 Same as 64800-64809
64870-64879	–	–	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 4 Line 2 Same as 64800-64809
64880-64889	–	–	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 5 Line 1 Same as 64800-64809

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
64890-64899	—	—	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 5 Line 2 Same as 64800-64809
64900-64909	—	—	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 6 Line 1 Same as 64800-64809
64910-64919	—	—	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 6 Line 12 Same as 64800-64809
64920-64929	—	—	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 7 Line 1
64930-64939	—	—	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 7 Line 2 Same as 64800-64809
64940-64949	—	—	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 8 Line 1 Same as 64800-64809
64950-64959	—	—	W	0-65535/1	Global IPSlogic CUSTOMESSAGE 8 Line 2 Same as 64800-64809
63448	1	—	W	0-4294967295/1	Global Logic #1 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – FL Bit 5 – In 6 Bit 13 – V1 Bit 6 – In 7 Bit 14 – V2 Bit 7 – In 8 Bit 15 – V3
63449	1	—	W	0-4294967295/1	Global Logic #1 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
65001	1	—	W	0-4095/1	Global Logic #1 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
65002	1	—	W	0-1/1	Global Logic #1 Enable
65003	100	S	W	0-60000/0.01	Global Logic #1 Time Delay
65004	1	—	W	0-8/1	Global Logic #1 Profile Switch

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
65072	1	–	W	0-8/1	Global Logic #1 Custom Message Option Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
65006	1	–	W	0-1	Global Logic #1 Hotline tag
65007	1	–	W	0-4	Global Logic #1 Trip/Lockout
65008	1	–	W	0-255	Global Logic #1 Block Command
63450	1	–	W	0-4294967295 / 1	Global Logic #2 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
63451	1	–	W	0-4294967295 / 1	Global Logic #2 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
65010	1	–	W	0-4095/1	Global Logic #2 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
65011	1	–	W	0-1/1	Global Logic #2 Enable
65012	100	S	W	0-60000/0.01	Global Logic #2 Time Delay
65013	1	–	W	0-8/1	Global Logic #2 Profile Switch

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
65073	1	–	W	0-8/1	Global Logic #2 Custom Message Option Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
65015	1	–	W	0-1	Global Logic #2 Hotline tag
65016	1	–	W	0-4	Global Logic #2 Trip/Lockout
65017	1	–	W	0-255	Global Logic #2 Block Command
63452	1	–	W	0-4294967295 / 1	Global Logic #3 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
63453	1	–	W	0-4294967295 / 1	Global Logic #3 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
65019	1	–	W	0-4095/1	Global Logic #3 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
65020	1	–	W	0-1/1	Global Logic #3 Enable
65021	100	S	W	0-60000/0.01	Global Logic #3 Time Delay
65022	1	–	W	0-8/1	Global Logic #3 Profile Switch

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
65074	1	–	W	0-8/1	Global Logic #3 Custom Message Option Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
65024	1	–	W	0-1	Global Logic #3 Hotline tag
65025	1	–	W	0-4	Global Logic #3 Trip/Lockout
65026	1	–	W	0-255	Global Logic #3 Block Command
63454	1	–	W	0-4294967295/1	Global Logic #4 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
63455	1	–	W	0-4294967295/1	Global Logic #4 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
65028	1	–	W	0-4095/1	Global Logic #4 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
65029	1	–	W	0-1/1	Global Logic #4 Enable
65030	100	S	W	0-60000/0.01	Global Logic #4 Time Delay
65031	1	–	W	0-8/1	Global Logic #4 Profile Switch

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
65075	1	–	W	0-8/1	Global Logic #4 Custom Message Option Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
65033	1	–	W	0-1	Global Logic #4 Hotline tag
65034	1	–	W	0-4	Global Logic #4 Trip/Lockout
65035	1	–	W	0-255	Global Logic #4 Block Command
63456	1	–	W	0-4294967295 / 1	Global Logic #5 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
63457	1	–	W	0-4294967295 / 1	Global Logic #5 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
65037	1	–	W	0-4095/1	Global Logic #5 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
65038	1	–	W	0-1/1	Global Logic #5 Enable
65039	100	S	W	0-60000/0.01	Global Logic #5 Time Delay
65040	1	–	W	0-8/1	Global Logic #5 Profile Switch

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER *	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
65076	1	–	W	0-8/1	Global Logic #5 Custom Message Option Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
65042	1	–	W	0-1	Global Logic #5 Hotline tag
65043	1	–	W	0-4	Global Logic #5 Trip/Lockout
65044	1	–	W	0-255	Global Logic #5 Block Command
63458	1	–	W	0-4294967295/1	Global Logic #6 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
63459	1	–	W	0-4294967295/1	Global Logic #6 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
65046	1	–	W	0-4095/1	Global Logic #6 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
65047	1	–	W	0-1/1	Global Logic #6 Enable
65048	100	S	W	0-60000/0.01	Global Logic #6 Time Delay
65049	1	–	W	0-8/1	Global Logic #6 Profile Switch

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
65077	1	–	W	0-8/1	Global Logic #6 Custom Message Option Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
65051	1	–	W	0-1	Global Logic #6 Hotline Tag
65052	1	–	W	0-4	Global Logic #6 Trip/Lockout
65053	1	–	W	0-255	Global Logic #6 Block Command
63460	1	–	W	0-4294967295/1	Global Logic #7 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
63461	1	–	W	0-4294967295/1	Global Logic #7 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
65055	1	–	W	0-4095/1	Global Logic #7 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
65056	1	–	W	0-1/1	Global Logic #7 Enable
65057	100	S	W	0-60000/0.01	Global Logic #7 Time Delay
65058	1	–	W	0-8/1	Global Logic #7 Profile Switch

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
65078	1	–	W	0-8/1	Global Logic #7 Custom Message Option Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
65060	1	–	W	0-1	Global Logic #7 Hotline tag
65061	1	–	W	0-4	Global Logic #7 Trip/Lockout
65062	1	–	W	0-255	Global Logic #7 Block Command
63462	1	–	W	0-4294967295/1	Global Logic #8 Blocking Inputs Bit 0 – In 1 Bit 8 – In 9 Bit 1 – In 2 Bit 9 – In 10 Bit 2 – In 3 Bit 10 – In 11 Bit 3 – In 4 Bit 11 – In 12 Bit 4 – In 5 Bit 12 – In FL Bit 5 – In 6 Bit 13 – In V1 Bit 6 – In 7 Bit 14 – In V2 Bit 7 – In 8 Bit 15 – In V3
63463	1	–	W	0-4294967295/1	Global Logic #8 Blocking Inputs.H Bit 0 – V4 Bit 8 – V12 Bit 1 – V5 Bit 9 – V13 Bit 2 – V6 Bit 10 – V14 Bit 3 – V7 Bit 11 – V15 Bit 4 – V8 Bit 12 – V16 Bit 5 – V9 Bit 13 – V17 Bit 6 – V10 Bit 14 – V18 Bit 7 – V11 Bit 15 – V19
65064	1	–	W	0-4095/1	Global Logic #8 Outputs Bit 0 – Out 1 Bit 6 – Out 7 Bit 1 – Out 2 Bit 7 – Out 8 Bit 2 – Out 3 Bit 8 – Out 9 Bit 3 – Out 4 Bit 9 – Out 10 Bit 4 – Out 5 Bit 10 – Out 11 Bit 5 – Out 6 Bit 11 – Out 12
65065	1	–	W	0-1/1	Global Logic #8 Enable
65066	100	S	W	0-60000/0.01	Global Logic #8 Time Delay
65067	1	–	W	0-8/1	Global Logic #8 Profile Switch

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
65079	1	–	W	0-8/1	Global Logic #8 Custom Message Option Bit 0 – None Bit 1 – Custom Message 1 Bit 2 – Custom Message 2 Bit 3 – Custom Message 3 Bit 4 – Custom Message 4 Bit 5 – Custom Message 5 Bit 6 – Custom Message 6 Bit 7 – Custom Message 7 Bit 8 – Custom Message 8
65069	1	–	W	0-1	Global Logic #8 Hotline tag
65070	1	–	W	0-4	Global Logic #8 Trip/Lockout
65071	1	–	W	0-255	Global Logic #8 Block Command
LOS Registers are available only with Option P					
LOS (Loss Of Sensing)					
65080	1	–	W	0-1/1	LOS #1 Enable Pole1
65081	100	–	W	0-60000/0.01	LOS #1 UV Time Delay Pole1
65082	100	–	W	0-60000/0.01	LOS #1 OV Time Delay Pole1
65084	1	–	W	0-1/1	LOS #2 Enable Pole2
65085	100	–	W	0-60000/0.01	LOS #2 UV Time Delay Pole2
65086	100	–	W	0-60000/0.01	LOS #2 OV Time Delay Pole2
65088	1	–	W	0-1/1	LOS Use Pole 1 Settings for both poles
Analog Outputs					
28100	1	–	W	0-3/1	Enable Analog out, PORT1 Bit 0 – Channel 1 Bit 1 – Channel 2 0 – Disabled 1 – Enabled
28101	1	–	W	0-65535/1	Mapping MODBUS register of Channel 1, PORT 1
28102	1	–	W	0-4294967295/1	Scaling range minimum value Channel 1, PORT1 (LSB)
28103	1	–	W	0-4294967295/1	Scaling range minimum value Channel 1, PORT1 (MSB)
28104	1	–	W	0-4294967295/1	Scaling range maximum value Channel 1, PORT1 (LSB)
28105	1	–	W	0-4294967295/1	Scaling range maximum value Channel 1, PORT1 (MSB)
28106	1	–	W	0-65535/1	Mapping MODBUS register of Channel 2, PORT 1
28107	1	–	W	0-4294967295/1	Scaling range minimum value Channel 2, PORT1 (LSB)

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
28108	1	–	W	0-4294967295/1	Scaling range minimum value Channel 2, PORT1 (MSB)
20109	1	–	W	0-4294967295/1	Scaling range maximum value Channel 2, PORT1 (LSB)
28110	1	–	W	0-4294967295/1	Scaling range maximum value Channel 2, PORT1 (MSB)
28111	1	–	W	0-3/1	Current range select, PORT1 Bit 0 – Channel 1 Bit 1 – Channel 2 0 – 4-20 mA 1 – 0-20 mA
28112	1	–	W	0-3/1	Enable analog out, PORT4 Bit 0 – Channel 1 Bit 1 – Channel 2 0 – Disabled 1 – Enabled
28113	1	–	W	0-65535/1	Mapping MODBUS register of Channel 1, PORT 4
28114	1	–	W	0-4294967295/1	Scaling range minimum value Channel 1, PORT4 (LSB)
28115	1	–	W	0-4294967295/1	Scaling range minimum value Channel 1, PORT4 (MSB)
28116	1	–	W	0-4294967295/1	Scaling range maximum value Channel 1, PORT4 (LSB)
28117	1	–	W	0-4294967295/1	Scaling range maximum value Channel 1, PORT4 (MSB)
28118	1	–	W	0-65535/1	Mapping MODBUS register of Channel 2, PORT 4
28119	1	–	W	0-4294967295/1	Scaling range minimum value Channel 2, PORT4(LSB)
28120	1	–	W	0-4294967295/1	Scaling range minimum value Channel 2, PORT4 (MSB)
28121	1	–	W	0-4294967295/1	Scaling range maximum value Channel 2, PORT4 (LSB)
28122	1	–	W	0-4294967295/1	Scaling range maximum value Channel 2, PORT4 (MSB)
28123	1	–	W	0-3/1	Current range select, PORT4 Bit 0 – Channel 1 Bit 1 – Channel 2 0 – 4-20 mA 1 – 0-20 mA
28124	–	–	CM	0-3/1	Analog output Firmware update status

Table 3 Common Setpoints

Common Setpoints					
* Registers with GRAY shading are only available with Independent Phase option and are not available in M-7651A.					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
M-2411 – M-2411 Monitor					
These settings are only available when the M-2411 Adapter Chassis is used					
25500	10	atm	W	9-20/0.1	M-2411 SF6 Pressure Alarm Limit
25501	10	atm	W	0-20/0.1	M-2411 SF6 Pressure Block Limit
25502	1	Min	W	1-50000/1	PWROFF_ACLOSS.DELAY
25503	1	Min	W	1-1440/1	PWROFF_WAKEUP.DELAY
25504	1	Sec	W	0-2000/1	M-2411 Boost Switch Duration
M-2035 Interface					
25514	100	V	–	0-3000/0.01	AIN 1 Threshold 1
25515	100	V	–	0-3000/0.01	AIN 1 Threshold 2
25516	100	V	–	0-3000/0.01	AIN 2 Threshold 1
25517	100	V	–	0-3000/0.01	AIN 2 Threshold 2
25518	100	V	–	0-3000/0.01	AIN 3 Threshold 1
25519	100	V	–	0-3000/0.01	AIN 3 Threshold 2
25520	100	V	–	0-3000/0.01	AIN 4 Threshold 1
25521	100	V	–	0-3000/0.01	AIN 4 Threshold 2
25522	–	–	–	0-65535	FWUPD status EXT
IEC61850 CTL Setpoints					
65100	1	–	W	0-4/1	IEC61850CTL.REMOTE.RESET
65101	1	–	W	0-4/1	IEC61850CTL.REMOTE.TRIP.ABC
65102	1	–	W	0-4/1	IEC61850CTL.REMOTE.TRIP.A
65103	1	–	W	0-4/1	IEC61850CTL.REMOTE.TRIP.B
65104	1	–	W	0-4/1	IEC61850CTL.REMOTE.TRIP.C
65105	1	–	W	0-4/1	IEC61850CTL.REMOTE.CLOSE.ABC
65106	1	–	W	0-4/1	IEC61850CTL.REMOTE.CLOSE.A
65107	1	–	W	0-4/1	IEC61850CTL.REMOTE.CLOSE.B
65108	1	–	W	0-4/1	IEC61850CTL.REMOTE.CLOSE.C

Table 3 Common Setpoints

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1743	1	-	RD	0-4294967295/1	Current IP Address Least Significant Word
1744	1	-	RD	0-4294967295/1	Current IP Address Most Significant Word
1745	1	-	RD	0-4294967295/1	Current Net Mask Address Least Significant Word
1746	1	-	RD	0-4294967295/1	Current Net Mask Address Most Significant Word
1747	1	-	RD	0-4294967295/1	Current Gateway Address Least Significant Word
1748	1	-	RD	0-4294967295/1	Current Gateway Address Most Significant Word
2200	–	–	R	–	Real Current Phase A
2201	–	–	R	–	Reactive Current Phase A
2202	–	–	R	–	Real Current Phase B
2203	–	–	R	–	Reactive Current Phase B
2204	–	–	R	–	Real Current Phase C
2205	–	–	R	–	Reactive Current Phase C
2206	–	–	R	–	Real Ground Current
2207	–	–	R	–	Reactive Ground Current
2208	–	–	R	–	Real Voltage Phase A
2209	–	–	R	–	Reactive Voltage Phase A
2210	–	–	R	–	Real Voltage Phase B
2211	–	–	R	–	Reactive Voltage Phase B
2212	–	–	R	–	Real Voltage Phase C
2213	–	–	R	–	Reactive Voltage Phase C
1940	–	–	R	–	Real Sync Voltage/Phase-B Load Side
1941	–	–	R	–	Reactive Sync Voltage/Phase-B Load Side
1956	–	–	R	–	Real Sync Voltage/Phase-C Load Side
1957	–	–	R	–	Reactive Sync Voltage/Phase-C Load Side
2214	–	–	R	–	Real Sync Voltage/Phase-A Load Side
2215	–	–	R	–	Reactive Sync Voltage/Phase-A Load Side
1540	–	–	R	–	Current positive Sequence Real
1541	–	–	R	–	Current positive Sequence Reactive
1542	–	–	R	–	Current Negative Sequence Real
1543	–	–	R	–	Current Negative Sequence reactive
1544	–	–	R	–	Current Zero Sequence Real
1545	–	–	R	–	Current Zero Sequence Reactive
1546	–	–	R	–	Y Side Voltage positive Sequence Real
1547	–	–	R	–	Y Side Voltage positive Sequence Reactive
1548	–	–	R	–	Y Side Voltage Negative Sequence Real
1549	–	–	R	–	Y Side Voltage Negative Sequence Reactive
1550	–	–	R	–	Y Side Voltage Zero Sequence Real
1551	–	–	R	–	Y Side Voltage Zero Sequence Reactive

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1552	–	–	R	–	Z Side Voltage positive Sequence Real
1553	–	–	R	–	Z Side Voltage positive Sequence Reactive
1554	–	–	R	–	Z Side Voltage Negative Sequence Real
1555	–	–	R	–	Z Side Voltage Negative Sequence Reactive
1556	–	–	R	–	Z Side Voltage Zero Sequence Real
1557	–	–	R	–	Z Side Voltage Zero Sequence Reactive
2216	10	V	R	–	Magnitude of Positive Sequence Voltage
2217	10	V	R	–	Magnitude of Negative Sequence Voltage
2218	10	V	R	–	Magnitude of Zero Sequence Voltage
1972	10	V	R	–	Magnitude of Positive Sequence Voltage Load Side
1973	10	V	R	–	Magnitude of Negative Sequence Voltage Load Side
1974	10	V	R	–	Magnitude of Zero Sequence Voltage Load Side
2219	100	A	R	–	Magnitude of Positive Sequence Current Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-A at the end of Metering)
2220	100	A	R	–	Magnitude of Negative Sequence Current (See Table 4-A at the end of Metering)
2221	100	A	R	–	Magnitude of Zero Sequence Current (See Table 4-A at the end of Metering)
1975	100	A	R	–	Magnitude of Residual current
2222	100	Hz	R	–	FREQ
2223	100	Hz/S	R	–	Rate of change of frequency Least Significant Word
2224	100	Hz/S	R	–	Rate of change of frequency Most Significant Word
4654	100	Hz	R	–	Measured frequency on Z-side
4655	100	Hz/S	R	–	Rate of change of frequency on Z-side Least Significant Word
4656	100	Hz/S	R	–	Rate of change of frequency on Z-side Most Significant Word
4657	100	Ohm	R	–	Positive sequence impedance, Real part Least Significant Word
4658	100	Ohm	R	–	Positive sequence impedance, Real part Most Significant Word
4659	100	Ohm	R	–	Positive sequence impedance, imaginary part Least Significant Word
4660	100	Ohm	R	–	Positive sequence impedance, imaginary part Most Significant Word
2225	100	W	R	–	Real Phase-A Power Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-D at the end of Metering)
2226	100	W	R	–	Real Phase-A Power Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2227	100	Var	R	–	Reactive Phase-A Power Least Significant Word (See Table 4-D at the end of Metering)
2228	100	Var	R	–	Reactive Phase-A Power Most Significant Word
2229	100	W	R	–	Real Phase-B Power Least Significant Word (See Table 4-D at the end of Metering)
2230	100	W	R	–	Real Phase-B Power Most Significant Word
2231	100	Var	R	–	Reactive Phase-B Power Least Significant Word (See Table 4-D at the end of Metering)
2232	100	Var	R	–	Reactive Phase-B Power Most Significant Word
2233	100	W	R	–	Real Phase-C Power Least Significant Word (See Table 4-D at the end of Metering)
2234	100	W	R	–	Real Phase-C Power Most Significant Word
2235	100	Var	R	–	Reactive Phase-C Power Least Significant Word (See Table 4-D at the end of Metering)
2236	100	Var	R	–	Reactive Phase-C Power Most Significant Word
2237	100	W	R	–	Real average Power Least Significant Word (See Table 4-D at the end of Metering)
2238	100	W	R	–	Real average Power Most Significant Word
2239	100	Var	R	–	Reactive average Power Least Significant Word (See Table 4-D at the end of Metering)
2240	100	Var	R	–	Reactive average Power Most Significant Word
2241	100	VA	R	–	Magnitude of Phase-A apparent power Least Significant Word (See Table 4-C at the end of Metering)
2242	100	VA	R	–	Magnitude of Phase-A apparent power Most Significant Word
2243	100	VA	R	–	Magnitude of Phase-B apparent power Least Significant Word (See Table 4-C at the end of Metering)
2244	100	VA	R	–	Magnitude of Phase-B apparent power Most Significant Word
2245	100	VA	R	–	Magnitude of Phase-C apparent power Least Significant Word (See Table 4-C at the end of Metering)
2246	100	VA	R	–	Magnitude of Phase-C apparent power Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2247	100	VA	R	–	Magnitude of average apparent power Least Significant Word (See Table 4-C at the end of Metering)
2248	100	VA	R	–	Magnitude of average apparent power Most Significant Word
2249	1000	–	R	–	Phase A power factor
2250	1000	–	R	–	Phase B power factor
2251	1000	–	R	–	Phase C power factor
2252	1000	–	R	–	Three Phase Ganged power factor
2015	100	W	R	–	Real Phase-A Load Side Power Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-D at the end of Metering)
2016	100	W	R	–	Real Phase-A Load Side Power Most Significant Word
2017	100	Var	R	–	Reactive Phase-A Load Side Power Least Significant Word (See Table 4-D at the end of Metering)
2018	100	Var	R	–	Reactive Phase-A Load Side Power Most Significant Word
2019	100	W	R	–	Real Phase-B Load Side Power Least Significant Word (See Table 4-D at the end of Metering)
2020	100	W	R	–	Real Phase-B Load Side Power Most Significant Word
2021	100	Var	R	–	Reactive Phase-B Load Side Power Least Significant Word (See Table 4-D at the end of Metering)
2022	100	Var	R	–	Reactive Phase-B Load Side Power Most Significant Word
2023	100	W	R	–	Real Phase-C Load Side Power Least Significant Word (See Table 4-D at the end of Metering)
2024	100	W	R	–	Real Phase-C Load Side Power Most Significant Word
2025	100	Var	R	–	Reactive Phase-C Load Side Power Least Significant Word (See Table 4-D at the end of Metering)
2026	100	Var	R	–	Reactive Phase-C Load Side Power Most Significant Word
2027	100	W	R	–	Real Average Load Side Power Least Significant Word (See Table 4-D at the end of Metering)
2028	100	W	R	–	Real Average Load Side Power Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2029	100	Var	R	–	Reactive Average Load Side Power Least Significant Word (See Table 4-D at the end of Metering)
2030	100	Var	R	–	Reactive Average Load Side Power Most Significant Word
2031	100	VA	R	–	Magnitude of Phase-A Load Side apparent power Least Significant Word (See Table 4-C at the end of Metering)
2032	100	VA	R	–	Magnitude of Phase-A Load Side apparent power Most Significant Word
2033	100	VA	R	–	Magnitude of Phase-B Load Side apparent power Least Significant Word (See Table 4-C at the end of Metering)
2034	100	VA	R	–	Magnitude of Phase-B Load Side apparent power Most Significant Word
2035	100	VA	R	–	Magnitude of Phase-C Load Side apparent power Least Significant Word (See Table 4-C at the end of Metering)
2036	100	VA	R	–	Magnitude of Phase-C Load Side apparent power Most Significant Word
2037	100	VA	R	–	Magnitude of average Load Side apparent power Least Significant Word (See Table 4-C at the end of Metering)
2038	100	VA	R	–	Magnitude of average Load Side apparent power Most Significant Word
2039	1000	–	R	–	Phase A Load Side power factor
2040	1000	–	R	–	Phase B Load Side power factor
2041	1000	–	R	–	Phase C Load Side power factor
2042	1000	–	R	–	Three Phase Ganged Load Side power factor
4864	–	–	R	–	Inputs Bit 0 – Input 1 Status Bit 1 – Input 2 Status Bit 2 – Input 3 Status Bit 3 – Input 4 Status Bit 4 – Input 5 Status Bit 5 – Input 6 Status Bit 6 – Input 7 Status Bit 7 – Input 8 Status Bit 8 – Input 9 Status Bit 9 – Input 10 Status Bit 10 – Input 11 Status Bit 11 – Input 12 Status Bit 12 – Input FL Status

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4865	–	–	R	–	VIRTUAL INPUTS
1501	–	–	R	–	IPSVOUT0
1502	–	–	R	–	IPSVOUT1
1503	–	–	R	–	CIPSVOUT0
1504	–	–	R	–	CIPSVOUT1
2254	–	–	R	–	Outputs Bit 0 – Output 1 Status Bit 1 – Output 2 Status Bit 2 – Output 3 Status Bit 3 – Output 4 Status Bit 4 – Output 5 Status Bit 5 – Output 6 Status Bit 6 – Output 7 Status Bit 7 – Output 8 Status Bit 8 – Output 9 Status Bit 9 – Output 10 Status Bit 10 – Output 11 Status Bit 11 – Output 12 Status
2255	–	–	R	–	Function Pickup Status 1 Bit 0 – F25 Pickup Status bit Bit 1 – F27#1 Phase A Pickup Status Bit Bit 2 – F27#1 Phase B Pickup Status Bit Bit 3 – F27#1 Phase C Pickup Status Bit Bit 4 – F27#2 Phase A Pickup Status Bit Bit 5 – F27#2 Phase B Pickup Status Bit Bit 6 – F27#2 Phase C Pickup Status Bit Bit 7 – F27#3 Phase A Pickup Status Bit Bit 8 – F27#3 Phase B Pickup Status Bit Bit 9 – F27#3 Phase C Pickup Status Bit Bit 10 – F27#4 Phase A Pickup Status Bit Bit 11 – F27#4 Phase B Pickup Status Bit Bit 12 – F27#4 Phase C Pickup Status Bit Bit 13 – F27PP Phases AB Pickup Status Bit Bit 14 – F27PP Phases BC Pickup Status Bit Bit 15 – F27PP Phases CA Pickup Status Bit
2256	–	–	R	–	Function Pickup Status 2 Bit 0 – F27Vz1 Pickup Status Bit Bit 1 – F32#1 Phase A Pickup Status Bit Bit 2 – F32#1 Phase B Pickup Status Bit Bit 3 – F32#1 Phase C Pickup Status Bit Bit 4 – F32#2 Phase A Pickup Status Bit Bit 5 – F32#2 Phase B Pickup Status Bit Bit 6 – F32#2 Phase C Pickup Status Bit Bit 7 – F32#3 Phase A Pickup Status Bit Bit 8 – F32#3 Phase B Pickup Status Bit Bit 9 – F32#3 Phase C Pickup Status Bit Bit 10 – F32#4 Phase A Pickup Status Bit Bit 11 – F32#4 Phase B Pickup Status Bit Bit 12 – F32#4 Phase C Pickup Status Bit Bit 13 – F50#1 Phase A Pickup Status Bit Bit 14 – F50#1 Phase B Pickup Status Bit Bit 15 – F50#1 Phase C Pickup Status Bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2257	–	–	R	–	Function Pickup Status 3 Bit 0 – F50#2 Phase A Pickup Status Bit Bit 1 – F50#2 Phase B Pickup Status Bit Bit 2 – F50#2 Phase C Pickup Status Bit Bit 3 – F50#3 Phase A Pickup Status Bit Bit 4 – F50#3 Phase B Pickup Status Bit Bit 5 – F50#3 Phase C Pickup Status Bit Bit 6 – F50#4 Phase A Pickup Status Bit Bit 7 – F50#4 Phase B Pickup Status Bit Bit 8 – F50#4 Phase C Pickup Status Bit Bit 9 – F50#5 Phase A Pickup Status Bit Bit 10 – F50#5 Phase B Pickup Status Bit Bit 11 – F50#5 Phase C Pickup Status Bit Bit 12 – F50N#1 Pickup Status Bit Bit 13 – F50N#2 Pickup Status Bit Bit 14 – F50N#3 Pickup Status Bit Bit 15 – F50N#4 Pickup Status Bit
2258	–	–	R	–	Function Pickup Status 4 Bit 0 – F50N#5 pickup status bit Bit 1 – F50G#1 pickup status bit Bit 2 – F50G#2 pickup status bit Bit 3 – F50G#3 pickup status bit Bit 4 – F50G#4 pickup status bit Bit 5 – F50G#5 pickup status bit Bit 6 – F46DT#1 pickup status bit Bit 7 – F46DT#2 pickup status bit Bit 8 – F46DT#3 pickup status bit Bit 9 – F46DT#4 pickup status bit Bit 10 – F46DT#5 pickup status bit Bit 11 – F50BF pickup status bit Bit 12 – F51#1 phase A pickup status bit Bit 13 – F51#1 phase B pickup status bit Bit 14 – F51#1 phase C pickup status bit Bit 15 – F51#2 phase A pickup status bit
2259	–	–	R	–	Function Pickup Status 5 Bit 0 – F51#2 Phase B Pickup Status Bit Bit 1 – F51#2 Phase C Pickup Status Bit Bit 2 – F51#3 Phase A Pickup Status Bit Bit 3 – F51#3 Phase B Pickup Status Bit Bit 4 – F51#3 Phase C Pickup Status Bit Bit 5 – F51#4 Phase A Pickup Status Bit Bit 6 – F51#4 Phase B Pickup Status Bit Bit 7 – F51#4 Phase C Pickup Status Bit Bit 8 – F51#5 Phase A Pickup Status Bit Bit 9 – F51#5 Phase B Pickup Status Bit Bit 10 – F51#5 Phase C Pickup Status Bit Bit 11 – F51N#1 Pickup Status Bit Bit 12 – F51N#2 Pickup Status Bit Bit 13 – F51N#3 Pickup Status Bit Bit 14 – F51N#4 Pickup Status Bit Bit 15 – F51N#5 Pickup Status Bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2260	–	–	R	–	Function Pickup Status 6 Bit 0 – F51G#1 pickup status bit Bit 1 – F51G#2 pickup status bit Bit 2 – F51G#3 pickup status bit Bit 3 – F51G#4 pickup status bit Bit 4 – F51G#5 pickup status bit Bit 5 – F46IT#1 pickup status bit Bit 6 – F46IT#2 pickup status bit Bit 7 – F46IT#3 pickup status bit Bit 8 – F46IT#4 pickup status bit Bit 9 – F46IT#5 pickup status bit Bit 10 – F59#1 phase A pickup status bit Bit 11 – F59#1 phase B pickup status bit Bit 12 – F59#1 phase C pickup status bit Bit 13 – F59#2 phase A pickup status bit Bit 14 – F59#2 phase B pickup status bit Bit 15 – F59#2 phase C pickup status bit
2261	–	–	R	–	Function Pickup Status 7 Bit 0 – F59#3 Phase A Pickup Status Bit Bit 1 – F59#3 Phase B Pickup Status Bit Bit 2 – F59#3 Phase C Pickup Status Bit Bit 3 – F59#4 Phase A Pickup Status Bit Bit 4 – F59#4 Phase B Pickup Status Bit Bit 5 – F59#4 Phase C Pickup Status Bit Bit 6 – F59PP Phase A Pickup Status Bit Bit 7 – F59PP Phase B Pickup Status Bit Bit 8 – F59PP Phase C Pickup Status Bit Bit 9 – F59N Pickup Status Bit Bit 10 – F59Vz1 Pickup Status Bit Bit 11 – F47 Pickup Status Bit Bit 12 – F67#1 Phase A Pickup Status Bit Bit 13 – F67#1 Phase B Pickup Status Bit Bit 14 – F67#1 Phase C Pickup Status Bit Bit 15 – F67#2 Phase A Pickup Status Bit
2262	–	–	R	–	Function Pickup Status 8 Bit 0 – F67#2 Phase B Pickup Status Bit Bit 1 – F67#2 Phase C Pickup Status Bit Bit 2 – F67#3 Phase A Pickup Status Bit Bit 3 – F67#3 Phase B Pickup Status Bit Bit 4 – F67#3 Phase C Pickup Status Bit Bit 5 – F67#4 Phase A Pickup Status Bit Bit 6 – F67#4 Phase B Pickup Status Bit Bit 7 – F67#4 Phase C Pickup Status Bit Bit 8 – F67#5 Phase A Pickup Status Bit Bit 9 – F67#5 Phase B Pickup Status Bit Bit 10 – F67#5 Phase C Pickup Status Bit Bit 11 – F67N#1 Pickup Status Bit Bit 12 – F67N#2 Pickup Status Bit Bit 13 – F67N#3 Pickup Status Bit Bit 14 – F67N#4 Pickup Status Bit Bit 15 – F67N#5 Pickup Status Bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2263	–	–	R	–	Function Pickup Status 9 Bit 0 – F67G#1 Pickup status bit Bit 1 – F67G#2 Pickup status bit Bit 2 – F67G#3 Pickup status bit Bit 3 – F67G#4 Pickup status bit Bit 4 – F67G#5 Pickup status bit Bit 5 – F67Q#1 Pickup status bit Bit 6 – F67Q#2 Pickup status bit Bit 7 – F67Q#3 Pickup status bit Bit 8 – F67Q#4 Pickup status bit Bit 9 – F67Q#5 Pickup status bit Bit 10 – TCM Pickup status bit Bit 11 – CCM Pickup status bit Bit 12 – NOT USED Bit 13 – F81#1 Pickup status bit Bit 14 – F81#2 Pickup status bit Bit 15 – F81#3 Pickup status bit
2264	–	–	R	–	Function Pickup Status 10 Bit 0 – F81#4 pickup status bit Bit 1 – F81R#1 pickup status bit Bit 2 – F81R#2 pickup status bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 pickup status bit Bit 5 – IPSLOGIC#2 pickup status bit Bit 6 – IPSLOGIC#3 pickup status bit Bit 7 – IPSLOGIC#4 pickup status bit Bit 8 – IPSLOGIC#5 pickup status bit Bit 9 – IPSLOGIC#6 pickup status bit Bit 10 – IPSLOGIC#7 pickup status bit Bit 11 – IPSLOGIC#8 pickup status bit Bit 12 – PSM pickup status bit Bit 13 – F60FL pickup status bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 phase A pickup status bit
1935	–	–	R	–	Function Pickup Status 11 Bit 0 – FTHD/TDD #1 phase B pickup status bit Bit 1 – FTHD/TDD #1 phase C pickup status bit Bit 2 – FTHD/TDD #2 phase A pickup status bit Bit 3 – FTHD/TDD #2 phase B pickup status bit Bit 4 – FTHD/TDD #2 phase C pickup status bit Bit 6 – F59I phase A pickup status bit Bit 5 – F59I phase B pickup status bit Bit 6 – F59I phase C pickup status bit Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – F40 #1 pickup status bit Bit 11 – F40 #2 pickup status bit Bit 12 – F40VC #1 pickup status bit Bit 13 – F60FL pickup status bit Bit 14 – F40VC #2 pickup status bit Bit 15 – FBM pickup status bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2265	–	–	R	–	Function Timeout Status 1 Bit 0 – F25 Timeout Status Bit Bit 1 – F27#1 Phase A Timeout Status Bit Bit 2 – F27#1 Phase B Timeout Status Bit Bit 3 – F27#1 Phase C Timeout Status Bit Bit 4 – F27#2 Phase A Timeout Status Bit Bit 5 – F27#2 Phase B Timeout Status Bit Bit 6 – F27#2 Phase C Timeout Status Bit Bit 7 – F27#3 Phase A Timeout Status Bit Bit 8 – F27#3 Phase B Timeout Status Bit Bit 9 – F27#3 Phase C Timeout Status Bit Bit 10 – F27#4 Phase A Timeout Status Bit Bit 11 – F27#4 Phase B Timeout Status Bit Bit 12 – F27#4 Phase C Timeout Status Bit Bit 13 – F27PP Phases AB Timeout Status Bit Bit 14 – F27PP Phases BC Timeout Status Bit Bit 15 – F27PP Phases CA Timeout Status Bit
2266	–	–	R	–	Function Timeout Status 2 Bit 0 – F27Vz1 Timeout Status Bit Bit 1 – F32#1 Phase A Timeout Status Bit Bit 2 – F32#1 Phase B Timeout Status Bit Bit 3 – F32#1 Phase C Timeout Status Bit Bit 4 – F32#2 Phase A Timeout Status Bit Bit 5 – F32#2 Phase B Timeout Status Bit Bit 6 – F32#2 Phase C Timeout Status Bit Bit 7 – F32#3 Phase A Timeout Status Bit Bit 8 – F32#3 Phase B Timeout Status Bit Bit 9 – F32#3 Phase C Timeout Status Bit Bit 10 – F32#4 Phase A Timeout Status Bit Bit 11 – F32#4 Phase B Timeout Status Bit Bit 12 – F32#4 Phase C Timeout Status Bit Bit 13 – F50#1 Phase A Timeout Status Bit Bit 14 – F50#1 Phase B Timeout Status Bit Bit 15 – F50#1 Phase C Timeout Status Bit
2267	–	–	R	–	Function Timeout Status 3 Bit 0 – F50#2 Phase A Timeout Status Bit Bit 1 – F50#2 Phase B Timeout Status Bit Bit 2 – F50#2 Phase C Timeout Status Bit Bit 3 – F50#3 Phase A Timeout Status Bit Bit 4 – F50#3 Phase B Timeout Status Bit Bit 5 – F50#3 Phase C Timeout Status Bit Bit 6 – F50#4 Phase A Timeout Status Bit Bit 7 – F50#4 Phase B Timeout Status Bit Bit 8 – F50#4 Phase C Timeout Status Bit Bit 9 – F50#5 Phase A Timeout Status Bit Bit 10 – F50#5 Phase B Timeout Status Bit Bit 11 – F50#5 Phase C Timeout Status Bit Bit 12 – F50N#1 Timeout Status Bit Bit 13 – F50N#2 Timeout Status Bit Bit 14 – F50N#3 Timeout Status Bit Bit 15 – F50N#4 Timeout Status Bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2268	–	–	R	–	Function Timeout Status 4 Bit 0 – F50N#5 Timeout Status Bit Bit 1 – F50G#1 Timeout Status Bit Bit 2 – F50G#2 Timeout Status Bit Bit 3 – F50G#3 Timeout Status Bit Bit 4 – F50G#4 Timeout Status Bit Bit 5 – F50G#5 Timeout Status Bit Bit 6 – F46DT#1 Timeout Status Bit Bit 7 – F46DT#2 Timeout Status Bit Bit 8 – F46DT#3 Timeout Status Bit Bit 9 – F46DT#4 Timeout Status Bit Bit 10 – F46DT#5 Timeout Status Bit Bit 11 – F50BF Timeout Status Bit Bit 12 – F51#1 Phase A Timeout Status Bit Bit 13 – F51#1 Phase B Timeout Status Bit Bit 14 – F51#1 Phase C Timeout Status Bit Bit 15 – F51#2 Phase A Timeout Status Bit
2269	–	–	R	–	Function Timeout Status 5 Bit 0 – F51#2 Phase B Timeout Status Bit Bit 1 – F51#2 Phase C Timeout Status Bit Bit 2 – F51#3 Phase A Timeout Status Bit Bit 3 – F51#3 Phase B Timeout Status Bit Bit 4 – F51#3 Phase C Timeout Status Bit Bit 5 – F51#4 Phase A Timeout Status Bit Bit 6 – F51#4 Phase B Timeout Status Bit Bit 7 – F51#4 Phase C Timeout Status Bit Bit 8 – F51#5 Phase A Timeout Status Bit Bit 9 – F51#5 Phase B Timeout Status Bit Bit 10 – F51#5 Phase C Timeout Status Bit Bit 11 – F51N#1 Timeout Status Bit Bit 12 – F51N#2 Timeout Status Bit Bit 13 – F51N#3 Timeout Status Bit Bit 14 – F51N#4 Timeout Status Bit Bit 15 – F51N#5 Timeout Status Bit
2270	–	–	R	–	Function Timeout Status 6 Bit 0 – F51G#1 timeout status bit Bit 1 – F51G#2 timeout status bit Bit 2 – F51G#3 timeout status bit Bit 3 – F51G#4 timeout status bit Bit 4 – F51G#5 timeout status bit Bit 5 – F46IT#1 timeout status bit Bit 6 – F46IT#2 timeout status bit Bit 7 – F46IT#3 timeout status bit Bit 8 – F46IT#4 timeout status bit Bit 9 – F46IT#5 timeout status bit Bit 10 – F59#1 phase A timeout status bit Bit 11 – F59#1 phase B timeout status bit Bit 12 – F59#1 phase C timeout status bit Bit 13 – F59#2 phase A timeout status bit Bit 14 – F59#2 phase B timeout status bit Bit 15 – F59#2 phase C timeout status bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2271	–	–	R	–	Function Timeout Status 7 Bit 0 – F59#3 Phase A Timeout Status Bit Bit 1 – F59#3 Phase B Timeout Status Bit Bit 2 – F59#3 Phase C Timeout Status Bit Bit 3 – F59#4 Phase A Timeout Status Bit Bit 4 – F59#4 Phase B Timeout Status Bit Bit 5 – F59#4 Phase C Timeout Status Bit Bit 6 – F59PP Phase A Timeout Status Bit Bit 7 – F59PP Phase B Timeout Status Bit Bit 8 – F59PP Phase C Timeout Status Bit Bit 9 – F59N Timeout Status Bit Bit 10 – F59Vz1 Timeout Status Bit Bit 11 – F47 Timeout Status Bit Bit 12 – F67#1 Phase A Timeout Status Bit Bit 13 – F67#1 Phase B Timeout Status Bit Bit 14 – F67#1 Phase C Timeout Status Bit Bit 15 – F67#2 Phase A Timeout Status Bit
2272	–	–	R	–	Function Timeout Status 8 Bit 0 – F67#2 Phase B Timeout Status Bit Bit 1 – F67#2 Phase C Timeout Status Bit Bit 2 – F67#3 Phase A Timeout Status Bit Bit 3 – F67#3 Phase B Timeout Status Bit Bit 4 – F67#3 Phase C Timeout Status Bit Bit 5 – F67#4 Phase A Timeout Status Bit Bit 6 – F67#4 Phase B Timeout Status Bit Bit 7 – F67#4 Phase C Timeout Status Bit Bit 8 – F67#5 Phase A Timeout Status Bit Bit 9 – F67#5 Phase B Timeout Status Bit Bit 10 – F67#5 Phase C Timeout Status Bit Bit 11 – F67N#1 Timeout Status Bit Bit 12 – F67N#2 Timeout Status Bit Bit 13 – F67N#3 Timeout Status Bit Bit 14 – F67N#4 Timeout Status Bit Bit 15 – F67N#5 Timeout Status Bit
2273	–	–	R	–	Function Timeout Status 9 Bit 0 – F67G#1 timeout status bit Bit 1 – F67G#2 timeout status bit Bit 2 – F67G#3 timeout status bit Bit 3 – F67G#4 timeout status bit Bit 4 – F67G#5 timeout status bit Bit 5 – F67Q#1 timeout status bit Bit 6 – F67Q#2 timeout status bit Bit 7 – F67Q#3 timeout status bit Bit 8 – F67Q#4 timeout status bit Bit 9 – F67Q#5 timeout status bit Bit 10 – TCM timeout status bit Bit 11 – CCM timeout status bit Bit 12 – NOT USED Bit 13 – F81#1 timeout status bit Bit 14 – F81#2 timeout status bit Bit 15 – F81#3 timeout status bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2274	–	–	R	–	Function Timeout Status 10 Bit 0 – F81#4 timeout status bit Bit 1 – F81R#1 timeout status bit Bit 2 – F81R#2 timeout status bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 timeout status bit Bit 5 – IPSLOGIC#2 timeout status bit Bit 6 – IPSLOGIC#3 timeout status bit Bit 7 – IPSLOGIC#4 timeout status bit Bit 8 – IPSLOGIC#5 timeout status bit Bit 9 – IPSLOGIC#6 timeout status bit Bit 10 – IPSLOGIC#7 timeout status bit Bit 11 – IPSLOGIC#8 timeout status bit Bit 12 – PSM timeout status bit Bit 13 – F60FL timeout status bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 phase A timeout status bit
1936	–	–	R	–	Function Timeout Status 11 Bit 0 – FTHD/TDD #1 phase B timeout status bit Bit 1 – FTHD/TDD #1 phase C timeout status bit Bit 2 – FTHD/TDD #2 phase A timeout status bit Bit 3 – FTHD/TDD #2 phase B timeout status bit Bit 4 – FTHD/TDD #2 phase C timeout status bit Bit 5 – F59I phase A timeout status bit Bit 6 – F59I phase B timeout status bit Bit 7 – F59I phase C timeout status bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 timeout status bit Bit 12 – F40 #2 timeout status bit Bit 13 – F40VC #1 timeout status bit Bit 14 – F40VC #2 timeout status bit Bit 15 – FBM timeout status bit
2275	1000	A	R	–	Phase A Current Magnitude Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-A at the end of Metering)
2276	1000	A	R	–	Phase B Current Magnitude (See Table 4-A at the end of Metering)
2277	1000	A	R	–	Phase C Current Magnitude (See Table 4-A at the end of Metering)
2278	1000	A	R	–	Ground Current Magnitude (See Table 4-B at the end of Metering)
2279	100	V	R	0-300/0.01	Phase A Voltage Magnitude
2280	100	V	R	0-300/0.01	Phase B Voltage Magnitude
2281	100	V	R	0-300/0.01	Phase C Voltage Magnitude
1942	100	V	R	0-300/0.01	V4Mag
1958	100	V	R	0-300/0.01	V5Mag
2282	100	V	R	0-300/0.01	Sync Voltage/Phase-A Load Side Magnitude

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2283	1000	A	R	–	Demand Phase A Current Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-A at the end of Metering)
2284	1000	A	R	–	Demand Phase B Current (See Table 4-A at the end of Metering)
2285	1000	A	R	–	Demand Phase C Current (See Table 4-A at the end of Metering)
2286	1000	A	R	–	Demand Ground Current (See Table 4-B at the end of Metering)
2287	100	V	R	0-300/0.01	Demand Phase A Voltage
2288	100	V	R	0-300/0.01	Demand Phase B Voltage
2289	100	V	R	0-300/0.01	Demand Phase C Voltage
1943	100	V	R	0-300/0.01	Demand Sync/Phase-B Load Side Voltage
1959	100	V	R	0-300/0.01	Demand Sync/Phase-C Load Side Voltage
2290	100	V	R	0-300/0.01	Demand Sync/Phase-A Load Side Voltage
2291	100	–	R	–	Demand Phase A Real Power Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-D at the end of Metering)
2292	100	–	R	–	Demand Phase A Real Power Most Significant Word
2293	100	–	R	–	Demand Phase B Real Power Least Significant Word (See Table 4-D at the end of Metering)
2294	100	–	R	–	Demand Phase B Real Power Most Significant Word
2295	100	–	R	–	Demand Phase C Real Power Least Significant Word (See Table 4-D at the end of Metering)
2296	100	–	R	–	Demand Phase C Real Power Most Significant Word
2297	100	–	R	–	Demand 3-Phase Real Power Least Significant Word (See Table 4-D at the end of Metering)
2298	100	–	R	–	Demand 3-Phase Real Power Most Significant Word
2299	100	–	R	–	Demand Phase A Reactive Power Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-D at the end of Metering)
2300	100	–	R	–	Demand Phase A Reactive Power Most Significant Word
2301	100	–	R	–	Demand Phase B Reactive Power Least Significant Word (See Table 4-D at the end of Metering)

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2302	100	–	R	–	Demand Phase B Reactive Power Most Significant Word
2303	100	–	R	–	Demand Phase C Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2304	100	–	R	–	Demand Phase C Reactive Power Most Significant Word
2305	100	–	R	–	Demand 3-Phase Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2306	100	–	R	–	Demand 3-Phase Reactive Power Most Significant Word
2307	100	–	R	–	Demand Phase A Apparent Power Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-C at the end of Metering)
2308	100	–	R	–	Demand Phase A Apparent Power Most Significant Word
2309	100	–	R	–	Demand Phase B Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2310	100	–	R	–	Demand Phase B Apparent Power Most Significant Word
2311	100	–	R	–	Demand Phase C Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2312	100	–	R	–	Demand Phase C Apparent Power Most Significant Word
2313	100	–	R	–	Demand 3-Phase Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2314	100	–	R	–	Demand 3-Phase Apparent Power Most Significant Word
2315	1000	A	R	–	Maximum Phase A Current Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-A at the end of Metering)
2316	1000	A	R	–	Maximum Phase B Current (See Table 4-A at the end of Metering)
2317	1000	A	R	–	Maximum Phase C Current (See Table 4-A at the end of Metering)
2318	1000	A	R	–	Maximum Ground Current (See Table 4-B at the end of Metering)
2319	100	V	R	–	Maximum Phase A Voltage
2320	100	V	R	–	Maximum Phase B Voltage
2321	100	V	R	–	Maximum Phase C Voltage
1944	100	V	R	–	Maximum Sync/Phase-B Load Side Voltage

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1960	100	V	R	–	Maximum Sync/Phase-C Load Side Voltage
2322	100	V	R	–	Maximum Sync/Phase-A Load Side Voltage
2323	100	W	R	–	Maximum Phase A Real Power Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-D at the end of Metering)
2324	100	W	R	–	Maximum Phase A Real Power Most Significant Word
2325	100	W	R	–	Maximum Phase B Real Power Least Significant Word (See Table 4-D at the end of Metering)
2326	100	W	R	–	Maximum Phase B Real Power Most Significant Word
2327	100	W	R	–	Maximum Phase C Real Power Least Significant Word (See Table 4-D at the end of Metering)
2328	100	W	R	–	Maximum Phase C Real Power Most Significant Word
2329	100	W	R	–	Maximum 3-Phase Real Power Least Significant Word (See Table 4-D at the end of Metering)
2330	100	W	R	–	Maximum 3-Phase Real Power Most Significant Word
2331	100	Var	R	–	Maximum Phase A Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2332	100	Var	R	–	Maximum Phase A Reactive Power Most Significant Word
2333	100	Var	R	–	Maximum Phase B Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2334	100	Var	R	–	Maximum Phase B Reactive Power Most Significant Word
2335	100	Var	R	–	Maximum Phase C Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2336	100	Var	R	–	Maximum Phase C Reactive Power Most Significant Word
2337	100	Var	R	–	Maximum 3-Phase Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2338	100	Var	R	–	Maximum 3-Phase Reactive Power Most Significant Word
2339	100	VA	R	–	Maximum Phase A Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2340	100	VA	R	–	Maximum Phase A Apparent Power Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2341	100	VA	R	–	Maximum Phase B Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2342	100	VA	R	–	Maximum Phase B Apparent Power Most Significant Word
2343	100	VA	R	–	Maximum Phase C Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2344	100	VA	R	–	Maximum Phase C Apparent Power Most Significant Word
2345	100	VA	R	–	Maximum 3-Phase Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2346	100	VA	R	–	Maximum 3-Phase Apparent Power Most Significant Word
2347	1	–	R	–	Time of Max Phase-A Current Demand Least Significant Word
2348	1	–	R	–	Time of Max Phase-A Current Demand Most Significant Word
2349	1	–	R	–	Time of Max Phase-B Current Demand Least Significant Word
2350	1	–	R	–	Time of Max Phase-B Current Demand Most Significant Word
2351	1	–	R	–	Time of Max Phase-C Current Demand Least Significant Word
2352	1	–	R	–	Time of Max Phase-C Current Demand Most Significant Word
2353	1	–	R	–	Time of Max Ground Current Demand Least Significant Word
2354	1	–	R	–	Time of Max Ground Current Demand Most Significant Word
2355	1	–	R	–	Time of Max Phase-A Voltage Demand Least Significant Word
2356	1	–	R	–	Time of Max Phase-A Voltage Demand Most Significant Word
2357	1	–	R	–	Time of Max Phase-B Voltage Demand Least Significant Word
2358	1	–	R	–	Time of Max Phase-B Voltage Demand Most Significant Word
2359	1	–	R	–	Time of Max Phase-C Voltage Demand Least Significant Word
2360	1	–	R	–	Time of Max Phase-C Voltage Demand Most Significant Word
1945	1	–	R	–	V4MaxTime (Time of Max sync/Phase B Load Side Voltage Demand Least Significant Word)

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1946	1	–	R	–	V4MaxTime.H (Time of Max sync/Phase B Load Side Voltage Demand Most Significant Word)
1961	1	–	R	–	V5MaxTime (Time of Max sync/Phase C Load Side Voltage Demand Least Significant Word)
1962	1	–	R	–	V5MaxTime .H (Time of Max sync/Phase C Load Side Voltage Demand Most Significant Word)
2361	1	–	R	–	Vs Max Time (Time of Max sync/Phase A Load Side Voltage Demand Least Significant Word)
2362	1	–	R	–	Vs Max Time .H (Time of Max sync/Phase A Load Side Voltage Demand Most Significant Word)
2363	1	–	R	–	Time of Max Phase-A Real Power Demand Least Significant Word
2364	1	–	R	–	Time of Max Phase-A Real Power Demand Most Significant Word
2365	1	–	R	–	Time of Max Phase-B Real Power Demand Least Significant Word
2366	1	–	R	–	Time of Max Phase-B Real Power Demand Most Significant Word
2367	1	–	R	–	Time of Max Phase-C Real Power Demand Least Significant Word
2368	1	–	R	–	Time of Max Phase-C Real Power Demand Most Significant Word
2369	1	–	R	–	Time of Max 3-Phase Real Power Demand Least Significant Word
2370	1	–	R	–	Time of Max 3-Phase Real Power Demand Most Significant Word
2371	1	–	R	–	Time of Max Phase-A Reactive Power Demand Least Significant Word
2372	1	–	R	–	Time of Max Phase-A Reactive Power Demand Most Significant Word
2373	1	–	R	–	Time of Max Phase-B Reactive Power Demand Least Significant Word
2374	1	–	R	–	Time of Max Phase-B Reactive Power Demand Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2375	1	–	R	–	Time of Max Phase-C Reactive Power Demand Least Significant Word
2376	1	–	R	–	Time of Max Phase-C Reactive Power Demand Most Significant Word
2377	1	–	R	–	Time of Max 3-Phase Reactive Power Demand Least Significant Word
2378	1	–	R	–	Time of Max 3-Phase Reactive Power Demand Most Significant Word
2379	1	–	R	–	Time of Max Phase-A Apparent Power Demand Least Significant Word
2380	1	–	R	–	Time of Max Phase-A Apparent Power Demand Most Significant Word
2381	1	–	R	–	Time of Max Phase-B Apparent Power Demand Least Significant Word
2382	1	–	R	–	Time of Max Phase-B Apparent Power Demand Most Significant Word
2383	1	–	R	–	Time of Max Phase-C Apparent Power Demand Least Significant Word
2384	1	–	R	–	Time of Max Phase-C Apparent Power Demand Most Significant Word
2385	1	–	R	–	Time of Max 3-Phase Apparent Power Demand Least Significant Word
2386	1	–	R	–	Time of Max 3-Phase Apparent Power Demand Most Significant Word
2387	1000	A	R	–	Minimum Phase A Current Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-A at the end of Metering)
2388	1000	A	R	–	Minimum Phase B Current (See Table 4-A at the end of Metering)
2389	1000	A	R	–	Minimum Phase C Current (See Table 4-A at the end of Metering)
2390	1000	A	R	–	Minimum Ground Current (See Table 4-B at the end of Metering)
2391	100	V	R	–	Minimum Phase A Voltage
2392	100	V	R	–	Minimum Phase B Voltage
2393	100	V	R	–	Minimum Phase C Voltage
1947	100	V	R	–	Minimum Sync/Phase-B Load Side Voltage
1963	100	V	R	–	Minimum Sync/Phase-C Load Side Voltage
2394	100	V	R	–	Vs Min (Minimum Sync/Phase-A Load Side Voltage)

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2395	100	W	R	–	Minimum Phase A Real Power Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-D at the end of Metering)
2396	100	W	R	–	Minimum Phase A Real Power Most Significant Word
2397	100	W	R	–	Minimum Phase B Real Power Least Significant Word (See Table 4-D at the end of Metering)
2398	100	W	R	–	Minimum Phase B Real Power Most Significant Word
2399	100	W	R	–	Minimum Phase C Real Power Least Significant Word (See Table 4-D at the end of Metering)
2400	100	W	R	–	Minimum Phase C Real Power Most Significant Word
2401	100	W	R	–	Minimum 3-Phase Real Power Least Significant Word (See Table 4-D at the end of Metering)
2402	100	W	R	–	Minimum 3-Phase Real Power Most Significant Word
2403	100	Var	R	–	Minimum Phase A Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2404	100	Var	R	–	Minimum Phase A Reactive Power Most Significant Word
2405	100	Var	R	–	Minimum Phase B Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2406	100	Var	R	–	Minimum Phase B Reactive Power Most Significant Word
2407	100	Var	R	–	Minimum Phase C Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2408	100	Var	R	–	Minimum Phase C Reactive Power Most Significant Word
2409	100	Var	R	–	Minimum 3-Phase Reactive Power Least Significant Word (See Table 4-D at the end of Metering)
2410	100	Var	R	–	Minimum 3-Phase Reactive Power Most Significant Word
2411	100	VA	R	–	Minimum Phase A Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2412	100	VA	R	–	Minimum Phase A Apparent Power Most Significant Word
2413	100	VA	R	–	Minimum Phase B Apparent Power Least Significant Word (See Table 4-C at the end of Metering)

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2414	100	VA	R	–	Minimum Phase B Apparent Power Most Significant Word
2415	100	VA	R	–	Minimum Phase C Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2416	100	VA	R	–	Minimum Phase C Apparent Power Most Significant Word
2417	100	VA	R	–	Minimum 3-Phase Apparent Power Least Significant Word (See Table 4-C at the end of Metering)
2418	100	VA	R	–	Minimum 3-Phase Apparent Power Most Significant Word
2419	1	–	R	–	Time of Min Phase-A Current Demand Least Significant Word
2420	1	–	R	–	Time of Min Phase-A Current Demand Most Significant Word
2421	1	–	R	–	Time of Min Phase-B Current Demand Least Significant Word
2422	1	–	R	–	Time of Min Phase-B Current Demand Most Significant Word
2423	1	–	R	–	Time of Min Phase-C Current Demand Least Significant Word
2424	1	–	R	–	Time of Min Phase-C Current Demand Most Significant Word
2425	1	–	R	–	Time of Min Ground Current Demand Least Significant Word
2426	1	–	R	–	Time of Min Ground Current Demand Most Significant Word
2427	1	–	R	–	Time of Min Phase-A Voltage Demand Least Significant Word
2428	1	–	R	–	Time of Min Phase-A Voltage Demand Most Significant Word
2429	1	–	R	–	Time of Min Phase-B Voltage Demand Least Significant Word
2430	1	–	R	–	Time of Min Phase-B Voltage Demand Most Significant Word
2431	1	–	R	–	Time of Min Phase-C Voltage Demand Least Significant Word
2432	1	–	R	–	Time of Min Phase-C Voltage Demand Most Significant Word
1948	1	–	R	–	V4MinTime (Time of Min sync/Phase B Load Side Voltage Demand Least Significant Word)
1949	1	–	R	–	V4MinTime .H (Time of Min sync/Phase B Load Side Voltage Demand Most Significant Word)

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1964	1	–	R	–	V5MinTime (Time of Min sync/Phase C Load Side Voltage Demand Least Significant Word)
1965	1	–	R	–	V5MinTime >H (Time of Min sync/Phase C Load Side Voltage Demand Most Significant Word)
2433	1	–	R	–	Vs Min Time (Time of Min sync/Phase A Load Side Voltage Demand Least Significant Word)
2434	1	–	R	–	Vs Min Time .H (Time of Min sync/Phase A Load Side Voltage Demand Most Significant Word)
2435	1	–	R	–	Time of Min Phase-A Real Power Demand Least Significant Word
2436	1	–	R	–	Time of Min Phase-A Real Power Demand Most Significant Word
2437	1	–	R	–	Time of Min Phase-B Real Power Demand Least Significant Word
2438	1	–	R	–	Time of Min Phase-B Real Power Demand Most Significant Word
2439	1	–	R	–	Time of Min Phase-C Real Power Demand Least Significant Word
2440	1	–	R	–	Time of Min Phase-C Real Power Demand Most Significant Word
2441	1	–	R	–	Time of Min 3-Phase Real Power Demand Least Significant Word
2442	1	–	R	–	Time of Min 3-Phase Real Power Demand Most Significant Word
2443	1	–	R	–	Time of Min Phase-A Reactive Power Demand Least Significant Word
2444	1	–	R	–	Time of Min Phase-A Reactive Power Demand Most Significant Word
2445	1	–	R	–	Time of Min Phase-B Reactive Power Demand Least Significant Word
2446	1	–	R	–	Time of Min Phase-B Reactive Power Demand Most Significant Word
2447	1	–	R	–	Time of Min Phase-C Reactive Power Demand Least Significant Word
2448	1	–	R	–	Time of Min Phase-C Reactive Power Demand Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2449	1	–	R	–	Time of Min 3-Phase Reactive Power Demand Least Significant Word
2450	1	–	R	–	Time of Min 3-Phase Reactive Power Demand Most Significant Word
2451	1	–	R	–	Time of Min Phase-A Apparent Power Demand Least Significant Word
2452	1	–	R	–	Time of Min Phase-A Apparent Power Demand Most Significant Word
2453	1	–	R	–	Time of Min Phase-B Apparent Power Demand Least Significant Word
2454	1	–	R	–	Time of Min Phase-B Apparent Power Demand Most Significant Word
2455	1	–	R	–	Time of Min Phase-C Apparent Power Demand Least Significant Word
2456	1	–	R	–	Time of Min Phase-C Apparent Power Demand Most Significant Word
2457	1	–	R	–	Time of Min 3-Phase Apparent Power Demand Least Significant Word
2458	1	–	R	–	Time of Min 3-Phase Apparent Power Demand Most Significant Word
2459	1000	KWh	R	–	A Fwd Watt Energy (Real Energy Phase-A Lead Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating) (See Table 4-E at the end of Metering)
2460	1000	KWh	R	–	A Fwd Watt Energy.H (Real Energy Phase-A Lead Most Significant Word)
2461	1	–	R	–	AFwdWatttime (Time of Real Energy Phase-A Lead Least Significant Word)
2462	1	–	R	–	AFwdWatttime .H (Time of Real Energy Phase-A Lead Most Significant Word)
2463	1000	KWh	R	–	ARevWattEnergy (Real Energy Phase-A Lag Least Significant Word) Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2464	1000	KWh	R	–	ARevWattEnergy .H (Real Energy Phase-A Lag Most Significant Word)
2465	1	–	R	–	ARevWatttime (Time of Real Energy Phase-A Lag Least Significant Word)

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2466	1	–	R	–	ARevWatttime .H (Time of Real Energy Phase-A Lag Most Significant Word)
2467	1000	KVh	R	–	AFwdVarEnergy (Reactive Energy Phase-A Lead Least Significant Word) Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2468	1000	KVh	R	–	AFwdVarEnergy .H (Reactive Energy Phase-A Lead Most Significant Word)
2469	1	–	R	–	Time of Reactive Energy Phase-A Lead Least Significant Word
2470	1	–	R	–	Time of Reactive Energy Phase-A Lead Most Significant Word
2471	1000	KVh	R	–	Reactive Energy Phase-A Lag Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2472	1000	KVh	R	–	Reactive Energy Phase-A Lag Most Significant Word
2473	1	–	R	–	Time of Reactive Energy Phase-A Lag Least Significant Word
2474	1	–	R	–	Time of Reactive Energy Phase-A Lag Most Significant Word
2475	1000	KWh	R	–	Real Energy Phase-B Lead Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2476	1000	KWh	R	–	Real Energy Phase-B Lead Most Significant Word
2477	1	–	R	–	Time of Real Energy Phase-B Lead Least Significant Word
2478	1	–	R	–	Time of Real Energy Phase-B Lead Most Significant Word
2479	1000	KWh	R	–	Real Energy Phase-B Lag Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2480	1000	KWh	R	–	Real Energy Phase-B Lag Most Significant Word
2481	1	–	R	–	Time of Real Energy Phase-B Lag Least Significant Word
2482	1	–	R	–	Time of Real Energy Phase-B Lag Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2483	1000	KVh	R	–	Reactive Energy Phase-B Lead Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2484	1000	KVh	R	–	Reactive Energy Phase-B Lead Most Significant Word
2485	1	–	R	–	Time of Reactive Energy Phase-B Lead Least Significant Word
2486	1	–	R	–	Time of Reactive Energy Phase-B Lead Most Significant Word
2487	1000	KVh	R	–	Reactive Energy Phase-B Lag Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2488	1000	KVh	R	–	Reactive Energy Phase-B Lag Most Significant Word
2489	1	–	R	–	Time of Reactive Energy Phase-B Lag Least Significant Word
2490	1	–	R	–	Time of Reactive Energy Phase-B Lag Most Significant Word
2491	1000	KWh	R	–	Real Energy Phase-C Lead Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2492	1000	KWh	R	–	Real Energy Phase-C Lead Most Significant Word
2493	1	–	R	–	Time of Real Energy Phase-C Lead Least Significant Word
2494	1	–	R	–	Time of Real Energy Phase-C Lead Most Significant Word
2495	1000	KWh	R	–	Real Energy Phase-C Lag Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2496	1000	KWh	R	–	Real Energy Phase-C Lag Most Significant Word
2497	1	–	R	–	Time of Real Energy Phase-C Lag Least Significant Word
2498	1	–	R	–	Time of Real Energy Phase-C Lag Most Significant Word
2499	1000	KVh	R	–	Reactive Energy Phase-C Lead Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2500	1000	KVh	R	–	Reactive Energy Phase-C Lead Most Significant Word
2501	1	–	–	–	Time of Reactive Energy Phase-C Lead Least Significant Word
2502	1	–	–	–	Time of Reactive Energy Phase-C Lead Most Significant Word
2503	1000	KVh	R	–	Reactive Energy Phase-C Lag Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT rating (See Table 4-E at the end of Metering)
2504	1000	KVh	R	–	Reactive Energy Phase-C Lag Most Significant Word
2505	1	–	R	–	Time of Reactive Energy Phase-C Lag Least Significant Word
2506	1	–	R	–	Time of Reactive Energy Phase-C Lag Most Significant Word
2507	10	V	R	–	Battery Voltage
2508	1	–	R	–	Reclose State Bit 0 – Reclose State 0 for 3-Phase Bit 1 – Reclose State 1 for 3-Phase Bit 2 – Reclose State 2 for 3-Phase Bit 3 – Reclose State 3 for 3-Phase Bit 4 – Reclose State 4 for 3-Phase Bit 5 – Reclose State 5 for 3-Phase Bit 6 – Reclose State 6 for 3-Phase Bit 7 – Reclose State 7 for 3-Phase Bit 8 – Reclose State 8 for 3-Phase Bit 9 – Reclose State 9 for 3-Phase Bit 10 – Reclose State 10 for 3-Phase Bit 11 – Reclose State 11 for 3-Phase
2509	100	Sec	R	–	Reclose Delay Timer
2510	100	S	R	–	Reclose Reset Timer 3-Phase
2511	1	–	R	–	Reclose Status 3-Phase
2512	1	–	R	–	Trip Close Status 3-Phase
2513	1	–	R	–	Sequence Coordination Information 3-Phase
2514	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 1 Least Significant Word
2515	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 1 Most Significant Word
2516	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 2 Least Significant Word
2517	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 2 Most Significant Word
2518	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 3 Least Significant Word
2519	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 3 Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2520	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 4 Least Significant Word
2521	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 4 Most Significant Word
2522	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 5 Least Significant Word
2523	10	Cycles	R	0-1000/0.1	3-Phase Trip Sequence Timer 5 Most Significant Word
4552	1	–	R	–	Reclose State Phase A Bit 0 – Reclose State 0 for Phase A Bit 1 – Reclose State 1 for Phase A Bit 2 – Reclose State 2 for Phase A Bit 3 – Reclose State 3 for Phase A Bit 4 – Reclose State 4 for Phase A Bit 5 – Reclose State 5 for Phase A Bit 6 – Reclose State 6 for Phase A Bit 7 – Reclose State 7 for Phase A Bit 8 – Reclose State 8 for Phase A Bit 9 – Reclose State 9 for Phase A Bit 10 – Reclose State 10 for Phase A Bit 11 – Reclose State 11 for Phase A
4553	100	S	R	–	Present Reclose Delay Timer Phase A
4554	100	S	R	–	Reclose Reset Timer Phase A
4555	1	–	R	–	Reclose Status Phase A
4556	1	–	R	–	Sequence Coordination Information Phase A
4557	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #1 Least Significant Word
4558	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #1 Most Significant Word
4559	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #2 Least Significant Word
4560	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #2 Most Significant Word
4561	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #3 Least Significant Word
4562	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #3 Most Significant Word
4563	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #4 Least Significant Word
4564	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #4 Most Significant Word
4565	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #5 Least Significant Word
4566	10	Cycles	R	0-1000/0.1	Phase A Trip Sequence Timer #5 Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4567	1	–	R	–	Reclose State Phase B Bit 0 – Reclose State 0 for Phase B Bit 1 – Reclose State 1 for Phase B Bit 2 – Reclose State 2 for Phase B Bit 3 – Reclose State 3 for Phase B Bit 4 – Reclose State 4 for Phase B Bit 5 – Reclose State 5 for Phase B Bit 6 – Reclose State 6 for Phase B Bit 7 – Reclose State 7 for Phase B Bit 8 – Reclose State 8 for Phase B Bit 9 – Reclose State 9 for Phase B Bit 10 – Reclose State 10 for Phase B Bit 11 – Reclose State 11 for Phase B
4568	100	S	R	–	Present Reclose Delay Timer B
4569	100	S	R	–	Reclose Reset Timer Phase B
4570	1	–	R	–	Reclose Status Phase B
4571	1	–	R	–	Sequence Coordination Information Phase B
4572	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #1 Least Significant Word
4573	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #1 Most Significant Word
4574	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #2 Least Significant Word
4575	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #2 Most Significant Word
4576	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #3 Least Significant Word
4577	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #3 Most Significant Word
4578	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #4 Least Significant Word
4579	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #4 Most Significant Word
4580	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #5 Least Significant Word
4581	10	Cycles	R	0-1000/0.1	Phase B Trip Sequence Timer #5 Most Significant Word
4582	1	–	R	–	Reclose State Phase C Bit 0 – Reclose State 0 for Phase C Bit 1 – Reclose State 1 for Phase C Bit 2 – Reclose State 2 for Phase C Bit 3 – Reclose State 3 for Phase C Bit 4 – Reclose State 4 for Phase C Bit 5 – Reclose State 5 for Phase C Bit 6 – Reclose State 6 for Phase C Bit 7 – Reclose State 7 for Phase C Bit 8 – Reclose State 8 for Phase C Bit 9 – Reclose State 9 for Phase C Bit 10 – Reclose State 10 for Phase C Bit 11 – Reclose State 11 for Phase C
4583	100	S	R	–	Present Reclose Delay Timer Phase C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4584	100	S	R	–	Reclose Reset Timer Phase C
4585	1	–	R	–	Reclose Status Phase C
4586	1	–	R	–	Sequence Coordination Information Phase C
4587	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #1 Least Significant Word
4588	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #1 Most Significant Word
4589	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #2 Least Significant Word
4590	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #2 Most Significant Word
4591	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #3 Least Significant Word
4592	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #3 Most Significant Word
4593	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #4 Least Significant Word
4594	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #4 Most Significant Word
4595	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #5 Least Significant Word
4596	10	Cycles	R	0-1000/0.1	Phase C Trip Sequence Timer #5 Most Significant Word
2524	10	–	R	0-1000/0.1	Trip Information
2525	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 1 – Three Phase Ganged
2526	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 2 – Three Phase Ganged
2527	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 3 – Three Phase Ganged
2528	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 4 – Three Phase Ganged
4600	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 1 – Phase A
4601	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 2 – Phase A
4602	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 3 – Phase A
4603	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 4 – Phase A
4604	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 1 – Phase B
4605	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 2 – Phase B
4606	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 3 – Phase B
4607	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 4 – Phase B
4608	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 1 – Phase C
4609	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 2 – Phase C
4610	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 3 – Phase C
4611	10	Cycles	R	0-1000/0.1	Auto Reclose Delay Timer 4 – Phase C
2529	10	-	R	0-1000/0.1	F50B.3
2530	10	-	R	0-1000/0.1	F50C.3
2531	10	-	R	0-1000/0.1	F50A.4
2532	10	-	R	0-1000/0.1	F50B.4

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2533	10	-	R	0-1000/0.1	F50C.4
2534	10	-	R	0-1000/0.1	F50A.5
2535	10	-	R	0-1000/0.1	F50B.5
2536	10	-	R	0-1000/0.1	F50C.5
2537	10	-	R	0-1000/0.1	F50N.1
2538	10	-	R	0-1000/0.1	F50N.2
2539	10	-	R	0-1000/0.1	F50N.3
2540	10	-	R	0-1000/0.1	F50N.4
2541	10	-	R	0-1000/0.1	F50N.5
2542	10	-	R	0-1000/0.1	F50G.1
2543	10	-	R	0-1000/0.1	F50G.2
2544	10	-	R	0-1000/0.1	F50G.3
2545	10	-	R	0-1000/0.1	F50G.4
2546	10	-	R	0-1000/0.1	F50G.5
2547	10	-	R	0-1000/0.1	F50Q.1
2548	10	-	R	0-1000/0.1	F50Q.2
2549	10	-	R	0-1000/0.1	F50Q.3
2550	10	-	R	0-1000/0.1	F50Q.4
2551	10	-	R	0-1000/0.1	F50Q.5
2552	10	-	R	0-1000/0.1	F51A.1
2553	10	-	R	0-1000/0.1	F51B.1
2554	10	-	R	0-1000/0.1	F51C.1
2555	10	-	R	0-1000/0.1	F51A.2
2556	10	-	R	0-1000/0.1	F51B.2
2557	10	-	R	0-1000/0.1	F51C.2
2558	10	-	R	0-1000/0.1	F51A.3
2559	10	-	R	0-1000/0.1	F51B.3
2560	10	-	R	0-1000/0.1	F51C.3
2561	10	-	R	0-1000/0.1	F51A.4
2562	10	-	R	0-1000/0.1	F51B.4
2563	10	-	R	0-1000/0.1	F51C.4
2564	10	-	R	0-1000/0.1	F51A.5
2565	10	-	R	0-1000/0.1	F51B.5
2566	10	-	R	0-1000/0.1	F51C.5
2567	10	-	R	0-1000/0.1	F51N.1
2568	10	-	R	0-1000/0.1	F51N.2
2569	10	-	R	0-1000/0.1	F51N.3
2570	10	-	R	0-1000/0.1	F51N.4
2571	10	-	R	0-1000/0.1	F51N.5
2572	10	-	R	0-1000/0.1	F51G.1
2573	10	-	R	0-1000/0.1	F51G.2
2574	10	-	R	0-1000/0.1	F51G.3

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2575	10	-	R	0-1000/0.1	F51G.4
2576	10	-	R	0-1000/0.1	F51G.5
2577	10	-	R	0-1000/0.1	F51Q.1
2578	10	-	R	0-1000/0.1	F51Q.2
2579	10	-	R	0-1000/0.1	F51Q.3
2580	10	-	R	0-1000/0.1	F51Q.4
2581	10	-	R	0-1000/0.1	F51Q.5
2582	100		R	0-65535	SAIFI
2583	100		R	0-65535	SAIDI
2584	100		R	0-65535	CAIFI
2585	100		R	0-65535	CAIDI
2586	100		R	0-65535	MAIFI
2587	100		R	0-65535	ASAI
4866	–	–	R	–	Inputs Change Bit 0 – Input 1 Bit 1 – Input 2 Bit 2 – Input 3 Bit 3 – Input 4 Bit 4 – Input 5 Bit 5 – Input 6 Bit 6 – Input 7 Bit 7 – Input 8 Bit 8 – Input 9 Bit 9 – Input 10 Bit 10 – Input 11 Bit 11 – Input 12 Bit 12 – Input FL Bit 13 – V1 Bit 14 – V2 Bit 15 – V3
4867	–	–	R	–	VIRTUAL INPUTS CHANGE Bit 0 – V4 Bit 1 – V5 Bit 2 – V6 Bit 3 – V7 Bit 4 – V8 Bit 5 – V9 Bit 6 – V10 Bit 7 – V11 Bit 8 – V12 Bit 9 – V13 Bit 10 – V14 Bit 11 – V15 Bit 12 – V16 Bit 13 – V17 Bit 14 – V18 Bit 15 – V19
1505	–	–	R	–	IPSVOUT0_CHANGE
1506	–	–	R	–	IPSVOUT1_CHANGE
1507	–	–	R	–	CIPSVOUT0_CHANGE

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1508	–	–	R	–	CIPSVOUT1_CHANGE
2589	–	–	R	–	Outputs change Bit 0 – Output 1 Status Bit 1 – Output 2 Status Bit 2 – Output 3 Status Bit 3 – Output 4 Status Bit 4 – Output 5 Status Bit 5 – Output 6 Status Bit 6 – Output 7 Status Bit 7 – Output 8 Status Bit 8 – Output 9 Status Bit 9 – Output 10 Status Bit 10 – Output 11 Status Bit 11 – Output 12 Status
2590 to 2599	–	–	R	–	Function Pickup status change 1 to 10 (Refer to Register 2255 to 2264)
1937	–	–	R	–	Function Pickup status change 11 (Refer to Register 1935)
2600 to 2609	–	–	R	–	Function Timeout status change 1 to 10 (Refer to Register 2265 to 2274)
1938	–	–	R	–	Function Timeout status change 11 (Refer to Register 1936)
2610	1	–	R	0-65535/1	Current 0 Harmonic A – Real
2611	1	–	R	0-65535/1	Current 0 Harmonic A – Imaginary
2612	1	–	R	0-65535/1	Current 0 Harmonic B – Real
2613	1	–	R	0-65535/1	Current 0 Harmonic B – Imaginary
2614	1	–	R	0-65535/1	Current 0 Harmonic C – Real
2615	1	–	R	0-65535/1	Current 0 Harmonic C – Imaginary
2616	1	–	R	0-65535/1	Voltage 0 Harmonic A – Real
2617	1	–	R	0-65535/1	Voltage 0 Harmonic A – Imaginary
2618	1	–	R	0-65535/1	Voltage 0 Harmonic B – Real
2619	1	–	R	0-65535/1	Voltage 0 Harmonic B – Imaginary
2620	1	–	R	0-65535/1	Voltage 0 Harmonic C – Real
2621	1	–	R	0-65535/1	Current 0 Harmonic A – Real
2622	1	–	R	0-65535/1	Current 1st Harmonic A – Real
2623	1	–	R	0-65535/1	Current 1st Harmonic A – Imaginary
2624	1	–	R	0-65535/1	Current 1st Harmonic B – Real
2625	1	–	R	0-65535/1	Current 1st Harmonic B – Imaginary
2626	1	–	R	0-65535/1	Current 1st Harmonic C – Real
2627	1	–	R	0-65535/1	Current 1st Harmonic C – Imaginary
2628	1	–	R	0-65535/1	Voltage 1st Harmonic A – Real
2629	1	–	R	0-65535/1	Voltage 1st Harmonic A – Imaginary
2630	1	–	R	0-65535/1	Voltage 1st Harmonic B – Real
2631	1	–	R	0-65535/1	Voltage 1st Harmonic B – Imaginary
2632	1	–	R	0-65535/1	Voltage 1st Harmonic C – Real
2633	1	–	R	0-65535/1	Voltage 1st Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2634	1	–	R	0-65535/1	Current 2nd Harmonic A – Real
2635	1	–	R	0-65535/1	Current 2nd Harmonic A – Imaginary
2636	1	–	R	0-65535/1	Current 2nd Harmonic B – Real
2637	1	–	R	0-65535/1	Current 2nd Harmonic B – Imaginary
2638	1	–	R	0-65535/1	Current 2nd Harmonic C – Real
2639	1	–	R	0-65535/1	Current 2nd Harmonic C – Imaginary
2640	1	–	R	0-65535/1	Voltage 2nd Harmonic A – Real
2641	1	–	R	0-65535/1	Voltage 2nd Harmonic A – Imaginary
2642	1	–	R	0-65535/1	Voltage 2nd Harmonic B – Real
2643	1	–	R	0-65535/1	Voltage 2nd Harmonic B – Imaginary
2644	1	–	R	0-65535/1	Voltage 2nd Harmonic C – Real
2645	1	–	R	0-65535/1	Voltage 2nd Harmonic C – Imaginary
2646	1	–	R	0-65535/1	Current 3rd Harmonic A – Real
2647	1	–	R	0-65535/1	Current 3rd Harmonic A – Imaginary
2648	1	–	R	0-65535/1	Current 3rd Harmonic B – Real
2649	1	–	R	0-65535/1	Current 3rd Harmonic B – Imaginary
2650	1	–	R	0-65535/1	Current 3rd Harmonic C – Real
2651	1	–	R	0-65535/1	Current 3rd Harmonic C – Imaginary
2652	1	–	R	0-65535/1	Voltage 3rd Harmonic A – Real
2653	1	–	R	0-65535/1	Voltage 3rd Harmonic A – Imaginary
2654	1	–	R	0-65535/1	Voltage 3rd Harmonic B – Real
2655	1	–	R	0-65535/1	Voltage 3rd Harmonic B – Imaginary
2656	1	–	R	0-65535/1	Voltage 3rd Harmonic C – Real
2657	1	–	R	0-65535/1	Voltage 3rd Harmonic C – Imaginary
2658	1	–	R	0-65535/1	Current 4th Harmonic A – Real
2659	1	–	R	0-65535/1	Current 4th Harmonic A – Imaginary
2660	1	–	R	0-65535/1	Current 4th Harmonic B – Real
2661	1	–	R	0-65535/1	Current 4th Harmonic B – Imaginary
2662	1	–	R	0-65535/1	Current 4th Harmonic C – Real
2663	1	–	R	0-65535/1	Current 4th Harmonic C – Imaginary
2664	1	–	R	0-65535/1	Voltage 4th Harmonic A – Real
2665	1	–	R	0-65535/1	Voltage 4th Harmonic A – Imaginary
2666	1	–	R	0-65535/1	Voltage 4th Harmonic B – Real
2667	1	–	R	0-65535/1	Voltage 4th Harmonic B – Imaginary
2668	1	–	R	0-65535/1	Voltage 4th Harmonic C – Real
2669	1	–	R	0-65535/1	Voltage 4th Harmonic C – Imaginary
2670	1	–	R	0-65535/1	Current 5th Harmonic A – Real
2671	1	–	R	0-65535/1	Current 5th Harmonic A – Imaginary
2672	1	–	R	0-65535/1	Current 5th Harmonic B – Real
2673	1	–	R	0-65535/1	Current 5th Harmonic B – Imaginary
2674	1	–	R	0-65535/1	Current 5th Harmonic C – Real
2675	1	–	R	0-65535/1	Current 5th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2676	1	–	R	0-65535/1	Voltage 5th Harmonic A – Real
2677	1	–	R	0-65535/1	Voltage 5th Harmonic A – Imaginary
2678	1	–	R	0-65535/1	Voltage 5th Harmonic B – Real
2679	1	–	R	0-65535/1	Voltage 5th Harmonic B – Imaginary
2680	1	–	R	0-65535/1	Voltage 5th Harmonic C – Real
2681	1	–	R	0-65535/1	Voltage 5th Harmonic C – Imaginary
2682	1	–	R	0-65535/1	Current 6th Harmonic A – Real
2683	1	–	R	0-65535/1	Current 6th Harmonic A – Imaginary
2684	1	–	R	0-65535/1	Current 6th Harmonic B – Real
2685	1	–	R	0-65535/1	Current 6th Harmonic B – Imaginary
2686	1	–	R	0-65535/1	Current 6th Harmonic C – Real
2687	1	–	R	0-65535/1	Current 6th Harmonic C – Imaginary
2688	1	–	R	0-65535/1	Voltage 6th Harmonic A – Real
2689	1	–	R	0-65535/1	Voltage 6th Harmonic A – Imaginary
2690	1	–	R	0-65535/1	Voltage 6th Harmonic B – Real
2691	1	–	R	0-65535/1	Voltage 6th Harmonic B – Imaginary
2692	1	–	R	0-65535/1	Voltage 6th Harmonic C – Real
2693	1	–	R	0-65535/1	Voltage 6th Harmonic C – Imaginary
2694	1	–	R	0-65535/1	Current 7th Harmonic A – Real
2695	1	–	R	0-65535/1	Current 7th Harmonic A – Imaginary
2696	1	–	R	0-65535/1	Current 7th Harmonic B – Real
2697	1	–	R	0-65535/1	Current 7th Harmonic B – Imaginary
2698	1	–	R	0-65535/1	Current 7th Harmonic C – Real
2699	1	–	R	0-65535/1	Current 7th Harmonic C – Imaginary
2700	1	–	R	0-65535/1	Voltage 7th Harmonic A – Real
2701	1	–	R	0-65535/1	Voltage 7th Harmonic A – Imaginary
2702	1	–	R	0-65535/1	Voltage 7th Harmonic B – Real
2703	1	–	R	0-65535/1	Voltage 7th Harmonic B – Imaginary
2704	1	–	R	0-65535/1	Voltage 7th Harmonic C – Real
2705	1	–	R	0-65535/1	Voltage 7th Harmonic C – Imaginary
2706	1	–	R	0-65535/1	Current 8th Harmonic A – Real
2707	1	–	R	0-65535/1	Current 8th Harmonic A – Imaginary
2708	1	–	R	0-65535/1	Current 8th Harmonic B – Real
2709	1	–	R	0-65535/1	Current 8th Harmonic B – Imaginary
2710	1	–	R	0-65535/1	Current 8th Harmonic C – Real
2711	1	–	R	0-65535/1	Current 8th Harmonic C – Imaginary
2712	1	–	R	0-65535/1	Voltage 8th Harmonic A – Real
2713	1	–	R	0-65535/1	Voltage 8th Harmonic A – Imaginary
2714	1	–	R	0-65535/1	Voltage 8th Harmonic B – Real
2715	1	–	R	0-65535/1	Voltage 8th Harmonic B – Imaginary
2716	1	–	R	0-65535/1	Voltage 8th Harmonic C – Real
2717	1	–	R	0-65535/1	Voltage 8th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2718	1	–	R	0-65535/1	Current 9th Harmonic A – Real
2719	1	–	R	0-65535/1	Current 9th Harmonic A – Imaginary
2720	1	–	R	0-65535/1	Current 9th Harmonic B – Real
2721	1	–	R	0-65535/1	Current 9th Harmonic B – Imaginary
2722	1	–	R	0-65535/1	Current 9th Harmonic C – Real
2723	1	–	R	0-65535/1	Current 9th Harmonic C – Imaginary
2724	1	–	R	0-65535/1	Voltage 9th Harmonic A – Real
2725	1	–	R	0-65535/1	Voltage 9th Harmonic A – Imaginary
2726	1	–	R	0-65535/1	Voltage 9th Harmonic B – Real
2727	1	–	R	0-65535/1	Voltage 9th Harmonic B – Imaginary
2728	1	–	R	0-65535/1	Voltage 9th Harmonic C – Real
2729	1	–	R	0-65535/1	Voltage 9th Harmonic C – Imaginary
2730	1	–	R	0-65535/1	Current 10th Harmonic A – Real
2731	1	–	R	0-65535/1	Current 10th Harmonic A – Imaginary
2732	1	–	R	0-65535/1	Current 10th Harmonic B – Real
2733	1	–	R	0-65535/1	Current 10th Harmonic B – Imaginary
2734	1	–	R	0-65535/1	Current 10th Harmonic C – Real
2735	1	–	R	0-65535/1	Current 10th Harmonic C – Imaginary
2736	1	–	R	0-65535/1	Voltage 10th Harmonic A – Real
2737	1	–	R	0-65535/1	Voltage 10th Harmonic A – Imaginary
2738	1	–	R	0-65535/1	Voltage 10th Harmonic B – Real
2739	1	–	R	0-65535/1	Voltage 10th Harmonic B – Imaginary
2740	1	–	R	0-65535/1	Voltage 10th Harmonic C – Real
2741	1	–	R	0-65535/1	Voltage 10th Harmonic C – Imaginary
2742	1	–	R	0-65535/1	Current 11th Harmonic A – Real
2743	1	–	R	0-65535/1	Current 11th Harmonic A – Imaginary
2744	1	–	R	0-65535/1	Current 11th Harmonic B – Real
2745	1	–	R	0-65535/1	Current 11th Harmonic B – Imaginary
2746	1	–	R	0-65535/1	Current 11th Harmonic C – Real
2747	1	–	R	0-65535/1	Current 11th Harmonic C – Imaginary
2748	1	–	R	0-65535/1	Voltage 11th Harmonic A – Real
2749	1	–	R	0-65535/1	Voltage 11th Harmonic A – Imaginary
2750	1	–	R	0-65535/1	Voltage 11th Harmonic B – Real
2751	1	–	R	0-65535/1	Voltage 11th Harmonic B – Imaginary
2752	1	–	R	0-65535/1	Voltage 11th Harmonic C – Real
2753	1	–	R	0-65535/1	Voltage 11th Harmonic C – Imaginary
2754	1	–	R	0-65535/1	Current 12th Harmonic A – Real
2755	1	–	R	0-65535/1	Current 12th Harmonic A – Imaginary
2756	1	–	R	0-65535/1	Current 12th Harmonic B – Real
2757	1	–	R	0-65535/1	Current 12th Harmonic B – Imaginary
2758	1	–	R	0-65535/1	Current 12th Harmonic C – Real
2759	1	–	R	0-65535/1	Current 12th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2760	1	–	R	0-65535/1	Voltage 12th Harmonic A – Real
2761	1	–	R	0-65535/1	Voltage 12th Harmonic A – Imaginary
2762	1	–	R	0-65535/1	Voltage 12th Harmonic B – Real
2763	1	–	R	0-65535/1	Voltage 12th Harmonic B – Imaginary
2764	1	–	R	0-65535/1	Voltage 12th Harmonic C – Real
2765	1	–	R	0-65535/1	Voltage 12th Harmonic C – Imaginary
2766	1	–	R	0-65535/1	Current 13th Harmonic A – Real
2767	1	–	R	0-65535/1	Current 13th Harmonic A – Imaginary
2768	1	–	R	0-65535/1	Current 13th Harmonic B – Real
2769	1	–	R	0-65535/1	Current 13th Harmonic B – Imaginary
2770	1	–	R	0-65535/1	Current 13th Harmonic C – Real
2771	1	–	R	0-65535/1	Current 13th Harmonic C – Imaginary
2772	1	–	R	0-65535/1	Voltage 13th Harmonic A – Real
2773	1	–	R	0-65535/1	Voltage 13th Harmonic A – Imaginary
2774	1	–	R	0-65535/1	Voltage 13th Harmonic B – Real
2775	1	–	R	0-65535/1	Voltage 13th Harmonic B – Imaginary
2776	1	–	R	0-65535/1	Voltage 13th Harmonic C – Real
2777	1	–	R	0-65535/1	Voltage 13th Harmonic C – Imaginary
2778	1	–	R	0-65535/1	Current 14th Harmonic A – Real
2779	1	–	R	0-65535/1	Current 14th Harmonic A – Imaginary
2780	1	–	R	0-65535/1	Current 14th Harmonic B – Real
2781	1	–	R	0-65535/1	Current 14th Harmonic B – Imaginary
2782	1	–	R	0-65535/1	Current 14th Harmonic C – Real
2783	1	–	R	0-65535/1	Current 14th Harmonic C – Imaginary
2784	1	–	R	0-65535/1	Voltage 14th Harmonic A – Real
2785	1	–	R	0-65535/1	Voltage 14th Harmonic A – Imaginary
2786	1	–	R	0-65535/1	Voltage 14th Harmonic B – Real
2787	1	–	R	0-65535/1	Voltage 14th Harmonic B – Imaginary
2788	1	–	R	0-65535/1	Voltage 14th Harmonic C – Real
2789	1	–	R	0-65535/1	Voltage 14th Harmonic C – Imaginary
2790	1	–	R	0-65535/1	Current 15th Harmonic A – Real
2791	1	–	R	0-65535/1	Current 15th Harmonic A – Imaginary
2792	1	–	R	0-65535/1	Current 15th Harmonic B – Real
2793	1	–	R	0-65535/1	Current 15th Harmonic B – Imaginary
2794	1	–	R	0-65535/1	Current 15th Harmonic C – Real
2795	1	–	R	0-65535/1	Current 15th Harmonic C – Imaginary
2796	1	–	R	0-65535/1	Voltage 15th Harmonic A – Real
2797	1	–	R	0-65535/1	Voltage 15th Harmonic A – Imaginary
2798	1	–	R	0-65535/1	Voltage 15th Harmonic B – Real
2799	1	–	R	0-65535/1	Voltage 15th Harmonic B – Imaginary
2800	1	–	R	0-65535/1	Voltage 15th Harmonic C – Real
2801	1	–	R	0-65535/1	Voltage 15th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2802	1	–	R	0-65535/1	Current 16th Harmonic A – Real
2803	1	–	R	0-65535/1	Current 16th Harmonic A – Imaginary
2804	1	–	R	0-65535/1	Current 16th Harmonic B – Real
2805	1	–	R	0-65535/1	Current 16th Harmonic B – Imaginary
2806	1	–	R	0-65535/1	Current 16th Harmonic C – Real
2807	1	–	R	0-65535/1	Current 16th Harmonic C – Imaginary
2808	1	–	R	0-65535/1	Voltage 16th Harmonic A – Real
2809	1	–	R	0-65535/1	Voltage 16th Harmonic A – Imaginary
2810	1	–	R	0-65535/1	Voltage 16th Harmonic B – Real
2811	1	–	R	0-65535/1	Voltage 16th Harmonic B – Imaginary
2812	1	–	R	0-65535/1	Voltage 16th Harmonic C – Real
2813	1	–	R	0-65535/1	Voltage 16th Harmonic C – Imaginary
2814	1	–	R	0-65535/1	Current 17th Harmonic A – Real
2815	1	–	R	0-65535/1	Current 17th Harmonic A – Imaginary
2816	1	–	R	0-65535/1	Current 17th Harmonic B – Real
2817	1	–	R	0-65535/1	Current 17th Harmonic B – Imaginary
2818	1	–	R	0-65535/1	Current 17th Harmonic C – Real
2819	1	–	R	0-65535/1	Current 17th Harmonic C – Imaginary
2820	1	–	R	0-65535/1	Voltage 17th Harmonic A – Real
2821	1	–	R	0-65535/1	Voltage 17th Harmonic A – Imaginary
2822	1	–	R	0-65535/1	Voltage 17th Harmonic B – Real
2823	1	–	R	0-65535/1	Voltage 17th Harmonic B – Imaginary
2824	1	–	R	0-65535/1	Voltage 17th Harmonic C – Real
2825	1	–	R	0-65535/1	Voltage 17th Harmonic C – Imaginary
2826	1	–	R	0-65535/1	Current 18th Harmonic A – Real
2827	1	–	R	0-65535/1	Current 18th Harmonic A – Imaginary
2828	1	–	R	0-65535/1	Current 18th Harmonic B – Real
2829	1	–	R	0-65535/1	Current 18th Harmonic B – Imaginary
2830	1	–	R	0-65535/1	Current 18th Harmonic C – Real
2831	1	–	R	0-65535/1	Current 18th Harmonic C – Imaginary
2832	1	–	R	0-65535/1	Voltage 18th Harmonic A – Real
2833	1	–	R	0-65535/1	Voltage 18th Harmonic A – Imaginary
2834	1	–	R	0-65535/1	Voltage 18th Harmonic B – Real
2835	1	–	R	0-65535/1	Voltage 18th Harmonic B – Imaginary
2836	1	–	R	0-65535/1	Voltage 18th Harmonic C – Real
2837	1	–	R	0-65535/1	Voltage 18th Harmonic C – Imaginary
2838	1	–	R	0-65535/1	Current 19th Harmonic A – Real
2839	1	–	R	0-65535/1	Current 19th Harmonic A – Imaginary
2840	1	–	R	0-65535/1	Current 19th Harmonic B – Real
2841	1	–	R	0-65535/1	Current 19th Harmonic B – Imaginary
2842	1	–	R	0-65535/1	Current 19th Harmonic C – Real
2843	1	–	R	0-65535/1	Current 19th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2844	1	–	R	0-65535/1	Voltage 19th Harmonic A – Real
2845	1	–	R	0-65535/1	Voltage 19th Harmonic A – Imaginary
2846	1	–	R	0-65535/1	Voltage 19th Harmonic B – Real
2847	1	–	R	0-65535/1	Voltage 19th Harmonic B – Imaginary
2848	1	–	R	0-65535/1	Voltage 19th Harmonic C – Real
2849	1	–	R	0-65535/1	Voltage 19th Harmonic C – Imaginary
2850	1	–	R	0-65535/1	Current 20th Harmonic A – Real
2851	1	–	R	0-65535/1	Current 20th Harmonic A – Imaginary
2852	1	–	R	0-65535/1	Current 20th Harmonic B – Real
2853	1	–	R	0-65535/1	Current 20th Harmonic B – Imaginary
2854	1	–	R	0-65535/1	Current 20th Harmonic C – Real
2855	1	–	R	0-65535/1	Current 20th Harmonic C – Imaginary
2856	1	–	R	0-65535/1	Voltage 20th Harmonic A – Real
2857	1	–	R	0-65535/1	Voltage 20th Harmonic A – Imaginary
2858	1	–	R	0-65535/1	Voltage 20th Harmonic B – Real
2859	1	–	R	0-65535/1	Voltage 20th Harmonic B – Imaginary
2860	1	–	R	0-65535/1	Voltage 20th Harmonic C – Real
2861	1	–	R	0-65535/1	Voltage 20th Harmonic C – Imaginary
2862	1	–	R	0-65535/1	Current 21st Harmonic A – Real
2863	1	–	R	0-65535/1	Current 21st Harmonic A – Imaginary
2864	1	–	R	0-65535/1	Current 21st Harmonic B – Real
2865	1	–	R	0-65535/1	Current 21st Harmonic B – Imaginary
2866	1	–	R	0-65535/1	Current 21st Harmonic C – Real
2867	1	–	R	0-65535/1	Current 21st Harmonic C – Imaginary
2868	1	–	R	0-65535/1	Voltage 21st Harmonic A – Real
2869	1	–	R	0-65535/1	Voltage 21st Harmonic A – Imaginary
2870	1	–	R	0-65535/1	Voltage 21st Harmonic B – Real
2871	1	–	R	0-65535/1	Voltage 21st Harmonic B – Imaginary
2872	1	–	R	0-65535/1	Voltage 21st Harmonic C – Real
2873	1	–	R	0-65535/1	Voltage 21st Harmonic C – Imaginary
2874	1	–	R	0-65535/1	Current 22nd Harmonic A – Real
2875	1	–	R	0-65535/1	Current 22nd Harmonic A – Imaginary
2876	1	–	R	0-65535/1	Current 22nd Harmonic B – Real
2877	1	–	R	0-65535/1	Current 22nd Harmonic B – Imaginary
2878	1	–	R	0-65535/1	Current 22nd Harmonic C – Real
2879	1	–	R	0-65535/1	Current 22nd Harmonic C – Imaginary
2880	1	–	R	0-65535/1	Voltage 22nd Harmonic A – Real
2881	1	–	R	0-65535/1	Voltage 22nd Harmonic A – Imaginary
2882	1	–	R	0-65535/1	Voltage 22nd Harmonic B – Real
2883	1	–	R	0-65535/1	Voltage 22nd Harmonic B – Imaginary
2884	1	–	R	0-65535/1	Voltage 22nd Harmonic C – Real
2885	1	–	R	0-65535/1	Voltage 22nd Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2886	1	–	R	0-65535/1	Current 23rd Harmonic A – Real
2887	1	–	R	0-65535/1	Current 23rd Harmonic A – Imaginary
2888	1	–	R	0-65535/1	Current 23rd Harmonic B – Real
2889	1	–	R	0-65535/1	Current 23rd Harmonic B – Imaginary
2890	1	–	R	0-65535/1	Current 23rd Harmonic C – Real
2891	1	–	R	0-65535/1	Current 23rd Harmonic C – Imaginary
2892	1	–	R	0-65535/1	Voltage 23rd Harmonic A – Real
2893	1	–	R	0-65535/1	Voltage 23rd Harmonic A – Imaginary
2894	1	–	R	0-65535/1	Voltage 23rd Harmonic B – Real
2895	1	–	R	0-65535/1	Voltage 23rd Harmonic B – Imaginary
2896	1	–	R	0-65535/1	Voltage 23rd Harmonic C – Real
2897	1	–	R	0-65535/1	Voltage 23rd Harmonic C – Imaginary
2898	1	–	R	0-65535/1	Current 24th Harmonic A – Real
2899	1	–	R	0-65535/1	Current 24th Harmonic A – Imaginary
2900	1	–	R	0-65535/1	Current 24th Harmonic B – Real
2901	1	–	R	0-65535/1	Current 24th Harmonic B – Imaginary
2902	1	–	R	0-65535/1	Current 24th Harmonic C – Real
2903	1	–	R	0-65535/1	Current 24th Harmonic C – Imaginary
2904	1	–	R	0-65535/1	Voltage 24th Harmonic A – Real
2905	1	–	R	0-65535/1	Voltage 24th Harmonic A – Imaginary
2906	1	–	R	0-65535/1	Voltage 24th Harmonic B – Real
2907	1	–	R	0-65535/1	Voltage 24th Harmonic B – Imaginary
2908	1	–	R	0-65535/1	Voltage 24th Harmonic C – Real
2909	1	–	R	0-65535/1	Voltage 24th Harmonic C – Imaginary
2910	1	–	R	0-65535/1	Current 25th Harmonic A – Real
2911	1	–	R	0-65535/1	Current 25th Harmonic A – Imaginary
2912	1	–	R	0-65535/1	Current 25th Harmonic B – Real
2913	1	–	R	0-65535/1	Current 25th Harmonic B – Imaginary
2914	1	–	R	0-65535/1	Current 25th Harmonic C – Real
2915	1	–	R	0-65535/1	Current 25th Harmonic C – Imaginary
2916	1	–	R	0-65535/1	Voltage 25th Harmonic A – Real
2917	1	–	R	0-65535/1	Voltage 25th Harmonic A – Imaginary
2918	1	–	R	0-65535/1	Voltage 25th Harmonic B – Real
2919	1	–	R	0-65535/1	Voltage 25th Harmonic B – Imaginary
2920	1	–	R	0-65535/1	Voltage 25th Harmonic C – Real
2921	1	–	R	0-65535/1	Voltage 25th Harmonic C – Imaginary
2922	1	–	R	0-65535/1	Current 26th Harmonic A – Real
2923	1	–	R	0-65535/1	Current 26th Harmonic A – Imaginary
2924	1	–	R	0-65535/1	Current 26th Harmonic B – Real
2925	1	–	R	0-65535/1	Current 26th Harmonic B – Imaginary
2926	1	–	R	0-65535/1	Current 26th Harmonic C – Real
2927	1	–	R	0-65535/1	Current 26th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2928	1	–	R	0-65535/1	Voltage 26th Harmonic A – Real
2929	1	–	R	0-65535/1	Voltage 26th Harmonic A – Imaginary
2930	1	–	R	0-65535/1	Voltage 26th Harmonic B – Real
2931	1	–	R	0-65535/1	Voltage 26th Harmonic B – Imaginary
2932	1	–	R	0-65535/1	Voltage 26th Harmonic C – Real
2933	1	–	R	0-65535/1	Voltage 26th Harmonic C – Imaginary
2934	1	–	R	0-65535/1	Current 27th Harmonic A – Real
2935	1	–	R	0-65535/1	Current 27th Harmonic A – Imaginary
2936	1	–	R	0-65535/1	Current 27th Harmonic B – Real
2937	1	–	R	0-65535/1	Current 27th Harmonic B – Imaginary
2938	1	–	R	0-65535/1	Current 27th Harmonic C – Real
2939	1	–	R	0-65535/1	Current 27th Harmonic C – Imaginary
2940	1	–	R	0-65535/1	Voltage 27th Harmonic A – Real
2941	1	–	R	0-65535/1	Voltage 27th Harmonic A – Imaginary
2942	1	–	R	0-65535/1	Voltage 27th Harmonic B – Real
2943	1	–	R	0-65535/1	Voltage 27th Harmonic B – Imaginary
2944	1	–	R	0-65535/1	Voltage 27th Harmonic C – Real
2945	1	–	R	0-65535/1	Voltage 27th Harmonic C – Imaginary
2946	1	–	R	0-65535/1	Current 28th Harmonic A – Real
2947	1	–	R	0-65535/1	Current 28th Harmonic A – Imaginary
2948	1	–	R	0-65535/1	Current 28th Harmonic B – Real
2949	1	–	R	0-65535/1	Current 28th Harmonic B – Imaginary
2950	1	–	R	0-65535/1	Current 28th Harmonic C – Real
2951	1	–	R	0-65535/1	Current 28th Harmonic C – Imaginary
2952	1	–	R	0-65535/1	Voltage 28th Harmonic A – Real
2953	1	–	R	0-65535/1	Voltage 28th Harmonic A – Imaginary
2954	1	–	R	0-65535/1	Voltage 28th Harmonic B – Real
2955	1	–	R	0-65535/1	Voltage 28th Harmonic B – Imaginary
2956	1	–	R	0-65535/1	Voltage 28th Harmonic C – Real
2957	1	–	R	0-65535/1	Voltage 28th Harmonic C – Imaginary
2958	1	–	R	0-65535/1	Current 29th Harmonic A – Real
2959	1	–	R	0-65535/1	Current 29th Harmonic A – Imaginary
2960	1	–	R	0-65535/1	Current 29th Harmonic B – Real
2961	1	–	R	0-65535/1	Current 29th Harmonic B – Imaginary
2962	1	–	R	0-65535/1	Current 29th Harmonic C – Real
2963	1	–	R	0-65535/1	Current 29th Harmonic C – Imaginary
2964	1	–	R	0-65535/1	Voltage 29th Harmonic A – Real
2965	1	–	R	0-65535/1	Voltage 29th Harmonic A – Imaginary
2966	1	–	R	0-65535/1	Voltage 29th Harmonic B – Real
2967	1	–	R	0-65535/1	Voltage 29th Harmonic B – Imaginary
2968	1	–	R	0-65535/1	Voltage 29th Harmonic C – Real
2969	1	–	R	0-65535/1	Voltage 29th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2970	1	–	R	0-65535/1	Current 30th Harmonic A – Real
2971	1	–	R	0-65535/1	Current 30th Harmonic A – Imaginary
2972	1	–	R	0-65535/1	Current 30th Harmonic B – Real
2973	1	–	R	0-65535/1	Current 30th Harmonic B – Imaginary
2974	1	–	R	0-65535/1	Current 30th Harmonic C – Real
2975	1	–	R	0-65535/1	Current 30th Harmonic C – Imaginary
2976	1	–	R	0-65535/1	Voltage 30th Harmonic A – Real
2977	1	–	R	0-65535/1	Voltage 30th Harmonic A – Imaginary
2978	1	–	R	0-65535/1	Voltage 30th Harmonic B – Real
2979	1	–	R	0-65535/1	Voltage 30th Harmonic B – Imaginary
2980	1	–	R	0-65535/1	Voltage 30th Harmonic C – Real
2981	1	–	R	0-65535/1	Voltage 30th Harmonic C – Imaginary
2982	1	–	R	0-65535/1	Current 31st Harmonic A – Real
2983	1	–	R	0-65535/1	Current 31st Harmonic A – Imaginary
2984	1	–	R	0-65535/1	Current 31st Harmonic B – Real
2985	1	–	R	0-65535/1	Current 31st Harmonic B – Imaginary
2986	1	–	R	0-65535/1	Current 31st Harmonic C – Real
2987	1	–	R	0-65535/1	Current 31st Harmonic C – Imaginary
2988	1	–	R	0-65535/1	Voltage 31st Harmonic A – Real
2989	1	–	R	0-65535/1	Voltage 31st Harmonic A – Imaginary
2990	1	–	R	0-65535/1	Voltage 31st Harmonic B – Real
2991	1	–	R	0-65535/1	Voltage 31st Harmonic B – Imaginary
2992	1	–	R	0-65535/1	Voltage 31st Harmonic C – Real
2993	1	–	R	0-65535/1	Voltage 31st Harmonic C – Imaginary
2994	1	–	R	0-65535/1	Current 32nd Harmonic A – Real
2995	1	–	R	0-65535/1	Current 32nd Harmonic A – Imaginary
2996	1	–	R	0-65535/1	Current 32nd Harmonic B – Real
2997	1	–	R	0-65535/1	Current 32nd Harmonic B – Imaginary
2998	1	–	R	0-65535/1	Current 32nd Harmonic C – Real
2999	1	–	R	0-65535/1	Current 32nd Harmonic C – Imaginary
3000	1	–	R	0-65535/1	Voltage 32nd Harmonic A – Real
3001	1	–	R	0-65535/1	Voltage 32nd Harmonic A – Imaginary
3002	1	–	R	0-65535/1	Voltage 32nd Harmonic B – Real
3003	1	–	R	0-65535/1	Voltage 32nd Harmonic B – Imaginary
3004	1	–	R	0-65535/1	Voltage 32nd Harmonic C – Real
3005	1	–	R	0-65535/1	Voltage 32nd Harmonic C – Imaginary
3006	1	–	R	0-65535/1	Current 33rd Harmonic A – Real
3007	1	–	R	0-65535/1	Current 33rd Harmonic A – Imaginary
3008	1	–	R	0-65535/1	Current 33rd Harmonic B – Real
3009	1	–	R	0-65535/1	Current 33rd Harmonic B – Imaginary
3010	1	–	R	0-65535/1	Current 33rd Harmonic C – Real
3011	1	–	R	0-65535/1	Current 33rd Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3012	1	–	R	0-65535/1	Voltage 33rd Harmonic A – Real
3013	1	–	R	0-65535/1	Voltage 33rd Harmonic A – Imaginary
3014	1	–	R	0-65535/1	Voltage 33rd Harmonic B – Real
3015	1	–	R	0-65535/1	Voltage 33rd Harmonic B – Imaginary
3016	1	–	R	0-65535/1	Voltage 33rd Harmonic C – Real
3017	1	–	R	0-65535/1	Voltage 33rd Harmonic C – Imaginary
3018	1	–	R	0-65535/1	Current 34th Harmonic A – Real
3019	1	–	R	0-65535/1	Current 34th Harmonic A – Imaginary
3020	1	–	R	0-65535/1	Current 34th Harmonic B – Real
3021	1	–	R	0-65535/1	Current 34th Harmonic B – Imaginary
3022	1	–	R	0-65535/1	Current 34th Harmonic C – Real
3023	1	–	R	0-65535/1	Current 34th Harmonic C – Imaginary
3024	1	–	R	0-65535/1	Voltage 34th Harmonic A – Real
3025	1	–	R	0-65535/1	Voltage 34th Harmonic A – Imaginary
3026	1	–	R	0-65535/1	Voltage 34th Harmonic B – Real
3027	1	–	R	0-65535/1	Voltage 34th Harmonic B – Imaginary
3028	1	–	R	0-65535/1	Voltage 34th Harmonic C – Real
3029	1	–	R	0-65535/1	Voltage 34th Harmonic C – Imaginary
3030	1	–	R	0-65535/1	Current 35th Harmonic A – Real
3031	1	–	R	0-65535/1	Current 35th Harmonic A – Imaginary
3032	1	–	R	0-65535/1	Current 35th Harmonic B – Real
3033	1	–	R	0-65535/1	Current 35th Harmonic B – Imaginary
3034	1	–	R	0-65535/1	Current 35th Harmonic C – Real
3035	1	–	R	0-65535/1	Current 35th Harmonic C – Imaginary
3036	1	–	R	0-65535/1	Voltage 35th Harmonic A – Real
3037	1	–	R	0-65535/1	Voltage 35th Harmonic A – Imaginary
3038	1	–	R	0-65535/1	Voltage 35th Harmonic B – Real
3039	1	–	R	0-65535/1	Voltage 35th Harmonic B – Imaginary
3040	1	–	R	0-65535/1	Voltage 35th Harmonic C – Real
3041	1	–	R	0-65535/1	Voltage 35th Harmonic C – Imaginary
3042	1	–	R	0-65535/1	Current 36th Harmonic A – Real
3043	1	–	R	0-65535/1	Current 36th Harmonic A – Imaginary
3044	1	–	R	0-65535/1	Current 36th Harmonic B – Real
3045	1	–	R	0-65535/1	Current 36th Harmonic B – Imaginary
3046	1	–	R	0-65535/1	Current 36th Harmonic C – Real
3047	1	–	R	0-65535/1	Current 36th Harmonic C – Imaginary
3048	1	–	R	0-65535/1	Voltage 36th Harmonic A – Real
3049	1	–	R	0-65535/1	Voltage 36th Harmonic A – Imaginary
3050	1	–	R	0-65535/1	Voltage 36th Harmonic B – Real
3051	1	–	R	0-65535/1	Voltage 36th Harmonic B – Imaginary
3052	1	–	R	0-65535/1	Voltage 36th Harmonic C – Real
3053	1	–	R	0-65535/1	Voltage 36th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3054	1	–	R	0-65535/1	Current 37th Harmonic A – Real
3055	1	–	R	0-65535/1	Current 37th Harmonic A – Imaginary
3056	1	–	R	0-65535/1	Current 37th Harmonic B – Real
3057	1	–	R	0-65535/1	Current 37th Harmonic B – Imaginary
3058	1	–	R	0-65535/1	Current 37th Harmonic C – Real
3059	1	–	R	0-65535/1	Current 37th Harmonic C – Imaginary
3060	1	–	R	0-65535/1	Voltage 37th Harmonic A – Real
3061	1	–	R	0-65535/1	Voltage 37th Harmonic A – Imaginary
3062	1	–	R	0-65535/1	Voltage 37th Harmonic B – Real
3063	1	–	R	0-65535/1	Voltage 37th Harmonic B – Imaginary
3064	1	–	R	0-65535/1	Voltage 37th Harmonic C – Real
3065	1	–	R	0-65535/1	Voltage 37th Harmonic C – Imaginary
3066	1	–	R	0-65535/1	Current 38th Harmonic A – Real
3067	1	–	R	0-65535/1	Current 38th Harmonic A – Imaginary
3068	1	–	R	0-65535/1	Current 38th Harmonic B – Real
3069	1	–	R	0-65535/1	Current 38th Harmonic B – Imaginary
3070	1	–	R	0-65535/1	Current 38th Harmonic C – Real
3071	1	–	R	0-65535/1	Current 38th Harmonic C – Imaginary
3072	1	–	R	0-65535/1	Voltage 38th Harmonic A – Real
3073	1	–	R	0-65535/1	Voltage 38th Harmonic A – Imaginary
3074	1	–	R	0-65535/1	Voltage 38th Harmonic B – Real
3075	1	–	R	0-65535/1	Voltage 38th Harmonic B – Imaginary
3076	1	–	R	0-65535/1	Voltage 38th Harmonic C – Real
3077	1	–	R	0-65535/1	Voltage 38th Harmonic C – Imaginary
3078	1	–	R	0-65535/1	Current 39th Harmonic A – Real
3079	1	–	R	0-65535/1	Current 39th Harmonic A – Imaginary
3080	1	–	R	0-65535/1	Current 39th Harmonic B – Real
3081	1	–	R	0-65535/1	Current 39th Harmonic B – Imaginary
3082	1	–	R	0-65535/1	Current 39th Harmonic C – Real
3083	1	–	R	0-65535/1	Current 39th Harmonic C – Imaginary
3084	1	–	R	0-65535/1	Voltage 39th Harmonic A – Real
3085	1	–	R	0-65535/1	Voltage 39th Harmonic A – Imaginary
3086	1	–	R	0-65535/1	Voltage 39th Harmonic B – Real
3087	1	–	R	0-65535/1	Voltage 39th Harmonic B – Imaginary
3088	1	–	R	0-65535/1	Voltage 39th Harmonic C – Real
3089	1	–	R	0-65535/1	Voltage 39th Harmonic C – Imaginary
3090	1	–	R	0-65535/1	Current 40th Harmonic A – Real
3091	1	–	R	0-65535/1	Current 40th Harmonic A – Imaginary
3092	1	–	R	0-65535/1	Current 40th Harmonic B – Real
3093	1	–	R	0-65535/1	Current 40th Harmonic B – Imaginary
3094	1	–	R	0-65535/1	Current 40th Harmonic C – Real
3095	1	–	R	0-65535/1	Current 40th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3096	1	–	R	0-65535/1	Voltage 40th Harmonic A – Real
3097	1	–	R	0-65535/1	Voltage 40th Harmonic A – Imaginary
3098	1	–	R	0-65535/1	Voltage 40th Harmonic B – Real
3099	1	–	R	0-65535/1	Voltage 40th Harmonic B – Imaginary
3100	1	–	R	0-65535/1	Voltage 40th Harmonic C – Real
3101	1	–	R	0-65535/1	Voltage 40th Harmonic C – Imaginary
3102	1	–	R	0-65535/1	Current 41st Harmonic A – Real
3103	1	–	R	0-65535/1	Current 41st Harmonic A – Imaginary
3104	1	–	R	0-65535/1	Current 41st Harmonic B – Real
3105	1	–	R	0-65535/1	Current 41st Harmonic B – Imaginary
3106	1	–	R	0-65535/1	Current 41st Harmonic C – Real
3107	1	–	R	0-65535/1	Current 41st Harmonic C – Imaginary
3108	1	–	R	0-65535/1	Voltage 41st Harmonic A – Real
3109	1	–	R	0-65535/1	Voltage 41st Harmonic A – Imaginary
3110	1	–	R	0-65535/1	Voltage 41st Harmonic B – Real
3111	1	–	R	0-65535/1	Voltage 41st Harmonic B – Imaginary
3112	1	–	R	0-65535/1	Voltage 41st Harmonic C – Real
3113	1	–	R	0-65535/1	Voltage 41st Harmonic C – Imaginary
3114	1	–	R	0-65535/1	Current 42nd Harmonic A – Real
3115	1	–	R	0-65535/1	Current 42nd Harmonic A – Imaginary
3116	1	–	R	0-65535/1	Current 42nd Harmonic B – Real
3117	1	–	R	0-65535/1	Current 42nd Harmonic B – Imaginary
3118	1	–	R	0-65535/1	Current 42nd Harmonic C – Real
3119	1	–	R	0-65535/1	Current 42nd Harmonic C – Imaginary
3120	1	–	R	0-65535/1	Voltage 42nd Harmonic A – Real
3121	1	–	R	0-65535/1	Voltage 42nd Harmonic A – Imaginary
3122	1	–	R	0-65535/1	Voltage 42nd Harmonic B – Real
3123	1	–	R	0-65535/1	Voltage 42nd Harmonic B – Imaginary
3124	1	–	R	0-65535/1	Voltage 42nd Harmonic C – Real
3125	1	–	R	0-65535/1	Voltage 42nd Harmonic C – Imaginary
3126	1	–	R	0-65535/1	Current 43rd Harmonic A – Real
3127	1	–	R	0-65535/1	Current 43rd Harmonic A – Imaginary
3128	1	–	R	0-65535/1	Current 43rd Harmonic B – Real
3129	1	–	R	0-65535/1	Current 43rd Harmonic B – Imaginary
3130	1	–	R	0-65535/1	Current 43rd Harmonic C – Real
3131	1	–	R	0-65535/1	Current 43rd Harmonic C – Imaginary
3132	1	–	R	0-65535/1	Voltage 43rd Harmonic A – Real
3133	1	–	R	0-65535/1	Voltage 43rd Harmonic A – Imaginary
3134	1	–	R	0-65535/1	Voltage 43rd Harmonic B – Real
3135	1	–	R	0-65535/1	Voltage 43rd Harmonic B – Imaginary
3136	1	–	R	0-65535/1	Voltage 43rd Harmonic C – Real
3137	1	–	R	0-65535/1	Voltage 43rd Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3138	1	–	R	0-65535/1	Current 44th Harmonic A – Real
3139	1	–	R	0-65535/1	Current 44th Harmonic A – Imaginary
3140	1	–	R	0-65535/1	Current 44th Harmonic B – Real
3141	1	–	R	0-65535/1	Current 44th Harmonic B – Imaginary
3142	1	–	R	0-65535/1	Current 44th Harmonic C – Real
3143	1	–	R	0-65535/1	Current 44th Harmonic C – Imaginary
3144	1	–	R	0-65535/1	Voltage 44th Harmonic A – Real
3145	1	–	R	0-65535/1	Voltage 44th Harmonic A – Imaginary
3146	1	–	R	0-65535/1	Voltage 44th Harmonic B – Real
3147	1	–	R	0-65535/1	Voltage 44th Harmonic B – Imaginary
3148	1	–	R	0-65535/1	Voltage 44th Harmonic C – Real
3149	1	–	R	0-65535/1	Voltage 44th Harmonic C – Imaginary
3150	1	–	R	0-65535/1	Current 45th Harmonic A – Real
3151	1	–	R	0-65535/1	Current 45th Harmonic A – Imaginary
3152	1	–	R	0-65535/1	Current 45th Harmonic B – Real
3153	1	–	R	0-65535/1	Current 45th Harmonic B – Imaginary
3154	1	–	R	0-65535/1	Current 45th Harmonic C – Real
3155	1	–	R	0-65535/1	Current 45th Harmonic C – Imaginary
3156	1	–	R	0-65535/1	Voltage 45th Harmonic A – Real
3157	1	–	R	0-65535/1	Voltage 45th Harmonic A – Imaginary
3158	1	–	R	0-65535/1	Voltage 45th Harmonic B – Real
3159	1	–	R	0-65535/1	Voltage 45th Harmonic B – Imaginary
3160	1	–	R	0-65535/1	Voltage 45th Harmonic C – Real
3161	1	–	R	0-65535/1	Voltage 45th Harmonic C – Imaginary
3162	1	–	R	0-65535/1	Current 46th Harmonic A – Real
3163	1	–	R	0-65535/1	Current 46th Harmonic A – Imaginary
3164	1	–	R	0-65535/1	Current 46th Harmonic B – Real
3165	1	–	R	0-65535/1	Current 46th Harmonic B – Imaginary
3166	1	–	R	0-65535/1	Current 46th Harmonic C – Real
3167	1	–	R	0-65535/1	Current 46th Harmonic C – Imaginary
3168	1	–	R	0-65535/1	Voltage 46th Harmonic A – Real
3169	1	–	R	0-65535/1	Voltage 46th Harmonic A – Imaginary
3170	1	–	R	0-65535/1	Voltage 46th Harmonic B – Real
3171	1	–	R	0-65535/1	Voltage 46th Harmonic B – Imaginary
3172	1	–	R	0-65535/1	Voltage 46th Harmonic C – Real
3173	1	–	R	0-65535/1	Voltage 46th Harmonic C – Imaginary
3174	1	–	R	0-65535/1	Current 47th Harmonic A – Real
3175	1	–	R	0-65535/1	Current 47th Harmonic A – Imaginary
3176	1	–	R	0-65535/1	Current 47th Harmonic B – Real
3177	1	–	R	0-65535/1	Current 47th Harmonic B – Imaginary
3178	1	–	R	0-65535/1	Current 47th Harmonic C – Real
3179	1	–	R	0-65535/1	Current 47th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3180	1	–	R	0-65535/1	Voltage 47th Harmonic A – Real
3181	1	–	R	0-65535/1	Voltage 47th Harmonic A – Imaginary
3182	1	–	R	0-65535/1	Voltage 47th Harmonic B – Real
3183	1	–	R	0-65535/1	Voltage 47th Harmonic B – Imaginary
3184	1	–	R	0-65535/1	Voltage 47th Harmonic C – Real
3185	1	–	R	0-65535/1	Voltage 47th Harmonic C – Imaginary
3186	1	–	R	0-65535/1	Current 48th Harmonic A – Real
3187	1	–	R	0-65535/1	Current 48th Harmonic A – Imaginary
3188	1	–	R	0-65535/1	Current 48th Harmonic B – Real
3189	1	–	R	0-65535/1	Current 48th Harmonic B – Imaginary
3190	1	–	R	0-65535/1	Current 48th Harmonic C – Real
3191	1	–	R	0-65535/1	Current 48th Harmonic C – Imaginary
3192	1	–	R	0-65535/1	Voltage 48th Harmonic A – Real
3193	1	–	R	0-65535/1	Voltage 48th Harmonic A – Imaginary
3194	1	–	R	0-65535/1	Voltage 48th Harmonic B – Real
3195	1	–	R	0-65535/1	Voltage 48th Harmonic B – Imaginary
3196	1	–	R	0-65535/1	Voltage 48th Harmonic C – Real
3197	1	–	R	0-65535/1	Voltage 48th Harmonic C – Imaginary
3198	1	–	R	0-65535/1	Current 49th Harmonic A – Real
3199	1	–	R	0-65535/1	Current 49th Harmonic A – Imaginary
3200	1	–	R	0-65535/1	Current 49th Harmonic B – Real
3201	1	–	R	0-65535/1	Current 49th Harmonic B – Imaginary
3202	1	–	R	0-65535/1	Current 49th Harmonic C – Real
3203	1	–	R	0-65535/1	Current 49th Harmonic C – Imaginary
3204	1	–	R	0-65535/1	Voltage 49th Harmonic A – Real
3205	1	–	R	0-65535/1	Voltage 49th Harmonic A – Imaginary
3206	1	–	R	0-65535/1	Voltage 49th Harmonic B – Real
3207	1	–	R	0-65535/1	Voltage 49th Harmonic B – Imaginary
3208	1	–	R	0-65535/1	Voltage 49th Harmonic C – Real
3209	1	–	R	0-65535/1	Voltage 49th Harmonic C – Imaginary
3210	1	–	R	0-65535/1	Current 50th Harmonic A – Real
3211	1	–	R	0-65535/1	Current 50th Harmonic A – Imaginary
3212	1	–	R	0-65535/1	Current 50th Harmonic B – Real
3213	1	–	R	0-65535/1	Current 50th Harmonic B – Imaginary
3214	1	–	R	0-65535/1	Current 50th Harmonic C – Real
3215	1	–	R	0-65535/1	Current 50th Harmonic C – Imaginary
3216	1	–	R	0-65535/1	Voltage 50th Harmonic A – Real
3217	1	–	R	0-65535/1	Voltage 50th Harmonic A – Imaginary
3218	1	–	R	0-65535/1	Voltage 50th Harmonic B – Real
3219	1	–	R	0-65535/1	Voltage 50th Harmonic B – Imaginary
3220	1	–	R	0-65535/1	Voltage 50th Harmonic C – Real
3221	1	–	R	0-65535/1	Voltage 50th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3222	1	–	R	0-65535/1	Current 51st Harmonic A – Real
3223	1	–	R	0-65535/1	Current 51st Harmonic A – Imaginary
3224	1	–	R	0-65535/1	Current 51st Harmonic B – Real
3225	1	–	R	0-65535/1	Current 51st Harmonic B – Imaginary
3226	1	–	R	0-65535/1	Current 51st Harmonic C – Real
3227	1	–	R	0-65535/1	Current 51st Harmonic C – Imaginary
3228	1	–	R	0-65535/1	Voltage 51st Harmonic A – Real
3229	1	–	R	0-65535/1	Voltage 51st Harmonic A – Imaginary
3230	1	–	R	0-65535/1	Voltage 51st Harmonic B – Real
3231	1	–	R	0-65535/1	Voltage 51st Harmonic B – Imaginary
3232	1	–	R	0-65535/1	Voltage 51st Harmonic C – Real
3233	1	–	R	0-65535/1	Voltage 51st Harmonic C – Imaginary
3234	1	–	R	0-65535/1	Current 52nd Harmonic A – Real
3235	1	–	R	0-65535/1	Current 52nd Harmonic A – Imaginary
3236	1	–	R	0-65535/1	Current 52nd Harmonic B – Real
3237	1	–	R	0-65535/1	Current 52nd Harmonic B – Imaginary
3238	1	–	R	0-65535/1	Current 52nd Harmonic C – Real
3239	1	–	R	0-65535/1	Current 52nd Harmonic C – Imaginary
3240	1	–	R	0-65535/1	Voltage 52nd Harmonic A – Real
3241	1	–	R	0-65535/1	Voltage 52nd Harmonic A – Imaginary
3242	1	–	R	0-65535/1	Voltage 52nd Harmonic B – Real
3243	1	–	R	0-65535/1	Voltage 52nd Harmonic B – Imaginary
3244	1	–	R	0-65535/1	Voltage 52nd Harmonic C – Real
3245	1	–	R	0-65535/1	Voltage 52nd Harmonic C – Imaginary
3246	1	–	R	0-65535/1	Current 53rd Harmonic A – Real
3247	1	–	R	0-65535/1	Current 53rd Harmonic A – Imaginary
3248	1	–	R	0-65535/1	Current 53rd Harmonic B – Real
3249	1	–	R	0-65535/1	Current 53rd Harmonic B – Imaginary
3250	1	–	R	0-65535/1	Current 53rd Harmonic C – Real
3251	1	–	R	0-65535/1	Current 53rd Harmonic C – Imaginary
3252	1	–	R	0-65535/1	Voltage 53rd Harmonic A – Real
3253	1	–	R	0-65535/1	Voltage 53rd Harmonic A – Imaginary
3254	1	–	R	0-65535/1	Voltage 53rd Harmonic B – Real
3255	1	–	R	0-65535/1	Voltage 53rd Harmonic B – Imaginary
3256	1	–	R	0-65535/1	Voltage 53rd Harmonic C – Real
3257	1	–	R	0-65535/1	Voltage 53rd Harmonic C – Imaginary
3258	1	–	R	0-65535/1	Current 54th Harmonic A – Real
3259	1	–	R	0-65535/1	Current 54th Harmonic A – Imaginary
3260	1	–	R	0-65535/1	Current 54th Harmonic B – Real
3261	1	–	R	0-65535/1	Current 54th Harmonic B – Imaginary
3262	1	–	R	0-65535/1	Current 54th Harmonic C – Real
3263	1	–	R	0-65535/1	Current 54th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3264	1	–	R	0-65535/1	Voltage 54th Harmonic A – Real
3265	1	–	R	0-65535/1	Voltage 54th Harmonic A – Imaginary
3266	1	–	R	0-65535/1	Voltage 54th Harmonic B – Real
3267	1	–	R	0-65535/1	Voltage 54th Harmonic B – Imaginary
3268	1	–	R	0-65535/1	Voltage 54th Harmonic C – Real
3269	1	–	R	0-65535/1	Voltage 54th Harmonic C – Imaginary
3270	1	–	R	0-65535/1	Current 55th Harmonic A – Real
3271	1	–	R	0-65535/1	Current 55th Harmonic A – Imaginary
3272	1	–	R	0-65535/1	Current 55th Harmonic B – Real
3273	1	–	R	0-65535/1	Current 55th Harmonic B – Imaginary
3274	1	–	R	0-65535/1	Current 55th Harmonic C – Real
3275	1	–	R	0-65535/1	Current 55th Harmonic C – Imaginary
3276	1	–	R	0-65535/1	Voltage 55th Harmonic A – Real
3277	1	–	R	0-65535/1	Voltage 55th Harmonic A – Imaginary
3278	1	–	R	0-65535/1	Voltage 55th Harmonic B – Real
3279	1	–	R	0-65535/1	Voltage 55th Harmonic B – Imaginary
3280	1	–	R	0-65535/1	Voltage 55th Harmonic C – Real
3281	1	–	R	0-65535/1	Voltage 55th Harmonic C – Imaginary
3282	1	–	R	0-65535/1	Current 56th Harmonic A – Real
3283	1	–	R	0-65535/1	Current 56th Harmonic A – Imaginary
3284	1	–	R	0-65535/1	Current 56th Harmonic B – Real
3285	1	–	R	0-65535/1	Current 56th Harmonic B – Imaginary
3286	1	–	R	0-65535/1	Current 56th Harmonic C – Real
3287	1	–	R	0-65535/1	Current 56th Harmonic C – Imaginary
3288	1	–	R	0-65535/1	Voltage 56th Harmonic A – Real
3289	1	–	R	0-65535/1	Voltage 56th Harmonic A – Imaginary
3290	1	–	R	0-65535/1	Voltage 56th Harmonic B – Real
3291	1	–	R	0-65535/1	Voltage 56th Harmonic B – Imaginary
3292	1	–	R	0-65535/1	Voltage 56th Harmonic C – Real
3293	1	–	R	0-65535/1	Voltage 56th Harmonic C – Imaginary
3294	1	–	R	0-65535/1	Current 57th Harmonic A – Real
3295	1	–	R	0-65535/1	Current 57th Harmonic A – Imaginary
3296	1	–	R	0-65535/1	Current 57th Harmonic B – Real
3297	1	–	R	0-65535/1	Current 57th Harmonic B – Imaginary
3298	1	–	R	0-65535/1	Current 57th Harmonic C – Real
3299	1	–	R	0-65535/1	Current 57th Harmonic C – Imaginary
3300	1	–	R	0-65535/1	Voltage 57th Harmonic A – Real
3301	1	–	R	0-65535/1	Voltage 57th Harmonic A – Imaginary
3302	1	–	R	0-65535/1	Voltage 57th Harmonic B – Real
3303	1	–	R	0-65535/1	Voltage 57th Harmonic B – Imaginary
3304	1	–	R	0-65535/1	Voltage 57th Harmonic C – Real
3305	1	–	R	0-65535/1	Voltage 57th Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3306	1	–	R	0-65535/1	Current 58th Harmonic A – Real
3307	1	–	R	0-65535/1	Current 58th Harmonic A – Imaginary
3308	1	–	R	0-65535/1	Current 58th Harmonic B – Real
3309	1	–	R	0-65535/1	Current 58th Harmonic B – Imaginary
3310	1	–	R	0-65535/1	Current 58th Harmonic C – Real
3311	1	–	R	0-65535/1	Current 58th Harmonic C – Imaginary
3312	1	–	R	0-65535/1	Voltage 58th Harmonic A – Real
3313	1	–	R	0-65535/1	Voltage 58th Harmonic A – Imaginary
3314	1	–	R	0-65535/1	Voltage 58th Harmonic B – Real
3315	1	–	R	0-65535/1	Voltage 58th Harmonic B – Imaginary
3316	1	–	R	0-65535/1	Voltage 58th Harmonic C – Real
3317	1	–	R	0-65535/1	Voltage 58th Harmonic C – Imaginary
3318	1	–	R	0-65535/1	Current 59th Harmonic A – Real
3319	1	–	R	0-65535/1	Current 59th Harmonic A – Imaginary
3320	1	–	R	0-65535/1	Current 59th Harmonic B – Real
3321	1	–	R	0-65535/1	Current 59th Harmonic B – Imaginary
3322	1	–	R	0-65535/1	Current 59th Harmonic C – Real
3323	1	–	R	0-65535/1	Current 59th Harmonic C – Imaginary
3324	1	–	R	0-65535/1	Voltage 59th Harmonic A – Real
3325	1	–	R	0-65535/1	Voltage 59th Harmonic A – Imaginary
3326	1	–	R	0-65535/1	Voltage 59th Harmonic B – Real
3327	1	–	R	0-65535/1	Voltage 59th Harmonic B – Imaginary
3328	1	–	R	0-65535/1	Voltage 59th Harmonic C – Real
3329	1	–	R	0-65535/1	Voltage 59th Harmonic C – Imaginary
3330	1	–	R	0-65535/1	Current 60th Harmonic A – Real
3331	1	–	R	0-65535/1	Current 60th Harmonic A – Imaginary
3332	1	–	R	0-65535/1	Current 60th Harmonic B – Real
3333	1	–	R	0-65535/1	Current 60th Harmonic B – Imaginary
3334	1	–	R	0-65535/1	Current 60th Harmonic C – Real
3335	1	–	R	0-65535/1	Current 60th Harmonic C – Imaginary
3336	1	–	R	0-65535/1	Voltage 60th Harmonic A – Real
3337	1	–	R	0-65535/1	Voltage 60th Harmonic A – Imaginary
3338	1	–	R	0-65535/1	Voltage 60th Harmonic B – Real
3339	1	–	R	0-65535/1	Voltage 60th Harmonic B – Imaginary
3340	1	–	R	0-65535/1	Voltage 60th Harmonic C – Real
3341	1	–	R	0-65535/1	Voltage 60th Harmonic C – Imaginary
3342	1	–	R	0-65535/1	Current 61st Harmonic A – Real
3343	1	–	R	0-65535/1	Current 61st Harmonic A – Imaginary
3344	1	–	R	0-65535/1	Current 61st Harmonic B – Real
3345	1	–	R	0-65535/1	Current 61st Harmonic B – Imaginary
3346	1	–	R	0-65535/1	Current 61st Harmonic C – Real
3347	1	–	R	0-65535/1	Current 61st Harmonic C – Imaginary

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3348	1	–	R	0-65535/1	Voltage 61st Harmonic A – Real
3349	1	–	R	0-65535/1	Voltage 61st Harmonic A – Imaginary
3350	1	–	R	0-65535/1	Voltage 61st Harmonic B – Real
3351	1	–	R	0-65535/1	Voltage 61st Harmonic B – Imaginary
3352	1	–	R	0-65535/1	Voltage 61st Harmonic C – Real
3353	1	–	R	0-65535/1	Voltage 61st Harmonic C – Imaginary
3354	1	–	R	0-65535/1	Current 62nd Harmonic A – Real
3355	1	–	R	0-65535/1	Current 62nd Harmonic A – Imaginary
3356	1	–	R	0-65535/1	Current 62nd Harmonic B – Real
3357	1	–	R	0-65535/1	Current 62nd Harmonic B – Imaginary
3358	1	–	R	0-65535/1	Current 62nd Harmonic C – Real
3359	1	–	R	0-65535/1	Current 62nd Harmonic C – Imaginary
3360	1	–	R	0-65535/1	Voltage 62nd Harmonic A – Real
3361	1	–	R	0-65535/1	Voltage 62nd Harmonic A – Imaginary
3362	1	–	R	0-65535/1	Voltage 62nd Harmonic B – Real
3363	1	–	R	0-65535/1	Voltage 62nd Harmonic B – Imaginary
3364	1	–	R	0-65535/1	Voltage 62nd Harmonic C – Real
3365	1	–	R	0-65535/1	Voltage 62nd Harmonic C – Imaginary
3366	1	–	R	0-65535/1	Current 63rd Harmonic A – Real
3367	1	–	R	0-65535/1	Current 63rd Harmonic A – Imaginary
3368	1	–	R	0-65535/1	Current 63rd Harmonic B – Real
3369	1	–	R	0-65535/1	Current 63rd Harmonic B – Imaginary
3370	1	–	R	0-65535/1	Current 63rd Harmonic C – Real
3371	1	–	R	0-65535/1	Current 63rd Harmonic C – Imaginary
3372	1	–	R	0-65535/1	Voltage 63rd Harmonic A – Real
3373	1	–	R	0-65535/1	Voltage 63rd Harmonic A – Imaginary
3374	1	–	R	0-65535/1	Voltage 63rd Harmonic B – Real
3375	1	C	R	0-65535/1	Voltage 63 rd Harmonic B – Imaginary
3376	1	–	R	0-65535/1	Voltage 63 rd Harmonic C – Real
3377	1	–	R	0-65535/1	Voltage 63 rd Harmonic C – Imaginary
3378	10	%	R	–	Current Magnitude0 Harmonic A
3379	10	%	R	–	Current Magnitude0 Harmonic B
3380	10	%	R	–	Current Magnitude0 Harmonic C
3381	10	%	R	–	Voltage Magnitude0 Harmonic A
3382	10	%	R	–	Voltage Magnitude0 Harmonic B
3383	10	%	R	–	Voltage Magnitude0 Harmonic C
3384	10	%	R	–	Current Magnitude 1 st Harmonic A
3385	10	%	R	–	Current Magnitude 1 st Harmonic B
3386	10	%	R	–	Current Magnitude 1 st Harmonic C
3387	10	%	R	–	Voltage Magnitude 1 st Harmonic A
3388	10	%	R	–	Voltage Magnitude 1 st Harmonic B
3389	10	%	R	–	Voltage Magnitude 1 st Harmonic C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3390	10	%	R	–	Current Magnitude 2 nd Harmonic A
3391	10	%	R	–	Current Magnitude 2 nd Harmonic B
3392	10	%	R	–	Current Magnitude 2 nd Harmonic C
3393	10	%	R	–	Voltage Magnitude 2 nd Harmonic A
3394	10	%	R	–	Voltage Magnitude 2 nd Harmonic B
3395	10	%	R	–	Voltage Magnitude 2 nd Harmonic C
3396	10	%	R	–	Current Magnitude 3 rd Harmonic A
3397	10	%	R	–	Current Magnitude 3 rd Harmonic B
3398	10	%	R	–	Current Magnitude 3 rd Harmonic C
3399	10	%	R	–	Voltage Magnitude 3 rd Harmonic A
3400	10	%	R	–	Voltage Magnitude 3 rd Harmonic B
3401	10	%	R	–	Voltage Magnitude 3 rd Harmonic C
3402	10	%	R	–	Current Magnitude 4 th Harmonic A
3403	10	%	R	–	Current Magnitude 4 th Harmonic B
3404	10	%	R	–	Current Magnitude 4 th Harmonic C
3405	10	%	R	–	Voltage Magnitude 4 th Harmonic A
3406	10	%	R	–	Voltage Magnitude 4 th Harmonic B
3407	10	%	R	–	Voltage Magnitude 4 th Harmonic C
3408	10	%	R	–	Current Magnitude 5 th Harmonic A
3409	10	%	R	–	Current Magnitude 5 th Harmonic B
3410	10	%	R	–	Current Magnitude 5 th Harmonic C
3411	10	%	R	–	Voltage Magnitude 5 th Harmonic A
3412	10	%	R	–	Voltage Magnitude 5 th Harmonic B
3413	10	%	R	–	Voltage Magnitude 5 th Harmonic C
3414	10	%	R	–	Current Magnitude 6 th Harmonic A
3415	10	%	R	–	Current Magnitude 6 th Harmonic B
3416	10	%	R	–	Current Magnitude 6 th Harmonic C
3417	10	%	R	–	Voltage Magnitude 6 th Harmonic A
3418	10	%	R	–	Voltage Magnitude 6 th Harmonic B
3419	10	%	R	–	Voltage Magnitude 6 th Harmonic C
3420	10	%	R	–	Current Magnitude 7 th Harmonic A
3421	10	%	R	–	Current Magnitude 7 th Harmonic B
3422	10	%	R	–	Current Magnitude 7 th Harmonic C
3423	10	%	R	–	Voltage Magnitude 7 th Harmonic A
3424	10	%	R	–	Voltage Magnitude 7 th Harmonic B
3425	10	%	R	–	Voltage Magnitude 7 th Harmonic C
3426	10	%	R	–	Current Magnitude 8 th Harmonic A
3427	10	%	R	–	Current Magnitude 8 th Harmonic B
3428	10	%	R	–	Current Magnitude 8 th Harmonic C
3429	10	%	R	–	Voltage Magnitude 8 th Harmonic A
3430	10	%	R	–	Voltage Magnitude 8 th Harmonic B
3431	10	%	R	–	Voltage Magnitude 8 th Harmonic C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3432	10	%	R	–	Current Magnitude 9 th Harmonic A
3433	10	%	R	–	Current Magnitude 9 th Harmonic B
3434	10	%	R	–	Current Magnitude 9 th Harmonic C
3435	10	%	R	–	Voltage Magnitude 9 th Harmonic A
3436	10	%	R	–	Voltage Magnitude 9 th Harmonic B
3437	10	%	R	–	Voltage Magnitude 9 th Harmonic C
3438	10	%	R	–	Current Magnitude 10 th Harmonic A
3439	10	%	R	–	Current Magnitude 10 th Harmonic B
3440	10	%	R	–	Current Magnitude 10 th Harmonic C
3441	10	%	R	–	Voltage Magnitude 10 th Harmonic A
3442	10	%	R	–	Voltage Magnitude 10 th Harmonic B
3443	10	%	R	–	Voltage Magnitude 10 th Harmonic C
3444	10	%	R	–	Current Magnitude 11 th Harmonic A
3445	10	%	R	–	Current Magnitude 11 th Harmonic B
3446	10	%	R	–	Current Magnitude 11 th Harmonic C
3447	10	%	R	–	Voltage Magnitude 11 th Harmonic A
3448	10	%	R	–	Voltage Magnitude 11 th Harmonic B
3449	10	%	R	–	Voltage Magnitude 11 th Harmonic C
3450	10	%	R	–	Current Magnitude 12 th Harmonic A
3451	10	%	R	–	Current Magnitude 12 th Harmonic B
3452	10	%	R	–	Current Magnitude 12 th Harmonic C
3453	10	%	R	–	Voltage Magnitude 12 th Harmonic A
3454	10	%	R	–	Voltage Magnitude 12 th Harmonic B
3455	10	%	R	–	Voltage Magnitude 12 th Harmonic C
3456	10	%	R	–	Current Magnitude 13 th Harmonic A
3457	10	%	R	–	Current Magnitude 13 th Harmonic B
3458	10	%	R	–	Current Magnitude 13 th Harmonic C
3459	10	%	R	–	Voltage Magnitude 13 th Harmonic A
3460	10	%	R	–	Voltage Magnitude 13 th Harmonic B
3461	10	%	R	–	Voltage Magnitude 13 th Harmonic C
3462	10	%	R	–	Current Magnitude 14 th Harmonic A
3463	10	%	R	–	Current Magnitude 14 th Harmonic B
3464	10	%	R	–	Current Magnitude 14 th Harmonic C
3465	10	%	R	–	Voltage Magnitude 14 th Harmonic A
3466	10	%	R	–	Voltage Magnitude 14 th Harmonic B
3467	10	%	R	–	Voltage Magnitude 14 th Harmonic C
3468	10	%	R	–	Current Magnitude 15 th Harmonic A
3469	10	%	R	–	Current Magnitude 15 th Harmonic B
3470	10	%	R	–	Current Magnitude 15 th Harmonic C
3471	10	%	R	–	Voltage Magnitude 15 th Harmonic A
3472	10	%	R	–	Voltage Magnitude 15 th Harmonic B
3473	10	%	R	–	Voltage Magnitude 15 th Harmonic C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3474	10	%	R	–	Current Magnitude 16 th Harmonic A
3475	10	%	R	–	Current Magnitude 16 th Harmonic B
3476	10	%	R	–	Current Magnitude 16 th Harmonic C
3477	10	%	R	–	Voltage Magnitude 16 th Harmonic A
3478	10	%	R	–	Voltage Magnitude 16 th Harmonic B
3479	10	%	R	–	Voltage Magnitude 16 th Harmonic C
3480	10	%	R	–	Current Magnitude 17 th Harmonic A
3481	10	%	R	–	Current Magnitude 17 th Harmonic B
3482	10	%	R	–	Current Magnitude 17 th Harmonic C
3483	10	%	R	–	Voltage Magnitude 17 th Harmonic A
3484	10	%	R	–	Voltage Magnitude 17 th Harmonic B
3485	10	%	R	–	Voltage Magnitude 17 th Harmonic C
3486	10	%	R	–	Current Magnitude 18 th Harmonic A
3487	10	%	R	–	Current Magnitude 18 th Harmonic B
3488	10	%	R	–	Current Magnitude 18 th Harmonic C
3489	10	%	R	–	Voltage Magnitude 18 th Harmonic A
3490	10	%	R	–	Voltage Magnitude 18 th Harmonic B
3491	10	%	R	–	Voltage Magnitude 18 th Harmonic C
3492	10	%	R	–	Current Magnitude 19 th Harmonic A
3493	10	%	R	–	Current Magnitude 19 th Harmonic B
3494	10	%	R	–	Current Magnitude 19 th Harmonic C
3495	10	%	R	–	Voltage Magnitude 19 th Harmonic A
3496	10	%	R	–	Voltage Magnitude 19 th Harmonic B
3497	10	%	R	–	Voltage Magnitude 19 th Harmonic C
3498	10	%	R	–	Current Magnitude 20 th Harmonic A
3499	10	%	R	–	Current Magnitude 20 th Harmonic B
3500	10	%	R	–	Current Magnitude 20 th Harmonic C
3501	10	%	R	–	Voltage Magnitude 20 th Harmonic A
3502	10	%	R	–	Voltage Magnitude 20 th Harmonic B
3503	10	%	R	–	Voltage Magnitude 20 th Harmonic C
3504	10	%	R	–	Current Magnitude 21 st Harmonic A
3505	10	%	R	–	Current Magnitude 21 st Harmonic B
3506	10	%	R	–	Current Magnitude 21 st Harmonic C
3507	10	%	R	–	Voltage Magnitude 21 st Harmonic A
3508	10	%	R	–	Voltage Magnitude 21 st Harmonic B
3509	10	%	R	–	Voltage Magnitude 21 st Harmonic C
3510	10	%	R	–	Current Magnitude 22 nd Harmonic A
3511	10	%	R	–	Current Magnitude 22 nd Harmonic B
3512	10	%	R	–	Current Magnitude 22 nd Harmonic C
3513	10	%	R	–	Voltage Magnitude 22 nd Harmonic A
3514	10	%	R	–	Voltage Magnitude 22 nd Harmonic B
3515	10	%	R	–	Voltage Magnitude 22 nd Harmonic C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3516	10	%	R	–	Current Magnitude 23 rd Harmonic A
3517	10	%	R	–	Current Magnitude 23 rd Harmonic B
3518	10	%	R	–	Current Magnitude 23 rd Harmonic C
3519	10	%	R	–	Voltage Magnitude 23 rd Harmonic A
3520	10	%	R	–	Voltage Magnitude 23 rd Harmonic B
3521	10	%	R	–	Voltage Magnitude 23 rd Harmonic C
3522	10	%	R	–	Current Magnitude 24 th Harmonic A
3523	10	%	R	–	Current Magnitude 24 th Harmonic B
3524	10	%	R	–	Current Magnitude 24 th Harmonic C
3525	10	%	R	–	Voltage Magnitude 24 th Harmonic A
3526	10	%	R	–	Voltage Magnitude 24 th Harmonic B
3527	10	%	R	–	Voltage Magnitude 24 th Harmonic C
3528	10	%	R	–	Current Magnitude 25 th Harmonic A
3529	10	%	R	–	Current Magnitude 25 th Harmonic B
3530	10	%	R	–	Current Magnitude 25 th Harmonic C
3531	10	%	R	–	Voltage Magnitude 25 th Harmonic A
3532	10	%	R	–	Voltage Magnitude 25 th Harmonic B
3533	10	%	R	–	Voltage Magnitude 25 th Harmonic C
3534	10	%	R	–	Current Magnitude 26 th Harmonic A
3535	10	%	R	–	Current Magnitude 26 th Harmonic B
3536	10	%	R	–	Current Magnitude 26 th Harmonic C
3537	10	%	R	–	Voltage Magnitude 26 th Harmonic A
3538	10	%	R	–	Voltage Magnitude 26 th Harmonic B
3539	10	%	R	–	Voltage Magnitude 26 th Harmonic C
3540	10	%	R	–	Current Magnitude 27 th Harmonic A
3541	10	%	R	–	Current Magnitude 27 th Harmonic B
3542	10	%	R	–	Current Magnitude 27 th Harmonic C
3543	10	%	R	–	Voltage Magnitude 27 th Harmonic A
3544	10	%	R	–	Voltage Magnitude 27 th Harmonic B
3545	10	%	R	–	Voltage Magnitude 27 th Harmonic C
3546	10	%	R	–	Current Magnitude 28 th Harmonic A
3547	10	%	R	–	Current Magnitude 28 th Harmonic B
3548	10	%	R	–	Current Magnitude 28 th Harmonic C
3549	10	%	R	–	Voltage Magnitude 28 th Harmonic A
3550	10	%	R	–	Voltage Magnitude 28 th Harmonic B
3551	10	%	R	–	Voltage Magnitude 28 th Harmonic C
3552	10	%	R	–	Current Magnitude 29 th Harmonic A
3553	10	%	R	–	Current Magnitude 29 th Harmonic B
3554	10	%	R	–	Current Magnitude 29 th Harmonic C
3555	10	%	R	–	Voltage Magnitude 29 th Harmonic A
3556	10	%	R	–	Voltage Magnitude 29 th Harmonic B
3557	10	%	R	–	Voltage Magnitude 29 th Harmonic C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3558	10	%	R	–	Current Magnitude 30 th Harmonic A
3559	10	%	R	–	Current Magnitude 30 th Harmonic B
3560	10	%	R	–	Current Magnitude 30 th Harmonic C
3561	10	%	R	–	Voltage Magnitude 30 th Harmonic A
3562	10	%	R	–	Voltage Magnitude 30 th Harmonic B
3563	10	%	R	–	Voltage Magnitude 30 th Harmonic C
3564	10	%	R	–	Current Magnitude 31 st Harmonic A
3565	10	%	R	–	Current Magnitude 31 st Harmonic B
3566	10	%	R	–	Current Magnitude 31 st Harmonic C
3567	10	%	R	–	Voltage Magnitude 31 st Harmonic A
3568	10	%	R	–	Voltage Magnitude 31 st Harmonic B
3569	10	%	R	–	Voltage Magnitude 31 st Harmonic C
3570	10	%	R	–	Current Magnitude 32 nd Harmonic A
3571	10	%	R	–	Current Magnitude 32 nd Harmonic B
3572	10	%	R	–	Current Magnitude 32 nd Harmonic C
3573	10	%	R	–	Voltage Magnitude 32 nd Harmonic A
3574	10	%	R	–	Voltage Magnitude 32 nd Harmonic B
3575	10	%	R	–	Voltage Magnitude 32 nd Harmonic C
3576	10	%	R	–	Current Magnitude 33 rd Harmonic A
3577	10	%	R	–	Current Magnitude 33 rd Harmonic B
3578	10	%	R	–	Current Magnitude 33 rd Harmonic C
3579	10	%	R	–	Voltage Magnitude 33 rd Harmonic A
3580	10	%	R	–	Voltage Magnitude 33 rd Harmonic B
3581	10	%	R	–	Voltage Magnitude 33 rd Harmonic C
3582	10	%	R	–	Current Magnitude 34 th Harmonic A
3583	10	%	R	–	Current Magnitude 34 th Harmonic B
3584	10	%	R	–	Current Magnitude 34 th Harmonic C
3585	10	%	R	–	Voltage Magnitude 34 th Harmonic A
3586	10	%	R	–	Voltage Magnitude 34 th Harmonic B
3587	10	%	R	–	Voltage Magnitude 34 th Harmonic C
3588	10	%	R	–	Current Magnitude 35 th Harmonic A
3589	10	%	R	–	Current Magnitude 35 th Harmonic B
3590	10	%	R	–	Current Magnitude 35 th Harmonic C
3591	10	%	R	–	Voltage Magnitude 35 th Harmonic A
3592	10	%	R	–	Voltage Magnitude 35 th Harmonic B
3593	10	%	R	–	Voltage Magnitude 35 th Harmonic C
3594	10	%	R	–	Current Magnitude 36 th Harmonic A
3595	10	%	R	–	Current Magnitude 36 th Harmonic B
3596	10	%	R	–	Current Magnitude 36 th Harmonic C
3597	10	%	R	–	Voltage Magnitude 36 th Harmonic A
3598	10	%	R	–	Voltage Magnitude 36 th Harmonic B
3599	10	%	R	–	Voltage Magnitude 36 th Harmonic C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3600	10	%	R	–	Current Magnitude 37 th Harmonic A
3601	10	%	R	–	Current Magnitude 37 th Harmonic B
3602	10	%	R	–	Current Magnitude 37 th Harmonic C
3603	10	%	R	–	Voltage Magnitude 37 th Harmonic A
3604	10	%	R	–	Voltage Magnitude 37 th Harmonic B
3605	10	%	R	–	Voltage Magnitude 37 th Harmonic C
3606	10	%	R	–	Current Magnitude 38 th Harmonic A
3607	10	%	R	–	Current Magnitude 38 th Harmonic B
3608	10	%	R	–	Current Magnitude 38 th Harmonic C
3609	10	%	R	–	Voltage Magnitude 38 th Harmonic A
3610	10	%	R	–	Voltage Magnitude 38 th Harmonic B
3611	10	%	R	–	Voltage Magnitude 38 th Harmonic C
3612	10	%	R	–	Current Magnitude 39 th Harmonic A
3613	10	%	R	–	Current Magnitude 39 th Harmonic B
3614	10	%	R	–	Current Magnitude 39 th Harmonic C
3615	10	%	R	–	Voltage Magnitude 39 th Harmonic A
3616	10	%	R	–	Voltage Magnitude 39 th Harmonic B
3617	10	%	R	–	Voltage Magnitude 39 th Harmonic C
3618	10	%	R	–	Current Magnitude 40 th Harmonic A
3619	10	%	R	–	Current Magnitude 40 th Harmonic B
3620	10	%	R	–	Current Magnitude 40 th Harmonic C
3621	10	%	R	–	Voltage Magnitude 40 th Harmonic A
3622	10	%	R	–	Voltage Magnitude 40 th Harmonic B
3623	10	%	R	–	Voltage Magnitude 40 th Harmonic C
3624	10	%	R	–	Current Magnitude 41 st Harmonic A
3625	10	%	R	–	Current Magnitude 41 st Harmonic B
3626	10	%	R	–	Current Magnitude 41 st Harmonic C
3627	10	%	R	–	Voltage Magnitude 41 st Harmonic A
3628	10	%	R	–	Voltage Magnitude 41 st Harmonic B
3629	10	%	R	–	Voltage Magnitude 41 st Harmonic C
3630	10	%	R	–	Current Magnitude 42 nd Harmonic A
3631	10	%	R	–	Current Magnitude 42 nd Harmonic B
3632	10	%	R	–	Current Magnitude 42 nd Harmonic C
3633	10	%	R	–	Voltage Magnitude 42 nd Harmonic A
3634	10	%	R	–	Voltage Magnitude 42 nd Harmonic B
3635	10	%	R	–	Voltage Magnitude 42 nd Harmonic C
3636	10	%	R	–	Current Magnitude 43 rd Harmonic A
3637	10	%	R	–	Current Magnitude 43 rd Harmonic B
3638	10	%	R	–	Current Magnitude 43 rd Harmonic C
3639	10	%	R	–	Voltage Magnitude 43 rd Harmonic A
3640	10	%	R	–	Voltage Magnitude 43 rd Harmonic B
3641	10	%	R	–	Voltage Magnitude 43 rd Harmonic C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3642	10	%	R	–	Current Magnitude 44 th Harmonic A
3643	10	%	R	–	Current Magnitude 44 th Harmonic B
3644	10	%	R	–	Current Magnitude 44 th Harmonic C
3645	10	%	R	–	Voltage Magnitude 44 th Harmonic A
3646	10	%	R	–	Voltage Magnitude 44 th Harmonic B
3647	10	%	R	–	Voltage Magnitude 44 th Harmonic C
3648	10	%	R	–	Current Magnitude 45 th Harmonic A
3649	10	%	R	–	Current Magnitude 45 th Harmonic B
3650	10	%	R	–	Current Magnitude 45 th Harmonic C
3651	10	%	R	–	Voltage Magnitude 45 th Harmonic A
3652	10	%	R	–	Voltage Magnitude 45 th Harmonic B
3653	10	%	R	–	Voltage Magnitude 45 th Harmonic C
3654	10	%	R	–	Current Magnitude 46 th Harmonic A
3655	10	%	R	–	Current Magnitude 46 th Harmonic B
3656	10	%	R	–	Current Magnitude 46 th Harmonic C
3657	10	%	R	–	Voltage Magnitude 46 th Harmonic A
3658	10	%	R	–	Voltage Magnitude 46 th Harmonic B
3659	10	%	R	–	Voltage Magnitude 46 th Harmonic C
3660	10	%	R	–	Current Magnitude 47 th Harmonic A
3661	10	%	R	–	Current Magnitude 47 th Harmonic B
3662	10	%	R	–	Current Magnitude 47 th Harmonic C
3663	10	%	R	–	Voltage Magnitude 47 th Harmonic A
3664	10	%	R	–	Voltage Magnitude 47 th Harmonic B
3665	10	%	R	–	Voltage Magnitude 47 th Harmonic C
3666	10	%	R	–	Current Magnitude 48 th Harmonic A
3667	10	%	R	–	Current Magnitude 48 th Harmonic B
3668	10	%	R	–	Current Magnitude 48 th Harmonic C
3669	10	%	R	–	Voltage Magnitude 48 th Harmonic A
3670	10	%	R	–	Voltage Magnitude 48 th Harmonic B
3671	10	%	R	–	Voltage Magnitude 48 th Harmonic C
3672	10	%	R	–	Current Magnitude 49 th Harmonic A
3673	10	%	R	–	Current Magnitude 49 th Harmonic B
3674	10	%	R	–	Current Magnitude 49 th Harmonic C
3675	10	%	R	–	Voltage Magnitude 49 th Harmonic A
3676	10	%	R	–	Voltage Magnitude 49 th Harmonic B
3677	10	%	R	–	Voltage Magnitude 49 th Harmonic C
3678	10	%	R	–	Current Magnitude 50 th Harmonic A
3679	10	%	R	–	Current Magnitude 50 th Harmonic B
3680	10	%	R	–	Current Magnitude 50 th Harmonic C
3681	10	%	R	–	Voltage Magnitude 50 th Harmonic A
3682	10	%	R	–	Voltage Magnitude 50 th Harmonic B
3683	10	%	R	–	Voltage Magnitude 50 th Harmonic C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3684	10	%	R	–	Current Magnitude 51 st Harmonic A
3685	10	%	R	–	Current Magnitude 51 st Harmonic B
3686	10	%	R	–	Current Magnitude 51 st Harmonic C
3687	10	%	R	–	Voltage Magnitude 51 st Harmonic A
3688	10	%	R	–	Voltage Magnitude 51 st Harmonic B
3689	10	%	R	–	Voltage Magnitude 51 st Harmonic C
3690	10	%	R	–	Current Magnitude 52 nd Harmonic A
3691	10	%	R	–	Current Magnitude 52 nd Harmonic B
3692	10	%	R	–	Current Magnitude 52 nd Harmonic C
3693	10	%	R	–	Voltage Magnitude 52 nd Harmonic A
3694	10	%	R	–	Voltage Magnitude 52 nd Harmonic B
3695	10	%	R	–	Voltage Magnitude 52 nd Harmonic C
3696	10	%	R	–	Current Magnitude 53 rd Harmonic A
3697	10	%	R	–	Current Magnitude 53 rd Harmonic B
3698	10	%	R	–	Current Magnitude 53 rd Harmonic C
3699	10	%	R	–	Voltage Magnitude 53 rd Harmonic A
3700	10	%	R	–	Voltage Magnitude 53 rd Harmonic B
3701	10	%	R	–	Voltage Magnitude 53 rd Harmonic C
3702	10	%	R	–	Current Magnitude 54 th Harmonic A
3703	10	%	R	–	Current Magnitude 54 th Harmonic B
3704	10	%	R	–	Current Magnitude 54 th Harmonic C
3705	10	%	R	–	Voltage Magnitude 54 th Harmonic A
3706	10	%	R	–	Voltage Magnitude 54 th Harmonic B
3707	10	%	R	–	Voltage Magnitude 54 th Harmonic C
3708	10	%	R	–	Current Magnitude 55 th Harmonic A
3709	10	%	R	–	Current Magnitude 55 th Harmonic B
3710	10	%	R	–	Current Magnitude 55 th Harmonic C
3711	10	%	R	–	Voltage Magnitude 55 th Harmonic A
3712	10	%	R	–	Voltage Magnitude 55 th Harmonic B
3713	10	%	R	–	Voltage Magnitude 55 th Harmonic C
3714	10	%	R	–	Current Magnitude 56 th Harmonic A
3715	10	%	R	–	Current Magnitude 56 th Harmonic B
3716	10	%	R	–	Current Magnitude 56 th Harmonic C
3717	10	%	R	–	Voltage Magnitude 56 th Harmonic A
3718	10	%	R	–	Voltage Magnitude 56 th Harmonic B
3719	10	%	R	–	Voltage Magnitude 56 th Harmonic C
3720	10	%	R	–	Current Magnitude 57 th Harmonic A
3721	10	%	R	–	Current Magnitude 57 th Harmonic B
3722	10	%	R	–	Current Magnitude 57 th Harmonic C
3723	10	%	R	–	Voltage Magnitude 57 th Harmonic A
3724	10	%	R	–	Voltage Magnitude 57 th Harmonic B
3725	10	%	R	–	Voltage Magnitude 57 th Harmonic C

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3726	10	%	R	–	Current Magnitude 58 th Harmonic A
3727	10	%	R	–	Current Magnitude 58 th Harmonic B
3728	10	%	R	–	Current Magnitude 58 th Harmonic C
3729	10	%	R	–	Voltage Magnitude 58 th Harmonic A
3730	10	%	R	–	Voltage Magnitude 58 th Harmonic B
3731	10	%	R	–	Voltage Magnitude 58 th Harmonic C
3732	10	%	R	–	Current Magnitude 59 th Harmonic A
3733	10	%	R	–	Current Magnitude 59 th Harmonic B
3734	10	%	R	–	Current Magnitude 59 th Harmonic C
3735	10	%	R	–	Voltage Magnitude 59 th Harmonic A
3736	10	%	R	–	Voltage Magnitude 59 th Harmonic B
3737	10	%	R	–	Voltage Magnitude 59 th Harmonic C
3738	10	%	R	–	Current Magnitude 60 th Harmonic A
3739	10	%	R	–	Current Magnitude 60 th Harmonic B
3740	10	%	R	–	Current Magnitude 60 th Harmonic C
3741	10	%	R	–	Voltage Magnitude 60 th Harmonic A
3742	10	%	R	–	Voltage Magnitude 60 th Harmonic B
3743	10	%	R	–	Voltage Magnitude 60 th Harmonic C
3744	10	%	R	–	Current Magnitude 61 st Harmonic A
3745	10	%	R	–	Current Magnitude 61 st Harmonic B
3746	10	%	R	–	Current Magnitude 61 st Harmonic C
3747	10	%	R	–	Voltage Magnitude 61 st Harmonic A
3748	10	%	R	–	Voltage Magnitude 61 st Harmonic B
3749	10	%	R	–	Voltage Magnitude 61 st Harmonic C
3750	10	%	R	–	Current Magnitude 62 nd Harmonic A
3751	10	%	R	–	Current Magnitude 62 nd Harmonic B
3752	10	%	R	–	Current Magnitude 62 nd Harmonic C
3753	10	%	R	–	Voltage Magnitude 62 nd Harmonic A
3754	10	%	R	–	Voltage Magnitude 62 nd Harmonic B
3755	10	%	R	–	Voltage Magnitude 62 nd Harmonic C
3756	10	%	R	–	Current Magnitude 63 rd Harmonic A
3757	10	%	R	–	Current Magnitude 63 rd Harmonic B
3758	10	%	R	–	Current Magnitude 63 rd Harmonic C
3759	10	%	R	–	Voltage Magnitude 63 rd Harmonic A
3760	10	%	R	–	Voltage Magnitude 63 rd Harmonic B
3761	10	%	R	–	Voltage Magnitude 63 rd Harmonic C
3762	1	–	R	0-1/1	HARM PHASOR UPDATE
3763	1	-	R	0-65535/1	Interruptions
3764	1	-	R	0-65535/1	Interruptions.H
3765	1	–	R	0-65535/1	Current Profile (Read ONLY value for the Active Profile)
3766	10	–	R	0-100/0.1	F50A.1

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3767	10	–	R	0-100/0.1	F50B.1
3768	10	–	R	0-100/0.1	F50C.1
3769	10	%	R	–	Total Harmonic Distortion of Phase A current
3770	10	%	R	–	Total Harmonic Distortion of Phase B current
3771	10	%	R	–	Total Harmonic Distortion of Phase C current
3772	10	%	R	–	Total Harmonic Distortion of Phase A voltage
3773	10	%	R	–	Total Harmonic Distortion of Phase B voltage
3774	10	%	R	–	Total Harmonic Distortion of Phase C voltage
3775	1	–	R	0-65535/1	Temperature
3776	10	–	R	0-100/0.1	F50A.2
3777	10	–	R	0-100/0.1	F50B.2
3778	10	–	R	0-100/0.1	F50C.2
3779	10	–	R	0-100/0.1	F50A.3
3780	–	–	R	–	TIME OUT TARGET 1 Bit 0 – F25 Timeout Target Status Bit Bit 1 – F27#1 Phase A Timeout Target Status Bit Bit 2 – F27#1 Phase B Timeout Target Status Bit Bit 3 – F27#1 Phase C Timeout Target Status Bit Bit 4 – F27#2 Phase A Timeout Target Status Bit Bit 5 – F27#2 Phase B Timeout Target Status Bit Bit 6 – F27#2 Phase C Timeout Target Status Bit Bit 7 – F27#3 Phase A Timeout Target Status Bit Bit 8 – F27#3 Phase B Timeout Target Status Bit Bit 9 – F27#3 Phase C Timeout Target Status Bit Bit 10 – F27#4 Phase A Timeout Target Status Bit Bit 11 – F27#4 Phase B Timeout Target Status Bit Bit 12 – F27#4 Phase C Timeout Target Status Bit Bit 13 – F27PP Phase A Timeout Target Status Bit Bit 14 – F27PP Phase B Timeout Target Status Bit Bit 15 – F27PP Phase C Timeout Target Status Bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3781	–	–	R	–	TIME OUT TARGET 2 Bit 0 – F27Vz1 Timeout Target Status Bit Bit 1 – F32#1 Phase A Timeout Target Status Bit Bit 2 – F32#1 Phase B Timeout Target Status Bit Bit 3 – F32#1 Phase C Timeout Target Status Bit Bit 4 – F32#2 Phase A Timeout Target Status Bit Bit 5 – F32#2 Phase B Timeout Target Status Bit Bit 6 – F32#2 Phase C Timeout Target Status Bit Bit 7 – F32#3 Phase A Timeout Target Status Bit Bit 8 – F32#3 Phase B Timeout Target Status Bit Bit 9 – F32#3 Phase C Timeout Target Status Bit Bit 10 – F32#4 Phase A Timeout Target Status Bit Bit 11 – F32#4 Phase B Timeout Target Status Bit Bit 12 – F32#4 Phase C Timeout Target Status Bit Bit 13 – F50#1 Phase A Timeout Target Status Bit Bit 14 – F50#1 Phase B Timeout Target Status Bit Bit 15 – F50#1 Phase C Timeout Target Status Bit
3782	–	–	R	–	TIME OUT TARGET 3 Bit 0 – F50#2 Phase A Timeout Target Status Bit Bit 1 – F50#2 Phase B Timeout Target Status Bit Bit 2 – F50#2 Phase C Timeout Target Status Bit Bit 3 – F50#3 Phase A Timeout Target Status Bit Bit 4 – F50#3 Phase B Timeout Target Status Bit Bit 5 – F50#3 Phase C Timeout Target Status Bit Bit 6 – F50#4 Phase A Timeout Target Status Bit Bit 7 – F50#4 Phase B Timeout Target Status Bit Bit 8 – F50#4 Phase C Timeout Target Status Bit Bit 9 – F50#5 Phase A Timeout Target Status Bit Bit 10 – F50#5 Phase B Timeout Target Status Bit Bit 11 – F50#5 Phase C Timeout Target Status Bit Bit 12 – F50N#1 Timeout Target Status Bit Bit 13 – F50N#2 Timeout Target Status Bit Bit 14 – F50N#3 Timeout Target Status Bit Bit 15 – F50N#4 Timeout Target Status Bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3783	–	–	R	–	TIME OUT TARGET 4 Bit 0 – F50N#5 timeout target status bit Bit 1 – F50G#1 timeout target status bit Bit 2 – F50G#2 timeout target status bit Bit 3 – F50G#3 timeout target status bit Bit 4 – F50G#4 timeout target status bit Bit 5 – F50G#5 timeout target status bit Bit 6 – F46DT#1 timeout target status bit Bit 7 – F46DT#2 timeout target status bit Bit 8 – F46DT#3 timeout target status bit Bit 9 – F46DT#4 timeout target status bit Bit 10 – F46DT#5 timeout target status bit Bit 11 – F50BF timeout target status bit Bit 12 – F51#1 phase A timeout target status bit Bit 13 – F51#1 phase B timeout target status bit Bit 14 – F51#1 phase C timeout target status bit Bit 15 – F51#2 phase A timeout target status bit
3784	–	–	R	–	TIME OUT TARGET 5 Bit 0 – F51#2 Phase B Timeout Target Status Bit Bit 1 – F51#2 Phase C Timeout Target Status Bit Bit 2 – F51#3 Phase A Timeout Target Status Bit Bit 3 – F51#3 Phase B Timeout Target Status Bit Bit 4 – F51#3 Phase C Timeout Target Status Bit Bit 5 – F51#4 Phase A Timeout Target Status Bit Bit 6 – F51#4 Phase B Timeout Target Status Bit Bit 7 – F51#4 Phase C Timeout Target Status Bit Bit 8 – F51#5 Phase A Timeout Target Status Bit Bit 9 – F51#5 Phase B Timeout Target Status Bit Bit 10 – F51#5 Phase C Timeout Target Status Bit Bit 11 – F51N#1 Timeout Target Status Bit Bit 12 – F51N#2 Timeout Target Status Bit Bit 13 – F51N#3 Timeout Target Status Bit Bit 14 – F51N#4 Timeout Target Status Bit Bit 15 – F51N#5 Timeout Target Status Bit
3785	–	–	R	–	TIME OUT TARGET 6 Bit 0 – F51G#1 timeout target status bit Bit 1 – F51G#2 timeout target status bit Bit 2 – F51G#3 timeout target status bit Bit 3 – F51G#4 timeout target status bit Bit 4 – F51G#5 timeout target status bit Bit 5 – F46IT#1 timeout target status bit Bit 6 – F46IT#2 timeout target status bit Bit 7 – F46IT#3 timeout target status bit Bit 8 – F46IT#4 timeout target status bit Bit 9 – F46IT#5 timeout target status bit Bit 10 – F59#1 phase A timeout target status bit Bit 11 – F59#1 phase B timeout target status bit Bit 12 – F59#1 phase C timeout target status bit Bit 13 – F59#2 phase A timeout target status bit Bit 14 – F59#2 phase B timeout target status bit Bit 15 – F59#2 phase C timeout target status bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3786	–	–	R	–	TIME OUT TARGET 7 Bit 0 – F59#3 Phase A Timeout Target Status Bit Bit 1 – F59#3 Phase B Timeout Target Status Bit Bit 2 – F59#3 Phase C Timeout Target Status Bit Bit 3 – F59#4 Phase A Timeout Target Status Bit Bit 4 – F59#4 Phase B Timeout Target Status Bit Bit 5 – F59#4 Phase C Timeout Target Status Bit Bit 6 – F59PP Phase A Timeout Target Status Bit Bit 7 – F59PP Phase B Timeout Target Status Bit Bit 8 – F59PP Phase C Timeout Target Status Bit Bit 9 – F59N Timeout Target Status Bit Bit 10 – F59Vz1 Timeout Target Status Bit Bit 11 – F47 Timeout Target Status Bit Bit 12 – F67#1 Phase A Timeout Target Status Bit Bit 13 – F67#1 Phase B Timeout Target Status Bit Bit 14 – F67#1 Phase C Timeout Target Status Bit Bit 15 – F67#2 Phase A Timeout Target Status Bit
3787	–	–	R	–	TIME OUT TARGET 8 Bit 0 – F67#2 Phase B Timeout Target Status Bit Bit 1 – F67#2 Phase C Timeout Target Status Bit Bit 2 – F67#3 Phase A Timeout Target Status Bit Bit 3 – F67#3 Phase B Timeout Target Status Bit Bit 4 – F67#3 Phase C Timeout Target Status Bit Bit 5 – F67#4 Phase A Timeout Target Status Bit Bit 6 – F67#4 Phase B Timeout Target Status Bit Bit 7 – F67#4 Phase C Timeout Target Status Bit Bit 8 – F67#5 Phase A Timeout Target Status Bit Bit 9 – F67#5 Phase B Timeout Target Status Bit Bit 10 – F67#5 Phase C Timeout Target Status Bit Bit 11 – F67N#1 Timeout Target Status Bit Bit 12 – F67N#2 Timeout Target Status Bit Bit 13 – F67N#3 Timeout Target Status Bit Bit 14 – F67N#4 Timeout Target Status Bit Bit 15 – F67N#5 Timeout Target Status Bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3788	–	–	R	–	TIME OUT TARGET 9 Bit 0 – F67G#1 timeout status bit Bit 1 – F67G#2 timeout status bit Bit 2 – F67G#3 timeout status bit Bit 3 – F67G#4 timeout status bit Bit 4 – F67G#5 timeout status bit Bit 5 – F67Q#1 timeout status bit Bit 6 – F67Q#2 timeout status bit Bit 7 – F67Q#3 timeout status bit Bit 8 – F67Q#4 timeout status bit Bit 9 – F67Q#5 timeout status bit Bit 10 – TCM timeout status bit Bit 11 – CCM timeout status bit Bit 12 – NOT USED Bit 13 – F81#1 timeout status bit Bit 14 – F81#2 timeout status bit Bit 15 – F81#3 timeout status bit
3789	–	–	R	–	TIME OUT TARGET 10 Bit 0 – F81#4 Timeout Status Bit Bit 1 – F81R#1 Timeout Status Bit Bit 2 – F81R#2 Timeout Status Bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 Timeout Status Bit Bit 5 – IPSLOGIC#2 Timeout Status Bit Bit 6 – IPSLOGIC#3 Timeout Status Bit Bit 7 – IPSLOGIC#4 Timeout Status Bit Bit 8 – IPSLOGIC#5 Timeout Status Bit Bit 9 – IPSLOGIC#6 Timeout Status Bit Bit 10 – IPSLOGIC#7 Timeout Status Bit Bit 11 – IPSLOGIC#8 Timeout Status Bit Bit 12 – PSM Timeout Status Bit Bit 13 – F60FL Timeout Status Bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 Phase A Timeout Status Bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1939	1	–	R	–	TIME OUT TARGET 11 Bit 0 – FTHD/TDD #1 Phase B Timeout Status Bit Bit 1 – FTHD/TDD #1 Phase C Timeout Status Bit Bit 2 – FTHD/TDD #2 Phase A Timeout Status Bit Bit 3 – FTHD/TDD #2 Phase B Timeout Status Bit Bit 4 – FTHD/TDD #2 Phase C Timeout Status Bit Bit 5 – F59I Phase A Timeout Status Bit Bit 6 – F59I Phase B Timeout Status Bit Bit 7 – F59I Phase C Timeout Status Bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 Timeout Status Bit Bit 12 – F40 #2 Timeout Status Bit Bit 13 – F40VC #1 Timeout Status Bit Bit 14 – F40VC #2 Timeout Status Bit Bit 15 – FBM Timeout Status Bit
3790	10	–	R	–	Angle diff between reference Phase voltage and system voltage
3791	100	Hz	R	–	Frequency diff between reference Phase voltage and system voltage
3792	100	V	R	–	Voltage diff between reference Phase voltage and system voltage
3794	1	–	R	–	System Errors Least Significant Word Bit 0 – Trip Close Error Bit 1 – AC Power Error Bit 2 – EEPROM Setpoint Checksum Error Bit 3 – DSP Watchdog Error Bit 4 – Gas Pressure Error Bit 5 – EEPROM Calibration Checksum Error Bit 6 – DSP Failure Bit 7 – Flash Format Error Bit 8 – Maximum Breaker option error Bit 9 – BBRAM Error Bit 10 – Setpoints Checksum error Bit 11 – Calibration checksum error Bit 12 – Battery charger error Bit 13 – DSP Communication error Bit 14 – NOT USED Bit 15 – NOT USED
3795	1	–	R	–	System Errors Most Significant Word
3796	100	V	R	0-30/0.01	Battery Charger Voltage
3797	1000	A	R	-10 - 10/0.001	Battery Charger Current
3798	1	–	R	–	Battery Charger Status

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
3799	1	%	R	–	Battery Charger Capacity
1800	1	A	R	–	Primary Current Magnitude Phase A Least Significant Word
1801	1	A	R	–	Primary Current Magnitude Phase A Most Significant Word
1802	1	A	R	–	Primary Current Magnitude Phase B Least Significant Word
1803	1	A	R	–	Primary Current Magnitude Phase B Most Significant Word
1804	1	A	R	–	Primary Current Magnitude Phase C Least Significant Word
1805	1	A	R	–	Primary Current Magnitude Phase C Most Significant Word
1806	1	A	R	–	Primary Current Magnitude Ground Least Significant Word
1807	1	A	R	–	Primary Current Magnitude Ground Most Significant Word
1808	1	V	R	–	Primary Voltage Magnitude Phase A Least Significant Word
1809	1	V	R	–	Primary Voltage Magnitude Phase A Most Significant Word
1810	1	V	R	–	Primary Voltage Magnitude Phase B Least Significant Word
1811	1	V	R	–	Primary Voltage Magnitude Phase B Most Significant Word
1812	1	V	R	–	Primary Voltage Magnitude Phase C Least Significant Word
1813	1	V	R	–	Primary Voltage Magnitude Phase C Most Significant Word
1950	1	V	R	–	V4MagPrimary (Primary Voltage Magnitude Z-Side Phase B Least Significant Word)
1951	1	V	R	–	V4MagPrimary .H (Primary Voltage Magnitude Z-Side Phase B Most Significant Word)
1966	1	V	R	–	V5MagPrimary (Primary Voltage Magnitude Z-Side Phase C Least Significant Word)
1967	1	V	R	–	V5MagPrimary (Primary Voltage Magnitude Z-Side Phase C Most Significant Word)
1814	1	V	R	–	Vs Mag Primary (Primary Voltage Magnitude Z-Side Phase A Least Significant Word)
1815	100	V	R	–	Vs Mag Primary .H (Primary Voltage Magnitude Z-Side Phase A Most Significant Word)
1816	1	W	R	–	Real Primary Phase-A Power Least Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1817	1	W	R	–	Real Primary Phase-A Power Most Significant Word
1818	1	Var	R	–	Reactive Primary Phase-A Power Least Significant Word
1819	1	Var	R	–	Reactive Primary Phase-A Power Most Significant Word
1820	1	W	R	–	Real Primary Phase-B Power Least Significant Word
1821	1	W	R	–	Real Primary Phase-B Power Most Significant Word
1822	1	Var	R	–	Reactive Primary Phase-B Power Least Significant Word
1823	1	Var	R	–	Reactive Primary Phase-B Power Most Significant Word
1824	1	W	R	–	Real Primary Phase-C Power Least Significant Word
1825	1	W	R	–	Real Primary Phase-C Power Most Significant Word
1826	1	Var	R	–	Reactive Primary Phase-C Power Least Significant Word
1827	1	Var	R	–	Reactive Primary Phase-C Power Most Significant Word
1828	1	W	R	–	Real average Primary Power Least Significant Word
1829	1	W	R	–	Real average Primary Power Most Significant Word
1830	1	Var	R	–	Reactive average Primary Power Least Significant Word
1831	1	Var	R	–	Reactive average Primary Power Most Significant Word
1832	1	VA	R	–	Magnitude of Phase-A Primary Apparent power Least Significant Word
1833	1	VA	R	–	Magnitude of Phase-A Primary Apparent power Most Significant Word
1834	1	VA	R	–	Magnitude of Phase-B Primary Apparent power Least Significant Word
1835	1	VA	R	–	Magnitude of Phase-B Primary Apparent power Most Significant Word
1836	1	VA	R	–	Magnitude of Phase-C Primary Apparent power Least Significant Word
1837	1	VA	R	–	Magnitude of Phase-C Primary Apparent power Most Significant Word
1838	1	VA	R	–	Magnitude of average Primary Apparent Power Least Significant Word
1839	1	VA	R	–	Magnitude of average Primary Apparent Power Most Significant Word
1840	1	A	R	–	Primary Magnitude of Positive Sequence current Least Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1841	1	A	R	–	Primary Magnitude of Positive Sequence current Most Significant Word
1842	1	A	R	–	Primary Magnitude of Negative Sequence current Least Significant Word
1843	1	A	R	–	Primary Magnitude of Negative Sequence current Most Significant Word
1844	1	A	R	–	Primary Magnitude of Zero Sequence current Least Significant Word
1845	1	A	R	–	Primary Magnitude of Zero Sequence current Most Significant Word
0	1	A	R	–	Primary Magnitude of 3 I0 Current Least Significant Word
0	1	A	R	–	Primary Magnitude of 3 I0 Current Most Significant Word
1846	1	V	R	–	Primary Magnitude of Positive Sequence voltage Least Significant Word
1847	1	V	R	–	Primary Magnitude of Positive Sequence voltage Most Significant Word
1848	1	V	R	–	Primary Magnitude of Negative Sequence voltage Least Significant Word
1849	1	V	R	–	Primary Magnitude of Negative Sequence voltage Most Significant Word
1850	1	V	R	–	Primary Magnitude of Zero Sequence voltage Least Significant Word
1851	1	V	R	–	Primary Magnitude of Zero Sequence voltage Most Significant Word
0	1	V	R	–	Primary Magnitude of 3V0 Voltage Least Significant Word
0	1	V	R	–	Primary Magnitude of 3V0 Voltage Most Significant Word
4168	1	V	R	–	Primary Magnitude of Positive Sequence voltage Z-Side Least Significant Word
4169	1	V	R	–	Primary Magnitude of Positive Sequence voltage Z-Side Most Significant Word
4170	1	V	R	–	Primary Magnitude of Negative Sequence voltage Z-Side Least Significant Word
4171	1	V	R	–	Primary Magnitude of Negative Sequence voltage Z-Side Most Significant Word
4172	1	V	R	–	Primary Magnitude of Zero Sequence Voltage Z-Side Least Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4173	1	V	R	–	Primary Magnitude of Zero Sequence voltage Z-Side Most Significant Word
2100	100	kWh		-	Primary Forward Watt Energy Phase A[Low]
2101	100	kWh		-	Primary Forward Watt Energy Phase A[High] High Byte Register
2102	100	kWh		-	Primary Reverse Watt Energy Phase A[Low]
2103	100	kWh		-	Primary Reverse Watt Energy Phase A[High] High Byte Register
2104	100	kWh		-	Primary Forward Var Energy Phase A[Low]
2105	100	kWh		-	Primary Forward Var Energy Phase A[High] High Byte Register
2106	100	kWh		-	Primary Reverse Var Energy Phase A[Low]
2107	100	kWh		-	Primary Reverse Var Energy Phase A[High] High Byte Register
2108	100	kWh		-	Primary Forward Watt Energy Phase B[Low]
2109	100	kWh		-	Primary Forward Watt Energy Phase B[High] High Byte Register
2110	100	kWh		-	Primary Reverse Watt Energy Phase B[Low]
2111	100	kWh		-	Primary Reverse Watt Energy Phase B[High] High Byte Register
2112	100	kWh		-	Primary Forward Var Energy Phase B[Low]
2113	100	kWh		-	Primary Forward Var Energy Phase B[High] High Byte Register
2114	100	kWh		-	Primary Reverse Var Energy Phase B[Low]
2115	100	kWh		-	Primary Reverse Var Energy Phase B[High] High Byte Register
2116	100	kWh		-	Primary Forward Watt Energy Phase C[Low]
2117	100	kWh		-	Primary Forward Watt Energy Phase C[High] High Byte Register
2118	100	kWh		-	Primary Reverse Watt Energy Phase C[Low]
2119	100	kWh		-	Primary Reverse Watt Energy Phase C[High] High Byte Register
2120	100	kWh		-	Primary Forward Var Energy Phase C[Low]
2121	100	kWh		-	Primary Forward Var Energy Phase C[High] High Byte Register
2122	100	kWh		-	Primary Reverse Var Energy Phase C[Low]
2123	100	kWh		-	Primary Reverse Var Energy Phase C[High] High Byte Register
1852	1	–	R	0 – 4294967295/1	Power Down Count [Low]
1853	1	–	R	0 – 4294967295/1	Power Down Count [High]
1854	1	–	R	0 – 4294967295/1	Watch dog Count [Low]
1855	1	–	R	0 – 4294967295/1	Watch dog Count [High]
1856	–	A	R	–	Minimum Magnitude Phase A current (See Table 4-A at the end of Metering)

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1857	–	A	R	–	Minimum Magnitude Phase B current (See Table 4-A at the end of Metering)
1858	–	A	R	–	Minimum Magnitude Phase C current (See Table 4-A at the end of Metering)
1859	–	A	R	–	Minimum Magnitude Ground Current (See Table 4-B at the end of Metering)
1860	100	V	R	–	Minimum Magnitude Phase A Voltage
1861	100	V	R	–	Minimum Magnitude Phase B Voltage
1862	100	V	R	–	Minimum Magnitude Phase C Voltage
1952	100	V	R	–	V4MagMin (Minimum Magnitude Sync/Phase-B Load Side Voltage)
1968	100	V	R	–	V5MagMin (Minimum Magnitude Sync/Phase-C Load Side Voltage)
1863	100	V	R	–	V5Min (Minimum Magnitude Sync/Phase-A Load Side Voltage)
1864	–	A	R	–	Maximum Magnitude Phase A current (See Table 4-A at the end of Metering)
1865	–	A	R	–	Maximum Magnitude Phase B current (See Table 4-A at the end of Metering)
1866	–	A	R	–	Maximum Magnitude Phase C current (See Table 4-A at the end of Metering)
1867	–	A	R	–	Maximum Magnitude Ground Current (See Table 4-B at the end of Metering)
1868	100	V	R	–	Maximum Magnitude Phase A Voltage
1869	100	V	R	–	Maximum Magnitude Phase B Voltage
1870	100	V	R	–	Maximum Magnitude Phase C Voltage
1953	100	V	R	–	V4 Mag Max (Maximum Magnitude Sync/Phase-B Load Side Voltage)
1969	100	V	R	–	V5 Mag Max (Maximum Magnitude Sync/Phase-C Load Side Voltage)
1871	100	V	R	–	Vs Mag Max (Maximum Magnitude Sync/Phase-A Load Side Voltage)
1872	–	A	R	–	Magnitude Phase A Average Current (See Table 4-A at the end of Metering)
1873	–	A	R	–	Magnitude Phase B Average Current (See Table 4-A at the end of Metering)
1874	–	A	R	–	Magnitude Phase C Average Current (See Table 4-A at the end of Metering)
1875	–	A	R	–	Magnitude Ground Average Current (See Table 4-B at the end of Metering)
1876	100	V	R	–	Magnitude Phase A Average Voltage
1877	100	V	R	–	Magnitude Phase B Average Voltage

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1878	100	V	R	–	Magnitude Phase C Average Voltage
1954	100	V	R	–	V4MagAvg (Magnitude Sync/Phase-B Load Side Average Voltage)
1970	100	V	R	–	V5MagAvg (Magnitude Sync/Phase-C Load Side Average Voltage)
1879	100	V	R	–	VsMagAvg (Magnitude Sync/Phase-A Load Side Average Voltage)
1880	1	-	-		CBEMASStateCh0
1881	1	-	-		CBEMASStateCh1
1882	1	-	-		CBEMASStateCh2
1883	1	-	-		CBEMASStateCh3
1884	10	Deg	R	–	Va Phase angle
1885	10	Deg	R	–	Vb Phase angle
1886	10	Deg	R	–	Vc Phase angle
1955	10	Deg	R	–	V4Phase (Vz1 Phase angle)
1971	10	Deg	R	–	V5Phase (Vz2 Phase angle)
1887	10	Deg	R	–	VsPhase (Vz0 Phase angle)
1888	10	Deg	R	–	Ia Phase angle
1889	10	Deg	R	–	Ib Phase angle
1890	10	Deg	R	–	Ic Phase angle
1891	10	Deg	R	–	Ig Phase angle
1558	10	Deg	R	–	Positive Seq. Current Ph Angle in deg
1559	10	Deg	R	–	Negative Seq. Current Ph Angle in deg
1560	10	Deg	R	–	Zero Seq. Current Ph Angle in deg
1561	10	Deg	R	–	Positive Seq. Voltage Ph Angle Y-side in deg
1562	10	Deg	R	–	Negative Seq. Voltage Ph Angle Y-side in deg
1563	10	Deg	R	–	Zero Seq. Voltage Ph Angle Y-side in deg
1564	10	Deg	R	–	Positive Seq. Voltage Ph Angle Z-side in deg
1565	10	Deg	R	–	Negative Seq. Voltage Ph Angle Z-side in deg
1566	10	Deg	R	–	Zero Seq. Voltage Ph Angle Z-side in deg
1892	100	Cycles	-		52A Recloser Interrupting Time 1
1893	100	Cycles	-		52A Recloser Interrupting Time 2
1894	100	Cycles	-		52A Recloser Interrupting Time 3
1895	100	Cycles	-		52A Recloser Interrupting Time 4
1896	100	Cycles	-		52A Recloser Interrupting Time 5
1897	100	Cycles	-		52B Recloser Interrupting Timer Phase A #1.

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1898	100	Cycles	-		52B Recloser interrupting time Phase A #2.
1899	100	Cycles	-		52B Recloser interrupting time Phase A #3
1900	100	Cycles	-		52B Recloser interrupting time Phase A #4
1901	100	Cycles	-		52B Recloser interrupting time Phase A #5
4612	100	Cycles	-		52A Recloser Interrupting Time Phase A #1
4613	100	Cycles	-		52A Recloser Interrupting Time Phase A #2
4614	100	Cycles	-		52A Recloser Interrupting Time Phase A #3
4615	100	Cycles	-		52A Recloser Interrupting Time Phase A #5
4616	100	Cycles	-		52A Recloser Interrupting Time Phase A #5
4642	100	–	R	–	Supervision Time Phase A Least Significant Word
4643	100	–	R	–	Supervision Time Phase A Most Significant Word
4644	100	Cycles	R	–	Reset Time from Lockout Phase A Least Significant Word
4645	100	Cycles	R	–	Reset Time from Lockout Phase A Most Significant Word
4617	100	Cycles	R	–	52B Timer 1 A
4618	100	Cycles	R	–	52B Timer 2 A
4619	100	Cycles	R	–	52B Timer 3 A
4620	100	Cycles	R	–	52B Timer 4 A
4621	100	Cycles	R	–	52B Timer 5 A
4622	100	Cycles	R	–	52A Timer 1 B
4623	100	Cycles	R	–	52A Timer 2 B
4624	100	Cycles	R	–	52A Timer 3 B
4625	100	Cycles	R	–	52A Timer 4 B
4626	100	Cycles	R	–	52A Timer 5 B
4646	100	–	R	–	Supervision Time Phase B Least Significant Word
4647	100	–	R	–	Supervision Time Phase B Most Significant Word
4648	100	Cycles	R	–	Reset Time from Lockout Phase B Least Significant Word
4649	100	Cycles	R	–	Reset Time from Lockout Phase B Most Significant Word
4627	100	Cycles	-		52B Recloser Interrupting Timer Phase B #1.
4628	100	Cycles	-		52B Recloser Interrupting Timer Phase B #2.
4629	100	Cycles	-		52B Recloser Interrupting Timer Phase B #3.
4630	100	Cycles	-		52B Recloser Interrupting Timer Phase B #4.
4631	100	Cycles	-		52B Recloser Interrupting Timer Phase B #5.
4632	100	Cycles	-		52A Recloser Interrupting Time Phase C #1

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4633	100	Cycles	-		52A Recloser Interrupting Time Phase C #2
4634	100	Cycles	-		52A Recloser Interrupting Time Phase C #3
4635	100	Cycles	-		52A Recloser Interrupting Time Phase C #5
4636	100	Cycles	-		52A Recloser Interrupting Time Phase C #5
4650	100	-	-		Super vision Time Phase C [Low]
4651	100	-	-		Super vision Time Phase C [High]
4652	100	Cycles	-		Reset Time From Lockout Phase C [Low]
4653	100	Cycles	-		Reset Time From Lockout Phase C [High] High Byte Register
4637	100	Cycles	-		52B Recloser Interrupting Timer Phase C#1.
4638	100	Cycles	-		52B Recloser Interrupting Timer Phase C#2.
4639	100	Cycles	-		52B Recloser Interrupting Timer Phase C#3
4640	100	Cycles	-		52B Recloser Interrupting Timer Phase C#4
4641	100	Cycles	-		52B Recloser Interrupting Timer Phase C#5
1902	100	–	R	–	Supervision Time Least Significant Word
1903	100	–	R	–	Supervision Time Most Significant Word
1904	100	Cycles	R	–	Reset Time From Lockout Least Significant Word
1905	100	Cycles	R	–	Reset Time From Lockout Most Significant Word
1906	1	–	R	–	System Status Bit 1 Bit 0 – Trouble State Bit 1 – NOT USED Bit 2 – NOT USED Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – Ground Trip Blocked Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – Local/Remote State Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Recloser Closed

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1907	1	–	R	–	System Status Bit 1 Bit 16 – NOT USED Bit 17 – NOT USED Bit 18 – NOT USED Bit 19 – NOT USED Bit 20 – Control Lockout State Bit 21 – NOT USED Bit 22 – Normal Profile Active Bit 23 – NOT USED Bit 24 – NOT USED Bit 25 – NOT USED Bit 26 – NOT USED Bit 27 – NOT USED Bit 28 – NOT USED Bit 29 – NOT USED Bit 30 – NOT USED Bit 31 – NOT USED
2050	1	-	R	-	System StatusBit2
2051	1	-	R	-	System StatusBit2.H
2052	1	-	R	-	System StatusBit3
2053	1	-	R	-	System StatusBit3.H
1908	1000	KWh	R	–	Real Energy Phase-A Lead Least Significant Word Scale Factor/Range/Increment of this point changes based on Phase CT Rating (See Table 4-C at the end of Metering)
1909	1000	KWh	R	–	Real Energy Phase-A Lead Most Significant Word
1910	1000	KWh	R	–	Real Energy Phase-A Lag Least Significant Word (See Table 4-C at the end of Metering)
1911	1000	KWh	R	–	Real Energy Phase-A Lag Most Significant Word
1912	1000	KVh	R	–	Reactive Energy Phase-A Lead Least Significant Word (See Table 4-C at the end of Metering)
1913	1000	KVh	R	–	Reactive Energy Phase-A Lead Most Significant Word
1914	1000	KVh	R	–	Reactive Energy Phase-A Lag Least Significant Word (See Table 4-C at the end of Metering)
1915	1000	KVh	R	–	Reactive Energy Phase-A Lag Most Significant Word
1916	1000	KWh	R	–	Real Energy Phase-B Lead Least Significant Word (See Table 4-C at the end of Metering)
1917	1000	KWh	R	–	Real Energy Phase-B Lead Most Significant Word
1918	1000	KWh	R	–	Real Energy Phase-B Lag Least Significant Word (See Table 4-C at the end of Metering)

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1919	1000	KWh	R	–	Real Energy Phase-B Lag Most Significant Word
1920	1000	KVh	R	–	Reactive Energy Phase-B Lead Least Significant Word (See Table 4-C at the end of Metering)
1921	1000	KVh	R	–	Reactive Energy Phase-B Lead Most Significant Word
1922	1000	KVh	R	–	Reactive Energy Phase-B Lag Least Significant Word (See Table 4-C at the end of Metering)
1923	1000	KVh	R	–	Reactive Energy Phase-B Lag Most Significant Word
1924	1000	KWh	R	–	Real Energy Phase-C Lead Least Significant Word (See Table 4-C at the end of Metering)
1925	1000	KWh	R	–	Real Energy Phase-C Lead Most Significant Word
1926	1000	KWh	R	–	Real Energy Phase-C Lag Least Significant Word (See Table 4-C at the end of Metering)
1927	1000	KWh	R	–	Real Energy Phase-C Lag Most Significant Word
1928	1000	KVh	R	–	Reactive Energy Phase-C Lead Least Significant Word (See Table 4-C at the end of Metering)
1929	1000	KVh	R	–	Reactive Energy Phase-C Lead Most Significant Word
1930	1000	KVh	R	–	Reactive Energy Phase-C Lag Least Significant Word (See Table 4-C at the end of Metering)
1931	1000	KVh	R	–	Reactive Energy Phase-C Lag Most Significant Word
1932	1	%	R	–	Total Demand Distortion of Phase A current
1933	1	%	R	–	Total Demand Distortion of Phase B current
1934	1	%	R	–	Total Demand Distortion of Phase C current
1976	10	atm	R	–	Pressure Metering
1977	1000	–	R	–	Breaker Monitor Accumulator Status Phase A Least Significant Word
1978	1000	–	R	–	Breaker Monitor Accumulator Status Phase A Most Significant Word
1979	1000	–	R	–	Breaker Monitor Accumulator Status Phase B Least Significant Word
1980	1000	–	R	–	Breaker Monitor Accumulator Status Phase B Most Significant Word
1981	1000	–	R	–	Breaker Monitor Accumulator Status Phase C Least Significant Word
1982	1000	–	R	–	Breaker Monitor Accumulator Status Phase C Most Significant Word

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1983	–	–	R	–	BBRAM Data Bus
1984	–	–	R	–	BBRAM ADDR Bus
1985	–	–	R	–	BBRAM ADDR Bus.H
1986	–	–	R	–	BBRAM Bad Offset
1987	–	–	R	–	BBRAM Bad Offset.H
2098	1000	miles	R	NA/0.001	Fault Distance Measurement
2099	1000	miles	R	NA/0.001	Fault Distance Measurement.H
5280	1000	Km	R	NA/0.001	FAULTDISTANCEKM
5281	1000	Km	R	NA/0.001	FAULTDISTANCEKM .H
1989	1				Fault distance change counter
1990	1	–	R	–	FAULT TYPE 0 – Unknown 1 – AG (Phase A to Ground) 2 – BG (Phase B to Ground) 3 – CG (Phase C to Ground) 4 – AB (Phase A to Phase B) 5 – BC (Phase B to Phase C) 6 – CA (Phase C to Phase A) 7 – ABG (Phase A to Phase B to Ground) 8 – BCG (Phase B to Phase C to Ground) 9 – CAG (Phase C to Phase A to Ground) 10 – ABC (Phase A to Phase B to Phase C) 11 – ABCG (Phase A to Phase B to Phase C to Ground) 12-A Phase 13-B Phase 14-C Phase
0	-	-	-	-	FAULTTYPE_REAL_TIME
2090	100	-	R	-/0.01	Fault Duration Phase A
2091	100	-	R	-/0.01	Fault Duration Phase A.H
2092	100	-	R	-/0.01	Fault Duration Phase B
2093	100	-	R	-/0.01	Fault Duration Phase B.H
2094	100	-	R	-/0.01	Fault Duration Phase C
2095	100	-	R	-/0.01	Fault Duration Phase C.H
1991	1	-	R	-	IEC61850 Status

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1996	-	-	R	-	PUST12 Bit 0 – HLT50PA Pickup Status Bit Bit 1 – HLT50PB Pickup Status Bit Bit 2 – HLT50PC Pickup Status Bit Bit 3 – HLT50GS Pickup Status Bit Bit 4 – HLT51PA Pickup Status Bit Bit 5 – HLT51PB Pickup Status Bit Bit 6 – HLT51PC Pickup Status Bit Bit 7 – HLT51GS Pickup Status Bit Bit 8 – SECTIONALIZERA Pickup Status Bit 9 – SECTIONALIZERB Pickup Status Bit 10 – SECTIONALIZERC Pickup Status Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A pickup status bit
1997	-	-	R	-	TOST12 Bit 0 – HLT50PA timeout Status Bit Bit 1 – HLT50PB timeout Status Bit Bit 2 – HLT50PC timeout Status Bit Bit 3 – HLT50GS timeout Status Bit Bit 4 – HLT51PA timeout Status Bit Bit 5 – HLT51PB timeout Status Bit Bit 6 – HLT51PC timeout Status Bit Bit 7 – HLT51GS timeout Status Bit Bit 8 – SECTIONALIZERA timeout Status Bit 9 – SECTIONALIZERB timeout Status Bit 10 – SECTIONALIZERC timeout Status Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A timeout status bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1998	-	-	R	-	PUSTCHANGE12 Bit 0 – HLT50PA pickup dropout Status Bit Bit 1 – HLT50PB pickup dropout Status Bit Bit 2 – HLT50PC pickup dropout Status Bit Bit 3 – HLT50GS pickup dropout Status Bit Bit 4 – HLT51PA pickup dropout Status Bit Bit 5 – HLT51PB pickup dropout Status Bit Bit 6 – HLT51PC pickup dropout Status Bit Bit 7 – HLT51GS pickup dropout Status Bit Bit 8 – SECTIONALIZERA pickup dropout Status Bit Bit 9 – SECTIONALIZERB pickup dropout Status Bit Bit 10 – SECTIONALIZERC pickup dropout Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A pickup dropout status bit
1999	-	-	R	-	TOSTCHANGE12 Bit 0 – HLT50PA Timeout Dropout Status Bit Bit 1 – HLT50PB Timeout Dropout Status Bit Bit 2 – HLT50PC Timeout Dropout Status Bit Bit 3 – HLT50GS Timeout Dropout Status Bit Bit 4 – HLT51PA Timeout Dropout Status Bit Bit 5 – HLT51PB Timeout Dropout Status Bit Bit 6 – HLT51PC Timeout Dropout Status Bit Bit 7 – HLT51GS Timeout Dropout Status Bit Bit 8 – SECTIONALIZERA Timeout Dropout Status Bit Bit 9 – SECTIONALIZERB Timeout Dropout Status Bit Bit 10 – SECTIONALIZERC Timeout Dropout Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A Timeout Dropout status bit

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1992	-	-	R	-	TO TARGET12 Bit 0 – HLT50PA Target Status Bit Bit 1 – HLT50PB Target Status Bit Bit 2 – HLT50PC Target Status Bit Bit 3 – HLT50GS Target Status Bit Bit 4 – HLT51PA Target Status Bit Bit 5 – HLT51PB Target Status Bit Bit 6 – HLT51PC Target Status Bit Bit 7 – HLT51GS Target Status Bit Bit 8 – SECTIONALIZERA Target Status Bit Bit 9 – SECTIONALIZERB Target Status Bit Bit 10 – SECTIONALIZERC Target Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A Target status bit
4375	-	-	R	-	Battery Charger External Inputs 1 = Enabled, 0 = Disabled Bit 0 – Input 1 Bit 1 – Input 2 Bit 2 – Input 3 Bit 3 – Input 4 Bit 4 – Input 5 Bit 5 – Input 6 Bit 6 – Input 7 Bit 7 – Input 8
2132	1	-	RD	0-4294967295/1	Current IP Address[Low]
2133	1	-	RD	0-4294967295/1	Current IP Address[High] High Byte Register
2134	1	-	RD	0-4294967295/1	Current Net Mask Address[Low]
2135	1	-	RD	0-4294967295/1	Current Net Mask Address[High] High Byte Register
2136	1	-	RD	0-4294967295/1	Current Gateway Address[Low]
2137	1	-	RD	0-4294967295/1	Current Gateway Address[High] High Byte Register
2139	-	-	RD	-	LED1 Front Panel Status
2140	-	-	RD	-	LED2 Front Panel Status
2141	-	-	RD	-	LED3 Front Panel Status
2142	-	-	RD	-	LED4 Front Panel Status
2143	-	-	RD	-	LED5 Front Panel Status
2144	-	-	RD	-	LED6 Front Panel Status
2145	-	-	RD	-	LED7 Front Panel Status
2146	-	-	RD	-	LED8 Front Panel Status

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2147	–	–	RD	-	LED9 Front Panel Status
2148	–	–	RD	-	LED10 Front Panel Status
2149	–	–	RD	-	LED11 Front Panel Status
2150	–	–	RD	-	LED12 Front Panel Status
2151	–	–	RD	-	LED13 Front Panel Status
2152	–	–	RD	-	LED14 Front Panel Status
2153	–	–	RD	-	LED15 Front Panel Status
2154	–	–	RD	-	LED16 Front Panel Status
2155	–	–	RD	-	LED17 Front Panel Status
2156	–	–	RD	-	LED18 Front Panel Status
2157	–	–	RD	-	LED19 Front Panel Status
2158	–	–	RD	-	LED20 Front Panel Status
2159	–	–	RD	-	LED21 Front Panel Status
2160	–	–	RD	-	LED22 Front Panel Status
2161	–	–	RD	-	LED23 Front Panel Status
3793	1	-	-	-	SPDB CFG FILE MISSING
2006	-	-	-	-	Sectionalizer Fault and Reset Counter
2007	-	-	-	-	Sectionalizer Fault and Reset Counter Phase B
2008	-	-	-	-	Sectionalizer Fault and Reset Counter Phase C
2009	-	-	-	-	Sectionalizer Reset Timer
2010	-	-	-	-	Sectionalizer Reset Timer Phase B
2011	-	-	-	-	Sectionalizer Reset Timer Phase C
2012	-	A	-	-	SEQ3I0Primary
2043	-	-	-	-	Sectionalizer Current Restrain Timer Phase A
2044	-	-	-	-	Sectionalizer Current Restrain Timer Phase B
2045	-	-	-	-	Sectionalizer Current Restrain Timer Phase C
2046	-	s	-	-	Sectionalizer Ground Current Restraint Block
2054	-	-	-	-	Above OC PU
2055	-	-	-	-	Fault Elements1
2056	-	-	-	-	Fault Elements2
2059	1	A	-	-	Fault Primary Current Phase A
2060	1	A	-	-	Fault Primary Current Phase A .H
2061	1	A	-	-	Fault Primary Current Phase B
2062	1	A	-	-	Fault Primary Current Phase B.H
2063	1	A	-	-	Fault Primary Current Phase C
2064	1	A	-	-	Fault Primary Current Phase C.H
2065	1	A	-	-	Fault Primary Current Ground
2066	1	A	-	-	Fault Primary Current Ground.H
2067	1	A	-	-	Fault Primary Current Max
2068	1	A	-	-	Fault Primary Current Max.H

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2069	10	deg	-	-	Fault Primary Phase Angle Phase A
2070	10	deg	-	-	Fault Primary Phase Angle Phase B
2071	10	deg	-	-	Fault Primary Phase Angle Phase C
2072	100	V	-	-	Fault Voltage Phase A
2073	100	V	-	-	Fault Voltage Phase B
2074	100	V	-	-	Fault Voltage Phase C
2075	-	-	-	-	Reclosing In Process
2076	-	-	-	-	Reclose in process Phase A
2077	-	-	-	-	Reclose in process Phase B
2078	-	-	-	-	Reclose in process Phase C
2084	-	-	-	-	Demand Metering Fwd PF Threshold Status
2085	-	-	-	-	PUST13 Bit 0 – Close Block Ph A pickup status bit Bit 1 – Close Block Ph B pickup status bit Bit 2 – Close Block Ph C pickup status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
2086	-	-	-	-	TOST13 Bit 0 – Close Block Ph A timeout status bit Bit 1 – Close Block Ph B timeout status bit Bit 2 – Close Block Ph C timeout status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2087	-	-	-	-	PUSTCHANGE13 Bit 0 – Close Block Ph A pickdrop status bit Bit 1 – Close Block Ph B pickdrop status bit Bit 2 – Close Block Ph C pickdrop status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
2088	-	-	-	-	TOSTCHANGE13 Bit 0 – Close Block Ph A Timedrop status bit Bit 1 – Close Block Ph B Timedrop status bit Bit 2 – Close Block Ph C Timedrop status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
2089	-	-	-	-	TO TARGET13 Bit 0 – Close Block Ph A Target status bit Bit 1 – Close Block Ph B Target status bit Bit 2 – Close Block Ph C Target status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
3926	-	-	-	-	Button Status
3927	-	-	-	-	Button Status.H
2096	-	-	-	-	Button Toggle State
1514	100	kW	-	-	Primary Real Ph-A Power in Watts
1515	100	kW	-	-	Primary Real Ph-A Power in Watts.H
1516	100	kvar	-	-	Primary Reactive Ph-A Power in var
1517	100	kvar	-	-	Primary Reactive Ph-A Power in var.H
1518	100	kW	-	-	Primary Real Ph-B Power in Watts
1519	100	kW	-	-	Primary Real Ph-B Power in Watts.H
1520	100	kvar	-	-	Primary Reactive Ph-B Power in var
1521	100	kvar	-	-	Primary Reactive Ph-B Power in var.H
1522	100	kW	-	-	Primary Real Ph-C Power in Watts
1523	100	kW	-	-	Primary Real Ph-C Power in Watts.H
1524	100	kvar	-	-	Primary Reactive Ph-C Power in var
1525	100	kvar	-	-	Primary Reactive Ph-C Power in var.H
1526	100	kW	-	-	Three Phase Primary Real average Power in Watts
1527	100	kW	-	-	Three Phase Primary Real average Power in Watts.H
1528	100	kvar	-	-	Three Phase Primary Reactive average Power in var
1529	100	kvar	-	-	Three Phase Primary Reactive average Power in var.H
1530	100	kVA	-	-	Primary Magnitude of Ph-A apparent power in va
1531	100	kVA	-	-	Primary Magnitude of Ph-A apparent power in va.H
1532	100	kVA	-	-	Primary Magnitude of Ph-B apparent power in va
1533	100	kVA	-	-	Primary Magnitude of Ph-B apparent power in va.H
1534	100	kVA	-	-	Primary Magnitude of Ph-C apparent power in va

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
1535	100	kVA	-	-	Primary Magnitude of Ph-C apparent power in va.H
1536	100	kVA	-	-	Three Phase Primary Magnitude of average apparent power in va
1537	100	kVA	-	-	Three Phase Primary Magnitude of average apparent power in va.H
1538	-	-	-	-	Button Function Status
1539	-	-	-	-	Button Function Status.H
4661	-	-	-	-	RMS DFT Indicator
4662	1000	A	-	-	RMS Current Magnitude PhaseA
4663	1000	A	-	-	RMS Current Magnitude PhaseB
4664	1000	A	-	-	RMS Current Magnitude PhaseC
4665	1000	A	-	-	RMS Current Magnitude Ground G
4666	1000	A	-	-	RMS Current Differentiate Magnitude Phase A
4667	1000	A	-	-	RMS Current Differentiate Magnitude Phase B
4668	1000	A	-	-	RMS Current Differentiate Magnitude Phase C
4669	1000	A	-	-	RMS Current Differentiate Magnitude Ground G
4670	-	-	-	-	LCD Display 1
4680	-	-	-	-	LCD Display 2
4690	-	-	-	-	LCD Display Cursory
4691	-	-	-	-	LOOP SCHEME_STATUS 3
4700	-	-	-	-	LOOP SCHEME STATUS 1
4701	-	-	-	-	LOOP SCHEME STATUS 2
4692	-	-	-	-	Charger Voltage
4693	-	-	-	-	AnalogInput1 meter
4694	-	-	-	-	AnalogInput2 meter
4695	-	-	-	-	AnalogInput3 meter
4696	-	-	-	-	AnalogInput4 meter
4697	-	-	-	-	Analog Input Threshold status
4698	-	-	-	-	Analog output1 status
4699	-	-	-	-	Analog output2 status

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4702	-	-	-	-	PUST14 Bit 0 – 27 #7 Pickup Status Bit Bit 1 – 27 #8 Pickup Status Bit Bit 2 – 59 #5 Pickup Status Bit Bit 3 – 59 #6 Pickup Status Bit Bit 4 – 59 #7 Pickup Status Bit Bit 5 – 59 #8 Pickup Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
4703	-	-	-	-	TOST14 Bit 0 – 27 #7 Timeout Status Bit Bit 1 – 27 #8 Timeout Status Bit Bit 2 – 59 #5 Timeout Status Bit Bit 3 – 59 #6 Timeout Status Bit Bit 4 – 59 #7 Timeout Status Bit Bit 5 – 59 #8 Timeout Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
4704	-	-	-	-	PUSTCHANGE14
4705	-	-	-	-	TOSTCHANGE14
4706	-	-	-	-	TO TARGET14
4707	-	-	-	-	PUSTDROP1
4708	-	-	-	-	PUSTDROP2
4709	-	-	-	-	PUSTDROP3
4710	-	-	-	-	PUSTDROP4
4711	-	-	-	-	PUSTDROP5
4712	-	-	-	-	PUSTDROP6
4713	-	-	-	-	PUSTDROP7
4714	-	-	-	-	PUSTDROP8
4715	-	-	-	-	PUSTDROP9
4716	-	-	-	-	PUSTDROP10
4717	-	-	-	-	PUSTDROP11

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4718	-	-	-	-	PUSTDROP12
4719	-	-	-	-	PUSTDROP13
4720	-	-	-	-	PUSTDROP14
4721	-	-	-	-	TOSTDROP1
4722	-	-	-	-	TOSTDROP2
4723	-	-	-	-	TOSTDROP3
4724	-	-	-	-	TOSTDROP4
4725	-	-	-	-	TOSTDROP5
4726	-	-	-	-	TOSTDROP6
4727	-	-	-	-	TOSTDROP7
4728	-	-	-	-	TOSTDROP8
4729	-	-	-	-	TOSTDROP9
4730	-	-	-	-	TOSTDROP10
4731	-	-	-	-	TOSTDROP11
4732	-	-	-	-	TOSTDROP12
4733	-	-	-	-	TOSTDROP13
4734	-	-	-	-	TOSTDROP14
4735	-	-	-	0 -	LS Dead Line Timer Y-Side
4736	-	-	-	0 -	LS Dead Line Timer Z-Side
4737	-	-	-	0 -	LS Live Line Timer Y-Side
4738	-	-	-	0 -	LS Live Line Timer Z-Side
4739	-	s	-	0 -	LS Voltage Loss Timer Y-Side
4740	-	s	-	0 -	LS Voltage Loss Timer Z-Side
4741	-	s	-	0 -	LS Voltage Restore Timer Y-Side
4742	-	s	-	0 -	LS Voltage Restore Timer Z-Side
4743	-	s	-	0 -	LS Voltage Restore Confirmed Timer Y-Side
4744	-	s	-	0 -	LS Voltage Restore Confirmed Timer Z-Side
4745	-	V	-	-	Sec VAB y REAL
4746	-	V	-	-	Sec VAB y REACTIVE
4747	-	V	-	-	Sec VBC y REAL
4748	-	V	-	-	Sec VBC y REACTIVE
4749	-	V	-	-	Sec VAC y REAL
4750	-	V	-	-	Sec VAC y REACTIVE
4751	-	V	-	-	Sec VAB z REAL
4752	-	V	-	-	Sec VAB z REACTIVE
4753	-	V	-	-	Sec VBC z REAL
4754	-	V	-	-	Sec VBC z REACTIVE
4755	-	V	-	-	Sec VAC z REAL
4756	-	V	-	-	Sec VAC z REACTIVE
4757	-	KV	-	-	Pri VABy
4758	-	KV	-	-	Pri VAB y.H
4759	-	KV	-	-	Pri VBCy

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4760	-	KV	-	-	Pri VBC y.H
4761	-	KV	-	-	Pri VACy
4762	-	KV	-	-	Pri VAC y.H
4763	-	KV	-	-	Pri VABz
4764	-	KV	-	-	Pri VAB z.H
4765	-	KV	-	-	Pri VBCz
4766	-	KV	-	-	Pri VBCz.H
4767	-	KV	-	-	Pri VACz
4768	-	KV	-	-	Pri VACz.H
4769	-	-	-	-	SOE LOOP SCHEME STATUS CHANGE
4770	-	-	-	-	SOE LOOP SCHEME STATUS CHANGE.H
4771	-	-	-	-	Fault Led Status
4772	-	-	-	-	Fault Type 1stT
4773	-	A	-	-	Fault Pri Amps A 1stT
4774	-	A	-	-	Fault Pri Amps A 1stT H
4775	-	A	-	-	Fault Pri Amps B 1stT
4776	-	A	-	-	Fault Pri Amps B 1stT H
4777	-	A	-	-	Fault Pri Amps C 1stT
4778	-	A	-	-	Fault Pri Amps C 1stT H
4779	-	A	-	-	Fault Pri Amps G 1stT
4780	-	A	-	-	Fault Pri G 1stT H
4781	-	A	-	-	Fault Pri Amps N 1stT
4782	-	A	-	-	Fault Pri N 1stT H
4783	-	A	-	-	Fault Sec Amps A 1stT
4784	-	A	-	-	Fault Sec Amps B 1stT
4785	-	A	-	-	Fault Sec Amps C 1stT
4786	-	A	-	-	Fault Sec Amps G 1stT
4787	-	A	-	-	Fault Sec Amps N 1stT
4788	-	A	-	-	Fault Sec Amps A
4789	-	A	-	-	Fault Sec Amps A H
4790	-	A	-	-	Fault Sec Amps B
4791	-	A	-	-	Fault Sec Amps B H
4792	-	A	-	--	Fault Sec Amps C
4793	-	A	-	-	Fault Sec Amps C H
4794	-	A	-	-	Fault Sec Amps G/GS
4795	-	A	-	-	Fault Sec Amps G/GS H
4796	-	A	-	-	Fault Sec Amps N
4797	-	A	-	-	Fault Sec Amps N H
4798	-	-	-	-	RECLOSEOPMODE
4799	-	-	-	-	RECLOSEOPMODECHANGE
4800	-	-	-	-	SOETRIGSIGNAL
4801	-	-	-	-	SOETRIGSIGNALCHANGE

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4802	-	-	-	-	FAULT LATCH
4803	-	-	-	-	Recloser Lockout Block
4804	-	-	-	-	PUST15
4805	-	-	-	-	PUST16
4806	-	-	-	-	TOST15
4807	-	-	-	-	TOST16
4808	-	-	-	-	PUSTCHANGE15
4809	-	-	-	-	PUSTCHANGE16
4810	-	-	-	-	TOSTCHANGE15
4811	-	-	-	-	TOSTCHANGE16
4812	-	-	-	-	TO TARGET15
4813	-	-	-	-	TO TARGET16
4814	-	-	-	-	PUSTDROP15
4815	-	-	-	-	PUSTDROP16
4816	-	-	-	-	TOSTDROP15
4817	-	-	-	-	TOSTDROP16
4818	-	-	-	-	UNBAL_POLE1_OPSTATUS
4819	-	-	-	-	UNBAL_POLE2_OPSTATUS
4820	-	-	-	-	UNBAL_POLE1_TRIG_STATUS
4821	-	-	-	-	UNBAL_POLE2_TRIG_STATUS
4822	-	-	-	-	UNBAL_POLE1_TRIG_STATUS_CHANGE
4823	-	-	-	-	UNBAL_POLE2_TRIG_STATUS_CHANGE
4824	-	-	-	-	LOOPSCHEME2_STATUS1
4825	-	-	-	-	LOOPSCHEME2_STATUS2
4826	-	-	-	-	LOOPSCHEME2_STATUS3
4827	-	S	-	-	LS P2 DL Timer Y
4828	-	S	-	-	LS P2 DL Timer Z
4829	-	S	-	-	LS P2 LL Timer Y
4830	-	S	-	-	LS P2 LL Timer Z
4831	-	S	-	-	LS P2 VoltLoss Timer Y
4832	-	S	-	-	LS P2 VoltLoss Timer Z
4833	-	S	-	-	LS P2 VoltRestore Timer Y
4834	-	S	-	-	LS P2 VoltRestore Timer Z
4835	-	S	-	-	LS P2 VoltRestConf Timer Y
4836	-	S	-	-	LS P2 VoltRestConf Timer Z
4837	-	-	-	-	UNBAL_SECT1_STATUS
4838	-	-	-	-	UNBAL_SECT2_STATUS
4839	10	-	-	-	SyncDeltaAngle2
4840	-	Hz	-	-	SyncDeltaFrequency2
4841	-	V	-	-	SyncDeltaVoltage2
4842	-	-	-	-	SOELSP2STATUSCHANGE
4843	-	-	-	-	SOELSP2STATUSCHANGE.H

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4844	—	—	—	—	POLE 1
4845	—	—	—	—	POLE 2
4846	—	—	—	—	Fault LED Pole Status
4847	—	—	—	—	PUST17
4848	—	—	—	—	PUST18
4849	—	—	—	—	TOST17
4850	—	—	—	—	TOST18
4851	—	—	—	—	PUSTCHANGE17
4852	—	—	—	—	PUSTCHANGE18
4853	—	—	—	—	TOSTCHANGE17
4854	—	—	—	—	TOSTCHANGE18
4855	—	—	—	—	TO TARGET17
4856	—	—	—	—	TO TARGET18
4857	—	—	—	—	PUSTDROP17
4858	—	—	—	—	PUSTDROP18
4859	—	—	—	—	TOSTDROP17
4860	—	—	—	—	TOSTDROP18
4861	10	%	—	—	I2I1SeqSec
4862	10	%	-	—	I2I1SeqPrimary
4863	10	%	-	—	I2I1SeqPrimary.H
4868	-	-	-	-	CLP STATUS CMD Bit 0 – ColdLoadPickup Enable Status Bit Bit 1 – ColdLoadPickup Block Status Bit Bit 2 – ColdLoadPickup Reset Status Bit Bit 3 – ColdLoadPickup Initiated Status Bit Bit 4 – ColdLoadPickup 79 Lockout Status Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4869	-	-	-	-	CLP STATUS Bit 0 – ColdLoadPickup ArmPickup Status Bit Bit 1 – ColdLoadPickup Arm Timeout Status Bit Bit 2 – ColdLoadPickup InitiateActionPickup Status Bit Bit 3 – ColdLoadPickup InitiateActionTimeout Status Bit Bit 4 – ColdLoadPickup LowPhaseCurrentPickup Status Bit Bit 5 – ColdLoadPickup LowPhaseCurrentTimeout Status Bit Bit 6 – ColdLoadPickup LowGroundCurrentPickup Status Bit Bit 7 – ColdLoadPickup LowGroundCurrentTimeout Status Bit Bit 8 – ColdLoadPickup OverrideActivePickup Status Bit //CLPACT Pickup Bit 9 – ColdLoadPickup OverrideActiveTimeoutStatus Bit //CLPACT Timeout Bit 10 – ColdLoadPickup LowCurrentPickup Status Bit //CLP BMT pickup Bit 11 – ColdLoadPickup LowCurrentTimeout Status Bit //CLP BMT timeout Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4870	-	-	-	-	CLP STATUS Bit 0 – ColdLoadPickup ArmPickupDropout Status Bit Bit 1 – ColdLoadPickup Arm TimeoutDropout Status Bit Bit 2 – ColdLoadPickup InitiateActionPickupDropout Status Bit Bit 3 – ColdLoadPickup InitiateActionTimeoutDropout Status Bit Bit 4 – ColdLoadPickup LowPhaseCurrentPickupDropout Status Bit Bit 5 – ColdLoadPickup LowPhaseCurrentTimeoutDropout Status Bit Bit 6 – ColdLoadPickup LowGroundCurrentPickupDropout Status Bit Bit 7 – ColdLoadPickup LowGroundCurrentTimeoutDropout Status Bit Bit 8 – ColdLoadPickup OverrideActivePickupDropout Status Bit // CLPACT Pickup Bit 9 – ColdLoadPickup OverrideActiveTimeoutDropout Status Bit // CLPACT Timeout Bit 10 – ColdLoadPickup LowCurrentPickupDropout Status Bit //CLP BMT pickup Bit 11 – – ColdLoadPickup LowCurrentTimeoutDropout Status Bit // CLP BMT timeout Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
4871	1	S	-	-	CLP Open To Arm Timer
4872	1	S	-	-	CLP Override Active Timer
4873	1	S	-	-	CLP Initiate Active Timer
4874	10	S	—	-	CLP BMT Phase Timer
4875	10	S	—	-	CLP BMT Ground Timer
4896	100	S	-	-	CLP BMT Residual Timer
4876	—	A	—	—	CLP Min Phase Pickup
4877	—	A	—	—	CLP Min Ground Pickup
4878	10	S	—	—	Last Recent Fault Duration A
4879	10	S	—	—	Last Recent Fault Duration B
4880	10	S	—	—	Last Recent Fault Duration C
4881	—	—	—	—	Fault Change Counter
4882	—	—	—	—	Fault Change Counter A
4883	—	—	—	—	Fault Change Counter B

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4884	—	—	—	—	Fault Change Counter C
4885	10	%	-	0-100/1	BM_CONTACTSLIFEUSED_PHA
4886	10	%	-	0-100/1	BM_CONTACTSLIFEUSED_PHB
4887	10	%	-	0-100/1	BM_CONTACTSLIFEUSED_PHC
4888	10	%	-	0-100/1	BM_CONTACTSLIFEREM_PHA
4889	10	%	-	0-100/1	BM_CONTACTSLIFEREM_PHB
4890	10	%	-	0-100/1	BM_CONTACTSLIFEREM_PHC
4891	—	—	—	—	BM1_STATUS Bit 0 –BreakerMonitor1 Pickup Status Bit Bit 1 – BreakerMonitor1 PickupChange Status Bit Bit 2 – BreakerMonitor1 PickupDrop Status Bit Bit 3 – BreakerMonitor1 Timeout Status Bit Bit 4 – BreakerMonitor1 TimeoutDrop Status Bit Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
4892	—	—	—	—	BM2_STATUS Bit 0 –BreakerMonitor2 Pickup Status Bit Bit 1 – BreakerMonitor2 PickupChange Status Bit Bit 2 – BreakerMonitor2 PickupDrop Status Bit Bit 3 – BreakerMonitor2 Timeout Status Bit Bit 4 – BreakerMonitor2 TimeoutDrop Status Bit Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
4893	—	—	—	—	PORTSSTATUS
4894	—	—	—	—	BM_CONTACTSWEAR

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4895	—	—	—	—	CLP Min Residual Pickup
4897	—	—	—	—	Battery1 Status
4898	—	—	—	—	Battery2 Status
4899	—	V	—	—	Battery Charger CapVolatge
4900	—	C	—	—	Battery Charger Temperature Sensor
4901	—	—	—	—	Battery Charger Status Hubbell
4902	—	Kwh	R	—	Phase ABC Fwd Watts
4903	—	Kwh	R	—	Phase ABC Fwd Watts.H
4904	—	Kwh	R	—	Phase ABC Rev Watts
4905	—	Kwh	R	—	Phase ABC Rev Watts.H
4906	—	Kvh	R	—	Phase ABC Fwd Vars
4907	—	Kvh	R	—	Phase ABC Fwd Vars.H
4908	—	Kvh	R	—	Phase ABC Rev Vars
4909	—	kvh	R	—	Phase ABC Rev Vars.H
4910	—	Kwh	R	—	Phase ABC Primary Fwd Watts
4911	—	Kwh	R	—	Phase ABC Primary Fwd Watts.H
4912	—	Kwh	R	—	Phase ABC Primary Rev Watts
4913	—	Kwh	R	—	Phase ABC Primary Rev Watts.H
4914	—	Kvh	R	—	Phase ABC Primary Fwd Vars
4915	—	Kvh	R	—	Phase ABC Primary Fwd Vars.H
4916	—	Kvh	R	—	Phase ABC Primary Rev Vars
4917	—	Kvh	R	—	Phase ABC Primary Rev Vars.H
4918	—	Kwh	R	—	Phase A Primary Fwd Watts
4919	—	Kwh	R	—	Phase A Primary Fwd Watts.H
4920	—	Kwh	R	—	Phase B Primary Fwd Watts
4921	—	Kwh	R	—	Phase B Primary Fwd Watts.H
4922	—	Kwh	R	—	Phase C Primary Fwd Watts
4923	—	Kwh	R	—	Phase C Primary Fwd Watts.H
4924	—	Kwh	R	—	Phase A Primary Rev Watts
4925	—	Kwh	R	—	Phase A Primary Rev Watts.H
4926	—	Kwh	R	—	Phase B Primary Rev Watts
4927	—	Kwh	R	—	Phase B Primary Rev Watts.H
4928	—	Kwh	R	—	Phase C Primary Rev Watts
4929	—	Kwh	R	—	Phase C Primary Rev Watts.H
4930	—	Kvh	R	—	Phase A Primary Fwd Vars
4931	—	Kvh	R	—	Phase A Primary Fwd Vars.H
4932	—	Kvh	R	—	Phase B Primary Fwd Vars
4933	—	Kvh	R	—	Phase B Primary Fwd Vars.H
4934	—	Kvh	R	—	Phase C Primary Fwd Vars
4935	—	Kvh	R	—	Phase C Primary Fwd Vars.H
4936	—	Kvh	R	—	Phase A Primary Rev Vars
4937	—	Kvh	R	—	Phase A Primary Rev Vars.H

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4938	—	Kvh	R	—	Phase B Primary Rev Vars
4939	—	Kvh	R	—	Phase B Primary Rev Vars.H
4940	—	Kvh	R	—	Phase C Primary Rev Vars
4941	—	Kvh	R	—	Phase C Primary Rev Vars.H
4942	—	Kwh	R	—	Phase ABC Fwd Watt Energy
4943	—	Kwh	R	—	Phase ABC Fwd Watt Energy.H
4944	—	Kwh	R	—	Phase ABC Rev Watt Energy
4945	—	Kwh	R	—	Phase ABC Rev Watt Energy.H
4946	—	Kvh	R	—	Phase ABC Fwd Var Energy
4947	—	kvh	R	—	Phase ABC Fwd Var Energy.H
4948	—	Kvh	R	—	Phase ABC Rev Var Energy
4949	—	kvh	R	—	Phase ABC Rev Var Energy.H
4950	—	Kwh	R	—	Phase ABC Primary Fwd Watt Energ
4951	—	Kwh	R	—	Phase ABC Primary Fwd Watt Energy.H
4952	—	kwh	R	—	Phase ABC Primary Rev Watt Energy
4953	—	kwh	R	—	Phase ABC Primary Rev Watt Energy.H
4954	—	Kvh	R	—	Phase ABC Primary Fwd Var Energ
4955	—	Kvh	R	—	Phase ABC Primary Fwd Var Energy.H
4956	—	Kvh	R	—	Phase ABC Primary Rev Var Energy
4957	—	kvh	R	—	Phase ABC Primary Rev Var Energy.H
4958	—	—	R	—	ANYFUNCPUSTATUS
4959	—	—	R	—	ANYFUNCPUSTATUS.H
4960	—	—	R	—	ANYFUNCTOSTATUS
4961	—	—	R	—	ANYFUNCTOSTATUS.H
4962	—	—	R	—	ANYFUNCPOLEPUSTATUS
4963	—	—	R	—	ANYFUNCPOLEPUSTATUS.H
4964	—	—	R	—	ANYFUNCPOLETOSTATUS
4965	—	—	R	—	ANYFUNCPOLETOSTATUS.H
4966	—	—	R	—	EVENT1_STATUS
4967	—	—	R	—	EVENT2_STATUS
4968	—	—	R	—	REMOTE1_STATUS PICKUP
4969	—	—	R	—	REMOTE1_STATUS DROP
4970	—	—	R	—	REMOTE2_STATUS PICKUP
4971	—	—	R	—	REMOTE2_STATUS DROP
4972	—	—	R	—	REMOTE3_STATUS PICKUP
4973	—	—	R	—	REMOTE3_STATUS DROP
4974	—	—	R	—	REMOTE4_STATUS PICKUP
4975	—	—	R	—	REMOTE4_STATUS DROP
4976	—	—	R	—	COMMPORT_STATUS PICKUP
4977	—	—	R	—	COMMPORT_STATUS DROP
4978	—	—	R	—	LED RED STATUS
4979	—	—	R	—	LED RED STATUS.H

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
4980	—	—	R	—	LED GREEN STATUS
4981	—	—	R	—	LED GREEN STATUS.H
4982	—	—	R	—	LED AMBER STATUS
4983	—	—	R	—	LED AMBER STATUS.H
4984	—	—	R	—	F79 STATUS
4985	—	—	R	—	F79A STATUS
4986	—	—	R	—	F79B STATUS
4987	—	—	R	—	F79C STATUS
4988	—	—	R	—	BAT3_STATUS_PICKUP
4989	—	—	R	—	BAT3_STATUS_DROP
4990	—	—	R	—	Power Target Alarm
4991	—	—	R	—	BAT3_STATUS
4992	—	—	R	—	ANYFUNCTOTGTSTATUS
4993	—	—	R	—	ANYFUNCTOTGTSTATUS.H
4994	—	—	R	—	ANYFUNCPOLETOTGTSTATUS
4995	—	—	R	—	ANYFUNCPOLETOTGTSTATUS.H
4996	—	—	R	—	DNP_EXTRA_STATUS
4997	—	—	R	—	HCL_STATUS
4998	—	A	R	—	IaMaxPrimary
4999	—	A	R	—	IaMaxPrimary.H
5052	—	A	R	—	IbMaxPrimary
5053	—	A	R	—	IbMaxPrimary.H
5054	—	A	R	—	IcMaxPrimary
5055	—	A	R	—	IcMaxPrimary.H
5056	—	A	R	—	IgMaxPrimary
5057	—	A	R	—	IgMaxPrimary.H
5058	—	—	—	—	SGI STATUS1
5059	—	—	—	—	SGI STATUS2
5060	—	—	—	—	SGI STATUS3
5061	—	—	—	—	SGI STATUS4
5062	—	—	—	—	SGI STATUS5
5063	—	—	—	—	SGI STATUS6
5064	—	—	—	—	SGI STATUS DROP1
5065	—	—	—	—	SGI STATUS DROP2
5066	—	—	—	—	SGI STATUS DROP3
5067	—	—	—	—	SGI STATUS DROP4
5068	—	—	—	—	SGI STATUS DROP5
5069	—	—	—	—	SGI STATUS DROP6
5079	—	—	R	—	DNP439HB
5080	10	V	R	—	Y VOLTAGE UNBA
5081	10	V	R	—	Z VOLTAGE UNBA
5082	1	—	R	—	SUPDAY

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
5083	1	—	R	—	SUPMONTH
5084	1	—	R	—	SUPYEAR
5085	1	—	R	—	DNPDAY
5086	1	—	R	—	DNPMONTH
5087	1	—	R	—	DNPYEAR
5088	1	—	R	—	IECDAY
5089	1	—	R	—	IECMONTH
5090	1	—	R	—	IECYEAR
5091	1	—	R	—	CIDDAY
5092	1	—	R	—	CIDMONTH
5093	1	—	R	—	CIDYEAR
5094	1	A	R	—	FaultPriToAmpsPhA
5095	1	A	R	—	FaultPriToAmpsPhA. H
5096	1	A	R	—	FaultPriToAmpsPhB
5097	1	A	R	—	FaultPriToAmpsPhB.H
5098	1	A	R	—	FaultPriToAmpsPhC
5099	1	A	R	—	FaultPriToAmpsPhC .H
5230	1	A	R	—	FaultPriToAmpsGnd
5231	1	A	R	—	FaultPriToAmpsGnd.H
5232	1	A	R	—	FaultPriToAmpsNeu
5233	1	A	R	—	FaultPriToAmpsNeu.H
5234	1	A	R	—	BRKOPEN TIME A
5235	1	A	R	—	BRKCLOSE TIME A
5236	1	A	R	—	BRKCLOSE TIME B
5237	1	A	R	—	BRKCLOSE TIME B
5238	1	A	R	—	BRKOPEN TIME C
5239	1	A	R	—	BRKCLOSE TIME C
5240	1000	MILES	R	—	FAULTDISTANCE1stT
5241	1000	MILES	R	—	FAULTDISTANCE1stT.H
5242	1	—	R	—	FAULTTYPE TO
5100	1	—	R	0-65535	HARM VGND THD
5101	1	—	R	0-65535	HARM VGND MAGN 1
5102	1	—	R	0-65535	HARM VGND MAGN 2
5103	1	—	R	0-65535	HARM VGND MAGN 3
5104	1	—	R	0-65535	HARM VGND MAGN 4
5105	1	—	R	0-65535	HARM VGND MAGN 5
5106	1	—	R	0-65535	HARM VGND MAGN 6
5107	1	—	R	0-65535	HARM VGND MAGN 7
5108	1	—	R	0-65535	HARM VGND MAGN 8
5109	1	—	R	0-65535	HARM VGND MAGN 9
5110	1	—	R	0-65535	HARM VGND MAGN 10
5111	1	—	R	0-65535	HARM VGND MAGN 11

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
5112	1	—	R	0-65535	HARM VGND MAGN 12
5113	1	—	R	0-65535	HARM VGND MAGN 13
5114	1	—	R	0-65535	HARM VGND MAGN 14
5115	1	—	R	0-65535	HARM VGND MAGN 15
5116	1	—	R	0-65535	HARM VGND MAGN 16
5117	1	—	R	0-65535	HARM VGND MAGN 17
5118	1	—	R	0-65535	HARM VGND MAGN 18
5119	1	—	R	0-65535	HARM VGND MAGN 19
5120	1	—	R	0-65535	HARM VGND MAGN 20
5121	1	—	R	0-65535	HARM VGND MAGN 21
5122	1	—	R	0-65535	HARM VGND MAGN 22
5123	1	—	R	0-65535	HARM VGND MAGN 23
5124	1	—	R	0-65535	HARM VGND MAGN 24
5125	1	—	R	0-65535	HARM VGND MAGN 25
5126	1	—	R	0-65535	HARM VGND MAGN 26
5127	1	—	R	0-65535	HARM VGND MAGN 27
5128	1	—	R	0-65535	HARM VGND MAGN 28
5129	1	—	R	0-65535	HARM VGND MAGN 29
5130	1	—	R	0-65535	HARM VGND MAGN 30
5131	1	—	R	0-65535	HARM VGND MAGN 31
5132	1	—	R	0-65535	HARM VGND MAGN 32
5133	1	—	R	0-65535	HARM VGND MAGN 33
5134	1	—	R	0-65535	HARM VGND MAGN 34
5135	1	—	R	0-65535	HARM VGND MAGN 35
5136	1	—	R	0-65535	HARM VGND MAGN 36
5137	1	—	R	0-65535	HARM VGND MAGN 37
5138	1	—	R	0-65535	HARM VGND MAGN 38
5139	1	—	R	0-65535	HARM VGND MAGN 39
5140	1	—	R	0-65535	HARM VGND MAGN 40
5141	1	—	R	0-65535	HARM VGND MAGN 41
5142	1	—	R	0-65535	HARM VGND MAGN 42
5143	1	—	R	0-65535	HARM VGND MAGN 43
5144	1	—	R	0-65535	HARM VGND MAGN 44
5145	1	—	R	0-65535	HARM VGND MAGN 45
5146	1	—	R	0-65535	HARM VGND MAGN 46
5147	1	—	R	0-65535	HARM VGND MAGN 47
5148	1	—	R	0-65535	HARM VGND MAGN 48
5149	1	—	R	0-65535	HARM VGND MAGN 49
5150	1	—	R	0-65535	HARM VGND MAGN 50
5151	1	—	R	0-65535	HARM VGND MAGN 51
5152	1	—	R	0-65535	HARM VGND MAGN 52
5153	1	—	R	0-65535	HARM VGND MAGN 53

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
5154	1	—	R	0-65535	HARM VGND MAGN 54
5155	1	—	R	0-65535	HARM VGND MAGN 55
5156	1	—	R	0-65535	HARM VGND MAGN 56
5157	1	—	R	0-65535	HARM VGND MAGN 57
5158	1	—	R	0-65535	HARM VGND MAGN 58
5159	1	—	R	0-65535	HARM VGND MAGN 59
5160	1	—	R	0-65535	HARM VGND MAGN 60
5161	1	—	R	0-65535	HARM VGND MAGN 61
5162	1	—	R	0-65535	HARM VGND MAGN 62
5163	1	—	R	0-65535	HARM VGND MAGN 63
5164	1	—	R	0-65535	HARM VGND MAGN 64
5165	1	—	R	0-65535	HARM IGND THD
5166	1	—	R	0-65535	HARM IGND MAGN 1
5167	1	—	R	0-65535	HARM IGND MAGN 2
5168	1	—	R	0-65535	HARM IGND MAGN 3
5169	1	—	R	0-65535	HARM IGND MAGN 4
5170	1	—	R	0-65535	HARM IGND MAGN 5
5171	1	—	R	0-65535	HARM IGND MAGN 6
5172	1	—	R	0-65535	HARM IGND MAGN 7
5173	1	—	R	0-65535	HARM IGND MAGN 8
5174	1	—	R	0-65535	HARM IGND MAGN 9
5175	1	—	R	0-65535	HARM IGND MAGN 10
5176	1	—	R	0-65535	HARM IGND MAGN 11
5177	1	—	R	0-65535	HARM IGND MAGN 12
5178	1	—	R	0-65535	HARM IGND MAGN 13
5179	1	—	R	0-65535	HARM IGND MAGN 14
5180	1	—	R	0-65535	HARM IGND MAGN 15
5181	1	—	R	0-65535	HARM IGND MAGN 16
5182	1	—	R	0-65535	HARM IGND MAGN 17
5183	1	—	R	0-65535	HARM IGND MAGN 18
5184	1	—	R	0-65535	HARM IGND MAGN 19
5185	1	—	R	0-65535	HARM IGND MAGN 20
5186	1	—	R	0-65535	HARM IGND MAGN 21
5187	1	—	R	0-65535	HARM IGND MAGN 22
5188	1	—	R	0-65535	HARM IGND MAGN 23
5189	1	—	R	0-65535	HARM IGND MAGN 24
5190	1	—	R	0-65535	HARM IGND MAGN 25
5191	1	—	R	0-65535	HARM IGND MAGN 26
5192	1	—	R	0-65535	HARM IGND MAGN 27
5193	1	—	R	0-65535	HARM IGND MAGN 28
5194	1	—	R	0-65535	HARM IGND MAGN 29
5195	1	—	R	0-65535	HARM IGND MAGN 30

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
5196	1	—	R	0-65535	HARM IGND MAGN 31
5197	1	—	R	0-65535	HARM IGND MAGN 32
5198	1	—	R	0-65535	HARM IGND MAGN 33
5199	1	—	R	0-65535	HARM IGND MAGN 34
5200	1	—	R	0-65535	HARM IGND MAGN 35
5201	1	—	R	0-65535	HARM IGND MAGN 36
5202	1	—	R	0-65535	HARM IGND MAGN 37
5203	1	—	R	0-65535	HARM IGND MAGN 38
5204	1	—	R	0-65535	HARM IGND MAGN 39
5205	1	—	R	0-65535	HARM IGND MAGN 40
5206	1	—	R	0-65535	HARM IGND MAGN 41
5207	1	—	R	0-65535	HARM IGND MAGN 42
5208	1	—	R	0-65535	HARM IGND MAGN 43
5209	1	—	R	0-65535	HARM IGND MAGN 44
5210	1	—	R	0-65535	HARM IGND MAGN 45
5211	1	—	R	0-65535	HARM IGND MAGN 46
5212	1	—	R	0-65535	HARM IGND MAGN 47
5213	1	—	R	0-65535	HARM IGND MAGN 48
5214	1	—	R	0-65535	HARM IGND MAGN 49
5215	1	—	R	0-65535	HARM IGND MAGN 50
5216	1	—	R	0-65535	HARM IGND MAGN 51
5217	1	—	R	0-65535	HARM IGND MAGN 52
5218	1	—	R	0-65535	HARM IGND MAGN 53
5219	1	—	R	0-65535	HARM IGND MAGN 54
5220	1	—	R	0-65535	HARM IGND MAGN 55
5221	1	—	R	0-65535	HARM IGND MAGN 56
5222	1	—	R	0-65535	HARM IGND MAGN 57
5223	1	—	R	0-65535	HARM IGND MAGN 58
5224	1	—	R	0-65535	HARM IGND MAGN 59
5225	1	—	R	0-65535	HARM IGND MAGN 60
5226	1	—	R	0-65535	HARM IGND MAGN 61
5227	1	—	R	0-65535	HARM IGND MAGN 62
5228	1	—	R	0-65535	HARM IGND MAGN 63
5229	1	—	R	0-65535	HARM IGND MAGN 64
5250	1	—	R	0-65535	AUTORESTORE.STAT
5251	1	V	R	0-300	VaMagPrimary1
5252	1	V	R	0-300	VaMagPrimary1.H
5253	1	V	R	0-300	VbMagPrimary1
5254	1	V	R	0-300	VbMagPrimary1.H
5255	1	V	R	0-300	VcMagPrimary1
5256	1	V	R	0-300	VcMagPrimary1.H
5257	1	V	R	0-300	V4MagPrimary1

Table 4 Metering

Metering					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE / INCREMENTS	DESCRIPTION
5258	1	V	R	0-300	V4MagPrimary1.H
5259	1	V	R	0-300	V5MagPrimary1
5260	1	V	R	0-300	V5MagPrimary1.H
5261	1	V	R	0-300	VsMagPrimary1
5262	1	V	R	—	VsMagPrimary1.H
5263	1	A	R	—	FaultPriAmpsNeu
5264	1	A	R	—	FaultPriAmpsNeu.H
5265	1	A	R	—	FaultPriAmpsPhA.TO
5266	1	A	R	—	FaultPriAmpsPhA.TO.H
5267	1	A	R	—	FaultPriAmpsPhB.TO
5268	1	A	R	—	FaultPriAmpsPhB.TO.H
5269	1	A	R	—	FaultPriAmpsPhC.TO
5270	1	A	R	—	FaultPriAmpsPhC.TO.H
5271	1	A	R	—	FaultPriAmpsNeu.TO
5272	1	A	R	—	FaultPriAmpsNeu.TO.H
5273	1	A	R	—	FaultPriAmpsGnd.TO
5274	1	A	R	—	FaultPriAmpsGnd.TO.H
34000	—	—	—	—	SUPFILENAME
34016	—	—	—	—	DNPFILENAME
34032	—	—	—	—	CIDFILENAME
34048	—	—	—	—	IEC104FILENAME
34064	—	—	—	—	CSR Version Name
HIF Metering					
29100	-	-	-	-	HIF Pickup
29101	-	-	-	-	HIF pickup.H
29102	-	-	-	-	HIF Operate
29103	-	-	-	-	HIF Operate.H
29104	10	mA	-	0-10000	HIF Delta IGH
29105	10	mA	-	0-10000	HIF Delta IGF
29106	-	-	-	-	HIF Angle #1
29107	-	-	-	-	HIF Angle #2
29108	10	mA	-	0-10000	HIF HARM_IG1_REAL
29109	10	mA	-	0-10000	HIF HARM_IG2_REAL
29110	-	-	-	-	HIF HARM_VG1_REAL
29111	-	-	-	-	HIF HARM_VG1_REACTIVE
29112	-	-	-	-	HIF HARM_VG2_REAL
29113	-	-	-	-	HIF HARM_VG2_REACTIVE
29114	-	-	-	-	SGI.WINDOWACCUMULATIONAVG

Table 4 Metering

TABLE 4-A PHASE CT RATING

DESCRIPTION	SCALE FACTOR	RANGE/INCREMENT
Factory Hardware: Phase CT Rating is 1 A	100	NA/0.1
Factory Hardware: Phase CT Rating is 5 A	100	NA/1

*Phase CT Rating Range Table***TABLE 4-B GROUND CT RATING**

DESCRIPTION	SCALE FACTOR	UNITS	RANGE/INCREMENT
Factory Hardware: Ground CT Rating is 1 A	100	Amps	NA/0.1
Factory Hardware: Ground CT Rating is 5 A	100	Amps	NA/1
Factory Hardware: Ground CT Rating is 200 mA	1	mAmps	NA/1
Factory Hardware: Ground CT Rating is 50 mA	1	mAmps	NA/1
Factory Hardware: Ground CT Rating is 10 mA	1	mAmps	NA/0.1

*Ground CT Rating Range Table***TABLE 4-C PHASE CT RATING (32-Bit Register)**

DESCRIPTION	SCALE FACTOR	RANGE/INCREMENT
Factory Hardware: Phase CT Rating is 1 A	100	NA/0.1
Factory Hardware: Phase CT Rating is 5 A	100	NA/1

Phase CT Rating Range Table (32-Bit Register)

TABLE 4-D PHASE CT RATING (Signed Values, 32-Bit Register)

DESCRIPTION	SCALE FACTOR	RANGE/INCREMENT
Factory Hardware: Phase CT Rating is 1 A	100	NA/0.1
Factory Hardware: Phase CT Rating is 5 A	100	NA/1

Phase CT Rating Range Table (Signed Values, 32-Bit Register)

TABLE 4-E PHASE CT RATING (Floating Values, 32-Bit Register)

DESCRIPTION	SCALE FACTOR	RANGE/INCREMENT
Factory Hardware: Phase CT Rating is 1 A	1	NA/0.001
Factory Hardware: Phase CT Rating is 5 A	1	NA/0.01

Phase CT Rating Range Table (Floating Values, 32-Bit Register)

Demand					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
2000	1	Min	W	0-2/1	Demand Interval 0 – 15 Minutes 1 – 30 Minutes 2 – 60 Minutes
2001	1	–	W	0-1/1	Reset Energy Writing 1 will reset Energy metering
2002	1	–	W	0-1/1	Reset Demand History Writing 1 will reset Demand History
2003	100	–	W	2-10000/0.01	Maximum Demand Load Current Phase A
2004	100	–	W	2-10000/0.01	Maximum Demand Load Current Phase B
2005	100	–	W	2-10000/0.01	Maximum Demand Load Current Phase C
2162	10	–	W	0-10/0.1	Forward Power Factor Limit
2163	10	–	W	-10-0/0.1	Reverse Power Factor Limit
2164	100	W	W	2-1000000/0.01	Forward KW Limit
2165	100	W	W	2-1000000/0.01	Forward KW Limit.H
2166	100	W	W	2-1000000/0.01	Reverse KW Limit
2167	100	W	W	2-1000000/0.01	Reverse KW Limit.H
2168	100	var	W	2-1000000/0.01	Forward KVar Limit
2169	100	var	W	2-1000000/0.01	Forward KVar Limit.H
2170	100	var	W	-1000000-2/0.01	Reverse KVar Limit
2171	100	var	W	-1000000-2/0.01	Reverse KVar Limit.H
2172	100	W	W	2-1000000/0.01	Forward KW Limit_A
2173	100	W	W	2-1000000/0.01	Forward KW Limit_A.H
2174	100	W	W	2-1000000/0.01	Forward KW Limit_B
2175	100	W	W	2-1000000/0.01	Forward KW Limit_B.H
2176	100	W	W	2-1000000/0.01	Fwd KW Limit_C
2177	100	W	W	2-1000000/0.01	Fwd KW Limit_C.H
2178	100	W	W	2-1000000/0.01	Reverse KW Limit_A
2179	100	W	W	2-1000000/0.01	Reverse KW Limit_A.H
2180	100	W	W	2-1000000/0.01	Reverse KW Limit_B
2181	100	W	W	2-1000000/0.01	Reverse KW Limit_B.H

Table 5 Demand

Demand					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
2182	100	W	W	2-1000000/0.01	Reverse KW Limit_C
2183	100	W	W	2-1000000/0.01	Reverse KW Limit_C.H
2184	100	W	W	2-1000000/0.01	Forward KW Limit_alt
2185	100	W	W	2-1000000/0.01	Forward KW Limit_alt.H
2186	100	W	W	2-1000000/0.01	Reverse KW Limit_alt
2187	100	W	W	2-1000000/0.01	Reverse KW Limit_alt.H
5016	–	–	–	0-20	PowerType1
5017	–	–	–	0-20	PowerType2
5018	–	–	–	0-20	PowerType3
5019	–	–	–	0-20	PowerType4
5020	–	–	–	0-20	PowerType5
5021	–	–	–	0-20	PowerType6
5022	–	–	–	0-20	PowerType7
5023	–	–	–	0-20	PowerType8
5024	–	–	–	0-20	PowerType9
5025	–	–	–	0-20	PowerType10
5026	–	–	–	0-20	PowerType11
5027	–	–	–	0-20	PowerType12
5028	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit1
5029	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit1.H
5030	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit2
5031	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit2.H
5032	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit3
5033	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit3.H
5034	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit4
5035	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit4.H
5036	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit5
5037	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit5.H

Table 5 Demand

Demand					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5038	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit6
5039	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit6.H
5040	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit7
5041	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit7.H
5042	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit8
5043	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit8.H
5044	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit9
5045	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit9.H
5046	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit10
5047	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit10.H
5048	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit11
5049	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit11.H
5050	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit12
5051	0.01	–	–	(-10000)-10000/0.01	SecPowerLimit12.H

Table 5 Demand

Counters					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1150	1	—	W	0-99999999/1	Overcurrent Pickup Phase A Counter Least significant word
1151	1	—	W	0-99999999/1	Overcurrent Pickup Phase A Counter Most significant word
1152	1	—	W	0-99999999/1	Overcurrent Trip Phase A Counter Least significant word
1153	1	—	W	0-99999999/1	Overcurrent Trip Phase A Counter Most significant word
1154	1	—	W	0-99999999/1	Overcurrent Pickup Phase B Counter Least significant word
1155	1	—	W	0-99999999/1	Overcurrent Pickup Phase B Counter Most significant word
1156	1	—	W	0-99999999/1	Overcurrent Trip Phase B Counter Least significant word
1157	1	—	W	0-99999999/1	Overcurrent Trip Phase B Counter Most significant word
1158	1	—	W	0-99999999/1	Overcurrent Pickup Phase C Counter Least significant word
1159	1	—	W	0-99999999/1	Overcurrent Pickup Phase C Counter Most significant word
1160	1	—	W	0-99999999/1	Overcurrent Trip Phase C Counter Least significant word
1161	1	—	W	0-99999999/1	Overcurrent Trip Phase C Counter Most significant word
1162	1	—	W	0-99999999/1	Overcurrent Ground/Neutral Pickup Least significant word
1163	1	—	W	0-99999999/1	Overcurrent Ground/Neutral Pickup Most significant word
1164	1	—	W	0-99999999/1	Overcurrent Ground/Neutral Trip Least significant word
1165	1	—	W	0-99999999/1	Overcurrent Ground/Neutral Trip Most significant word
1166	1	—	W	0-99999999/1	Reclose/Breaker Phase A Counter Least significant word
1167	1	—	W	0-99999999/1	Reclose/Breaker Phase A Counter Most significant word
1168	1	—	W	0-99999999/1	Reclose/Breaker Phase B Counter Least significant word
1169	1	—	W	0-99999999/1	Reclose/Breaker Phase B Counter Most significant word

Table 6 Counters

Counters					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1170	1	–	W	0-99999999/1	Reclose/Breaker Phase C Counter Least significant word
1171	1	–	W	0-99999999/1	Reclose/Breaker Phase C Counter Most significant word
1172	1	–	W	1-99999999/1	Operation Limit Least significant word
1173	1	–	W	1-99999999/1	Operation Limit Most significant word
1174	1	–	W	0-65000	IPSLogic Counter0
1175	1	–	W	0-65000	IPSLogic Counter1
1176	1	–	W	0-65000	IPSLogic Counter2
1177	1	–	W	0-65000	IPSLogic Counter3
1178	1	–	W	0-65000	IPSLogic Counter4
1179	1	–	W	0-65000	IPSLogic Counter5
1180	1	–	W	0-65000	IPSLogic Counter6
1181	1	–	W	0-65000	IPSLogic Counter7
1182	1	–	W	0-99999999	Neutral Fault Counter
1183	1	–	W	0-99999999	Neutral Fault Counter H
1184	1	–	W	0-99999999	Ground Fault Counter
1185	1	–	W	0-99999999	Ground Fault Counter H
1186	–	–	–	0-99999999	Phase OC Pickup Counter N
1187	–	–	–	0-99999999	Phase OC Pickup Counter N H
1188	–	–	–	0-99999999	Phase OC Pickup Counter G
1189	–	–	–	0-99999999	Phase OC Pickup Counter G H

Table 6 Counters

CBEMA Counters					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1190	–	–	RD	0-65535/1	CBEMA Counter A
1191	–	–	RD	0-65535/1	CBEMA Counter B
1192	–	–	RD	0-65535/1	CBEMA Counter C
1193	–	–	RD	0-65535/1	CBEMA Counter X
1194	–	–	RD	0-65535/1	CBEMA Events
1195	1	–	RD	0-65535/1	CBEMA Events Type-Phase A
1196	1	–	RD	0-65535/1	CBEMA Events Type-Phase B
1197	1	–	RD	0-65535/1	CBEMA Events Type-Phase C
1198	1	–	RD	0-65535/1	CBEMA Events Type-Class X
1199	10	Sec	RD	0-4294967295/0.001	CBEMA Event Duration-Phase A (Low Significant Word)
1200	10	Sec	RD	0-4294967295/0.001	CBEMA Event Duration-Phase A (Most Significant Word)
1201	10	Sec	RD	0-4294967295/0.001	CBEMA Event Duration-Phase B (Low Significant Word)
1202	10	Sec	RD	0-4294967295/0.001	CBEMA Event Duration-Phase B (Most Significant Word)
1203	10	Sec	RD	0-4294967295/0.001	CBEMA Event Duration-Phase C (Low Significant Word)
1204	10	Sec	RD	0-4294967295/0.001	CBEMA Event Duration-Phase C (Most Significant Word)
1205	10	Sec	RD	0-4294967295/0.001	CBEMA Event Duration-Phase X (Low Significant Word)
1206	10	Sec	RD	0-4294967295/0.001	CBEMA Event Duration-Phase X (Most Significant Word)

Table 7 CBEMA Counters

Remote Commands					
MODBUS Registers are available based on the M-76XX model and Factory Options purchased.					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
1400	1	–	W	0-1/1	Remote Trip Lockout 1 – Send Trip/Lockout Command
1401	1	–	W	0-1/1	Remote Close 1 – Send Close Command
1402	1	–	W	0-1/1	Enable Hot Line Tag 1 – Enable
1403	1	–	W	0-1/1	Remote Reset 1 – Send Remote Reset Command
1404	1	–	W	0-1/1	Remote Trip Lockout Phase A 1 – Send Trip/Lockout Command for Phase A
1405	1	–	W	0-1/1	Remote Trip Lockout Phase B 1 – Send Trip/Lockout Command for Phase B
1406	1	–	W	0-1/1	Remote Trip Lockout Phase C 1 – Send Trip/Lockout Command for Phase C
1407	1	–	W	0-1/1	Remote Close Phase A 1 – Send Close Command for Phase A
1408	1	–	W	0-1/1	Remote Close Phase B 1 – Send Close Command for Phase B
1409	1	–	W	0-1/1	Remote Close Phase C 1 – Send Close Command for Phase C
1410	1	–	W	0-65535/1	Remote Virtual IPSlogic Communication Inputs Bit 0 – Virtual IPSlogic Communication Input 1 Bit 1 – Virtual IPSlogic Communication Input 2 Bit 2 – Virtual IPSlogic Communication Input 3 Bit 3 – Virtual IPSlogic Communication Input 4 Bit 4 – Virtual IPSlogic Communication Input 5 Bit 5 – Virtual IPSlogic Communication Input 6 Bit 6 – Virtual IPSlogic Communication Input 7 Bit 7 – Virtual IPSlogic Communication Input 8 Bit 8 – Virtual IPSlogic Communication Input 9 Bit 9 – Virtual IPSlogic Communication Input 10 Bit 10 – Virtual IPSlogic Communication Input 11 Bit 11 – Virtual IPSlogic Communication Input 12 Bit 12 – Virtual IPSlogic Communication Input 13 Bit 13 – Virtual IPSlogic Communication Input 14 Bit 14 – Virtual IPSlogic Communication Input 15 Bit 15 – Virtual IPSlogic Communication Input 16 When set to 1, that Virtual input can be used to trigger an IPSlogic through remote communications.

Table 8 Remote Commands

Remote Commands					
MODBUS Registers are available based on the M-76XX model and Factory Options purchased.					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
1422	—	—	W	0-65535/1	Remote Virtual IPSlogic Communication Inputs.2 Bit 0 – Virtual IPSlogic Communication Input 17 Bit 1 – Virtual IPSlogic Communication Input 18 Bit 2 – Virtual IPSlogic Communication Input 19 Bit 3 – Virtual IPSlogic Communication Input 20 Bit 4 – Virtual IPSlogic Communication Input 21 Bit 5 – Virtual IPSlogic Communication Input 22 Bit 6 – Virtual IPSlogic Communication Input 23 Bit 7 – Virtual IPSlogic Communication Input 24 Bit 8 – Virtual IPSlogic Communication Input 25 Bit 9 – Virtual IPSlogic Communication Input 26 Bit 10 – Virtual IPSlogic Communication Input 27 Bit 11 – Virtual IPSlogic Communication Input 28 Bit 12 – Virtual IPSlogic Communication Input 29 Bit 13 – Virtual IPSlogic Communication Input 30 Bit 14 – Virtual IPSlogic Communication Input 31 Bit 15 – Virtual IPSlogic Communication Input 32 When set to 1, that Virtual input can be used to trigger an IPSlogic through remote communications.
1423	—	—	W	0-65535/1	Remote Virtual IPSlogic Communication Inputs.3 Bit 0 – Virtual IPSlogic Communication Input 33 Bit 1 – Virtual IPSlogic Communication Input 34 Bit 2 – Virtual IPSlogic Communication Input 35 Bit 3 – Virtual IPSlogic Communication Input 36 Bit 4 – Virtual IPSlogic Communication Input 37 Bit 5 – Virtual IPSlogic Communication Input 38 Bit 6 – Virtual IPSlogic Communication Input 39 Bit 7 – Virtual IPSlogic Communication Input 40 Bit 8 – Virtual IPSlogic Communication Input 41 Bit 9 – Virtual IPSlogic Communication Input 42 Bit 10 – Virtual IPSlogic Communication Input 43 Bit 11 – Virtual IPSlogic Communication Input 44 Bit 12 – Virtual IPSlogic Communication Input 45 Bit 13 – Virtual IPSlogic Communication Input 46 Bit 14 – Virtual IPSlogic Communication Input 47 Bit 15 – Virtual IPSlogic Communication Input 48 When set to 1, that Virtual input can be used to trigger an IPSlogic through remote communications.

Table 8 Remote Commands

Remote Commands					
MODBUS Registers are available based on the M-76XX model and Factory Options purchased.					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
1424	—	—	W	0-65535/1	Remote Virtual IPSlogic Communication Inputs.4 Bit 0 – Virtual IPSlogic Communication Input 49 Bit 1 – Virtual IPSlogic Communication Input 50 Bit 2 – Virtual IPSlogic Communication Input 51 Bit 3 – Virtual IPSlogic Communication Input 52 Bit 4 – Virtual IPSlogic Communication Input 53 Bit 5 – Virtual IPSlogic Communication Input 54 Bit 6 – Virtual IPSlogic Communication Input 55 Bit 7 – Virtual IPSlogic Communication Input 56 Bit 8 – Virtual IPSlogic Communication Input 57 Bit 9 – Virtual IPSlogic Communication Input 58 Bit 10 – Virtual IPSlogic Communication Input 59 Bit 11 – Virtual IPSlogic Communication Input 60 Bit 12 – Virtual IPSlogic Communication Input 61 Bit 13 – Virtual IPSlogic Communication Input 62 Bit 14 – Virtual IPSlogic Communication Input 63 Bit 15 – Virtual IPSlogic Communication Input 64 When set to 1, that Virtual input can be used to trigger an IPSlogic through remote communications.
1411	1	—	W	0-7/1	Fast/Slow Curves Selection
1412	1	—	W	0-1/1	Enable Close Block Override
1413	1	—	W	0-131072/1	Remote Key Press
1414	1	—	W	0-131072/1	Remote Key Press.H
1415	1	—	W	0-65535/1	REMOTE IPSINPUTS PULSE
1416	1	—	W	0-1/1	Clear Fault Data
1417	1	—	W	0-1	Clear alarms
1418	1	—	W	0-1	Buttons Init
1419	—	—	W	0-7/1	FAST_SLOW_UNBAL1_CRVSEL
1420	—	—	W	0-7/1	FAST_SLOW_UNBAL2_CRVSEL
1421	—	—	W	0-4095/1	REMOTE IPSINPUTS VOLATILE
1433	—	—	—	0-65535	REMOTE IPSINPUTS PULSE.2
1434	—	—	—	0-65535	REMOTE IPSINPUTS PULSE.3
1435	—	—	—	0-65535	REMOTE IPSINPUTS PULSE.4
1425	—	—	—	0-80/1	KEYSUPERVIS0
1426	—	—	—	0-80/1	KEYSUPERVIS1
1427	—	—	—	0-80/1	KEYSUPERVIS2

Table 8 Remote Commands

Remote Commands					
MODBUS Registers are available based on the M-76XX model and Factory Options purchased.					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
1428	—	—	—	0-80/1	KEYSUPERVIS3
1429	—	—	—	0-80/1	KEYSUPERVIS4
1430	—	—	—	0-80/1	KEYSUPERVIS5
1431	—	—	—	0-80/1	KEYSUPERVIS6
1432	—	—	—	0-80/1	KEYSUPERVIS7

Table 8 Remote Commands

Time					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
3956	1	–	W	0-4294960000/1	RTC UTC Least Significant Word Note: The max range of year is 2058
3957	1	–	W	–	RTC UTC Most Significant Word
3958	1	–	W	0-65535/1	RTC Update
3959	1	–	W	0-1/1	RTC Daylight Saving 0 – Disable 1 – Enable
3960	1	–	W	-12-13/1	Time Zone -12 – International Date Line West -11 – Samoa -10 – Hawaii -09 – Alaska -08 – Pacific Time (US & Canada) -07 – Mountain Time (US & Canada) -06 – Central Time (US & Canada) -05 – Eastern Time (US & Canada) -04 – Atlantic Time (Canada) -03 – Buenos Aires -02 – Mid-Atlantic -01 – Cape Verde Is 00 – Greenwich Mean Time +01 – Brussels, Copenhagen, Madrid, Paris +02 – Cairo +03 – Kuwait, Riyadh +04 – Moscow, St. Petersburg, Volgograd +05 – Islamabad, Karachi +06 – Dhaka +07 – Bangkok, Hanoi, Jakarta +08 – Beijing, Chongqing, Hong Kong, Urumqi +09 – Seoul +10 – Canberra, Melbourne, Sydney +11 – Vladivostok +12 – Fiji +13 – Samoa
3961	1	–	RD	0-4294967295/1	UTC Time Least Significant Word
3962	1	–	RD	–	UTC Time Most Significant Word
3963	1	–	RD	0-4294967295/1	Local Time Least Significant Word
3964	1	–	RD	–	Local Time Most Significant Word

Table 9 Time

Datalog					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5000	1	Sec	W	0-3600/60	Datalog Interval
5011	1	–	W	0-1/1	Datalog Erase Sending a value of 1 to this register will clear the Datalog stored on the unit.
5012				0-1/1	DATALOG SDCARD ENABLE
5013	–	–	R	–	DLOG_ARCH STATUS
5014	–	–	R	–	DLOG_ARCH FILES CNT
5001	1	–	–	0-1/1	DLOG COMM LOCK
5002	1	–	–	0-65535/1	DLOG COMM CMD
5003	–	–	–	0-4294967295/1	DLOG COMM RANGE START
5004	–	–	–	0-4294967295/1	DLOG COMM RANGE START.H
5005	–	–	–	0-4294967295/1	DLOG COMM RANGE END
5006	–	–	–	0-4294967295/1	DLOG COMM RANGE END.H
5007	–	–	–	0-4294967295/1	DLOG COMM FSTAT LEN
5008	–	–	–	0-4294967295/1	DLOG COMM FSTAT LEN.H
5009	–	–	–	0-4294967295/1	DLOG COMM FSTAT OFFSET
5010	–	–	–	0-4294967295/1	DLOG COMM FSTAT OFFSET.H

Table 10 Datalog

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5300	1	–	W	0-65535/1	Sequence of Events Pickup1 Status Bits Bit 0 – F25 Pickup Status Bit Bit 1 – F27#1 Phase A Pickup Status Bit Bit 2 – F27#1 Phase B Pickup Status Bit Bit 3 – F27#1 Phase C Pickup Status Bit Bit 4 – F27#2 Phase A Pickup Status Bit Bit 5 – F27#2 Phase B Pickup Status Bit Bit 6 – F27#2 Phase C Pickup Status Bit Bit 7 – F27#3 Phase A Pickup Status Bit Bit 8 – F27#3 Phase B Pickup Status Bit Bit 9 – F27#3 Phase C Pickup Status Bit Bit 10 – F27#4 Phase A Pickup Status Bit Bit 11 – F27#4 Phase B Pickup Status Bit Bit 12 – F27#4 Phase C Pickup Status Bit Bit 13 – F27PP Phases AB Pickup Status Bit Bit 14 – F27PP Phases BC Pickup Status Bit Bit 15 – F27PP Phases CA Pickup Status Bit
5301	1	–	W	0-65535/1	Sequence of Events Pickup2 Status Bits Bit 0 – F27Vz1 Pickup Status Bit Bit 1 – F32#1 Phase A Pickup Status Bit Bit 2 – F32#1 Phase B Pickup Status Bit Bit 3 – F32#1 Phase C Pickup Status Bit Bit 4 – F32#2 Phase A Pickup Status Bit Bit 5 – F32#2 Phase B Pickup Status Bit Bit 6 – F32#2 Phase C Pickup Status Bit Bit 7 – F32#3 Phase A Pickup Status Bit Bit 8 – F32#3 Phase B Pickup Status Bit Bit 9 – F32#3 Phase C Pickup Status Bit Bit 10 – F32#4 Phase A Pickup Status Bit Bit 11 – F32#4 Phase B Pickup Status Bit Bit 12 – F32#4 Phase C Pickup Status Bit Bit 13 – F50#1 Phase A Pickup Status Bit Bit 14 – F50#1 Phase B Pickup Status Bit Bit 15 – F50#1 Phase C Pickup Status Bit
5302	1	–	W	0-65535/1	Sequence of Events Pickup3 Status Bits Bit 0 – F50#2 Phase A Pickup Status Bit Bit 1 – F50#2 Phase B Pickup Status Bit Bit 2 – F50#2 Phase C Pickup Status Bit Bit 3 – F50#3 Phase A Pickup Status Bit Bit 4 – F50#3 Phase B Pickup Status Bit Bit 5 – F50#3 Phase C Pickup Status Bit Bit 6 – F50#4 Phase A Pickup Status Bit Bit 7 – F50#4 Phase B Pickup Status Bit Bit 8 – F50#4 Phase C Pickup Status Bit Bit 9 – F50#5 Phase A Pickup Status Bit Bit 10 – F50#5 Phase B Pickup Status Bit Bit 11 – F50#5 Phase C Pickup Status Bit Bit 12 – F50N#1 Pickup Status Bit Bit 13 – F50N#2 Pickup Status Bit Bit 14 – F50N#3 Pickup Status Bit Bit 15 – F50N#4 Pickup Status Bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5303	1	–	W	0-65535/1	Sequence of Events Pickup4 Status Bits Bit 0 – F50N#5 Pickup Status Bit Bit 1 – F50G#1 Pickup Status Bit Bit 2 – F50G#2 Pickup Status Bit Bit 3 – F50G#3 Pickup Status Bit Bit 4 – F50G#4 Pickup Status Bit Bit 5 – F50G#5 Pickup Status Bit Bit 6 – F46DT#1 Pickup Status Bit Bit 7 – F46DT#2 Pickup Status Bit Bit 8 – F46DT#3 Pickup Status Bit Bit 9 – F46DT#4 Pickup Status Bit Bit 10 – F46DT#5 Pickup Status Bit Bit 11 – F50BF Pickup Status Bit Bit 12 – F51#1 Phase A Pickup Status Bit Bit 13 – F51#1 Phase B Pickup Status Bit Bit 14 – F51#1 Phase C Pickup Status Bit Bit 15 – F51#2 Phase A Pickup Status Bit
5304	1	–	W	0-65535/1	Sequence of Events Pickup5 Status Bits Bit 0 – F51#2 Phase B Pickup Status Bit Bit 1 – F51#2 Phase C Pickup Status Bit Bit 2 – F51#3 Phase A Pickup Status Bit Bit 3 – F51#3 Phase B Pickup Status Bit Bit 4 – F51#3 Phase C Pickup Status Bit Bit 5 – F51#4 Phase A Pickup Status Bit Bit 6 – F51#4 Phase B Pickup Status Bit Bit 7 – F51#4 Phase C Pickup Status Bit Bit 8 – F51#5 Phase A Pickup Status Bit Bit 9 – F51#5 Phase B Pickup Status Bit Bit 10 – F51#5 Phase C Pickup Status Bit Bit 11 – F51N#1 Pickup Status Bit Bit 12 – F51N#2 Pickup Status Bit Bit 13 – F51N#3 Pickup Status Bit Bit 14 – F51N#4 Pickup Status Bit Bit 15 – F51N#5 Pickup Status Bit
5305	1	–	W	0-65535/1	Sequence of Events Pickup6 Status Bits Bit 0 – F51G#1 Pickup Status Bit Bit 1 – F51G#2 Pickup Status Bit Bit 2 – F51G#3 Pickup Status Bit Bit 3 – F51G#4 Pickup Status Bit Bit 4 – F51G#5 Pickup Status Bit Bit 5 – F46IT#1 Pickup Status Bit Bit 6 – F46IT#2 Pickup Status Bit Bit 7 – F46IT#3 Pickup Status Bit Bit 8 – F46IT#4 Pickup Status Bit Bit 9 – F46IT#5 Pickup Status Bit Bit 10 – F59#1 Phase A Pickup Status Bit Bit 11 – F59#1 Phase B Pickup Status Bit Bit 12 – F59#1 Phase C Pickup Status Bit Bit 13 – F59#2 Phase A Pickup Status Bit Bit 14 – F59#2 Phase B Pickup Status Bit Bit 15 – F59#2 Phase C Pickup Status Bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5306	1	–	W	0-65535/1	Sequence of Events Pickup7 Status Bits Bit 0 – F59#3 Phase A Pickup Status Bit Bit 1 – F59#3 Phase B Pickup Status Bit Bit 2 – F59#3 Phase C Pickup Status Bit Bit 3 – F59#4 Phase A Pickup Status Bit Bit 4 – F59#4 Phase B Pickup Status Bit Bit 5 – F59#4 Phase C Pickup Status Bit Bit 6 – F59PP Phase A Pickup Status Bit Bit 7 – F59PP Phase B Pickup Status Bit Bit 8 – F59PP Phase C Pickup Status Bit Bit 9 – F59N Pickup Status Bit Bit 10 – F59Vz1 Pickup Status Bit Bit 11 – F47 Pickup Status Bit Bit 12 – F67#1 Phase A Pickup Status Bit Bit 13 – F67#1 Phase B Pickup Status Bit Bit 14 – F67#1 Phase C Pickup Status Bit Bit 15 – F67#2 Phase A Pickup Status Bit
5307	1	–	W	0-65535/1	Sequence of Events Pickup8 Status Bits Bit 0 – F67#2 Phase B Pickup Status Bit Bit 1 – F67#2 Phase C Pickup Status Bit Bit 2 – F67#3 Phase A Pickup Status Bit Bit 3 – F67#3 Phase B Pickup Status Bit Bit 4 – F67#3 Phase C Pickup Status Bit Bit 5 – F67#4 Phase A Pickup Status Bit Bit 6 – F67#4 Phase B Pickup Status Bit Bit 7 – F67#4 Phase C Pickup Status Bit Bit 8 – F67#5 Phase A Pickup Status Bit Bit 9 – F67#5 Phase B Pickup Status Bit Bit 10 – F67#5 Phase C Pickup Status Bit Bit 11 – F67N#1 Pickup Status Bit Bit 12 – F67N#2 Pickup Status Bit Bit 13 – F67N#3 Pickup Status Bit Bit 14 – F67N#4 Pickup Status Bit Bit 15 – F67N#5 Pickup Status Bit
5308	1	–	W	0-65535/1	Sequence of Events Pickup9 Status Bits Bit 0 – F67G#1 Pickup status bit Bit 1 – F67G#2 Pickup status bit Bit 2 – F67G#3 Pickup status bit Bit 3 – F67G#4 Pickup status bit Bit 4 – F67G#5 Pickup status bit Bit 5 – F67Q#1 Pickup status bit Bit 6 – F67Q#2 Pickup status bit Bit 7 – F67Q#3 Pickup status bit Bit 8 – F67Q#4 Pickup status bit Bit 9 – F67Q#5 Pickup status bit Bit 10 – TCM Pickup status bit Bit 11 – CCM Pickup status bit Bit 12 – NOT USED Bit 13 – F81#1 Pickup status bit Bit 14 – F81#2 Pickup status bit Bit 15 – F81#3 Pickup status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5309	1	–	W	0-65535/1	Sequence of Events Pickup10 Status Bits Bit 0 – F81#4 Pickup Status Bit Bit 1 – F81R#1 Pickup Status Bit Bit 2 – F81R#2 Pickup Status Bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 Pickup Status Bit Bit 5 – IPSLOGIC#2 Pickup Status Bit Bit 6 – IPSLOGIC#3 Pickup Status Bit Bit 7 – IPSLOGIC#4 Pickup Status Bit Bit 8 – IPSLOGIC#5 Pickup Status Bit Bit 9 – IPSLOGIC#6 Pickup Status Bit Bit 10 – IPSLOGIC#7 Pickup Status Bit Bit 11 – IPSLOGIC#8 Pickup Status Bit Bit 12 – PSM Pickup Status Bit Bit 13 – F60FL Pickup Status Bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 Phase A Pickup Status Bit
5346	1	–	W	0-65535/1	Sequence of Events Pickup11 Status Bits Bit 0 – FTHD/TDD #1 Phase B Pickup Status Bit Bit 1 – FTHD/TDD #1 Phase C Pickup Status Bit Bit 2 – FTHD/TDD #2 Phase A Pickup Status Bit Bit 3 – FTHD/TDD #2 Phase B Pickup Status Bit Bit 4 – FTHD/TDD #2 Phase C Pickup Status Bit Bit 5 – F59I Phase A Pickup Status Bit Bit 6 – F59I Phase B Pickup Status Bit Bit 7 – F59I Phase C Pickup Status Bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 Pickup Status Bit Bit 12 – F40 #2 Pickup Status Bit Bit 13 – F40VC #1 Pickup Status Bit Bit 14 – F40VC #2 Pickup Status Bit Bit 15 – FBM Pickup Status Bit
5350	1	-	W	0-65535/1	SOE_PICKUP12 Bit 0 – HLT50PA Pickup12 Status Bit Bit 1 – HLT50PB Pickup Status Bit Bit 2 – HLT50PC Pickup Status Bit Bit 3 – HLT50GS Pickup Status Bit Bit 4 – HLT51PA Pickup Status Bit Bit 5 – HLT51PB Pickup Status Bit Bit 6 – HLT51PC Pickup Status Bit Bit 7 – HLT51GS Pickup Status Bit Bit 8 – SECTIONALIZER A Pickup Status Bit Bit 9 – SECTIONALIZER B Pickup Status Bit Bit 10 – SECTIONALIZER C Pickup Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A pickup status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5354	1	–	W	0-65535/1	SOE_PICKUP13 Bit 0 – Close Block Ph B pickup status bit Bit 1 – Close Block Ph C pickup status bit Bit 2 – Close Block Ph B& C pickup status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – 27 #5 3Ph Pickup Status Bit Bit 15 – 27 #6 3Ph Pickup Status Bit
5359	1	–	W	0-65535/1	SOE_ Loop Scheme TRIGGERS.H Bit 0 – Loop Scheme Vy Dead Line Action Bit 1 – Loop Scheme Vz Dead Line Action Bit 2 – Loop Scheme Vy Live Line Action Bit 3 – Loop Scheme Vz Live Line Action Bit 4 – Loop Scheme Enabled Bit 5 – Loop Scheme Action Auto Trip Bit 6 – Loop Scheme Action Auto Close Bit 7 – Loop Scheme After Action Ground Trip Block Bit 8 – Loop Scheme After Action Reclosing Block Bit 9 – Loop Scheme Profile Switch Bit 10 Loop Scheme Reset Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
5358	1	–	W	0-65535/1	SOE_LS TRIGGERS Bit 0 – Loop Scheme Vy Dead Line Sensing Pickup Bit 1 – Loop Scheme Vy Dead Line Sensing Timeout Bit 2 – Loop Scheme Vz Dead Line Sensing Pickup Bit 3 – Loop Scheme Vz Dead Line Sensing Timeout Bit 4 – Loop Scheme Vy Voltage Restore Pickup Bit 5 – Loop Scheme Vy Voltage Restore Timeout Bit 6 – Loop Scheme Vz Voltage Restore Pickup Bit 7 – Loop Scheme Vz Voltage Restore Timeout Bit 8 – Loop Scheme Vy Dead Line Pickup Bit 9 – Loop Scheme Vy Dead Line Timeout Bit 10 – Loop Scheme Vz Dead Line Pickup Bit 11 – Loop Scheme Vz Dead Line Timeout Bit 12 – Loop Scheme Vy Live Line Pickup Bit 13 – Loop Scheme Vy Live Line Timeout Bit 14 – Loop Scheme Vz Live Line Pickup Bit 15 – Loop Scheme Vz Live Line Timeout

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5310	1	–	W	0-65535/1	Sequence of Events Timeout1 Status bits Bit 0 – F25 Pickup Status Bit Bit 1 – F27#1 Phase A timeout status bit Bit 2 – F27#1 Phase B timeout status bit Bit 3 – F27#1 Phase C timeout status bit Bit 4 – F27#2 Phase A timeout status bit Bit 5 – F27#2 Phase B timeout status bit Bit 6 – F27#2 Phase C timeout status bit Bit 7 – F27#3 Phase A timeout status bit Bit 8 – F27#3 Phase B timeout status bit Bit 9 – F27#3 Phase C timeout status bit Bit 10 – F27#4 Phase A timeout status bit Bit 11 – F27#4 Phase B timeout status bit Bit 12 – F27#4 Phase C timeout status bit Bit 13 – F27PP Phases AB timeout status bit Bit 14 – F27PP Phases BC timeout status bit Bit 15 – F27PP Phases CA timeout status bit
5311	1	–	W	0-65535/1	Sequence of Events Timeout2 Status bits Bit 0 – F27Vz1 Pickup Status Bit Bit 1 – F32#1 Phase A timeout status bit Bit 2 – F32#1 Phase B timeout status bit Bit 3 – F32#1 Phase C timeout status bit Bit 4 – F32#2 Phase A timeout status bit Bit 5 – F32#2 Phase B timeout status bit Bit 6 – F32#2 Phase C timeout status bit Bit 7 – F32#3 Phase A timeout status bit Bit 8 – F32#3 Phase B timeout status bit Bit 9 – F32#3 Phase C timeout status bit Bit 10 – F32#4 Phase A timeout status bit Bit 11 – F32#4 Phase B timeout status bit Bit 12 – F32#4 Phase C timeout status bit Bit 13 – F50#1 Phase A timeout status bit Bit 14 – F50#1 Phase B timeout status bit Bit 15 – F50#1 Phase C timeout status bit
5312	1	–	W	0-65535/1	Sequence of Events Timeout3 Status bits Bit 0 – F50#2 Phase A timeout status bit Bit 1 – F50#2 Phase B timeout status bit Bit 2 – F50#2 Phase C timeout status bit Bit 3 – F50#3 Phase A timeout status bit Bit 4 – F50#3 Phase B timeout status bit Bit 5 – F50#3 Phase C timeout status bit Bit 6 – F50#4 Phase A timeout status bit Bit 7 – F50#4 Phase B timeout status bit Bit 8 – F50#4 Phase C timeout status bit Bit 9 – F50#5 Phase A timeout status bit Bit 10 – F50#5 Phase B timeout status bit Bit 11 – F50#5 Phase C timeout status bit Bit 12 – F50N#1 timeout status bit Bit 13 – F50N#2 timeout status bit Bit 14 – F50N#3 timeout status bit Bit 15 – F50N#4 timeout status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5313	1	–	W	0-65535/1	Sequence of Events Timeout4 Status bits Bit 0 – F50N#5 timeout status bit Bit 1 – F50G#1 timeout status bit Bit 2 – F50G#2 timeout status bit Bit 3 – F50G#3 timeout status bit Bit 4 – F50G#4 timeout status bit Bit 5 – F50G#5 timeout status bit Bit 6 – F46DT#1 timeout status bit Bit 7 – F46DT#2 timeout status bit Bit 8 – F46DT#3 timeout status bit Bit 9 – F46DT#4 timeout status bit Bit 10 – F46DT#5 timeout status bit Bit 11 – F50BF timeout status bit Bit 12 – F51#1 Phase A timeout status bit Bit 13 – F51#1 Phase B timeout status bit Bit 14 – F51#1 Phase C timeout status bit Bit 15 – F51#2 Phase A timeout status bit
5314	1	–	W	0-65535/1	Sequence of Events Timeout5 Status bits Bit 0 – F51#2 Phase B timeout status bit Bit 1 – F51#2 Phase C timeout status bit Bit 2 – F51#3 Phase A timeout status bit Bit 3 – F51#3 Phase B timeout status bit Bit 4 – F51#3 Phase C timeout status bit Bit 5 – F51#4 Phase A timeout status bit Bit 6 – F51#4 Phase B timeout status bit Bit 7 – F51#4 Phase C timeout status bit Bit 8 – F51#5 Phase A timeout status bit Bit 9 – F51#5 Phase B timeout status bit Bit 10 – F51#5 Phase C timeout status bit Bit 11 – F51N#1 timeout status bit Bit 12 – F51N#2 timeout status bit Bit 13 – F51N#3 timeout status bit Bit 14 – F51N#4 timeout status bit Bit 15 – F51N#5 timeout status bit
5315	1	–	W	0-65535/1	Sequence of Events Timeout6 Status bits Bit 0 – F51G#1 timeout status bit Bit 1 – F51G#2 timeout status bit Bit 2 – F51G#3 timeout status bit Bit 3 – F51G#4 timeout status bit Bit 4 – F51G#5 timeout status bit Bit 5 – F46IT#1 timeout status bit Bit 6 – F46IT#2 timeout status bit Bit 7 – F46IT#3 timeout status bit Bit 8 – F46IT#4 timeout status bit Bit 9 – F46IT#5 timeout status bit Bit 10 – F59#1 Phase A timeout status bit Bit 11 – F59#1 Phase B timeout status bit Bit 12 – F59#1 Phase C timeout status bit Bit 13 – F59#2 Phase A timeout status bit Bit 14 – F59#2 Phase B timeout status bit Bit 15 – F59#2 Phase C timeout status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5316	1	–	W	0-65535/1	Sequence of Events Timeout7 Status bits Bit 0 – F59#3 Phase A timeout status bit Bit 1 – F59#3 Phase B timeout status bit Bit 2 – F59#3 Phase C timeout status bit Bit 3 – F59#4 Phase A timeout status bit Bit 4 – F59#4 Phase B timeout status bit Bit 5 – F59#4 Phase C timeout status bit Bit 6 – F59PP Phase A timeout status bit Bit 7 – F59PP Phase B timeout status bit Bit 8 – F59PP Phase C timeout status bit Bit 9 – F59N timeout status bit Bit 10 – F59Vz1 timeout status bit Bit 11 – F47 timeout status bit Bit 12 – F67#1 Phase A timeout status bit Bit 13 – F67#1 Phase B timeout status bit Bit 14 – F67#1 Phase C timeout status bit Bit 15 – F67#2 Phase A timeout status bit
5317	1	–	W	0-65535/1	Sequence of Events Timeout8 Status bits Bit 0 – F67#2 Phase B timeout status bit Bit 1 – F67#2 Phase C timeout status bit Bit 2 – F67#3 Phase A timeout status bit Bit 3 – F67#3 Phase B timeout status bit Bit 4 – F67#3 Phase C timeout status bit Bit 5 – F67#4 Phase A timeout status bit Bit 6 – F67#4 Phase B timeout status bit Bit 7 – F67#4 Phase C timeout status bit Bit 8 – F67#5 Phase A timeout status bit Bit 9 – F67#5 Phase B timeout status bit Bit 10 – F67#5 Phase C timeout status bit Bit 11 – F67N#1 timeout status bit Bit 12 – F67N#2 timeout status bit Bit 13 – F67N#3 timeout status bit Bit 14 – F67N#4 timeout status bit Bit 15 – F67N#5 timeout status bit
5318	1	–	W	0-65535/1	Sequence of Events Timeout9 Status bits Bit 0 – F67G#1 timeout status bit Bit 1 – F67G#2 timeout status bit Bit 2 – F67G#3 timeout status bit Bit 3 – F67G#4 timeout status bit Bit 4 – F67G#5 timeout status bit Bit 5 – F67Q#1 timeout status bit Bit 6 – F67Q#2 timeout status bit Bit 7 – F67Q#3 timeout status bit Bit 8 – F67Q#4 timeout status bit Bit 9 – F67Q#5 timeout status bit Bit 10 – TCM timeout status bit Bit 11 – CCM timeout status bit Bit 12 – NOT USED Bit 13 – F81#1 timeout status bit Bit 14 – F81#2 timeout status bit Bit 15 – F81#3 timeout status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5319	1	–	W	0-65535/1	Sequence of Events Timeout10 Status bits Bit 0 – F81#4 timeout status bit Bit 1 – F81R#1 timeout status bit Bit 2 – F81R#2 timeout status bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 timeout status bit Bit 5 – IPSLOGIC#2 timeout status bit Bit 6 – IPSLOGIC#3 timeout status bit Bit 7 – IPSLOGIC#4 timeout status bit Bit 8 – IPSLOGIC#5 timeout status bit Bit 9 – IPSLOGIC#6 timeout status bit Bit 10 – IPSLOGIC#7 timeout status bit Bit 11 – IPSLOGIC#8 timeout status bit Bit 12 – PSM timeout status bit Bit 13 – F60FL timeout status bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 Phase A timeout status bit
5347	1	–	W	0-65535/1	Sequence of Events Timeout11 Status bits Bit 0 – FTHD/TDD #1 Phase B timeout status bit Bit 1 – FTHD/TDD #1 Phase C timeout status bit Bit 2 – FTHD/TDD #2 Phase A timeout status bit Bit 3 – FTHD/TDD #2 Phase B timeout status bit Bit 4 – FTHD/TDD #2 Phase C timeout status bit Bit 5 – F59I Phase A timeout status bit Bit 6 – F59I Phase B timeout status bit Bit 7 – F59I Phase C timeout status bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 timeout status bit Bit 12 – F40 #2 timeout status bit Bit 13 – F40VC #1 timeout status bit Bit 14 – F40VC #2 timeout status bit Bit 15 – FBM timeout status bit
5351	1	-	W	0-65535/1	Sequence of Events TIMEOUT Status bits 12 Bit 0 – HLT50PA timeout Status Bit Bit 1 – HLT50PB timeout Status Bit Bit 2 – HLT50PC timeout Status Bit Bit 3 – HLT50GS timeout Status Bit Bit 4 – HLT51PA timeout Status Bit Bit 5 – HLT51PB timeout Status Bit Bit 6 – HLT51PC timeout Status Bit Bit 7 – HLT51GS timeout Status Bit Bit 8 – SECTIONALIZERA timeout Status Bit Bit 9 – SECTIONALIZERB timeout Status Bit Bit 10 – SECTIONALIZERC timeout Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A timeout status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5355	1	–	W	0-65535/1	SOE_TIMEOUT13 Bit 0 – Close Block Ph B timeout status bit Bit 1 – Close Block Ph C timeout status bit Bit 2 – Close Block Ph B& C timeout status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – 27 #5 3Ph Timeout Status Bit Bit 15 – 27 #6 3Ph Timeout Status Bit
5360	1	–	W	0-65535/1	SOE_PICKUP14 Bit 0 – 27 #7 3Ph Pickup Status Bit Bit 1 – 27 #8 3Ph Pickup Status Bit Bit 2 – 59 #5 3Ph Pickup Status Bit Bit 3 – 59 #6 3Ph Pickup Status Bit Bit 4 – 59 #7 3Ph Pickup Status Bit Bit 5 – 59 #8 3Ph Pickup Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
5320	1	–	W	0-65535/1	Sequence of Events Pickup Dropout1 Status bits Bit 0 – F25 Pickup Status Bit Bit 1 – F27#1 Phase A pickup dropout status bit Bit 2 – F27#1 Phase B pickup dropout status bit Bit 3 – F27#1 Phase C pickup dropout status bit Bit 4 – F27#2 Phase A pickup dropout status bit Bit 5 – F27#2 Phase B pickup dropout status bit Bit 6 – F27#2 Phase C pickup dropout status bit Bit 7 – F27#3 Phase A pickup dropout status bit Bit 8 – F27#3 Phase B pickup dropout status bit Bit 9 – F27#3 Phase C pickup dropout status bit Bit 10 – F27#4 Phase A pickup dropout status bit Bit 11 – F27#4 Phase B pickup dropout status bit Bit 12 – F27#4 Phase C pickup dropout status bit Bit 13 – F27PP Phases AB pickup dropout status bit Bit 14 – F27PP Phases BC pickup dropout status bit Bit 15 – F27PP Phases CA pickup dropout status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5321	1	–	W	0-65535/1	Sequence of Events Pickup Dropout2 Status bits Bit 0 – F27Vz1 Pickup Status Bit Bit 1 – F32#1 Phase A pickup dropout status bit Bit 2 – F32#1 Phase B pickup dropout status bit Bit 3 – F32#1 Phase C pickup dropout status bit Bit 4 – F32#2 Phase A pickup dropout status bit Bit 5 – F32#2 Phase B pickup dropout status bit Bit 6 – F32#2 Phase C pickup dropout status bit Bit 7 – F32#3 Phase A pickup dropout status bit Bit 8 – F32#3 Phase B pickup dropout status bit Bit 9 – F32#3 Phase C pickup dropout status bit Bit 10 – F32#4 Phase A pickup dropout status bit Bit 11 – F32#4 Phase B pickup dropout status bit Bit 12 – F32#4 Phase C pickup dropout status bit Bit 13 – F50#1 Phase A pickup dropout status bit Bit 14 – F50#1 Phase B pickup dropout status bit Bit 15 – F50#1 Phase C pickup dropout status bit
5322	1	–	W	0-65535/1	Sequence of Events Pickup Dropout3 Status bits Bit 0 – F50#2 Phase A pickup dropout status bit Bit 1 – F50#2 Phase B pickup dropout status bit Bit 2 – F50#2 Phase C pickup dropout status bit Bit 3 – F50#3 Phase A pickup dropout status bit Bit 4 – F50#3 Phase B pickup dropout status bit Bit 5 – F50#3 Phase C pickup dropout status bit Bit 6 – F50#4 Phase A pickup dropout status bit Bit 7 – F50#4 Phase B pickup dropout status bit Bit 8 – F50#4 Phase C pickup dropout status bit Bit 9 – F50#5 Phase A pickup dropout status bit Bit 10 – F50#5 Phase B pickup dropout status bit Bit 11 – F50#5 Phase C pickup dropout status bit Bit 12 – F50N#1 pickup status dropout bit Bit 13 – F50N#2 pickup status dropout bit Bit 14 – F50N#3 pickup status dropout bit Bit 15 – F50N#4 pickup status dropout bit
5323	1	–	W	0-65535/1	Sequence of Events Pickup Dropout4 Status bits Bit 0 – F50N#5 pickup dropout status bit Bit 1 – F50G#1 pickup dropout status bit Bit 2 – F50G#2 pickup dropout status bit Bit 3 – F50G#3 pickup dropout status bit Bit 4 – F50G#4 pickup dropout status bit Bit 5 – F50G#5 pickup dropout status bit Bit 6 – F46DT#1 pickup dropout status bit Bit 7 – F46DT#2 pickup dropout status bit Bit 8 – F46DT#3 pickup dropout status bit Bit 9 – F46DT#4 pickup dropout status bit Bit 10 – F46DT#5 pickup dropout status bit Bit 11 – F50BF pickup dropout status bit Bit 12 – F51#1 Phase A pickup dropout status bit Bit 13 – F51#1 Phase B pickup dropout status bit Bit 14 – F51#1 Phase C pickup dropout status bit Bit 15 – F51#2 Phase A pickup dropout status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5324	1	–	W	0-65535/1	Sequence of Events Pickup Dropout5 Status bits Bit 0 – F51#2 Phase B pickup dropout status bit Bit 1 – F51#2 Phase C pickup dropout status bit Bit 2 – F51#3 Phase A pickup dropout status bit Bit 3 – F51#3 Phase B pickup dropout status bit Bit 4 – F51#3 Phase C pickup dropout status bit Bit 5 – F51#4 Phase A pickup dropout status bit Bit 6 – F51#4 Phase B pickup dropout status bit Bit 7 – F51#4 Phase C pickup dropout status bit Bit 8 – F51#5 Phase A pickup dropout status bit Bit 9 – F51#5 Phase B pickup dropout status bit Bit 10 – F51#5 Phase C pickup dropout status bit Bit 11 – F51N#1 pickup dropout status bit Bit 12 – F51N#2 pickup dropout status bit Bit 13 – F51N#3 pickup dropout status bit Bit 14 – F51N#4 pickup dropout status bit Bit 15 – F51N#5 pickup dropout status bit
5325	1	–	W	0-65535/1	Sequence of Events Pickup Dropout6 Status bits Bit 0 – F51G#1 pickup dropout status bit Bit 1 – F51G#2 pickup dropout status bit Bit 2 – F51G#3 pickup dropout status bit Bit 3 – F51G#4 pickup dropout status bit Bit 4 – F51G#5 pickup dropout status bit Bit 5 – F46IT#1 pickup dropout status bit Bit 6 – F46IT#2 pickup dropout status bit Bit 7 – F46IT#3 pickup dropout status bit Bit 8 – F46IT#4 pickup dropout status bit Bit 9 – F46IT#5 pickup dropout status bit Bit 10 – F59#1 Phase A pickup dropout status bit Bit 11 – F59#1 Phase B pickup dropout status bit Bit 12 – F59#1 Phase C pickup dropout status bit Bit 13 – F59#2 Phase A pickup dropout status bit Bit 14 – F59#2 Phase B pickup dropout status bit Bit 15 – F59#2 Phase C pickup dropout status bit
5326	1	–	W	0-65535/1	Sequence of Events Pickup Dropout7 Status bits Bit 0 – F59#3 Phase A pickup dropout status bit Bit 1 – F59#3 Phase B pickup dropout status bit Bit 2 – F59#3 Phase C pickup dropout status bit Bit 3 – F59#4 Phase A pickup dropout status bit Bit 4 – F59#4 Phase B pickup dropout status bit Bit 5 – F59#4 Phase C pickup dropout status bit Bit 6 – F59PP Phase A pickup dropout status bit Bit 7 – F59PP Phase B pickup dropout status bit Bit 8 – F59PP Phase C pickup dropout status bit Bit 9 – F59N pickup dropout status bit Bit 10 – F59Vz1 pickup dropout status bit Bit 11 – F47 pickup dropout status bit Bit 12 – F67#1 Phase A pickup dropout status bit Bit 13 – F67#1 Phase B pickup dropout status bit Bit 14 – F67#1 Phase C pickup dropout status bit Bit 15 – F67#2 Phase A pickup dropout status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5327	1	–	W	0-65535/1	Sequence of Events Pickup Dropout8 Status bits Bit 0 – F67#2 Phase B pickup dropout status bit Bit 1 – F67#2 Phase C pickup dropout status bit Bit 2 – F67#3 Phase A pickup dropout status bit Bit 3 – F67#3 Phase B pickup dropout status bit Bit 4 – F67#3 Phase C pickup dropout status bit Bit 5 – F67#4 Phase A pickup dropout status bit Bit 6 – F67#4 Phase B pickup dropout status bit Bit 7 – F67#4 Phase C pickup dropout status bit Bit 8 – F67#5 Phase A pickup dropout status bit Bit 9 – F67#5 Phase B pickup dropout status bit Bit 10 – F67#5 Phase C pickup dropout status bit Bit 11 – F67N#1 pickup dropout status bit Bit 12 – F67N#2 pickup dropout status bit Bit 13 – F67N#3 pickup dropout status bit Bit 14 – F67N#4 pickup dropout status bit Bit 15 – F67N#5 pickup dropout status bit
5328	1	–	W	0-65535/1	Sequence of Events Pickup Dropout9 Status bits Bit 0 – F67G#1 Pickup Dropout status bit Bit 1 – F67G#2 Pickup Dropout status bit Bit 2 – F67G#3 Pickup Dropout status bit Bit 3 – F67G#4 Pickup Dropout t status bit Bit 4 – F67G#5 Pickup Dropout status bit Bit 5 – F67Q#1 Pickup Dropout status bit Bit 6 – F67Q#2 Pickup Dropout status bit Bit 7 – F67Q#3 Pickup Dropout status bit Bit 8 – F67Q#4 Pickup Dropout t status bit Bit 9 – F67Q#5 Pickup Dropout status bit Bit 10 – TCM Pickup Dropout status bit Bit 11 – CCM Pickup Dropout status bit Bit 12 – NOT USED Bit 13 – F81#1 Pickup Dropout status bit Bit 14 – F81#2 Pickup Dropout status bit Bit 15 – F81#3 Pickup Dropout status bit
5329	1	–	W	0-65535/1	Sequence of Events Pickup Dropout10 Status bits Bit 0 – F81#4 pickup dropout status bit Bit 1 – F81R#1 pickup dropout status bit Bit 2 – F81R#2 pickup dropout status bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 pickup dropout status bit Bit 5 – IPSLOGIC#2 pickup dropout status bit Bit 6 – IPSLOGIC#3 pickup dropout status bit Bit 7 – IPSLOGIC#4 pickup dropout status bit Bit 8 – IPSLOGIC#5 pickup dropout status bit Bit 9 – IPSLOGIC#6 pickup dropout status bit Bit 10 – IPSLOGIC#7 pickup dropout status bit Bit 11 – IPSLOGIC#8 pickup dropout status bit Bit 12 – PSM pickup dropout status bit Bit 13 – F60FL pickup dropout status bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 Phase A pickup dropout status bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5348	1	–	W	0-65535/1	Sequence of Events Pickup Dropout11 Status bits Bit 0 – FTHD/TDD #1 Phase B pickup dropout status bit Bit 1 – FTHD/TDD #1 Phase C pickup dropout status bit Bit 2 – FTHD/TDD #2 Phase A pickup dropout status bit Bit 3 – FTHD/TDD #2 Phase B pickup dropout status bit Bit 4 – FTHD/TDD #2 Phase C pickup dropout status bit Bit 5 – F59I Phase A pickup dropout status bit Bit 6 – F59I Phase B pickup dropout status bit Bit 7 – F59I Phase C pickup dropout status bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 pickup dropout status bit Bit 12 – F40 #2 pickup dropout status bit Bit 13 – F40VC #1 pickup dropout status bit Bit 14 – F40VC #2 pickup dropout status bit Bit 15 – FBM pickup dropout status bit
5352	1	-	W	0-65535/1	Sequence of Events _ Pickup Dropout12 Status bits Bit 0 – HLT50PA pickup dropout Status Bit Bit 1 – HLT50PB pickup dropout Status Bit Bit 2 – HLT50PC pickup dropout Status Bit Bit 3 – HLT50GS pickup dropout Status Bit Bit 4 – HLT51PA pickup dropout Status Bit Bit 5 – HLT51PB pickup dropout Status Bit Bit 6 – HLT51PC pickup dropout Status Bit Bit 7 – HLT51GS pickup dropout Status Bit Bit 8 – SECTIONALIZER A pickup dropout Status Bit Bit 9 – SECTIONALIZER B pickup dropout Status Bit Bit 10 – SECTIONALIZER C pickup dropout Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A pickup dropout status bit
5356	1	–	W	0-65535/1	Sequence of Events _PICKDROP13 Bit 0 – Close Block Ph B pickdrop status bit Bit 1 – Close Block Ph C pickdrop status bit Bit 2 – Close Block Ph B& C pickdrop status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – 27 #5 3Ph Pickup DropOut Status Bit Bit 14 – 27 #6 3Ph Pickup DropOut Status Bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5361	1	–	W	0-65535/1	SOE_TIMEOUT14 Bit 0 – 27 #7 3Ph Timeout Status Bit Bit 1 – 27 #8 3Ph Timeout Status Bit Bit 2 – 59 #5 3Ph Timeout Status Bit Bit 3 – 59 #6 3Ph Timeout Status Bit Bit 4 – 59 #7 3Ph Timeout Status Bit Bit 5 – 59 #8 3Ph Timeout Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
5330	1	–	W	0-65535/1	Sequence of Events Timeout Dropout1 Status Bits Bit 0 – F25 Timeout Dropout Status Bit Bit 1 – F27#1 Phase A Timeout Dropout Status Bit Bit 2 – F27#1 Phase B Timeout Dropout Status Bit Bit 3 – F27#1 Phase C Timeout Dropout Status Bit Bit 4 – F27#2 Phase A Timeout Dropout Status Bit Bit 5 – F27#2 Phase B Timeout Dropout Status Bit Bit 6 – F27#2 Phase C Timeout Dropout Status Bit Bit 7 – F27#3 Phase A Timeout Dropout Status Bit Bit 8 – F27#3 Phase B Timeout Dropout Status Bit Bit 9 – F27#3 Phase C Timeout Dropout Status Bit Bit 10 – F27#4 Phase A Timeout Dropout Status Bit Bit 11 – F27#4 Phase B Timeout Dropout Status Bit Bit 12 – F27#4 Phase C Timeout Dropout Status Bit Bit 13 – F27PP Phases AB Timeout Dropout Status Bit Bit 14 – F27PP Phases BC Timeout Dropout Status Bit Bit 15 – F27PP Phases CA Timeout Dropout Status Bit
5331	1	–	W	0-65535/1	Sequence of Events Timeout Dropout2 Status bits Bit 0 – F27Vz1 Timeout Dropout Status Bit Bit 1 – F32#1 Phase A Timeout Dropout Status Bit Bit 2 – F32#1 Phase B Timeout Dropout Status Bit Bit 3 – F32#1 Phase C Timeout Dropout Status Bit Bit 4 – F32#2 Phase A Timeout Dropout Status Bit Bit 5 – F32#2 Phase B Timeout Dropout Status Bit Bit 6 – F32#2 Phase C Timeout Dropout Status Bit Bit 7 – F32#3 Phase A Timeout Dropout Status Bit Bit 8 – F32#3 Phase B Timeout Dropout Status Bit Bit 9 – F32#3 Phase C Timeout Dropout Status Bit Bit 10 – F32#4 Phase A Timeout Dropout Status Bit Bit 11 – F32#4 Phase B Timeout Dropout Status Bit Bit 12 – F32#4 Phase C Timeout Dropout Status Bit Bit 13 – F50#1 Phase A Timeout Dropout Status Bit Bit 14 – F50#1 Phase B Timeout Dropout Status Bit Bit 15 – F50#1 Phase C Timeout Dropout Status Bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5332	1	–	W	0-65535/1	Sequence of Events Timeout Dropout3 Status bits Bit 0 – F50#2 Phase A Timeout Dropout Status Bit Bit 1 – F50#2 Phase B Timeout Dropout Status Bit Bit 2 – F50#2 Phase C Timeout Dropout Status Bit Bit 3 – F50#3 Phase A Timeout Dropout Status Bit Bit 4 – F50#3 Phase B Timeout Dropout Status Bit Bit 5 – F50#3 Phase C Timeout Dropout Status Bit Bit 6 – F50#4 Phase A Timeout Dropout Status Bit Bit 7 – F50#4 Phase B Timeout Dropout Status Bit Bit 8 – F50#4 Phase C Timeout Dropout Status Bit Bit 9 – F50#5 Phase A Timeout Dropout Status Bit Bit 10 – F50#5 Phase B Timeout Dropout Status Bit Bit 11 – F50#5 Phase C Timeout Dropout Status Bit Bit 12 – F50N#1 Timeout Dropout Status Bit Bit 13 – F50N#2 Timeout Dropout Status Bit Bit 14 – F50N#3 Timeout Dropout Status Bit Bit 15 – F50N#4 Timeout Dropout Status Bit
5333	1	–	W	0-65535/1	Sequence of Events Timeout Dropout4 Status bits Bit 0 – F50N#5 Timeout Dropout Status Bit Bit 1 – F50G#1 Timeout Dropout Status Bit Bit 2 – F50G#2 Timeout Dropout Status Bit Bit 3 – F50G#3 Timeout Dropout Status Bit Bit 4 – F50G#4 Timeout Dropout Status Bit Bit 5 – F50G#5 Timeout Dropout Status Bit Bit 6 – F46DT#1 Timeout Dropout Status Bit Bit 7 – F46DT#2 Timeout Dropout Status Bit Bit 8 – F46DT#3 Timeout Dropout Status Bit Bit 9 – F46DT#4 Timeout Dropout Status Bit Bit 10 – F46DT#5 Timeout Dropout Status Bit Bit 11 – F50BF Timeout Dropout Status Bit Bit 12 – F51#1 Phase A Timeout Dropout Status Bit Bit 13 – F51#1 Phase B Timeout Dropout Status Bit Bit 14 – F51#1 Phase C Timeout Dropout Status Bit Bit 15 – F51#2 Phase A Timeout Dropout Status Bit
5334	1	–	W	0-65535/1	Sequence of Events Timeout Dropout5 Status bits Bit 0 – F51#2 Phase B Timeout Dropout Status Bit Bit 1 – F51#2 Phase C Timeout Dropout Status Bit Bit 2 – F51#3 Phase A Timeout Dropout Status Bit Bit 3 – F51#3 Phase B Timeout Dropout Status Bit Bit 4 – F51#3 Phase C Timeout Dropout Status Bit Bit 5 – F51#4 Phase A Timeout Dropout Status Bit Bit 6 – F51#4 Phase B Timeout Dropout Status Bit Bit 7 – F51#4 Phase C Timeout Dropout Status Bit Bit 8 – F51#5 Phase A Timeout Dropout Status Bit Bit 9 – F51#5 Phase B Timeout Dropout Status Bit Bit 10 – F51#5 Phase C Timeout Dropout Status Bit Bit 11 – F51N#1 Timeout Dropout Status Bit Bit 12 – F51N#2 Timeout Dropout Status Bit Bit 13 – F51N#3 Timeout Dropout Status Bit Bit 14 – F51N#4 Timeout Dropout Status Bit Bit 15 – F51N#5 Timeout Dropout Status Bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5335	1	–	W	0-65535/1	Sequence of Events Timeout Dropout6 Status bits Bit 0 – F51G#1 Timeout Dropout Status Bit Bit 1 – F51G#2 Timeout Dropout Status Bit Bit 2 – F51G#3 Timeout Dropout Status Bit Bit 3 – F51G#4 Timeout Dropout Status Bit Bit 4 – F51G#5 Timeout Dropout Status Bit Bit 5 – F46IT#1 Timeout Dropout Status Bit Bit 6 – F46IT#2 Timeout Dropout Status Bit Bit 7 – F46IT#3 Timeout Dropout Status Bit Bit 8 – F46IT#4 Timeout Dropout Status Bit Bit 9 – F46IT#5 Timeout Dropout Status Bit Bit 10 – F59#1 Phase A Timeout Dropout Status Bit Bit 11 – F59#1 Phase B Timeout Dropout Status Bit Bit 12 – F59#1 Phase C Timeout Dropout Status Bit Bit 13 – F59#2 Phase A Timeout Dropout Status Bit Bit 14 – F59#2 Phase B Timeout Dropout Status Bit Bit 15 – F59#2 Phase C Timeout Dropout Status Bit
5336	1	–	W	0-65535/1	Sequence of Events Timeout Dropout7 Status bits Bit 0 – F59#3 Phase A Timeout Dropout Status Bit Bit 1 – F59#3 Phase B Timeout Dropout Status Bit Bit 2 – F59#3 Phase C Timeout Dropout Status Bit Bit 3 – F59#4 Phase A Timeout Dropout Status Bit Bit 4 – F59#4 Phase B Timeout Dropout Status Bit Bit 5 – F59#4 Phase C Timeout Dropout Status Bit Bit 6 – F59PP Phase A Timeout Dropout Status Bit Bit 7 – F59PP Phase B Timeout Dropout Status Bit Bit 8 – F59PP Phase C Timeout Dropout Status Bit Bit 9 – F59N Timeout Dropout Status Bit Bit 10 – F59Vz1 Timeout Dropout Status Bit Bit 11 – F47 Timeout Dropout Status Bit Bit 12 – F67#1 Phase A Timeout Dropout Status Bit Bit 13 – F67#1 Phase B Timeout Dropout Status Bit Bit 14 – F67#1 Phase C Timeout Dropout Status Bit Bit 15 – F67#2 Phase A Timeout Dropout Status Bit
5337	1	–	W	0-65535/1	Sequence of Events Timeout Dropout8 Status bits Bit 0 – F67#2 Phase B Timeout Dropout Status Bit Bit 1 – F67#2 Phase C Timeout Dropout Status Bit Bit 2 – F67#3 Phase A Timeout Dropout Status Bit Bit 3 – F67#3 Phase B Timeout Dropout Status Bit Bit 4 – F67#3 Phase C Timeout Dropout Status Bit Bit 5 – F67#4 Phase A Timeout Dropout Status Bit Bit 6 – F67#4 Phase B Timeout Dropout Status Bit Bit 7 – F67#4 Phase C Timeout Dropout Status Bit Bit 8 – F67#5 Phase A Timeout Dropout Status Bit Bit 9 – F67#5 Phase B Timeout Dropout Status Bit Bit 10 – F67#5 Phase C Timeout Dropout Status Bit Bit 11 – F67N#1 Timeout Dropout Status Bit Bit 12 – F67N#2 Timeout Dropout Status Bit Bit 13 – F67N#3 Timeout Dropout Status Bit Bit 14 – F67N#4 Timeout Dropout Status Bit Bit 15 – F67N#5 Timeout Dropout Status Bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5338	1	–	W	0-65535/1	Sequence of Events Timeout Dropout9 Status bits Bit 0 – F67G#1 Timeout Dropout status bit Bit 1 – F67G#2 Timeout Dropout status bit Bit 2 – F67G#3 Timeout Dropout status bit Bit 3 – F67G#4 Timeout Dropout t status bit Bit 4 – F67G#5 Timeout Dropout status bit Bit 5 – F67Q#1 Timeout Dropout status bit Bit 6 – F67Q#2 Timeout Dropout status bit Bit 7 – F67Q#3 Timeout Dropout status bit Bit 8 – F67Q#4 Timeout Dropout t status bit Bit 9 – F67Q#5 Timeout Dropout status bit Bit 10 – TCM Timeout Dropout status bit Bit 11 – CCM Timeout Dropout status bit Bit 12 – NOT USED Bit 13 – F81#1 Timeout Dropout status bit Bit 14 – F81#2 Timeout Dropout status bit Bit 15 – F81#3 Timeout Dropout status bit
5339	1	–	W	0-65535/1	Sequence of Events Timeout Dropout10 Status bits Bit 0 – F81#4 Timeout Dropout Status Bit Bit 1 – F81R#1 Timeout Dropout Status Bit Bit 2 – F81R#2 Timeout Dropout Status Bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 Timeout Dropout Status Bit Bit 5 – IPSLOGIC#2 Timeout Dropout Status Bit Bit 6 – IPSLOGIC#3 Timeout Dropout Status Bit Bit 7 – IPSLOGIC#4 Timeout Dropout Status Bit Bit 8 – IPSLOGIC#5 Timeout Dropout Status Bit Bit 9 – IPSLOGIC#6 Timeout Dropout Status Bit Bit 10 – IPSLOGIC#7 Timeout Dropout Status Bit Bit 11 – IPSLOGIC#8 Timeout Dropout Status Bit Bit 12 – PSM Timeout Dropout Status Bit Bit 13 – F60FL Timeout Dropout Status Bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 Phase A Timeout Dropout Status Bit
5349	1	–	W	0-65535/1	Sequence of Events Timeout Dropout11 Status bits Bit 0 – FTHD/TDD #1 Phase B Timeout Dropout Status Bit Bit 1 – FTHD/TDD #1 Phase C Timeout Dropout Status Bit Bit 2 – FTHD/TDD #2 Phase A Timeout Dropout Status Bit Bit 3 – FTHD/TDD #2 Phase B Timeout Dropout Status Bit Bit 4 – FTHD/TDD #2 Phase C Timeout Dropout Status Bit Bit 5 – F59I Phase A Timeout Dropout Status Bit Bit 6 – F59I Phase B Timeout Dropout Status Bit Bit 7 – F59I Phase C Timeout Dropout Status Bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 Timeout Dropout Status Bit Bit 12 – F40 #2 Timeout Dropout Status Bit Bit 13 – F40VC #1 Timeout Dropout Status Bit Bit 14 – F40VC #2 Timeout Dropout Status Bit Bit 15 – FBM Timeout Dropout Status Bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5353	1	-	W	0-65535/1	Sequence of Events Timeout Dropout12 Status bits Bit 0 – HLT50PA Timeout Dropout Status Bit Bit 1 – HLT50PB Timeout Dropout Status Bit Bit 2 – HLT50PC Timeout Dropout Status Bit Bit 3 – HLT50GS Timeout Dropout Status Bit Bit 4 – HLT51PA Timeout Dropout Status Bit Bit 5 – HLT51PB Timeout Dropout Status Bit Bit 6 – HLT51PC Timeout Dropout Status Bit Bit 7 – HLT51GS Timeout Dropout Status Bit Bit 8 – SECTIONALIZER A Timeout Dropout Status Bit Bit 9 – SECTIONALIZER B Timeout Dropout Status Bit Bit 10 – SECTIONALIZER C Timeout Dropout Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A Timeout Dropout status bit
5357	1	–	W	0-65535/1	Sequence of Events Timeout Dropout13 Bit 0 – Close Block Ph B Timedrop status bit Bit 1 – Close Block Ph C Timedrop status bit Bit 2 – Close Block Ph B & C Timedrop status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – 27 #5 3Ph Timeout Dropout Status Bit Bit 15 – 27 #6 3Ph Timeout Dropout Status Bit
5362	1	–	W	0-65535/1	SOE_PICKDROP14 Bit 0 – 27 #7 3Ph Pickup Dropout Status Bit Bit 1 – 27 #8 3Ph Pickup Dropout Status Bit Bit 2 – 59 #5 3Ph Pickup Dropout Status Bit Bit 3 – 59 #6 3Ph Pickup Dropout Status Bit Bit 4 – 59 #7 3Ph Pickup Dropout Status Bit Bit 5 – 59 #8 3Ph Pickup Dropout Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5363	1	–	W	0-65535/1	SOE_TIMEDROP14 Bit 0 – 27 #7 3Ph Pickup Dropout Status Bit Bit 1 – 27 #8 3Ph Pickup Dropout Status Bit Bit 2 – 59 #5 3Ph Pickup Dropout Status Bit Bit 3 – 59 #6 3Ph Pickup Dropout Status Bit Bit 4 – 59 #7 3Ph Pickup Dropout Status Bit Bit 5 – 59 #8 3Ph Pickup Dropout Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
5364	1	–	W	0-65535/1	SOE TRIGGER SIGNAL PICKUP
5365	1	–	W	0-65535/1	SOE OPMODE TRIGGERS
5366	1	–	W	0-65535/1	SOE TRIGGER SIGNAL DROP
5387	1	–	W	0-4294967295/1	Sequence of Events Input Pickup Status Bits Bit 0 – Input 1 Pickup Status Bit 1 – Input 2 Pickup Status Bit 2 – Input 3 Pickup Status Bit 3 – Input 4 Pickup Status Bit 4 – Input 5 Pickup Status Bit 5 – Input 6 Pickup Status Bit 6 – Input 7 Pickup Status Bit 7 – Input 8 Pickup Status Bit 8 – Input 9 Pickup Status Bit 9 – Input 10 Pickup Status Bit 10 – Input 11 Pickup Status Bit 11 – Input 12 Pickup Status Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
5388	1	–	W	0-4294967295/1	Sequence of Events Input Pickup Status Bits. H

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5341	1	–	W	0-65535/1	Sequence of Events Output Pickup Status Bits Bit 0 – Output 1 Pickup Status Bit 1 – Output 2 Pickup Status Bit 2 – Output 3 Pickup Status Bit 3 – Output 4 Pickup Status Bit 4 – Output 5 Pickup Status Bit 5 – Output 6 Pickup Status Bit 6 – Output 7 Pickup Status Bit 7 – Output 8 Pickup Status Bit 8 – Output 9 Pickup Status Bit 9 – Output 10 Pickup Status Bit 10 – Output 11 Pickup Status Bit 11 – Output 12 Pickup Status Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
5389	1	–	W	0-4294967295/1	Sequence of Events Input Dropout status bits Bit 0 – Input 1 Pickup Status Bit 1 – Input 2 Pickup Status Bit 2 – Input 3 Pickup Status Bit 3 – Input 4 Pickup Status Bit 4 – Input 5 Pickup Status Bit 5 – Input 6 Pickup Status Bit 6 – Input 7 Pickup Status Bit 7 – Input 8 Pickup Status Bit 8 – Input 9 Pickup Status Bit 9 – Input 10 Pickup Status Bit 10 – Input 11 Pickup Status Bit 11 – Input 12 Pickup Status Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
5390	1	–	W	0-4294967295/1	Sequence of Events Input Dropout status bits. H
5343	1	–	W	0-65535/1	Sequence of Events Output Dropout status bits Bit 0 – Output 1 Pickup Status Bit 1 – Output 2 Pickup Status Bit 2 – Output 3 Pickup Status Bit 3 – Output 4 Pickup Status Bit 4 – Output 5 Pickup Status Bit 5 – Output 6 Pickup Status Bit 6 – Output 7 Pickup Status Bit 7 – Output 8 Pickup Status Bit 8 – Output 9 Pickup Status Bit 9 – Output 10 Pickup Status Bit 10 – Output 11 Pickup Status Bit 11 – Output 12 Pickup Status Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5344	1	—	W	0-4294967295/1	Sequence of Events Extra Triggers (Low Significant Word) 0 – Phase A 1 – Phase B 2 – Phase C 3 – Ground
5345	1	—	W	0-4294967295/1	Sequence of Events Extra Triggers (High Significant Word) All bits unused
5540	1	—	W	0-/1	Sequence of Events Communication Lock This will prevent retrieving or clearing sequence of events from any other communications
5541	1	—	W	0-65535/1	SOE COMM CMD
5542	1	—	W	0-4294967295/1	SOE COMM RANGE START
5543	1	—	W	0-4294967295/1	SOE COMM RANGE START.H
5544	1	—	W	0-4294967295/1	SOE COMM RANGE END
5545	1	—	W	0-4294967295/1	SOE COMM RANGE END.H
5546	1	—	W	0-4294967295/1	SOE COMM FSTAT LEN
5547	1	—	W	0-4294967295/1	SOE COMM FSTAT LEN.H
5548	1	—	W	0-4294967295/1	SOE COMM FSTAT OFFSET
5549	1	—	W	0-4294967295/1	SOE COMM FSTAT OFFSET.H
5550	1	—	W	0-65535/1	SOE TRIG EVENTS
5551	1	—	W	0-1/1	Sequence of Events Erase This will erase all the stored records
5559	1	—	W	0-7/1	TRIGGERFILEOPTION 1= SOE Triggers 2= OSC Triggers 4=OSC Traces
5552	1	—	W	0-1/1	Tse Comm Lock
5553	1	—	W	0-1/1	Tse Erase

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5367	1	-	W	0-65535/1	Sequence of Events PICKUP15 Status Bits Bit 0 – NOT USED Bit 1 – P2 25 pickup status bit Bit 2 – P2 27VzS pickup status bit Bit 3 – P2 59VzS pickup status bit Bit 4 – P1 27BSVS pickup status bit Bit 5 – P2 27BSVS pickup status bit Bit 6 – P2 50BF pickup status bit Bit 7 – P2 CLP pickup status bit Bit 8 – P2 LS pickup status bit Bit 9 – P1 LCP pickup status bit Bit 10 – P2 LCP pickup status bit Bit 11 – P1 LOS pickup status bit Bit 12 – P2 LOS pickup status bit Bit 13 – P1 HCA pickup status bit Bit 14 – P2 HCA pickup status bit Bit 15 – 81 #5 Pickup Status Bit
5368	1	-	W	0-65535/1	Sequence of Events PICKUP16 Status Bits Bit 0 – 81 #6 Pickup Status Bit Bit 1 – P1 SECT 27P Pickup Status Bit Bit 2 – P2 SECT 27P Pickup Status Bit Bit 3 – P1 SECT 50P Pickup Status Bit Bit 4 – P2 SECT 50P Pickup Status Bit Bit 5 – P1 SECT 51P Pickup Status Bit Bit 6 – P2 SECT 51P Pickup Status Bit Bit 7 – P1 SECT 59P Pickup Status Bit Bit 8 – P2 SECT 59P Pickup Status Bit Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
5369	1	-	W	0-65535/1	Sequence of Events TIMEOUT15 Status Bits Bit 0 – NOT USED Bit 1 – P2 25 Timeout Status Bit Bit 2 – P2 27VzS Timeout Status Bit Bit 3 – P2 59VzS Timeout Status Bit Bit 4 – P1 27BSVS Timeout Status Bit Bit 5 – P2 27BSVS Timeout Status Bit Bit 6 – P2 50BF Timeout Status Bit Bit 7 – P2 CLP Timeout Status Bit Bit 8 – P2 LS Timeout Status Bit Bit 9 – P1 LCP Timeout Status Bit Bit 10 – P2 LCP Timeout Status Bit Bit 11 – P1 LOS Timeout Status Bit Bit 12 – P2 LOS Timeout Status Bit Bit 13 – P1 HCA Timeout Status Bit Bit 14 – P2 HCA Timeout Status Bit Bit 15 – 81 #5 Timeout Status Bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5370	1	-	W	0-65535/1	Sequence of Events TIMEOUT16 Status Bits Bit 0 – 81 #6 Pickup Status Bit Bit 1 – P1 SECT 27P Timeout Status Bit Bit 2 – P2 SECT 27P Timeout Status Bit Bit 3 – P1 SECT 50P Timeout Status Bit Bit 4 – P2 SECT 50P Timeout Status Bit Bit 5 – P1 SECT 51P Timeout Status Bit Bit 6 – P2 SECT 51P Timeout Status Bit Bit 7 – P1 SECT 59P Timeout Status Bit Bit 8 – P2 SECT 59P Timeout Status Bit Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
5371	1	-	W	0-65535/1	Sequence of Events PICKUP DROPOUT 15 Status Bits Bit 0 – NOT USED Bit 1 – P2 25 Pickup Dropout Status Bit Bit 2 – P2 27VzS Pickup Dropout Status Bit Bit 3 – P2 59VzS Pickup Dropout Status Bit Bit 4 – P1 27BSVS Pickup Dropout Status Bit Bit 5 – P2 27BSVS Pickup Dropout Status Bit Bit 6 – P2 50BF Pickup Dropout Status Bit Bit 7 – P2 CLP Pickup Dropout Status Bit Bit 8 – P2 LS Pickup Dropout Status Bit Bit 9 – P1 LCP Pickup Dropout Status Bit Bit 10 – P2 LCP Pickup Dropout Status Bit Bit 11 – P1 LOS Pickup Dropout Status Bit Bit 12 – P2 LOS Pickup Dropout Status Bit Bit 13 – P1 HCA Pickup Dropout Status Bit Bit 14 – P2 HCA Pickup Dropout Status Bit Bit 15 – 81 #5 Pickup Dropout Status Bit
5372	1	-	W	0-65535/1	Sequence of Events PICKUP DROPOUT 16 Status Bits Bit 0 – 81 #6 Pickup Dropout Status Bit Bit 1 – P1 SECT 27P Pickup Dropout Status Bit Bit 2 – P2 SECT 27P Pickup Dropout Status Bit Bit 3 – P1 SECT 50P Pickup Dropout Status Bit Bit 4 – P2 SECT 50P Pickup Dropout Status Bit Bit 5 – P1 SECT 51P Pickup Dropout Status Bit Bit 6 – P2 SECT 51P Pickup Dropout Status Bit Bit 7 – P1 SECT 59P Pickup Dropout Status Bit Bit 8 – P2 SECT 59P Pickup Dropout Status Bit Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5373	1	-	W	0-65535/1	Sequence of Events TIMEOUT DROPOUT 15 Status Bits Bit 0 – NOT USED Bit 1 – P2 25 Timeout Dropout Status Bit Bit 2 – P2 27VzS Timeout Dropout Status Bit Bit 3 – P2 59VzS Timeout Dropout Status Bit Bit 4 – P1 27BSVS Timeout Dropout Status Bit Bit 5 – P2 27BSVS Timeout Dropout Status Bit Bit 6 – P2 50BF Timeout Dropout Status Bit Bit 7 – P2 CLP Timeout Dropout Status Bit Bit 8 – P2 LS Timeout Dropout Status Bit Bit 9 – P1 LCP Timeout Dropout Status Bit Bit 10 – P2 LCP Timeout Dropout Status Bit Bit 11 – P1 LOS Timeout Dropout Status Bit Bit 12 – P2 LOS Timeout Dropout Status Bit Bit 13 – P1 HCA Timeout Dropout Status Bit Bit 14 – P2 HCA Timeout Dropout Status Bit Bit 15 – 81 #5 Timeout Dropout Status Bit
5374	1	-	W	0-65535/1	Sequence of Events TIMEOUT DROPOUT 16 Status Bits Bit 0 – 81 #6 Timeout Dropout Status Bit Bit 1 – P1 SECT 27P Timeout Dropout Status Bit Bit 2 – P2 SECT 27P Timeout Dropout Status Bit Bit 3 – P1 SECT 50P Timeout Dropout Status Bit Bit 4 – P2 SECT 50P Timeout Dropout Status Bit Bit 5 – P1 SECT 51P Timeout Dropout Status Bit Bit 6 – P2 SECT 51P Timeout Dropout Status Bit Bit 7 – P1 SECT 59P Timeout Dropout Status Bit Bit 8 – P2 SECT 59P Timeout Dropout Status Bit Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
5375	1	-	W	0-65535/1	Sequence of Events UNBALANCED TRIGGERS1 Status Bits Bit 0 – P1 High Current Alarm Bit 1 – P1 Loss of Sensing 27 Pickup Status Bit Bit 2 – P1 Loss of Sensing 27 Timeout Status Bit Bit 3 – P1 Loss of Sensing 59 Pickup Status Bit Bit 4 – P1 Loss of Sensing 59 Timeout Status Bit Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5376	1	-	W	0-65535/1	Sequence of Events UNBALANCED TRIGGERS2 Status Bits Bit 0 – P2 High Current Alarm Bit 1 – P2 Loss of Sensing 27 Pickup Status Bit Bit 2 – P2 Loss of Sensing 27 Timeout Status Bit Bit 3 – P2 Loss of Sensing 59 Pickup Status Bit Bit 4 – P2 Loss of Sensing 59 Timeout Status Bit Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
5377	1	-	W	0-2147483647/1	Sequence of Events Loop Scheme Pole2 TRIGGERS Status Bits Bit 0 – P2 LS Vy Dead Line Sensing Pickup Status Bit Bit 1 – P2 LS Vy Dead Line Sensing Timeout Status Bit Bit 2 – P2 LS Vz Dead Line Sensing Pickup Status Bit Bit 3 – P2 LS Vz Dead Line Sensing Timeout Status Bit Bit 4 – P2 LS Vy Voltage Restore Pickup Status Bit Bit 5 – P2 LS Vy Voltage Restore Timeout Status Bit Bit 6 – P2 LS Vz Voltage Restore Pickup Status Bit Bit 7 – P2 LS Vz Voltage Restore Timeout Status Bit Bit 8 – P2 LS Vy Dead Line Pickup Status Bit Bit 9 – P2 LS Vy Dead Line Timeout Status Bit Bit 10 – P2 LS Vz Dead Line Pickup Status Bit Bit 11 – P2 LS Vz Dead Line Timeout Status Bit Bit 12 – P2 LS Vy Live Line Pickup Status Bit Bit 13 – P2 LS Vy Live Line Timeout Status Bit Bit 14 – P2 LS Vz Live Line Pickup Status Bit Bit 15 – P2 LS Vz Live Line Timeout Status Bit

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5378	1	-	W	0-2147483647/1	Sequence of Events Loop Scheme Pole2 TRIGGERS.H Status Bits Bit 0 – P2 LS Vy Dead Line Action Status Bit Bit 1 – P2 LS Vz Dead Line Action Status Bit Bit 2 – P2 LS Vy Live Line Action Status Bit Bit 3 – P2 LS Vz Live Line Action Status Bit Bit 4 – P2 LS Ready Status Bit Bit 5 – P2 LS Action Auto Trip Status Bit Bit 6 – P2 LS Action Auto Close Status Bit Bit 7 – P2 LS After Action Ground Trip Block Status Bit Bit 8 – P2 LS After Action Reclosing Block Status Bit Bit 9 – P2 LS Profile Switch Status Bit Bit 10 – P2 LS Reset Status Bit Bit 11 – P2 LS Vy Live Line Confirm Pickup Status Bit Bit 12 – P2 LS Vy Live Line Confirm Timeout Status Bit Bit 13 – P2 LS Vz Live Line Confirm Pickup Status Bit Bit 14 – P2 LS Vz Live Line Confirm Timeout Status Bit Bit 15 – NOT USED
5379	1	-	W	0-65535/1	SOE_PICKUP17 Bit 0 – 81R#4 Pickup Bit 1 – 81R#5 Pickup Bit 2 – 81R#6 Pickup Bit 3 – 81R#7 Pickup Bit 4 – 81R#8 Pickup Bit 5 – 46BC Pickup Bit 6 – BM#2 Pickup Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 NOT USED Bit 15 – NOT USED
5380	1	-	W	0-65535/1	SOE_PICKUP18

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5381	1	-	W	0-65535/1	SOE_TIMEOUT17 Bit 0 – 81R#4 Timeout Bit 1 – 81R#5 Timeout Bit 2 – 81R#6 Timeout Bit 3 – 81R#7 Timeout Bit 4 – 81R#8 Timeout Bit 5 – 46BC Timeout Bit 6 – BM#2 Timeout Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 NOT USED Bit 15 – NOT USED
5382	1	-	W	0-65535/1	SOE_TIMEOUT18
5383	1	-	W	0-65535/1	SOE_PICKDROP17 Bit 0 – 81R#4 Pickup Dropout Bit 1 – 81R#5 Pickup Dropout Bit 2 – 81R#6 Pickup Dropout Bit 3 – 81R#7 Pickup Dropout Bit 4 – 81R#8 Pickup Dropout Bit 5 – NOT USED Bit 6 – BM#2 Pickup Dropout Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 NOT USED Bit 15 – NOT USED
5384	1	-	W	0-65535/1	SOE_PICKDROP18

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5385	1	-	W	0-65535/1	SOE_TIMEDROP17 Bit 0 – 81R#4 Timeout Dropout Bit 1 – 81R#5 Timeout Dropout Bit 2 – 81R#6 Timeout Dropout Bit 3 – 81R#7 Timeout Dropout Bit 4 – 81R#8 Timeout Dropout Bit 5 – NOT USED Bit 6 – BM#2 Timeout Dropout Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 NOT USED Bit 15 – NOT USED
5386	1	-	W	0-65535/1	SOE_TIMEDROP18
5391	1	-	W	0-65535/1	SOE CLP TRIGGER CMD Bit 0 –ColdLoadPickup Enable Status Bit Bit 1 – ColdLoadPickup Block Status Bit Bit 2 – ColdLoadPickup Reset Status Bit Bit 3 – ColdLoadPickup Initiated Status Bit Bit 4 – ColdLoadPickup 79 Lockout Status Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5392	1	-	W	0-65535/1	SOE CLP TRIGGER STATUS Bit 0 – ColdLoadPickup ArmPickup Status Bit Bit 1 – ColdLoadPickup Arm Timeout Status Bit Bit 2 – ColdLoadPickup InitiateActionPickup Status Bit Bit 3 – ColdLoadPickup InitiateActionTimeout Status Bit Bit 4 – ColdLoadPickup LowPhaseCurrentPickup Status Bit Bit 5 – ColdLoadPickup LowPhaseCurrentTimeout Status Bit Bit 6 – ColdLoadPickup LowGroundCurrentPickup Status Bit Bit 7 – ColdLoadPickup LowGroundCurrentTimeout Status Bit Bit 8 – ColdLoadPickup OverrideActivePickup Status Bit // CLPACT Pickup Bit 9 – ColdLoadPickup OverrideActiveTimeoutStatus Bit // CLPACT Timeout Bit 10 – ColdLoadPickup LowCurrentPickup Status Bit //CLP BMT pickup Bit 11 – ColdLoadPickup LowCurrentTimeout Status Bit // CLP BMT timeout Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED
5393	1	-	W	0-65535/1	SOE CLP TRIGGER STATUS DROP Bit 0 – Coldload pickup Arm pickup dropout Status Bit Bit 1 – ColdLoadPickup Arm TimeoutDropout Status Bit Bit 2 – ColdLoadPickup InitiateActionPickupDropout Status Bit Bit 3 – ColdLoadPickup InitiateActionTimeoutDropout Status Bit Bit 4 – ColdLoadPickup LowPhaseCurrentPickupDropout Status Bit Bit 5 – ColdLoadPickup LowPhaseCurrentTimeoutDropout Status Bit Bit 6 – ColdLoadPickup LowGroundCurrentPickupDropout Status Bit Bit 7 – ColdLoadPickup LowGroundCurrentTimeoutDropout Status Bit Bit 8 – ColdLoadPickup OverrideActivePickupDropout Status Bit //CLPACT Pickup Bit 9 – ColdLoadPickup OverrideActiveTimeoutDropout Status Bit //CLPACT Timeout Bit 10 – ColdLoadPickup LowCurrentPickupDropout Status Bit // CLP BMT pickup Bit 11 – ColdLoadPickup LowCurrentTimeoutDropout Status Bit //CLP BMT timeout Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5394	1	-	W	0-65535/1	SOE BM1 TRIGGERS Bit 0 – Breaker Monitor1_pickup Bit 1 – Breaker Monitor1_Pickupchange Bit 2 – Not Used Bit 3 – BreakerMonitor1_Timeout Bit 4 – Not Used
5395	1	-	W	0-65535/1	SOE BM2 TRIGGERS Bit 0 – Breaker Monitor2_pickup Bit 1 – Breaker Monitor2_Pickupchange Bit 2 – Not Used Bit 3 – BreakerMonitor2_Timeout Bit 4 – Not Used
5396				0-65535/1	SOE BATTERY TRIGGERS Bit 0-HLT Enabled Bit 1-Low Battery Alarm Bit 2-High Temperature Alarm Bit 3-Battery Present Bit 4-Battery Load Test Fail Bit 5-Battery Load Test Active Bit 6-Low Capacitor Voltage Alarm Bit 7-AC Power Loss Bit 8-Internal Door Status Bit 9-External Door Status Bit 10-Battery Charger On Bit 11 to 15- Not Used
5397				0-65535/1	SOE BATTERY TRIGGERS DROP Bit 0-HLT Disabled Bit 1 to 9-Not Used Bit 10- Battery Charger Off Bit 11 to 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5398	1	-	W	0-65535/1	SOE IPSVOUT PU0 Bit 0- IPSVOUT #1 Bit 1- IPSVOUT #2 Bit 2- IPSVOUT #3 Bit 3- IPSVOUT #4 Bit 4- IPSVOUT #5 Bit 5- IPSVOUT #6 Bit 6- IPSVOUT #7 Bit 7- IPSVOUT #8 Bit 8- IPSVOUT #9 Bit 9- IPSVOUT #10 Bit 10- IPSVOUT #11 Bit 11- IPSVOUT #12 Bit 12- IPSVOUT #13 Bit 13- IPSVOUT #14 Bit 14- IPSVOUT #15 Bit 15- IPSVOUT #16
5399	1	-	W	0-65535/1	SOE IPSVOUT PU1 Bit 0- IPSVOUT #17 Bit 1- IPSVOUT #18 Bit 2- IPSVOUT #19 Bit 3- IPSVOUT #20 Bit 4- IPSVOUT #21 Bit 5- IPSVOUT #22 Bit 6- IPSVOUT #23 Bit 7- IPSVOUT #24 Bit 8- IPSVOUT #25 Bit 9- IPSVOUT #26 Bit 10- IPSVOUT #27 Bit 11- IPSVOUT #28 Bit 12- IPSVOUT #29 Bit 13- IPSVOUT #30 Bit 14- IPSVOUT #31 Bit 15- IPSVOUT #32

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5400	1	-	W	0-65535/1	SOE IPSVOUT DROP0 Bit 0- IPSVOUT #1 Bit 1- IPSVOUT #2 Bit 2- IPSVOUT #3 Bit 3- IPSVOUT #4 Bit 4- IPSVOUT #5 Bit 5- IPSVOUT #6 Bit 6- IPSVOUT #7 Bit 7- IPSVOUT #8 Bit 8- IPSVOUT #9 Bit 9- IPSVOUT #10 Bit 10- IPSVOUT #11 Bit 11- IPSVOUT #12 Bit 12- IPSVOUT #13 Bit 13- IPSVOUT #14 Bit 14- IPSVOUT #15 Bit 15- IPSVOUT #16
5401	1	-	W	0-65535/1	SOE IPSVOUT DROP1 Bit 0- IPSVOUT #17 Bit 1- IPSVOUT #18 Bit 2- IPSVOUT #19 Bit 3- IPSVOUT #20 Bit 4- IPSVOUT #21 Bit 5- IPSVOUT #22 Bit 6- IPSVOUT #23 Bit 7- IPSVOUT #24 Bit 8- IPSVOUT #25 Bit 9- IPSVOUT #26 Bit 10- IPSVOUT #27 Bit 11- IPSVOUT #28 Bit 12- IPSVOUT #29 Bit 13- IPSVOUT #30 Bit 14- IPSVOUT #31 Bit 15- IPSVOUT #32

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5402	1	-	W	0-65535/1	SOE CIPSVOUT PU0 Bit 0- CSIPSVOUT #1 Bit 1- CSIPSVOUT #2 Bit 2- CSIPSVOUT #3 Bit 3- CSIPSVOUT #4 Bit 4- CSIPSVOUT #5 Bit 5- CSIPSVOUT #6 Bit 6- CSIPSVOUT #7 Bit 7- CSIPSVOUT #8 Bit 8- CSIPSVOUT #9 Bit 9- CSIPSVOUT #10 Bit 10- CSIPSVOUT #11 Bit 11- CSIPSVOUT #12 Bit 12- CSIPSVOUT #13 Bit 13- CSIPSVOUT #14 Bit 14- CSIPSVOUT #15 Bit 15- CSIPSVOUT #16
5403	1	-	W	0-65535/1	SOE CIPSVOUT PU1 Bit 0- CSIPSVOUT #17 Bit 1- CSIPSVOUT #18 Bit 2- CSIPSVOUT #19 Bit 3- CSIPSVOUT #20 Bit 4- CSIPSVOUT #21 Bit 5- CSIPSVOUT 22 Bit 6- CSIPSVOUT #23 Bit 7- CSIPSVOUT #24 Bit 8- CSIPSVOUT #25 Bit 9- CSIPSVOUT #26 Bit 10- CSIPSVOUT #27 Bit 11- CSIPSVOUT #28 Bit 12- CSIPSVOUT #29 Bit 13- CSIPSVOUT #30 Bit 14- CSIPSVOUT #31 Bit 15- CSIPSVOUT #32

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5404	1	-	W	0-65535/1	SOE CIPSVOUT DROP0 Bit 0- CSIPSVOUT #1 Bit 1- CSIPSVOUT #2 Bit 2- CSIPSVOUT #3 Bit 3- CSIPSVOUT #4 Bit 4- CSIPSVOUT #5 Bit 5- CSIPSVOUT #6 Bit 6- CSIPSVOUT #7 Bit 7- CSIPSVOUT #8 Bit 8- CSIPSVOUT #9 Bit 9- CSIPSVOUT #10 Bit 10- CSIPSVOUT #11 Bit 11- CSIPSVOUT #12 Bit 12- CSIPSVOUT #13 Bit 13- CSIPSVOUT #14 Bit 14- CSIPSVOUT #15 Bit 15- CSIPSVOUT #16
5405	1	-	W	0-65535/1	SOE CIPSVOUT DROP1 Bit 0- CSIPSVOUT #17 Bit 1- CSIPSVOUT #18 Bit 2- CSIPSVOUT #19 Bit 3- CSIPSVOUT #20 Bit 4- CSIPSVOUT #21 Bit 5- CSIPSVOUT 22 Bit 6- CSIPSVOUT #23 Bit 7- CSIPSVOUT #24 Bit 8- CSIPSVOUT #25 Bit 9- CSIPSVOUT #26 Bit 10- CSIPSVOUT #27 Bit 11- CSIPSVOUT #28 Bit 12- CSIPSVOUT #29 Bit 13- CSIPSVOUT #30 Bit 14- CSIPSVOUT #31 Bit 15- CSIPSVOUT #32

Table 11 Sequence Of Events Setup

Sequence Of Events Setup Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5406	1	-	W	0-65535/1	SOE EVENT1 TRIGGERS Bit 0- Profile 1 Activated Bit 1- Profile 2 Activated Bit 2- Profile 3 Activated Bit 3- Profile 4 Activated Bit 4- Profile 5 Activated Bit 5- Profile 6 Activated Bit 6- Profile 7 Activated Bit 7- Profile 8 Activated Bit 8- Button 10 Press Bit 9- Button 11 Press Bit 10- Button 12 Press Bit 11- Button 13 Press Bit 12- Button 14 Press Bit 13- Button 15 Press Bit 14- Button 16 Press Bit 15- Button 17 Press
5407	1	-	W	0-65535/1	SOE EVENT2 TRIGGERS Bit 0- TRIP CMD RCVD (Local Button) Bit 1- TRIP CMD RCVD (Remote USB) Bit 2- TRIP CMD RCVD (Remote Eth...) Bit 3- TRIP CMD RCVD (Remote 232) Bit 4- CLOSE CMD RCVD (Local Butt...) Bit 5- CLOSE CMD RCVD (Remote USB) Bit 6- CLOSE CMD RCVD (Remote ET...) Bit 7- CLOSE CMD RCVD (Remote 232) Bit 8- RESET CMD RCVD (Local Butt...) Bit 9- RESET CMD RCVD (Remote USB) Bit 10- RESET CMD RCVD (Remote ET...) Bit 11- RESET CMD RCVD (Remote 232) Bit 12- DNP Binary Control Output Comma... Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5408	1	-	W	0-65535/1	SOE REMOTE1 TRIGGERS PICKUP Bit 0- Remote Input 1 Pickup Bit 1- Remote Input 2 Pickup Bit 2- Remote Input 3 Pickup Bit 3- Remote Input 4 Pickup Bit 4- Remote Input 5 Pickup Bit 5- Remote Input 6 Pickup Bit 6- Remote Input 7 Pickup Bit 7- Remote Input 8 Pickup Bit 8- Remote Input 9 Pickup Bit 9- Remote Input 10 Pickup Bit 10- Remote Input 11 Pickup Bit 11- Remote Input 12 Pickup Bit 12- Remote Input 13 Pickup Bit 13- Remote Input 14 Pickup Bit 14- Remote Input 15 Pickup Bit 15- Remote Input 16 Pickup
5409	1	-	W	0-65535/1	SOE REMOTE1 TRIGGERS DROP Bit 0- Remote Input 1 Dropout Bit 1- Remote Input 2 Dropout Bit 2- Remote Input 3 Dropout Bit 3- Remote Input 4 Dropout Bit 4- Remote Input 5 Dropout Bit 5- Remote Input 6 Dropout Bit 6- Remote Input 7 Dropout Bit 7- Remote Input 8 Dropout Bit 8- Remote Input 9 Dropout Bit 9- Remote Input 10 Dropout Bit 10- Remote Input 11 Dropout Bit 11- Remote Input 12 Dropout Bit 12- Remote Input 13 Dropout Bit 13- Remote Input 14 Dropout Bit 14- Remote Input 15 Dropout Bit 15- Remote Input 16 Dropout

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5410	1	-	W	0-65535/1	SOE REMOTE2 TRIGGERS PICKUP Bit 0- Remote Input 17 Pickup Bit 1- Remote Input 18 Pickup Bit 2- Remote Input 19 Pickup Bit 3- Remote Input 20 Pickup Bit 4- Remote Input 21 Pickup Bit 5- Remote Input 22 Pickup Bit 6- Remote Input 23 Pickup Bit 7- Remote Input 24 Pickup Bit 8- Remote Input 25 Pickup Bit 9- Remote Input 26 Pickup Bit 10- Remote Input 27 Pickup Bit 11- Remote Input 28 Pickup Bit 12- Remote Input 29 Pickup Bit 13- Remote Input 30 Pickup Bit 14- Remote Input 31 Pickup Bit 15- Remote Input 32 Pickup
5411	1	-	W	0-65535/1	SOE REMOTE2 TRIGGERS DROP Bit 0- Remote Input 17 Dropout Bit 1- Remote Input 18 Dropout Bit 2- Remote Input 19 Dropout Bit 3- Remote Input 20 Dropout Bit 4- Remote Input 21 Dropout Bit 5- Remote Input 22 Dropout Bit 6- Remote Input 23 Dropout Bit 7- Remote Input 24 Dropout Bit 8- Remote Input 25 Dropout Bit 9- Remote Input 26 Dropout Bit 10- Remote Input 27 Dropout Bit 11- Remote Input 28 Dropout Bit 12- Remote Input 29 Dropout Bit 13- Remote Input 30 Dropout Bit 14- Remote Input 31 Dropout Bit 15- Remote Input 32 Dropout

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5412	1	-	W	0-65535/1	SOE REMOTE3 TRIGGERS PICKUP Bit 0- Remote Input 33 Pickup Bit 1- Remote Input 34 Pickup Bit 2- Remote Input 35 Pickup Bit 3- Remote Input 36 Pickup Bit 4- Remote Input 37 Pickup Bit 5- Remote Input 38 Pickup Bit 6- Remote Input 39 Pickup Bit 7- Remote Input 40 Pickup Bit 8- Remote Input 41 Pickup Bit 9- Remote Input 42 Pickup Bit 10- Remote Input 43 Pickup Bit 11- Remote Input 44 Pickup Bit 12- Remote Input 45 Pickup Bit 13- Remote Input 46 Pickup Bit 14- Remote Input 47 Pickup Bit 15- Remote Input 48 Pickup
5413	1	-	W	0-65535/1	SOE REMOTE3 TRIGGERS DROP Bit 0- Remote Input 33 Dropout Bit 1- Remote Input 34 Dropout Bit 2- Remote Input 35 Dropout Bit 3- Remote Input 36 Dropout Bit 4- Remote Input 37 Dropout Bit 5- Remote Input 38 Dropout Bit 6- Remote Input 39 Dropout Bit 7- Remote Input 40 Dropout Bit 8- Remote Input 41 Dropout Bit 9- Remote Input 42 Dropout Bit 10- Remote Input 43 Dropout Bit 11- Remote Input 44 Dropout Bit 12- Remote Input 45 Dropout Bit 13- Remote Input 46 Dropout Bit 14- Remote Input 47 Dropout Bit 15- Remote Input 48 Dropout

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5414	1	-	W	0-65535/1	SOE REMOTE4 TRIGGERS PICKUP Bit 0- Remote Input 49 Pickup Bit 1- Remote Input 50 Pickup Bit 2- Remote Input 51 Pickup Bit 3- Remote Input 52 Pickup Bit 4- Remote Input 53 Pickup Bit 5- Remote Input 54 Pickup Bit 6- Remote Input 55 Pickup Bit 7- Remote Input 56 Pickup Bit 8- Remote Input 57 Pickup Bit 9- Remote Input 58 Pickup Bit 10- Remote Input 59 Pickup Bit 11- Remote Input 60 Pickup Bit 12- Remote Input 61 Pickup Bit 13- Remote Input 62 Pickup Bit 14- Remote Input 63 Pickup Bit 15- Remote Input 64 Pickup
5415	1	-	W	0-65535/1	SOE REMOTE4 TRIGGERS DROP Bit 0- Remote Input 49 Dropout Bit 1- Remote Input 50 Dropout Bit 2- Remote Input 51 Dropout Bit 3- Remote Input 52 Dropout Bit 4- Remote Input 53 Dropout Bit 5- Remote Input 54 Dropout Bit 6- Remote Input 55 Dropout Bit 7- Remote Input 56 Dropout Bit 8- Remote Input 57 Dropout Bit 9- Remote Input 58 Dropout Bit 10- Remote Input 59 Dropout Bit 11- Remote Input 60 Dropout Bit 12- Remote Input 61 Dropout Bit 13- Remote Input 62 Dropout Bit 14- Remote Input 63 Dropout Bit 15- Remote Input 64 Dropout

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5416	1	-	W	0-65535/1	SOE COMMPORT TRIGGERS PICKUP Bit 0- SD Active Pickup Bit 1- USB Active Pickup Bit 2- Port 1 Serial Active Pickup Bit 3- Port 2 Ethernet Active Pickup Bit 4- Port 3 Ethernet Active Pickup Bit 5- Port 4 Serial Active Pickup Bit 6- Port 1 Serial Comms Lost Pickup Bit 7- Port 2 Ethernet Comms Lost Pickup Bit 8- Port 3 Ethernet Comms Pickup Bit 9- Port 4 Serial Comms Lost Pickup Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used
5417	1	-	W	0-65535/1	SOE COMMPORT TRIGGERS DROP Bit 0- SD Active Dropout Bit 1- USB Active Dropout Bit 2- Port 1 Serial Active Dropout Bit 3- Port 2 Ethernet Active Dropout Bit 4- Port 3 Ethernet Active Dropout Bit 5- Port 4 Serial Active Dropout Bit 6- Port 1 Serial Comms Lost Dropout Bit 7- Port 2 Ethernet Comms Lost Dropout Bit 8- Port 3 Ethernet Comms Dropout Bit 9- Port 4 Serial Comms Lost Dropout Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5418	1	-	W	0-65535/1	SOE LED RED TRIGGER Bit 0- LED Red Status 1 Bit 1- LED Red Status 2 Bit 2- LED Red Status 3 Bit 3- LED Red Status 4 Bit 4- LED Red Status 5 Bit 5- LED Red Status 6 Bit 6- LED Red Status 7 Bit 7- LED Red Status 8 Bit 8- LED Red Status 9 Bit 9- LED Red Status 10 Bit 10- LED Red Status 11 Bit 11- LED Red Status 12 Bit 12- LED Red Status 13 Bit 13- LED Red Status 14 Bit 14- LED Red Status 15 Bit 15- LED Red Status 16
5419	1	-	W	0-65535/1	SOE LED RED TRIGGER.H Bit 0- LED Red Status 17 Bit 1- LED Red Status 18 Bit 2- LED Red Status 19 Bit 3- LED Red Status 20 Bit 4- LED Red Status 21 Bit 5- LED Red Status 22 Bit 6- LED Red Status 23 Bit 8- Not Used Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5420	1	-	W	0-65535/1	SOE LED GREEN TRIGGER Bit 0- LED Green Status 1 Bit 1- LED Green Status 2 Bit 2- LED Green Status 3 Bit 3- LED Green Status 4 Bit 4- LED Green Status 5 Bit 5- LED Green Status 6 Bit 6- LED Green Status 7 Bit 7- LED Green Status 8 Bit 8- LED Green Status 9 Bit 9- LED Green Status 10 Bit 10- LED Green Status 11 Bit 11- LED Green Status 12 Bit 12- LED Green Status 13 Bit 13- LED Green Status 14 Bit 14- LED Green Status 15 Bit 15- LED Green Status 16
5421	1	-	W	0-65535/1	SOE LED GREEN TRIGGER.H Bit 0- LED Green Status 17 Bit 1- LED Green Status 18 Bit 2- LED Green Status 19 Bit 3- LED Green Status 20 Bit 4- LED Green Status 21 Bit 5- LED Green Status 22 Bit 6- LED Green Status 23 Bit 8- Not Used Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5422	1	-	W	0-65535/1	SOE LED AMBER TRIGGER Bit 0- LED Amber Status 1 Bit 1- LED Amber Status 2 Bit 2- LED Amber Status 3 Bit 3- LED Amber Status 4 Bit 4- LED Amber Status 5 Bit 5- LED Amber Status 6 Bit 6- LED Amber Status 7 Bit 7- LED Amber Status 8 Bit 8- LED Amber Status 9 Bit 9- LED Amber Status 10 Bit 10- LED Amber Status 11 Bit 11- LED Amber Status 12 Bit 12- LED Amber Status 13 Bit 13- LED Amber Status 14 Bit 14- LED Amber Status 15 Bit 15- LED Amber Status 16
5423	1	-	W	0-65535/1	SOE LED AMBER TRIGGER.H Bit 0- LED Amber Status 17 Bit 1- LED Amber Status 18 Bit 2- LED Amber Status 19 Bit 3- LED Amber Status 20 Bit 4- LED Amber Status 21 Bit 5- LED Amber Status 22 Bit 6- LED Amber Status 23 Bit 8- Not Used Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5424	1	-	W	0-65535/1	SOE F79 TRIGGER Bit 0- F79 Sequence Active Bit 1- F79 Trip 1 Bit 2- F79 Close 1 Bit 3- F79 Trip 2 Bit 4- F79 Close 2 Bit 5- F79 Trip 3 Bit 6- F79 Close 3 Bit 7- F79 Trip 4 Bit 8- F79 Close 4 Bit 9- F79 Trip 5 Bit 10- F79 Lockout Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used
5425	1	-	W	0-65535/1	SOE F79A TRIGGER Bit 0- F79A Sequence Active Bit 1- F79A Trip 1 Bit 2- F79A Close 1 Bit 3- F79A Trip 2 Bit 4- F79A Close 2 Bit 5- F79A Trip 3 Bit 6- F79A Close 3 Bit 7- F79A Trip 4 Bit 8- F79A Close 4 Bit 9- F79A Trip 5 Bit 10- F79A Lockout Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5426	1	-	W	0-65535/1	SOE F79B TRIGGER Bit 0- F79B Sequence Active Bit 1- F79B Trip 1 Bit 2- F79B Close 1 Bit 3- F79B Trip 2 Bit 4- F79B Close 2 Bit 5- F79B Trip 3 Bit 6- F79B Close 3 Bit 7- F79B Trip 4 Bit 8- F79B Close 4 Bit 9- F79B Trip 5 Bit 10- F79B Lockout Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used
5427	1	-	W	0-65535/1	SOE F79C TRIGGER Bit 0- F79C Sequence Active Bit 1- F79C Trip 1 Bit 2- F79C Close 1 Bit 3- F79C Trip 2 Bit 4- F79C Close 2 Bit 5- F79C Trip 3 Bit 6- F79C Close 3 Bit 7- F79C Trip 4 Bit 8- F79C Close 4 Bit 9- F79C Trip 5 Bit 10- F79C Lockout Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5428	1	-	W	0-65535/1	SOE BATT3 TRIGGERS PICKUP Bit 0- Main Power On Pickup Bit 1- Battery Charger HW Failure Pickup Bit 2- Bulk Charge Mode Pickup Bit 3- Boost Charge Mode Pickup Bit 4- Absorption Charge Mode Pickup Bit 5- Float Charge Mode Pickup Bit 6- Not Used Bit 7- Not Used Bit 8- Not Used Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used
5429	1	-	W	0-65535/1	SOE BATT3 TRIGGERS DROP Bit 0- Main Power On Dropout Bit 1- Battery Charger HW Failure Dropout Bit 2- Bulk Charge Mode Dropout Bit 3- Boost Charge Mode Dropout Bit 4- Absorption Charge Mode Dropout Bit 5- Float Charge Mode Dropout Bit 6- Not Used Bit 7- Not Used Bit 8- Not Used Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5430	1	-	W	0-2147483647	SGI TRIGGERS1 Bit 0- SGI Pickup IG Fund Thresh Bit 1- SGI Timeout IG Fund Thresh Bit 2- SGI IPSLogic Reset Bit 3- SGI IPSLogic Initiate Bit 4- SGI IG Frozen Trigger Bit 5- SGI Initiated Bit 6- SGI Reset Timer Start Bit 7- SGI Reset Timer Expired Bit 8- SGI Initiate Pickup Bit 9- SGI Initiate Timeout Bit 10- SGI Reset Bit 11- SGI Enabled Bit 12- SGI Blocked Bit 13- SGI Pickup Delta IG Fund Bit 14- Not Used Bit 15- Not Used
5431	1	-	W	0-2147483647	SGI TRIGGERS1.H Bit 0- SGI Timeout Delta IG Fund Bit 1- SGI Pickup IG Harm Bit 2- SGI Timeout IG Harm Bit 3- SGI Pickup Delta IG % 3 rd Harm Bit 4- SGI Reset Frozen Timer Start Bit 5- SGI Reset Frozen Timer Expired Bit 6- SGI AND Gate Enabled Bit 7- SGI Latch Reset Timer Start Bit 8- SGI Latch Reset Timer Expired Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5432	1	-	W	0-2147483647	SGI TRIGGERS2 Bit 0- SGI Pickup IA Harm 1 Bit 1- SGI Pickup IB Harm 1 Bit 2- SGI Pickup IC Harm 1 Bit 3- SGI Pickup IA Harm 2 Bit 4- SGI Pickup IB Harm 2 Bit 5- SGI Pickup IC Harm 2 Bit 6- SGI Pickup IA Harm 3 Bit 7- SGI Pickup IB Harm 3 Bit 8- SGI Pickup IC Harm 3 Bit 9- SGI Pickup VA Harm 1 Bit 10- SGI Pickup VB Harm 1 Bit 11- SGI Pickup VC Harm 1 Bit 12- SGI Pickup VA Harm 2 Bit 13- SGI Pickup VB Harm 2 Bit 14- SGI Pickup VC Harm 2 Bit 15- SGI Pickup VA Harm 3
5433	1	-	W	0-2147483647	SGI TRIGGERS2.H Bit 0- SGI Pickup VB Harm 3 Bit 1- SGI Pickup VC Harm 3 Bit 2- SGI Pickup Vy N Harm Bit 3- SGI Pickup Delta Vy N Harm Bit 4- SGI Pickup IG Dir Bit 5- SGI Pickup Delta IG Harm Dir Bit 6- Not Used Bit 7- Not Used Bit 8- Not Used Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 11 Sequence Of Events Setup

Sequence Of Events Setup					
Registers with GRAY shading are only available with M-7679 and are not available in M-7651A					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5434	1	-	W	0-2147483647	SGI TRIGGERS3 Bit 0- SGI Timeout IA Harm 1 Bit 1- SGI Timeout IB Harm 1 Bit 2- SGI Timeout IC Harm 1 Bit 3- SGI Timeout IA Harm 2 Bit 4- SGI Timeout IB Harm 2 Bit 5- SGI Timeout IC Harm 2 Bit 6- SGI Timeout IA Harm 3 Bit 7- SGI Timeout IB Harm 3 Bit 8- SGI Timeout IC Harm 3 Bit 9- SGI Timeout VyA Harm 1 Bit 10- SGI Timeout VyB Harm 1 Bit 11- SGI Timeout VyC Harm 1 Bit 12- SGI Timeout VyA Harm 2 Bit 13- SGI Timeout VyB Harm 2 Bit 14- SGI Timeout VyC Harm 2 Bit 15- SGI Timeout VyA Harm 3
5435	1	-	W	0-2147483647	SGI TRIGGERS3.H Bit 0- SGI Timeout VyB Harm 3 Bit 1- SGI Timeout VyC Harm 3 Bit 2- SGI Timeout VN Harm Bit 3- SGI Timeout Delta VN Harm Bit 4- SGI Timeout IG Dir Bit 5- SGI Timeout Delta IG Harm Dir Bit 6- Not Used Bit 7- Not Used Bit 8- Not Used Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used
5436	1	-	W	0-65535	SOE AUTORESTORE TRIGGERS

Table 11 Sequence Of Events Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6000	1	-	W	0-65535/1	Oscillograph Pickup1 Status Bits Bit 0 – F25 Pickup Status Bit Bit 1 – F27#1 Phase A Pickup Status Bit Bit 2 – F27#1 Phase B Pickup Status Bit Bit 3 – F27#1 Phase C Pickup Status Bit Bit 4 – F27#2 Phase A Pickup Status Bit Bit 5 – F27#2 Phase B Pickup Status Bit Bit 6 – F27#2 Phase C Pickup Status Bit Bit 7 – F27#3 Phase A Pickup Status Bit Bit 8 – F27#3 Phase B Pickup Status Bit Bit 9 – F27#3 Phase C Pickup Status Bit Bit 10 – F27#4 Phase A Pickup Status Bit Bit 11 – F27#4 Phase B Pickup Status Bit Bit 12 – F27#4 Phase C Pickup Status Bit Bit 13 – F27PP Phases A Pickup Status Bit Bit 14 – F27PP Phases B Pickup Status Bit Bit 15 – F27PP Phases C Pickup Status Bit
6001	1	-	W	0-65535/1	Oscillograph Pickup2 Status Bits Bit 0 – F27Vz1 Pickup Status Bit Bit 1 – F32#1 Phase A Pickup Status Bit Bit 2 – F32#1 Phase B Pickup Status Bit Bit 3 – F32#1 Phase C Pickup Status Bit Bit 4 – F32#2 Phase A Pickup Status Bit Bit 5 – F32#2 Phase B Pickup Status Bit Bit 6 – F32#2 Phase C Pickup Status Bit Bit 7 – F32#3 Phase A Pickup Status Bit Bit 8 – F32#3 Phase B Pickup Status Bit Bit 9 – F32#3 Phase C Pickup Status Bit Bit 10 – F32#4 Phase A Pickup Status Bit Bit 11 – F32#4 Phase B Pickup Status Bit Bit 12 – F32#4 Phase C Pickup Status Bit Bit 13 – F50P#1 Phase A Pickup Status Bit Bit 14 – F50P#1 Phase B Pickup Status Bit Bit 15 – F50P#1 Phase C Pickup Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6002	1	—	W	0-65535/1	Oscillograph Pickup3 Status Bits Bit 0 – F50P#2 Phase A Pickup Status Bit Bit 1 – F50P#2 Phase B Pickup Status Bit Bit 2 – F50P#2 Phase C Pickup Status Bit Bit 3 – F50P#3 Phase A Pickup Status Bit Bit 4 – F50P#3 Phase B Pickup Status Bit Bit 5 – F50P#3 Phase C Pickup Status Bit Bit 6 – F50P#4 Phase A Pickup Status Bit Bit 7 – F50P#4 Phase B Pickup Status Bit Bit 8 – F50P#4 Phase C Pickup Status Bit Bit 9 – F50P#5 Phase A Pickup Status Bit Bit 10 – F50P#5 Phase B Pickup Status Bit Bit 11 – F50P#5 Phase C Pickup Status Bit Bit 12 – F50N#1 Pickup Status Bit Bit 13 – F50N#2 Pickup Status Bit Bit 14 – F50N#3 Pickup Status Bit Bit 15 – F50N#4 Pickup Status Bit
6003	1	—	W	0-65535/1	Oscillograph Pickup4 Status Bits Bit 0 – F50N#5 Pickup Status Bit Bit 1 – F50GS#1 Pickup Status Bit Bit 2 – F50GS#2 Pickup Status Bit Bit 3 – F50GS#3 Pickup Status Bit Bit 4 – F50GS#4 Pickup Status Bit Bit 5 – F50GS#5 Pickup Status Bit Bit 6 – F46DT#1 Pickup Status Bit Bit 7 – F46DT#2 Pickup Status Bit Bit 8 – F46DT#3 Pickup Status Bit Bit 9 – F46DT#4 Pickup Status Bit Bit 10 – F46DT#5 Pickup Status Bit Bit 11 – F50BF Pickup Status Bit Bit 12 – F51P#1 Phase A Pickup Status Bit Bit 13 – F51P#1 Phase B Pickup Status Bit Bit 14 – F51P#1 Phase C Pickup Status Bit Bit 15 – F51P#2 Phase A Pickup Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6004	1	—	W	0-65535/1	Oscillograph Pickup5 Status Bits Bit 0 – F51P#2 Phase B Pickup Status Bit Bit 1 – F51P#2 Phase C Pickup Status Bit Bit 2 – F51P#3 Phase A Pickup Status Bit Bit 3 – F51P#3 Phase B Pickup Status Bit Bit 4 – F51P#3 Phase C Pickup Status Bit Bit 5 – F51P#4 Phase A Pickup Status Bit Bit 6 – F51P#4 Phase B Pickup Status Bit Bit 7 – F51P#4 Phase C Pickup Status Bit Bit 8 – F51P#5 Phase A Pickup Status Bit Bit 9 – F51P#5 Phase B Pickup Status Bit Bit 10 – F51P#5 Phase C Pickup Status Bit Bit 11 – F51N#1 Pickup Status Bit Bit 12 – F51N#2 Pickup Status Bit Bit 13 – F51N#3 Pickup Status Bit Bit 14 – F51N#4 Pickup Status Bit Bit 15 – F51N#5 Pickup Status Bit
6005	1	—	W	0-65535/1	Oscillograph Pickup6 Status Bits Bit 0 – F51GS#1 Pickup Status Bit Bit 1 – F51GS#2 Pickup Status Bit Bit 2 – F51GS#3 Pickup Status Bit Bit 3 – F51GS#4 Pickup Status Bit Bit 4 – F51GS#5 Pickup Status Bit Bit 5 – F46IT#1 Pickup Status Bit Bit 6 – F46IT#2 Pickup Status Bit Bit 7 – F46IT#3 Pickup Status Bit Bit 8 – F46IT#4 Pickup Status Bit Bit 9 – F46IT#5 Pickup Status Bit Bit 10 – F59#1 Phase A Pickup Status Bit Bit 11 – F59#1 Phase B Pickup Status Bit Bit 12 – F59#1 Phase C Pickup Status Bit Bit 13 – F59#2 Phase A Pickup Status Bit Bit 14 – F59#2 Phase B Pickup Status Bit Bit 15 – F59#2 Phase C Pickup Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6006	1	—	W	0-65535/1	Oscillograph Pickup7 Status Bits Bit 0 – F59#3 Phase A Pickup Status Bit Bit 1 – F59#3 Phase B Pickup Status Bit Bit 2 – F59#3 Phase C Pickup Status Bit Bit 3 – F59#4 Phase A Pickup Status Bit Bit 4 – F59#4 Phase B Pickup Status Bit Bit 5 – F59#4 Phase C Pickup Status Bit Bit 6 – F59PP Phase A Pickup Status Bit Bit 7 – F59PP Phase B Pickup Status Bit Bit 8 – F59PP Phase C Pickup Status Bit Bit 9 – F59N Pickup Status Bit Bit 10 – F59Vz1 Pickup Status Bit Bit 11 – F47 Pickup Status Bit Bit 12 – F67#1 Phase A Pickup Status Bit Bit 13 – F67#1 Phase B Pickup Status Bit Bit 14 – F67#1 Phase C Pickup Status Bit Bit 15 – F67#2 Phase A Pickup Status Bit
6007	1	—	W	0-65535/1	Oscillograph Pickup8 Status Bits Bit 0 – F67#2 Phase B Pickup Status Bit Bit 1 – F67#2 Phase C Pickup Status Bit Bit 2 – F67#3 Phase A Pickup Status Bit Bit 3 – F67#3 Phase B Pickup Status Bit Bit 4 – F67#3 Phase C Pickup Status Bit Bit 5 – F67#4 Phase A Pickup Status Bit Bit 6 – F67#4 Phase B Pickup Status Bit Bit 7 – F67#4 Phase C Pickup Status Bit Bit 8 – F67#5 Phase A Pickup Status Bit Bit 9 – F67#5 Phase B Pickup Status Bit Bit 10 – F67#5 Phase C Pickup Status Bit Bit 11 – F67N#1 Pickup Status Bit Bit 12 – F67N#2 Pickup Status Bit Bit 13 – F67N#3 Pickup Status Bit Bit 14 – F67N#4 Pickup Status Bit Bit 15 – F67N#5 Pickup Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6008	1	—	W	0-65535/1	Oscillograph Pickup9 Status Bits Bit 0 – F67G#1 Pickup status bit Bit 1 – F67G#2 Pickup status bit Bit 2 – F67G#3 Pickup status bit Bit 3 – F67G#4 Pickup status bit Bit 4 – F67G#5 Pickup status bit Bit 5 – F67Q#1 Pickup status bit Bit 6 – F67Q#2 Pickup status bit Bit 7 – F67Q#3 Pickup status bit Bit 8 – F67Q#4 Pickup status bit Bit 9 – F67Q#5 Pickup status bit Bit 10 – TCM Pickup status bit Bit 11 – CCM Pickup status bit Bit 12 – NOT USED Bit 13 – F81#1 Pickup status bit Bit 14 – F81#2 Pickup status bit Bit 15 – F81#3 Pickup status bit
6009	1	—	W	0-65535/1	Oscillograph Pickup10 Status Bits Bit 0 – F81#4 Pickup Status Bit Bit 1 – F81R#1 Pickup Status Bit Bit 2 – F81R#2 Pickup Status Bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 Pickup Status Bit Bit 5 – IPSLOGIC#2 Pickup Status Bit Bit 6 – IPSLOGIC#3 Pickup Status Bit Bit 7 – IPSLOGIC#4 Pickup Status Bit Bit 8 – IPSLOGIC#5 Pickup Status Bit Bit 9 – IPSLOGIC#6 Pickup Status Bit Bit 10 – IPSLOGIC#7 Pickup Status Bit Bit 11 – IPSLOGIC#8 Pickup Status Bit Bit 12 – PSM Pickup Status Bit Bit 13 – F60FL Pickup Status Bit Bit 14 – FAR Pickup Bit 15 – FTHD/TDD #1 Phase A Pickup Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6044	1	—	W	0-65535/1	Oscillograph Pickup11 Status Bits Bit 0 – FTHD/TDD #1 Phase B Pickup Status Bit Bit 1 – FTHD/TDD #1 Phase C Pickup Status Bit Bit 2 – FTHD/TDD #2 Phase A Pickup Status Bit Bit 3 – FTHD/TDD #2 Phase B Pickup Status Bit Bit 4 – FTHD/TDD #2 Phase C Pickup Status Bit Bit 5 – F59I Phase A Pickup Status Bit Bit 6 – F59I Phase B Pickup Status Bit Bit 7 – F59I Phase C Pickup Status Bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 Pickup Status Bit Bit 12 – F40 #2 Pickup Status Bit Bit 13 – F40VC #1 Pickup Status Bit Bit 14 – F40VC #2 Pickup Status Bit Bit 15 – FBM Pickup Status Bit
6048	1	—	W	0-65535/1	Oscillograph Pickup 12 Status Bits Bit 0 – HLT50PA Pickup Status Bit Bit 1 – HLT50PB Pickup Status Bit Bit 2 – HLT50PC Pickup Status Bit Bit 3 – HLT50GS Pickup Status Bit Bit 4 – HLT51PA Pickup Status Bit Bit 5 – HLT51PB Pickup Status Bit Bit 6 – HLT51PC Pickup Status Bit Bit 7 – HLT51GS Pickup Status Bit Bit 8 – SECTIONALIZER A Pickup Status Bit Bit 9 – SECTIONALIZER B Pickup Status Bit Bit 10 – SECTIONALIZER C Pickup Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A Timeout Dropout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6052	1	—	W	0-65535/1	Oscillograph Pickup 13 Status Bits Bit 0 – Close Block Ph B pickup status bit Bit 1 – Close Block Ph C pickup status bit Bit 2 – Close Block Ph B&C pickup status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – 27 #5 3PH Pickup Status Bit Bit 15 – 27 #6 3PH Pickup Status Bit
6056	1	—	W	0-65535/1	Oscillograph Pickup 14 Status Bit Bit 0 – 27 #7 3PH Pickup Status Bit Bit 1 – 27 #8 3PH Pickup Status Bit Bit 2 – 59 #5 3PH Pickup Status Bit Bit 3 – 59 #6 3PH Pickup Status Bit Bit 4 – 59 #7 3PH Pickup Status Bit Bit 5 – 59 #8 3PH Pickup Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6010	1	—	W	0-65535/1	Oscillograph Timeout1 Status bits Bit 0 – F25 Pickup Status Bit Bit 1 – F27#1 Phase A timeout status bit Bit 2 – F27#1 Phase B timeout status bit Bit 3 – F27#1 Phase C timeout status bit Bit 4 – F27#2 Phase A timeout status bit Bit 5 – F27#2 Phase B timeout status bit Bit 6 – F27#2 Phase C timeout status bit Bit 7 – F27#3 Phase A timeout status bit Bit 8 – F27#3 Phase B timeout status bit Bit 9 – F27#3 Phase C timeout status bit Bit 10 – F27#4 Phase A timeout status bit Bit 11 – F27#4 Phase B timeout status bit Bit 12 – F27#4 Phase C timeout status bit Bit 13 – F27PP Phases AB timeout status bit Bit 14 – F27PP Phases BC timeout status bit Bit 15 – F27PP Phases CA timeout status bit
6011	1	—	W	0-65535/1	Oscillograph Timeout2 Status bits Bit 0 – F27Vz1 Pickup Status Bit Bit 1 – F32#1 Phase A timeout status bit Bit 2 – F32#1 Phase B timeout status bit Bit 3 – F32#1 Phase C timeout status bit Bit 4 – F32#2 Phase A timeout status bit Bit 5 – F32#2 Phase B timeout status bit Bit 6 – F32#2 Phase C timeout status bit Bit 7 – F32#3 Phase A timeout status bit Bit 8 – F32#3 Phase B timeout status bit Bit 9 – F32#3 Phase C timeout status bit Bit 10 – F32#4 Phase A timeout status bit Bit 11 – F32#4 Phase B timeout status bit Bit 12 – F32#4 Phase C timeout status bit Bit 13 – F50#1 Phase A timeout status bit Bit 14 – F50#1 Phase B timeout status bit Bit 15 – F50#1 Phase C timeout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6012	1	—	W	0-65535/1	Oscillograph Timeout3 Status bits Bit 0 – F50#2 Phase A timeout status bit Bit 1 – F50#2 Phase B timeout status bit Bit 2 – F50#2 Phase C timeout status bit Bit 3 – F50#3 Phase A timeout status bit Bit 4 – F50#3 Phase B timeout status bit Bit 5 – F50#3 Phase C timeout status bit Bit 6 – F50#4 Phase A timeout status bit Bit 7 – F50#4 Phase B timeout status bit Bit 8 – F50#4 Phase C timeout status bit Bit 9 – F50#5 Phase A timeout status bit Bit 10 – F50#5 Phase B timeout status bit Bit 11 – F50#5 Phase C timeout status bit Bit 12 – F50N#1 timeout status bit Bit 13 – F50N#2 timeout status bit Bit 14 – F50N#3 timeout status bit Bit 15 – F50N#4 timeout status bit
6013	1	—	W	0-65535/1	Oscillograph Timeout4 Status bits Bit 0 – F50N#5 timeout status bit Bit 1 – F50G#1 timeout status bit Bit 2 – F50G#2 timeout status bit Bit 3 – F50G#3 timeout status bit Bit 4 – F50G#4 timeout status bit Bit 5 – F50G#5 timeout status bit Bit 6 – F46DT#1 timeout status bit Bit 7 – F46DT#2 timeout status bit Bit 8 – F46DT#3 timeout status bit Bit 9 – F46DT#4 timeout status bit Bit 10 – F46DT#5 timeout status bit Bit 11 – F50BF timeout status bit Bit 12 – F51#1 Phase A timeout status bit Bit 13 – F51#1 Phase B timeout status bit Bit 14 – F51#1 Phase C timeout status bit Bit 15 – F51#2 Phase A timeout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6014	1	—	W	0-65535/1	Oscillograph Timeout5 Status bits Bit 0 – F51#2 Phase B timeout status bit Bit 1 – F51#2 Phase C timeout status bit Bit 2 – F51#3 Phase A timeout status bit Bit 3 – F51#3 Phase B timeout status bit Bit 4 – F51#3 Phase C timeout status bit Bit 5 – F51#4 Phase A timeout status bit Bit 6 – F51#4 Phase B timeout status bit Bit 7 – F51#4 Phase C timeout status bit Bit 8 – F51#5 Phase A timeout status bit Bit 9 – F51#5 Phase B timeout status bit Bit 10 – F51#5 Phase C timeout status bit Bit 11 – F51N#1 timeout status bit Bit 12 – F51N#2 timeout status bit Bit 13 – F51N#3 timeout status bit Bit 14 – F51N#4 timeout status bit Bit 15 – F51N#5 timeout status bit
6015	1	—	W	0-65535/1	Oscillograph Timeout6 Status bits Bit 0 – F51G#1 timeout status bit Bit 1 – F51G#2 timeout status bit Bit 2 – F51G#3 timeout status bit Bit 3 – F51G#4 timeout status bit Bit 4 – F51G#5 timeout status bit Bit 5 – F46IT#1 timeout status bit Bit 6 – F46IT#2 timeout status bit Bit 7 – F46IT#3 timeout status bit Bit 8 – F46IT#4 timeout status bit Bit 9 – F46IT#5 timeout status bit Bit 10 – F59#1 Phase A timeout status bit Bit 11 – F59#1 Phase B timeout status bit Bit 12 – F59#1 Phase C timeout status bit Bit 13 – F59#2 Phase A timeout status bit Bit 14 – F59#2 Phase B timeout status bit Bit 15 – F59#2 Phase C timeout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6016	1	—	W	0-65535/1	Oscillograph Timeout7 Status bits Bit 0 – F59#3 Phase A timeout status bit Bit 1 – F59#3 Phase B timeout status bit Bit 2 – F59#3 Phase C timeout status bit Bit 3 – F59#4 Phase A timeout status bit Bit 4 – F59#4 Phase B timeout status bit Bit 5 – F59#4 Phase C timeout status bit Bit 6 – F59PP Phase A timeout status bit Bit 7 – F59PP Phase B timeout status bit Bit 8 – F59PP Phase C timeout status bit Bit 9 – F59N timeout status bit Bit 10 – F59Vz1 timeout status bit Bit 11 – F47 timeout status bit Bit 12 – F67#1 Phase A timeout status bit Bit 13 – F67#1 Phase B timeout status bit Bit 14 – F67#1 Phase C timeout status bit Bit 15 – F67#2 Phase A timeout status bit
6017	1	—	W	0-65535/1	Oscillograph Timeout8 Status bits Bit 0 – F67#2 Phase B timeout status bit Bit 1 – F67#2 Phase C timeout status bit Bit 2 – F67#3 Phase A timeout status bit Bit 3 – F67#3 Phase B timeout status bit Bit 4 – F67#3 Phase C timeout status bit Bit 5 – F67#4 Phase A timeout status bit Bit 6 – F67#4 Phase B timeout status bit Bit 7 – F67#4 Phase C timeout status bit Bit 8 – F67#5 Phase A timeout status bit Bit 9 – F67#5 Phase B timeout status bit Bit 10 – F67#5 Phase C timeout status bit Bit 11 – F67N#1 timeout status bit Bit 12 – F67N#2 timeout status bit Bit 13 – F67N#3 timeout status bit Bit 14 – F67N#4 timeout status bit Bit 15 – F67N#5 timeout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6018	1	—	W	0-65535/1	Oscillograph Timeout9 Status bits Bit 0 – F67G#1 timeout status bit Bit 1 – F67G#2 timeout status bit Bit 2 – F67G#3 timeout status bit Bit 3 – F67G#4 timeout status bit Bit 4 – F67G#5 timeout status bit Bit 5 – F67Q#1 timeout status bit Bit 6 – F67Q#2 timeout status bit Bit 7 – F67Q#3 timeout status bit Bit 8 – F67Q#4 timeout status bit Bit 9 – F67Q#5 timeout status bit Bit 10 – TCM timeout status bit Bit 11 – CCM timeout status bit Bit 12 – NOT USED Bit 13 – F81#1 timeout status bit Bit 14 – F81#2 timeout status bit Bit 15 – F81#3 timeout status bit
6019	1	—	W	0-65535/1	Oscillograph Timeout10 Status bits Bit 0 – F81#4 timeout status bit Bit 1 – F81R#1 timeout status bit Bit 2 – F81R#2 timeout status bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 timeout status bit Bit 5 – IPSLOGIC#2 timeout status bit Bit 6 – IPSLOGIC#3 timeout status bit Bit 7 – IPSLOGIC#4 timeout status bit Bit 8 – IPSLOGIC#5 timeout status bit Bit 9 – IPSLOGIC#6 timeout status bit Bit 10 – IPSLOGIC#7 timeout status bit Bit 11 – IPSLOGIC#8 timeout status bit Bit 12 – PSM timeout status bit Bit 13 – F60FL timeout status bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 Phase A timeout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6045	1	—	W	0-65535/1	Oscillograph Timeout11 Status bits Bit 0 – FTHD/TDD #1 Phase B timeout status bit Bit 1 – FTHD/TDD #1 Phase C timeout status bit Bit 2 – FTHD/TDD #2 Phase A timeout status bit Bit 3 – FTHD/TDD #2 Phase B timeout status bit Bit 4 – FTHD/TDD #2 Phase C timeout status bit Bit 5 – F59I Phase A timeout status bit Bit 6 – F59I Phase B timeout status bit Bit 7 – F59I Phase C timeout status bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 timeout status bit Bit 12 – F40 #2 timeout status bit Bit 13 – F40VC #1 timeout status bit Bit 14 – F40VC #2 timeout status bit Bit 15 – FBM timeout status bit
6049	1	—	W	0-65535/1	Oscillograph Timeout12 Status bits Bit 0 – HLT50PA timeout Status Bit Bit 1 – HLT50PB timeout Status Bit Bit 2 – HLT50PC timeout Status Bit Bit 3 – HLT50GS timeout Status Bit Bit 4 – HLT51PA timeout Status Bit Bit 5 – HLT51PB timeout Status Bit Bit 6 – HLT51PC timeout Status Bit Bit 7 – HLT51GS timeout Status Bit Bit 8 – SECTIONALIZER A timeout Status Bit Bit 9 – SECTIONALIZER B timeout Status Bit Bit 10 – SECTIONALIZER C timeout Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A Timeout Dropout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6053	1	—	W	0-65535/1	Oscillograph Timeout13 Status bits Bit 0 – Close Block Ph B timeout status bit Bit 1 – Close Block Ph C timeout status bit Bit 2 – Close Block Ph B & C timeout status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – 27 #5 3PH Timeout Status Bit Bit 15 – 27 #6 3PH Timeout Status Bit
6057	1	—	W	0-65535/1	Oscillograph Timeout 14 Status Bit Bit 0 – 27 #7 3PH Timeout Status Bit Bit 1 – 27 #8 3PH Timeout Status Bit Bit 2 – 59 #5 3PH Timeout Status Bit Bit 3 – 59 #6 3PH Timeout Status Bit Bit 4 – 59 #7 3PH Timeout Status Bit Bit 5 – 59 #8 3PH Timeout Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6020	1	—	W	0-65535/1	Oscillograph Pickup Dropout1 Status bits Bit 0 – F25 Pickup Status Bit Bit 1 – F27#1 Phase A pickup dropout status bit Bit 2 – F27#1 Phase B pickup dropout status bit Bit 3 – F27#1 Phase C pickup dropout status bit Bit 4 – F27#2 Phase A pickup dropout status bit Bit 5 – F27#2 Phase B pickup dropout status bit Bit 6 – F27#2 Phase C pickup dropout status bit Bit 7 – F27#3 Phase A pickup dropout status bit Bit 8 – F27#3 Phase B pickup dropout status bit Bit 9 – F27#3 Phase C pickup dropout status bit Bit 10 – F27#4 Phase A pickup dropout status bit Bit 11 – F27#4 Phase B pickup dropout status bit Bit 12 – F27#4 Phase C pickup dropout status bit Bit 13 – F27PP Phases AB pickup dropout status bit Bit 14 – F27PP Phases BC pickup dropout status bit Bit 15 – F27PP Phases CA pickup dropout status bit
6021	1	—	W	0-65535/1	Oscillograph Pickup Dropout2 Status bits Bit 0 – F27Vz1 Pickup Status Bit Bit 1 – F32#1 Phase A pickup dropout status bit Bit 2 – F32#1 Phase B pickup dropout status bit Bit 3 – F32#1 Phase C pickup dropout status bit Bit 4 – F32#2 Phase A pickup dropout status bit Bit 5 – F32#2 Phase B pickup dropout status bit Bit 6 – F32#2 Phase C pickup dropout status bit Bit 7 – F32#3 Phase A pickup dropout status bit Bit 8 – F32#3 Phase B pickup dropout status bit Bit 9 – F32#3 Phase C pickup dropout status bit Bit 10 – F32#4 Phase A pickup dropout status bit Bit 11 – F32#4 Phase B pickup dropout status bit Bit 12 – F32#4 Phase C pickup dropout status bit Bit 13 – F50#1 Phase A pickup dropout status bit Bit 14 – F50#1 Phase B pickup dropout status bit Bit 15 – F50#1 Phase C pickup dropout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6022	1	—	W	0-65535/1	Oscillograph Pickup Dropout3 Status bits Bit 0 – F50#2 Phase A pickup dropout status bit Bit 1 – F50#2 Phase B pickup dropout status bit Bit 2 – F50#2 Phase C pickup dropout status bit Bit 3 – F50#3 Phase A pickup dropout status bit Bit 4 – F50#3 Phase B pickup dropout status bit Bit 5 – F50#3 Phase C pickup dropout status bit Bit 6 – F50#4 Phase A pickup dropout status bit Bit 7 – F50#4 Phase B pickup dropout status bit Bit 8 – F50#4 Phase C pickup dropout status bit Bit 9 – F50#5 Phase A pickup dropout status bit Bit 10 – F50#5 Phase B pickup dropout status bit Bit 11 – F50#5 Phase C pickup dropout status bit Bit 12 – F50N#1 pickup status dropout bit Bit 13 – F50N#2 pickup status dropout bit Bit 14 – F50N#3 pickup status dropout bit Bit 15 – F50N#4 pickup status dropout bit
6023	1	—	W	0-65535/1	Oscillograph Pickup Dropout4 Status bits Bit 0 – F50N#5 pickup dropout status bit Bit 1 – F50G#1 pickup dropout status bit Bit 2 – F50G#2 pickup dropout status bit Bit 3 – F50G#3 pickup dropout status bit Bit 4 – F50G#4 pickup dropout status bit Bit 5 – F50G#5 pickup dropout status bit Bit 6 – F46DT#1 pickup dropout status bit Bit 7 – F46DT#2 pickup dropout status bit Bit 8 – F46DT#3 pickup dropout status bit Bit 9 – F46DT#4 pickup dropout status bit Bit 10 – F46DT#5 pickup dropout status bit Bit 11 – F50BF pickup dropout status bit Bit 12 – F51#1 Phase A pickup dropout status bit Bit 13 – F51#1 Phase B pickup dropout status bit Bit 14 – F51#1 Phase C pickup dropout status bit Bit 15 – F51#2 Phase A pickup dropout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6024	1	—	W	0-65535/1	Oscillograph Pickup Dropout5 Status bits Bit 0 – F51#2 Phase B pickup dropout status bit Bit 1 – F51#2 Phase C pickup dropout status bit Bit 2 – F51#3 Phase A pickup dropout status bit Bit 3 – F51#3 Phase B pickup dropout status bit Bit 4 – F51#3 Phase C pickup dropout status bit Bit 5 – F51#4 Phase A pickup dropout status bit Bit 6 – F51#4 Phase B pickup dropout status bit Bit 7 – F51#4 Phase C pickup dropout status bit Bit 8 – F51#5 Phase A pickup dropout status bit Bit 9 – F51#5 Phase B pickup dropout status bit Bit 10 – F51#5 Phase C pickup dropout status bit Bit 11 – F51N#1 pickup dropout status bit Bit 12 – F51N#2 pickup dropout status bit Bit 13 – F51N#3 pickup dropout status bit Bit 14 – F51N#4 pickup dropout status bit Bit 15 – F51N#5 pickup dropout status bit
6025	1	—	W	0-65535/1	Oscillograph Pickup Dropout6 Status bits Bit 0 – F51G#1 pickup dropout status bit Bit 1 – F51G#2 pickup dropout status bit Bit 2 – F51G#3 pickup dropout status bit Bit 3 – F51G#4 pickup dropout status bit Bit 4 – F51G#5 pickup dropout status bit Bit 5 – F46IT#1 pickup dropout status bit Bit 6 – F46IT#2 pickup dropout status bit Bit 7 – F46IT#3 pickup dropout status bit Bit 8 – F46IT#4 pickup dropout status bit Bit 9 – F46IT#5 pickup dropout status bit Bit 10 – F59#1 Phase A pickup dropout status bit Bit 11 – F59#1 Phase B pickup dropout status bit Bit 12 – F59#1 Phase C pickup dropout status bit Bit 13 – F59#2 Phase A pickup dropout status bit Bit 14 – F59#2 Phase B pickup dropout status bit Bit 15 – F59#2 Phase C pickup dropout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6026	1	—	W	0-65535/1	Oscillograph Pickup Dropout7 Status bits Bit 0 – F59#3 Phase A pickup dropout status bit Bit 1 – F59#3 Phase B pickup dropout status bit Bit 2 – F59#3 Phase C pickup dropout status bit Bit 3 – F59#4 Phase A pickup dropout status bit Bit 4 – F59#4 Phase B pickup dropout status bit Bit 5 – F59#4 Phase C pickup dropout status bit Bit 6 – F59PP Phase A pickup dropout status bit Bit 7 – F59PP Phase B pickup dropout status bit Bit 8 – F59PP Phase C pickup dropout status bit Bit 9 – F59N pickup dropout status bit Bit 10 – F59Vz1 pickup dropout status bit Bit 11 – F47 pickup dropout status bit Bit 12 – F67#1 Phase A pickup dropout status bit Bit 13 – F67#1 Phase B pickup dropout status bit Bit 14 – F67#1 Phase C pickup dropout status bit Bit 15 – F67#2 Phase A pickup dropout status bit
6027	1	—	W	0-65535/1	Oscillograph Pickup Dropout8 Status bits Bit 0 – F67#2 Phase B pickup dropout status bit Bit 1 – F67#2 Phase C pickup dropout status bit Bit 2 – F67#3 Phase A pickup dropout status bit Bit 3 – F67#3 Phase B pickup dropout status bit Bit 4 – F67#3 Phase C pickup dropout status bit Bit 5 – F67#4 Phase A pickup dropout status bit Bit 6 – F67#4 Phase B pickup dropout status bit Bit 7 – F67#4 Phase C pickup dropout status bit Bit 8 – F67#5 Phase A pickup dropout status bit Bit 9 – F67#5 Phase B pickup dropout status bit Bit 10 – F67#5 Phase C pickup dropout status bit Bit 11 – F67N#1 pickup dropout status bit Bit 12 – F67N#2 pickup dropout status bit Bit 13 – F67N#3 pickup dropout status bit Bit 14 – F67N#4 pickup dropout status bit Bit 15 – F67N#5 pickup dropout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6028	1	—	W	0-65535/1	Oscillograph Pickup Dropout9 Status bits Bit 0 – F67G#1 Pickup Dropout status bit Bit 1 – F67G#2 Pickup Dropout status bit Bit 2 – F67G#3 Pickup Dropout status bit Bit 3 – F67G#4 Pickup Dropout t status bit Bit 4 – F67G#5 Pickup Dropout status bit Bit 5 – F67Q#1 Pickup Dropout status bit Bit 6 – F67Q#2 Pickup Dropout status bit Bit 7 – F67Q#3 Pickup Dropout status bit Bit 8 – F67Q#4 Pickup Dropout t status bit Bit 9 – F67Q#5 Pickup Dropout status bit Bit 10 – TCM Pickup Dropout status bit Bit 11 – CCM Pickup Dropout status bit Bit 12 – NOT USED Bit 13 – F81#1 Pickup Dropout status bit Bit 14 – F81#2 Pickup Dropout status bit Bit 15 – F81#3 Pickup Dropout status bit
6029	1	—	W	0-65535/1	Oscillograph Pickup Dropout10 Status bits Bit 0 – F81#4 pickup dropout status bit Bit 1 – F81R#1 pickup dropout status bit Bit 2 – F81R#2 pickup dropout status bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 pickup dropout status bit Bit 5 – IPSLOGIC#2 pickup dropout status bit Bit 6 – IPSLOGIC#3 pickup dropout status bit Bit 7 – IPSLOGIC#4 pickup dropout status bit Bit 8 – IPSLOGIC#5 pickup dropout status bit Bit 9 – IPSLOGIC#6 pickup dropout status bit Bit 10 – IPSLOGIC#7 pickup dropout status bit Bit 11 – IPSLOGIC#8 pickup dropout status bit Bit 12 – PSM pickup dropout status bit Bit 13 – F60FL pickup dropout status bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 Phase A pickup dropout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6046	1	—	W	0-65535/1	Oscillograph Pickup Dropout11 Status bits Bit 0 – FTHD/TDD #1 Phase B pickup dropout status bit Bit 1 – FTHD/TDD #1 Phase C pickup dropout status bit Bit 2 – FTHD/TDD #2 Phase A pickup dropout status bit Bit 3 – FTHD/TDD #2 Phase B pickup dropout status bit Bit 4 – FTHD/TDD #2 Phase C pickup dropout status bit Bit 5 – F59I Phase A pickup dropout status bit Bit 6 – F59I Phase B pickup dropout status bit Bit 7 – F59I Phase C pickup dropout status bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 pickup dropout status bit Bit 12 – F40 #2 pickup dropout status bit Bit 13 – F40VC #1 pickup dropout status bit Bit 14 – F40VC #2 pickup dropout status bit Bit 15 – FBM pickup dropout status bit
6050	1	—	W	0-65535/1	Oscillograph Pickup Dropout12 Status bits Bit 0 – HLT50PA pickup dropout Status Bit Bit 1 – HLT50PB pickup dropout Status Bit Bit 2 – HLT50PC pickup dropout Status Bit Bit 3 – HLT50GS pickup dropout Status Bit Bit 4 – HLT51PA pickup dropout Status Bit Bit 5 – HLT51PB pickup dropout Status Bit Bit 6 – HLT51PC pickup dropout Status Bit Bit 7 – HLT51GS pickup dropout Status Bit Bit 8 – SECTIONALIZER A pickup dropout Status Bit Bit 9 – SECTIONALIZER B pickup dropout Status Bit Bit 10 – SECTIONALIZER C pickup dropout Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A Timeout Dropout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6054	1	—	W	0-65535/1	Oscillograph Pickup Dropout13 Status bits Bit 0 – Close Block Ph B Pickup drop status bit Bit 1 – Close Block Ph C Pickup drop status bit Bit 2 – Close Block Ph B & C Pickup drop status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – 27 #5 3PH Pickup Dropout Status Bit Bit 15 – 27 #6 3PH Pickup Dropout Status Bit
6058	1	—	W	0-65535/1	Oscillograph Pickup Dropout14 Status bits Bit 0 – 27 #7 3PH Pickup Dropout Status Bit Bit 1 – 27 #8 3PH Pickup Dropout Status Bit Bit 2 – 59 #5 3PH Pickup Dropout Status Bit Bit 3 – 59 #6 3PH Pickup Dropout Status Bit Bit 4 – 59 #7 3PH Pickup Dropout Status Bit Bit 5 – 59 #8 3PH Pickup Dropout Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6030	1	—	W	0-65535/1	Oscillograph Timeout Dropout1 Status Bits Bit 0 – F25 Timeout Dropout Status Bit Bit 1 – F27#1 Phase A Timeout Dropout Status Bit Bit 2 – F27#1 Phase B Timeout Dropout Status Bit Bit 3 – F27#1 Phase C Timeout Dropout Status Bit Bit 4 – F27#2 Phase A Timeout Dropout Status Bit Bit 5 – F27#2 Phase B Timeout Dropout Status Bit Bit 6 – F27#2 Phase C Timeout Dropout Status Bit Bit 7 – F27#3 Phase A Timeout Dropout Status Bit Bit 8 – F27#3 Phase B Timeout Dropout Status Bit Bit 9 – F27#3 Phase C Timeout Dropout Status Bit Bit 10 – F27#4 Phase A Timeout Dropout Status Bit Bit 11 – F27#4 Phase B Timeout Dropout Status Bit Bit 12 – F27#4 Phase C Timeout Dropout Status Bit Bit 13 – F27PP Phases AB Timeout Dropout Status Bit Bit 14 – F27PP Phases BC Timeout Dropout Status Bit Bit 15 – F27PP Phases CA Timeout Dropout Status Bit
6031	1	—	W	0-65535/1	Oscillograph Timeout Dropout2 Status Bits Bit 0 – F27Vz1 Timeout Dropout Status Bit Bit 1 – F32#1 Phase A Timeout Dropout Status Bit Bit 2 – F32#1 Phase B Timeout Dropout Status Bit Bit 3 – F32#1 Phase C Timeout Dropout Status Bit Bit 4 – F32#2 Phase A Timeout Dropout Status Bit Bit 5 – F32#2 Phase B Timeout Dropout Status Bit Bit 6 – F32#2 Phase C Timeout Dropout Status Bit Bit 7 – F32#3 Phase A Timeout Dropout Status Bit Bit 8 – F32#3 Phase B Timeout Dropout Status Bit Bit 9 – F32#3 Phase C Timeout Dropout Status Bit Bit 10 – F32#4 Phase A Timeout Dropout Status Bit Bit 11 – F32#4 Phase B Timeout Dropout Status Bit Bit 12 – F32#4 Phase C Timeout Dropout Status Bit Bit 13 – F50#1 Phase A Timeout Dropout Status Bit Bit 14 – F50#1 Phase B Timeout Dropout Status Bit Bit 15 – F50#1 Phase C Timeout Dropout Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6032	1	—	W	0-65535/1	Oscillograph Timeout Dropout3 Status Bits Bit 0 – F50#2 Phase A Timeout Dropout Status Bit Bit 1 – F50#2 Phase B Timeout Dropout Status Bit Bit 2 – F50#2 Phase C Timeout Dropout Status Bit Bit 3 – F50#3 Phase A Timeout Dropout Status Bit Bit 4 – F50#3 Phase B Timeout Dropout Status Bit Bit 5 – F50#3 Phase C Timeout Dropout Status Bit Bit 6 – F50#4 Phase A Timeout Dropout Status Bit Bit 7 – F50#4 Phase B Timeout Dropout Status Bit Bit 8 – F50#4 Phase C Timeout Dropout Status Bit Bit 9 – F50#5 Phase A Timeout Dropout Status Bit Bit 10 – F50#5 Phase B Timeout Dropout Status Bit Bit 11 – F50#5 Phase C Timeout Dropout Status Bit Bit 12 – F50N#1 Timeout Dropout Status Bit Bit 13 – F50N#2 Timeout Dropout Status Bit Bit 14 – F50N#3 Timeout Dropout Status Bit Bit 15 – F50N#4 Timeout Dropout Status Bit
6033	1	—	W	0-65535/1	Oscillograph Timeout Dropout4 Status Bits Bit 0 – F50N#5 Timeout Dropout Status Bit Bit 1 – F50G#1 Timeout Dropout Status Bit Bit 2 – F50G#2 Timeout Dropout Status Bit Bit 3 – F50G#3 Timeout Dropout Status Bit Bit 4 – F50G#4 Timeout Dropout Status Bit Bit 5 – F50G#5 Timeout Dropout Status Bit Bit 6 – F46DT#1 Timeout Dropout Status Bit Bit 7 – F46DT#2 Timeout Dropout Status Bit Bit 8 – F46DT#3 Timeout Dropout Status Bit Bit 9 – F46DT#4 Timeout Dropout Status Bit Bit 10 – F46DT#5 Timeout Dropout Status Bit Bit 11 – F50BF Timeout Dropout Status Bit Bit 12 – F51#1 Phase A Timeout Dropout Status Bit Bit 13 – F51#1 Phase B Timeout Dropout Status Bit Bit 14 – F51#1 Phase C Timeout Dropout Status Bit Bit 15 – F51#2 Phase A Timeout Dropout Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6034	1	—	W	0-65535/1	Oscillograph Timeout Dropout5 Status Bits Bit 0 – F51#2 Phase B Timeout Dropout Status Bit Bit 1 – F51#2 Phase C Timeout Dropout Status Bit Bit 2 – F51#3 Phase A Timeout Dropout Status Bit Bit 3 – F51#3 Phase B Timeout Dropout Status Bit Bit 4 – F51#3 Phase C Timeout Dropout Status Bit Bit 5 – F51#4 Phase A Timeout Dropout Status Bit Bit 6 – F51#4 Phase B Timeout Dropout Status Bit Bit 7 – F51#4 Phase C Timeout Dropout Status Bit Bit 8 – F51#5 Phase A Timeout Dropout Status Bit Bit 9 – F51#5 Phase B Timeout Dropout Status Bit Bit 10 – F51#5 Phase C Timeout Dropout Status Bit Bit 11 – F51N#1 Timeout Dropout Status Bit Bit 12 – F51N#2 Timeout Dropout Status Bit Bit 13 – F51N#3 Timeout Dropout Status Bit Bit 14 – F51N#4 Timeout Dropout Status Bit Bit 15 – F51N#5 Timeout Dropout Status Bit
6035	1	—	W	0-65535/1	Oscillograph Timeout Dropout6 Status Bits Bit 0 – F51G#1 Timeout Dropout Status Bit Bit 1 – F51G#2 Timeout Dropout Status Bit Bit 2 – F51G#3 Timeout Dropout Status Bit Bit 3 – F51G#4 Timeout Dropout Status Bit Bit 4 – F51G#5 Timeout Dropout Status Bit Bit 5 – F46IT#1 Timeout Dropout Status Bit Bit 6 – F46IT#2 Timeout Dropout Status Bit Bit 7 – F46IT#3 Timeout Dropout Status Bit Bit 8 – F46IT#4 Timeout Dropout Status Bit Bit 9 – F46IT#5 Timeout Dropout Status Bit Bit 10 – F59#1 Phase A Timeout Dropout Status Bit Bit 11 – F59#1 Phase B Timeout Dropout Status Bit Bit 12 – F59#1 Phase C Timeout Dropout Status Bit Bit 13 – F59#2 Phase A Timeout Dropout Status Bit Bit 14 – F59#2 Phase B Timeout Dropout Status Bit Bit 15 – F59#2 Phase C Timeout Dropout Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6036	1	—	W	0-65535/1	Oscillograph Timeout Dropout7 Status Bits Bit 0 – F59#3 Phase A Timeout Dropout Status Bit Bit 1 – F59#3 Phase B Timeout Dropout Status Bit Bit 2 – F59#3 Phase C Timeout Dropout Status Bit Bit 3 – F59#4 Phase A Timeout Dropout Status Bit Bit 4 – F59#4 Phase B Timeout Dropout Status Bit Bit 5 – F59#4 Phase C Timeout Dropout Status Bit Bit 6 – F59PP Phase A Timeout Dropout Status Bit Bit 7 – F59PP Phase B Timeout Dropout Status Bit Bit 8 – F59PP Phase C Timeout Dropout Status Bit Bit 9 – F59N Timeout Dropout Status Bit Bit 10 – F59Vz1 Timeout Dropout Status Bit Bit 11 – F47 Timeout Dropout Status Bit Bit 12 – F67#1 Phase A Timeout Dropout Status Bit Bit 13 – F67#1 Phase B Timeout Dropout Status Bit Bit 14 – F67#1 Phase C Timeout Dropout Status Bit Bit 15 – F67#2 Phase A Timeout Dropout Status Bit
6037	1	—	W	0-65535/1	Oscillograph Timeout Dropout8 Status Bits Bit 0 – F67#2 Phase B Timeout Dropout Status Bit Bit 1 – F67#2 Phase C Timeout Dropout Status Bit Bit 2 – F67#3 Phase A Timeout Dropout Status Bit Bit 3 – F67#3 Phase B Timeout Dropout Status Bit Bit 4 – F67#3 Phase C Timeout Dropout Status Bit Bit 5 – F67#4 Phase A Timeout Dropout Status Bit Bit 6 – F67#4 Phase B Timeout Dropout Status Bit Bit 7 – F67#4 Phase C Timeout Dropout Status Bit Bit 8 – F67#5 Phase A Timeout Dropout Status Bit Bit 9 – F67#5 Phase B Timeout Dropout Status Bit Bit 10 – F67#5 Phase C Timeout Dropout Status Bit Bit 11 – F67N#1 Timeout Dropout Status Bit Bit 12 – F67N#2 Timeout Dropout Status Bit Bit 13 – F67N#3 Timeout Dropout Status Bit Bit 14 – F67N#4 Timeout Dropout Status Bit Bit 15 – F67N#5 Timeout Dropout Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6038	1	—	W	0-65535/1	Oscillograph Timeout Dropout9 Status Bits Bit 0 – F67G#1 Timeout Dropout status bit Bit 1 – F67G#2 Timeout Dropout status bit Bit 2 – F67G#3 Timeout Dropout status bit Bit 3 – F67G#4 Timeout Dropout t status bit Bit 4 – F67G#5 Timeout Dropout status bit Bit 5 – F67Q#1 Timeout Dropout status bit Bit 6 – F67Q#2 Timeout Dropout status bit Bit 7 – F67Q#3 Timeout Dropout status bit Bit 8 – F67Q#4 Timeout Dropout t status bit Bit 9 – F67Q#5 Timeout Dropout status bit Bit 10 – TCM Timeout Dropout status bit Bit 11 – CCM Timeout Dropout status bit Bit 12 – NOT USED Bit 13 – F81#1 Timeout Dropout status bit Bit 14 – F81#2 Timeout Dropout status bit Bit 15 – F81#3 Timeout Dropout status bit
6039	1	—	W	0-65535/1	Oscillograph Timeout Dropout10 Status Bits Bit 0 – F81#4 Timeout Dropout Status Bit Bit 1 – F81R#1 Timeout Dropout Status Bit Bit 2 – F81R#2 Timeout Dropout Status Bit Bit 3 – NOT USED Bit 4 – IPSLOGIC#1 Timeout Dropout Status Bit Bit 5 – IPSLOGIC#2 Timeout Dropout Status Bit Bit 6 – IPSLOGIC#3 Timeout Dropout Status Bit Bit 7 – IPSLOGIC#4 Timeout Dropout Status Bit Bit 8 – IPSLOGIC#5 Timeout Dropout Status Bit Bit 9 – IPSLOGIC#6 Timeout Dropout Status Bit Bit 10 – IPSLOGIC#7 Timeout Dropout Status Bit Bit 11 – IPSLOGIC#8 Timeout Dropout Status Bit Bit 12 – PSM Timeout Dropout Status Bit Bit 13 – F60FL Timeout Dropout Status Bit Bit 14 – FAR Bit 15 – FTHD/TDD #1 Phase A Timeout Dropout Status

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6047	1	—	W	0-65535/1	Oscillograph Timeout Dropout11 Status Bits Bit 0 – FTHD/TDD #1 Phase B Timeout Dropout Status Bit Bit 1 – FTHD/TDD #1 Phase C Timeout Dropout Status Bit Bit 2 – FTHD/TDD #2 Phase A Timeout Dropout Status Bit Bit 3 – FTHD/TDD #2 Phase B Timeout Dropout Status Bit Bit 4 – FTHD/TDD #2 Phase C Timeout Dropout Status Bit Bit 5 – F59I Phase A Timeout Dropout Status Bit Bit 6 – F59I Phase B Timeout Dropout Status Bit Bit 7 – F59I Phase C Timeout Dropout Status Bit Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – F40 #1 Timeout Dropout Status Bit Bit 12 – F40 #2 Timeout Dropout Status Bit Bit 13 – F40VC #1 Timeout Dropout Status Bit Bit 14 – F40VC #2 Timeout Dropout Status Bit Bit 15 – FBM Timeout Dropout Status Bit
6051	1	—	W	0-65535/1	Oscillograph Timeout Dropout12 Status Bits Bit 0 – HLT50PA Timeout Dropout Status Bit Bit 1 – HLT50PB Timeout Dropout Status Bit Bit 2 – HLT50PC Timeout Dropout Status Bit Bit 3 – HLT50GS Timeout Dropout Status Bit Bit 4 – HLT51PA Timeout Dropout Status Bit Bit 5 – HLT51PB Timeout Dropout Status Bit Bit 6 – HLT51PC Timeout Dropout Status Bit Bit 7 – HLT51GS Timeout Dropout Status Bit Bit 8 – SECTIONALIZER A Timeout Dropout Status Bit Bit 9 – SECTIONALIZER B Timeout Dropout Status Bit Bit 10 – SECTIONALIZER C Timeout Dropout Status Bit Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – Close Block Ph A Timeout Dropout status bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6055	1	—	W	0-65535/1	Oscillograph Timeout Dropout13 Status Bits Bit 0 – Close Block Ph B Timeout drop status bit Bit 1 – Close Block Ph C Timeout drop status bit Bit 2 – Close Block Ph B & C Timeout drop status bit Bit 3 – NOT USED Bit 4 – NOT USED Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – 27 #5 3PH Timeout Dropout Status Bit Bit 15 – 27 #6 3PH Timeout Dropout Status Bit
6059	1	—	W	0-65535/1	Oscillograph Timeout Dropout14 Status bits Bit 0 – 27 #7 3PH Timeout Dropout Status Bit Bit 1 – 27 #8 3PH Timeout Dropout Status Bit Bit 2 – 59 #5 3PH Timeout Dropout Status Bit Bit 3 – 59 #6 3PH Timeout Dropout Status Bit Bit 4 – 59 #7 3PH Timeout Dropout Status Bit Bit 5 – 59 #8 3PH Timeout Dropout Status Bit Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6083	1	—	W	0-4294967295/1	Oscillograph Input Pickup Status Bits Bit 0 – Input 1 Pickup Status Bit 1 – Input 2 Pickup Status Bit 2 – Input 3 Pickup Status Bit 3 – Input 4 Pickup Status Bit 4 – Input 5 Pickup Status Bit 5 – Input 6 Pickup Status Bit 6 – Input 7 Pickup Status Bit 7 – Input 8 Pickup Status Bit 8 – Input 9 Pickup Status Bit 9 – Input 10 Pickup Status Bit 10 – Input 11 Pickup Status Bit 11 – Input 12 Pickup Status Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
6084	1	—	W	0-4294967295/1	Oscillograph Input Pickup Status Bits. H
6041	1	—	W	0-65535/1	Oscillograph Output Pickup Status Bits Bit 0 – Output 1 Pickup Status Bit 1 – Output 2 Pickup Status Bit 2 – Output 3 Pickup Status Bit 3 – Output 4 Pickup Status Bit 4 – Output 5 Pickup Status Bit 5 – Output 6 Pickup Status Bit 6 – Output 7 Pickup Status Bit 7 – Output 8 Pickup Status Bit 8 – Output 9 Pickup Status Bit 9 – Output 10 Pickup Status Bit 10 – Output 11 Pickup Status Bit 11 – Output 12 Pickup Status Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscilloscope Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6085	1	—	W	0-4294967295/1	Oscilloscope Input Dropout status bits Bit 0 – Input 1 Pickup Status Bit 1 – Input 2 Pickup Status Bit 2 – Input 3 Pickup Status Bit 3 – Input 4 Pickup Status Bit 4 – Input 5 Pickup Status Bit 5 – Input 6 Pickup Status Bit 6 – Input 7 Pickup Status Bit 7 – Input 8 Pickup Status Bit 8 – Input 9 Pickup Status Bit 9 – Input 10 Pickup Status Bit 10 – Input 11 Pickup Status Bit 11 – Input 12 Pickup Status Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
6086	1	—	W	0-4294967295/1	Oscilloscope Input Dropout status bits. H
6043	1	—	W	0-65535/1	Oscilloscope Output Dropout status bits Bit 0 – Output 1 Pickup Status Bit 1 – Output 2 Pickup Status Bit 2 – Output 3 Pickup Status Bit 3 – Output 4 Pickup Status Bit 4 – Output 5 Pickup Status Bit 5 – Output 6 Pickup Status Bit 6 – Output 7 Pickup Status Bit 7 – Output 8 Pickup Status Bit 8 – Output 9 Pickup Status Bit 9 – Output 10 Pickup Status Bit 10 – Output 11 Pickup Status Bit 11 – Output 12 Pickup Status Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
6060	1	—	W	0-2147483647/1	OSC LS TRIGGERS
6061	1	—	W	0-2147483647/1	OSC LS TRIGGERS.H
6062	-	-	W	0-65535	OSC OPMODE TRIGGERS

Table 12 Oscilloscope Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6063	1	—	W	0-65535/1	Oscillograph Pickup15 Status Bits Bit 0 – NOT USED Bit 1 – P2 25 pickup status bit Bit 2 – P2 27VzS pickup status bit Bit 3 – P2 59VzS pickup status bit Bit 4 – P1 27BSVS pickup status bit Bit 5 – P2 27BSVS pickup status bit Bit 6 – P2 50BF pickup status bit Bit 7 – P2 CLP pickup status bit Bit 8 – P2 LS pickup status bit Bit 9 – P1 LCP pickup status bit Bit 10 – P2 LCP pickup status bit Bit 11 – P1 LOS pickup status bit Bit 12 – P2 LOS pickup status bit Bit 13 – P1 HCA pickup status bit Bit 14 – P2 HCA pickup status bit Bit 15 – 81 #5 Pickup Status Bit
6064	1	—	W	0-65535/1	Oscillograph Pickup16 Status Bits Bit 0 – 81 #6 Pickup Status Bit Bit 1 – P1 SECT 27P Pickup Status Bit Bit 2 – P2 SECT 27P Pickup Status Bit Bit 3 – P1 SECT 50P Pickup Status Bit Bit 4 – P2 SECT 50P Pickup Status Bit Bit 5 – P1 SECT 51P Pickup Status Bit Bit 6 – P2 SECT 51P Pickup Status Bit Bit 7 – P1 SECT 59P Pickup Status Bit Bit 8 – P2 SECT 59P Pickup Status Bit Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6065	1	—	W	0-65535/1	Oscillograph Timeout15 Status Bits Bit 0 – NOT USED Bit 1 – P2 25 Timeout Status Bit Bit 2 – P2 27VzS Timeout Status Bit Bit 3 – P2 59VzS Timeout Status Bit Bit 4 – P1 27BSVS Timeout Status Bit Bit 5 – P2 27BSVS Timeout Status Bit Bit 6 – P2 50BF Timeout Status Bit Bit 7 – P2 CLP Timeout Status Bit Bit 8 – P2 LS Timeout Status Bit Bit 9 – P1 LCP Timeout Status Bit Bit 10 – P2 LCP Timeout Status Bit Bit 11 – P1 LOS Timeout Status Bit Bit 12 – P2 LOS Timeout Status Bit Bit 13 – P1 HCA Timeout Status Bit Bit 14 – P2 HCA Timeout Status Bit Bit 15 – 81 #5 Timeout Status Bit
6066	1	—	W	0-65535/1	Oscillograph Timeout16 Status Bits Bit 0 – 81 #6 Pickup Status Bit Bit 1 – P1 SECT 27P Timeout Status Bit Bit 2 – P2 SECT 27P Timeout Status Bit Bit 3 – P1 SECT 50P Timeout Status Bit Bit 4 – P2 SECT 50P Timeout Status Bit Bit 5 – P1 SECT 51P Timeout Status Bit Bit 6 – P2 SECT 51P Timeout Status Bit Bit 7 – P1 SECT 59P Timeout Status Bit Bit 8 – P2 SECT 59P Timeout Status Bit Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6067	1	—	W	0-65535/1	Oscillograph Pickup Dropout 15 Status Bits Bit 0 – NOT USED Bit 1 – P2 25 Pickup Dropout Status Bit Bit 2 – P2 27VzS Pickup Dropout Status Bit Bit 3 – P2 59VzS Pickup Dropout Status Bit Bit 4 – P1 27BSVS Pickup Dropout Status Bit Bit 5 – P2 27BSVS Pickup Dropout Status Bit Bit 6 – P2 50BF Pickup Dropout Status Bit Bit 7 – P2 CLP Pickup Dropout Status Bit Bit 8 – P2 LS Pickup Dropout Status Bit Bit 9 – P1 LCP Pickup Dropout Status Bit Bit 10 – P2 LCP Pickup Dropout Status Bit Bit 11 – P1 LOS Pickup Dropout Status Bit Bit 12 – P2 LOS Pickup Dropout Status Bit Bit 13 – P1 HCA Pickup Dropout Status Bit Bit 14 – P2 HCA Pickup Dropout Status Bit Bit 15 – 81 #5 Pickup Dropout Status Bit
6068	1	—	W	0-65535/1	Oscillograph Pickup Dropout 16 Status Bits Bit 0 – 81 #6 Pickup Dropout Status Bit Bit 1 – P1 SECT 27P Pickup Dropout Status Bit Bit 2 – P2 SECT 27P Pickup Dropout Status Bit Bit 3 – P1 SECT 50P Pickup Dropout Status Bit Bit 4 – P2 SECT 50P Pickup Dropout Status Bit Bit 5 – P1 SECT 51P Pickup Dropout Status Bit Bit 6 – P2 SECT 51P Pickup Dropout Status Bit Bit 7 – P1 SECT 59P Pickup Dropout Status Bit Bit 8 – P2 SECT 59P Pickup Dropout Status Bit Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6069	1	—	W	0-65535/1	Oscillograph Timeout Dropout 15 Status Bits Bit 0 – NOT USED Bit 1 – P2 25 Timeout Dropout Status Bit Bit 2 – P2 27VzS Timeout Dropout Status Bit Bit 3 – P2 59VzS Timeout Dropout Status Bit Bit 4 – P1 27BSVS Timeout Dropout Status Bit Bit 5 – P2 27BSVS Timeout Dropout Status Bit Bit 6 – P2 50BF Timeout Dropout Status Bit Bit 7 – P2 CLP Timeout Dropout Status Bit Bit 8 – P2 LS Timeout Dropout Status Bit Bit 9 – P1 LCP Timeout Dropout Status Bit Bit 10 – P2 LCP Timeout Dropout Status Bit Bit 11 – P1 LOS Timeout Dropout Status Bit Bit 12 – P2 LOS Timeout Dropout Status Bit Bit 13 – P1 HCA Timeout Dropout Status Bit Bit 14 – P2 HCA Timeout Dropout Status Bit Bit 15 – 81 #5 Timeout Dropout Status Bit
6070	1	—	W	0-65535/1	Oscillograph Timeout Dropout 16 Status Bits Bit 0 – 81 #6 Timeout Dropout Status Bit Bit 1 – P1 SECT 27P Timeout Dropout Status Bit Bit 2 – P2 SECT 27P Timeout Dropout Status Bit Bit 3 – P1 SECT 50P Timeout Dropout Status Bit Bit 4 – P2 SECT 50P Timeout Dropout Status Bit Bit 5 – P1 SECT 51P Timeout Dropout Status Bit Bit 6 – P2 SECT 51P Timeout Dropout Status Bit Bit 7 – P1 SECT 59P Timeout Dropout Status Bit Bit 8 – P2 SECT 59P Timeout Dropout Status Bit Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6071	1	—	W	0-65535/1	Oscillograph UNBALANCED TRIGGERS1 Status Bits Bit 0 – P1 High Current Alarm Bit 1 – P1 Loss of Sensing 27 Pickup Status Bit Bit 2 – P1 Loss of Sensing 27 Timeout Status Bit Bit 3 – P1 Loss of Sensing 59 Pickup Status Bit Bit 4 – P1 Loss of Sensing 59 Timeout Status Bit Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
6072	1	—	W	0-65535/1	Oscillograph UNBALANCED TRIGGERS2 Status Bits Bit 0 – P2 High Current Alarm Bit 1 – P2 Loss of Sensing 27 Pickup Status Bit Bit 2 – P2 Loss of Sensing 27 Timeout Status Bit Bit 3 – P2 Loss of Sensing 59 Pickup Status Bit Bit 4 – P2 Loss of Sensing 59 Timeout Status Bit Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6073	1	—	W	0-65535/1	Oscillograph Loop Scheme Pole2 TRIGGERS Status Bits Bit 0 – P2 LS Vy Dead Line Sensing Pickup Status Bit Bit 1 – P2 LS Vy Dead Line Sensing Timeout Status Bit Bit 2 – P2 LS Vz Dead Line Sensing Pickup Status Bit Bit 3 – P2 LS Vz Dead Line Sensing Timeout Status Bit Bit 4 – P2 LS Vy Voltage Restore Pickup Status Bit Bit 5 – P2 LS Vy Voltage Restore Timeout Status Bit Bit 6 – P2 LS Vz Voltage Restore Pickup Status Bit Bit 7 – P2 LS Vz Voltage Restore Timeout Status Bit Bit 8 – P2 LS Vy Dead Line Pickup Status Bit Bit 9 – P2 LS Vy Dead Line Timeout Status Bit Bit 10 – P2 LS Vz Dead Line Pickup Status Bit Bit 11 – P2 LS Vz Dead Line Timeout Status Bit Bit 12 – P2 LS Vy Live Line Pickup Status Bit Bit 13 – P2 LS Vy Live Line Timeout Status Bit Bit 14 – P2 LS Vz Live Line Pickup Status Bit Bit 15 – P2 LS Vz Live Line Timeout Status Bit

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6074	1	—	W	0-65535/1	Oscillograph Loop Scheme Pole2 TRIGGERS.H Status Bits Bit 0 – P2 LS Vy Dead Line Action Status Bit Bit 1 – P2 LS Vz Dead Line Action Status Bit Bit 2 – P2 LS Vy Live Line Action Status Bit Bit 3 – P2 LS Vz Live Line Action Status Bit Bit 4 – P2 LS Ready Status Bit Bit 5 – P2 LS Action Auto Trip Status Bit Bit 6 – P2 LS Action Auto Close Status Bit Bit 7 – P2 LS After Action Ground Trip Block Status Bit Bit 8 – P2 LS After Action Reclosing Block Status Bit Bit 9 – P2 LS Profile Switch Status Bit Bit 10 – P2 LS Reset Status Bit Bit 11 – P2 LS Vy Live Line Confirm Pickup Status Bit Bit 12 – P2 LS Vy Live Line Confirm Timeout Status Bit Bit 13 – P2 LS Vz Live Line Confirm Pickup Status Bit Bit 14 – P2 LS Vz Live Line Confirm Timeout Status Bit Bit 15 – NOT USED
6075	1	—	W	0-65535/1	OSC_PICKUP17 Bit 0 – 81R#4 Pickup Bit 1 – 81R#5 Pickup Bit 2 – 81R#6 Pickup Bit 3 – 81R#7 Pickup Bit 4 – 81R#8 Pickup Bit 5 – 46BC Pickup Bit 6 – BM#2 Pickup Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 NOT USED Bit 15 – NOT USED
6076	1	—	W	0-65535/1	OSC_PICKUP18

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6077	1	–	W	0-65535/1	OSC_TIMEOUT17 Bit 0 – 81R#4 Timeout Bit 1 – 81R#5 Timeout Bit 2 – 81R#6 Timeout Bit 3 – 81R#7 Timeout Bit 4 – 81R#8 Timeout Bit 5 – 46BC Timeout Bit 6 – BM#2 Timeout Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 NOT USED Bit 15 – NOT USED
6078	1	–	W	0-65535/1	OSC_TIMEOUT18
6079	1	–	W	0-65535/1	OSC_PICKDROP17 Bit 0 – 81R#4 Pickup Dropout Bit 1 – 81R#5 Pickup Dropout Bit 2 – 81R#6 Pickup Dropout Bit 3 – 81R#7 Pickup Dropout Bit 4 – 81R#8 Pickup Dropout Bit 5 – NOT USED Bit 6 – BM#2 Pickup Dropout Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 NOT USED Bit 15 – NOT USED
6080	1	–	W	0-65535/1	OSC_PICKDROP18

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6081	1	—	W	0-65535/1	OSC_TIMEDROP17 Bit 0 – 81R#4 Timeout Dropout Bit 1 – 81R#5 Timeout Dropout Bit 2 – 81R#6 Timeout Dropout Bit 3 – 81R#7 Timeout Dropout Bit 4 – 81R#8 Timeout Dropout Bit 5 – NOT USED Bit 6 – BM#2 Timeout Dropout Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 NOT USED Bit 15 – NOT USED
6082	1	—	W	0-65535/1	OSC_TIMEDROP18
6087	1	—	W	0-65535/1	OSC CLP TRIGGER CMD Bit 0 –Cold Load Pickup Enable Status Bit Bit 1 – Cold Load Pickup Block Status Bit Bit 2 – Cold Load Pickup Reset Status Bit Bit 3 – Cold Load Pickup Initiated Status Bit Bit 4 – Cold Load Pickup 79 Lockout Status Bit 5 – NOT USED Bit 6 – NOT USED Bit 7 – NOT USED Bit 8 – NOT USED Bit 9 – NOT USED Bit 10 – NOT USED Bit 11 – NOT USED Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6088	1	—	W	0-65535/1	OSC CLP TRIGGER STATUS Bit 0 – Cold Load Pickup Arm Pickup Status Bit Bit 1 – Cold Load Pickup Arm Timeout Status Bit Bit 2 – Cold Load Pickup Initiate Action Pickup Status Bit Bit 3 – Cold Load Pickup Initiate Action Timeout Status Bit Bit 4 – Cold Load Pickup Low Phase Current Pickup Status Bit Bit 5 – Cold Load Pickup Low Phase Current Timeout Status Bit Bit 6 – Cold Load Pickup Low Ground Current Pickup Status Bit Bit 7 – Cold Load Pickup Low Ground Current Timeout Status Bit Bit 8 – Cold Load Pickup Override Active Pickup Status Bit //CLPACT Pickup Bit 9 – Cold Load Pickup Override Active Timeout Status Bit //CLPACT Timeout Bit 10 – Cold Load Pickup Low Current Pickup Status Bit //CLP BMT pickup Bit 11 – Cold Load Pickup Low Current Timeout Status Bit CLP BMT timeout Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6089	1	—	W	0-65535/1	OSC CLP TRIGGER STATUS DROP Bit 0 – Cold Load Pickup Arm Pickup Dropout Status Bit Bit 1 – Cold Load Pickup Arm Timeout Dropout Status Bit Bit 2 – Cold Load Pickup Initiate Action Pickup Dropout Status Bit Bit 3 – Cold Load Pickup Initiate Action Timeout Dropout Status Bit Bit 4 – Cold Load Pickup Low Phase Current Pickup Dropout Status Bit Bit 5 – Cold Load Pickup Low Phase Current Timeout Dropout Status Bit Bit 6 – Cold Load Pickup Low Ground Current Pickup Dropout Status Bit Bit 7 – Cold Load Pickup Low Ground Current Timeout Dropout Status Bit Bit 8 – Cold Load Pickup Override Active Pickup Dropout Status Bit //CLPACT Pickup Bit 9 – Cold Load Pickup Override Active Timeout Dropout Status Bit //CLPACT Timeout Bit 10 – Cold Load Pickup Low Current Pickup Dropout Status Bit //CLP BMT pickup Bit 11 – Cold Load Pickup Low Current Timeout Dropout Status Bit //CLP BMT timeout Bit 12 – NOT USED Bit 13 – NOT USED Bit 14 – NOT USED Bit 15 – NOT USED
6090	1	—	W	0-65535/1	OSC BM1 TRIGGERS Bit 0 – Breaker Monitor1_pickup Bit 1 – Breaker Monitor1_Pickupchange Bit 2 – Not Used Bit 3 – BreakerMonitor1_Timeout Bit 4 – Not Used Bit 5 – Not Used Bit 6 – Not Used Bit 7 – Not Used Bit 8 – Not Used Bit 9 – Not Used Bit 10 – Not Used Bit 11 – Not Used Bit 12 – Not Used Bit 13 – Not Used Bit 14 – Not Used Bit 15 – Not Used

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6091	1	–	W	0-65535/1	OSC BM2 TRIGGERS Bit 0 – Breaker Monitor2_pickup Bit 1 – Breaker Monitor2_Pickupchange Bit 2 – Not Used Bit 3 – BreakerMonitor2_Timeout Bit 4 – Not Used Bit 5 – Not Used Bit 6– Not Used Bit 7 – Not Used Bit 8 – Not Used Bit 9 – Not Used Bit 10 – Not Used Bit 11 – Not Used Bit 12 – Not Used Bit 13 – Not Used Bit 14 – Not Used Bit 15 – Not Used
6092	1	–	W	0-65535/1	OSC TRIGGER SIGNAL PICKUP Bit 0 – Not Used Bit 1 – Deactivate G/N Pickup Bit 2 – Not Used Bit 3 – Not Used Bit 4 – Not Used Bit 5 – Not Used Bit 6– Not Used Bit 7 – Not Used Bit 8 – Not Used Bit 9 – Not Used Bit 10 – Not Used Bit 11 – Not Used Bit 12 – Not Used Bit 13 – Not Used Bit 14 – Not Used Bit 15 – Not Used

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6093	1	—	W	0-65535/1	OSC TRIGGER SIGNAL DROP Bit 0 – Not Used Bit 1 – Deactivate G/N Dropout Bit 2 – Not Used Bit 3 – Not Used Bit 4 – Not Used Bit 5 – Not Used Bit 6 – Not Used Bit 7 – Not Used Bit 8 – Not Used Bit 9 – Not Used Bit 10 – Not Used Bit 11 – Not Used Bit 12 – Not Used Bit 13 – Not Used Bit 14 – Not Used Bit 15 – Not Used
6094	1	—	W	0-65535/1	OSC IPSVOUT PU0 Bit 0- IPSVOUT #1 Bit 1- IPSVOUT #2 Bit 2- IPSVOUT #3 Bit 3- IPSVOUT #4 Bit 4- IPSVOUT #5 Bit 5- IPSVOUT #6 Bit 6- IPSVOUT #7 Bit 7- IPSVOUT #8 Bit 8- IPSVOUT #9 Bit 9- IPSVOUT #10 Bit 10- IPSVOUT #11 Bit 11- IPSVOUT #12 Bit 12- IPSVOUT #13 Bit 13- IPSVOUT #14 Bit 14- IPSVOUT #15 Bit 15- IPSVOUT #16

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6095	1	—	W	0-65535/1	OSC IPSVOUT PU1 Bit 0- IPSVOUT #17 Bit 1- IPSVOUT #18 Bit 2- IPSVOUT #19 Bit 3- IPSVOUT #20 Bit 4- IPSVOUT #21 Bit 5- IPSVOUT #22 Bit 6- IPSVOUT #23 Bit 7- IPSVOUT #24 Bit 8- IPSVOUT #25 Bit 9- IPSVOUT #26 Bit 10- IPSVOUT #27 Bit 11- IPSVOUT #28 Bit 12- IPSVOUT #29 Bit 13- IPSVOUT #30 Bit 14- IPSVOUT #31 Bit 15- IPSVOUT #32
6096	1	—	W	0-65535/1	OSC IPSVOUT DROP0 Bit 0- IPSVOUT #1 Bit 1- IPSVOUT #2 Bit 2- IPSVOUT #3 Bit 3- IPSVOUT #4 Bit 4- IPSVOUT #5 Bit 5- IPSVOUT #6 Bit 6- IPSVOUT #7 Bit 7- IPSVOUT #8 Bit 8- IPSVOUT #9 Bit 9- IPSVOUT #10 Bit 10- IPSVOUT #11 Bit 11- IPSVOUT #12 Bit 12- IPSVOUT #13 Bit 13- IPSVOUT #14 Bit 14- IPSVOUT #15 Bit 15- IPSVOUT #16

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6097	1	—	W	0-65535/1	OSC IPSVOUT DROP1 Bit 0- IPSVOUT #17 Bit 1- IPSVOUT #18 Bit 2- IPSVOUT #19 Bit 3- IPSVOUT #20 Bit 4- IPSVOUT #21 Bit 5- IPSVOUT #22 Bit 6- IPSVOUT #23 Bit 7- IPSVOUT #24 Bit 8- IPSVOUT #25 Bit 9- IPSVOUT #26 Bit 10- IPSVOUT #27 Bit 11- IPSVOUT #28 Bit 12- IPSVOUT #29 Bit 13- IPSVOUT #30 Bit 14- IPSVOUT #31 Bit 15- IPSVOUT #32
6098	1	—	W	0-65535/1	OSC CIPSVOUT PU0 Bit 0- CSIPSVOUT #1 Bit 1- CSIPSVOUT #2 Bit 2- CSIPSVOUT #3 Bit 3- CSIPSVOUT #4 Bit 4- CSIPSVOUT #5 Bit 5- CSIPSVOUT #6 Bit 6- CSIPSVOUT #7 Bit 7- CSIPSVOUT #8 Bit 8- CSIPSVOUT #9 Bit 9- CSIPSVOUT #10 Bit 10- CSIPSVOUT #11 Bit 11- CSIPSVOUT #12 Bit 12- CSIPSVOUT #13 Bit 13- CSIPSVOUT #14 Bit 14- CSIPSVOUT #15 Bit 15- CSIPSVOUT #16

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6099	1	—	W	0-65535/1	OSC CIPSVOUT PU1 Bit 0- CSIPSVOUT #17 Bit 1- CSIPSVOUT #18 Bit 2- CSIPSVOUT #19 Bit 3- CSIPSVOUT #20 Bit 4- CSIPSVOUT #21 Bit 5- CSIPSVOUT 22 Bit 6- CSIPSVOUT #23 Bit 7- CSIPSVOUT #24 Bit 8- CSIPSVOUT #25 Bit 9- CSIPSVOUT #26 Bit 10- CSIPSVOUT #27 Bit 11- CSIPSVOUT #28 Bit 12- CSIPSVOUT #29 Bit 13- CSIPSVOUT #30 Bit 14- CSIPSVOUT #31 Bit 15- CSIPSVOUT #32
6100	1	—	W	0-65535/1	OSC CIPSVOUT DROP0 Bit 0- CSIPSVOUT #1 Bit 1- CSIPSVOUT #2 Bit 2- CSIPSVOUT #3 Bit 3- CSIPSVOUT #4 Bit 4- CSIPSVOUT #5 Bit 5- CSIPSVOUT #6 Bit 6- CSIPSVOUT #7 Bit 7- CSIPSVOUT #8 Bit 8- CSIPSVOUT #9 Bit 9- CSIPSVOUT #10 Bit 10- CSIPSVOUT #11 Bit 11- CSIPSVOUT #12 Bit 12- CSIPSVOUT #13 Bit 13- CSIPSVOUT #14 Bit 14- CSIPSVOUT #15 Bit 15- CSIPSVOUT #16

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6101	1	—	W	0-65535/1	OSC CIPSVOUT DROP1 Bit 0- CSIPSVOUT #17 Bit 1- CSIPSVOUT #18 Bit 2- CSIPSVOUT #19 Bit 3- CSIPSVOUT #20 Bit 4- CSIPSVOUT #21 Bit 5- CSIPSVOUT 22 Bit 6- CSIPSVOUT #23 Bit 7- CSIPSVOUT #24 Bit 8- CSIPSVOUT #25 Bit 9- CSIPSVOUT #26 Bit 10- CSIPSVOUT #27 Bit 11- CSIPSVOUT #28 Bit 12- CSIPSVOUT #29 Bit 13- CSIPSVOUT #30 Bit 14- CSIPSVOUT #31 Bit 15- CSIPSVOUT #32
6134	1	—	W	0-2147483647	OSC SGI TRIGGERS1 Bit 0- SGI Pickup IG Fund Thresh Bit 1- SGI Timeout IG Fund Thresh Bit 2- SGI IPSLogic Reset Bit 3- SGI IPSLogic Initiate Bit 4- SGI IG Frozen Trigger Bit 5- SGI Reset Bit 6- SGI Enabled Bit 7- SGI Blocked Bit 8- SGI Pickup Delta IG Fund Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6135	1	—	W	0-2147483647	OSC SGI TRIGGERS1.H Bit 0- SGI Timeout Delta IG Fund Bit 1- SGI Pickup IG Harm Bit 2- SGI Timeout IG Harm Bit 3- SGI Reset Frozen Timer Start Bit 4- SGI Reset Frozen Timer Expired Bit 5- SGI AND Gate Enabled Bit 6- SGI Latch Reset Timer Start Bit 7- SGI Latch Reset Timer Expired Bit 8- Not Used Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used
6136	1	—	W	0-2147483647	OSC SGI TRIGGERS2 Not Used
6137	1	—	W	0-2147483647	OSC SGI TRIGGERS2.H Not Used
6138	1	—	W	0-2147483647	OSC SGI TRIGGERS3 Bit 0- SGI Timeout IA Harm 1 Bit 1- SGI Timeout IB Harm 1 Bit 2- SGI Timeout IC Harm 1 Bit 3- SGI Timeout IA Harm 2 Bit 4- SGI Timeout IB Harm 2 Bit 5- SGI Timeout IC Harm 2 Bit 6- SGI Timeout IA Harm 3 Bit 7- SGI Timeout IB Harm 3 Bit 8- SGI Timeout IC Harm 3 Bit 9- SGI Timeout VyA Harm 1 Bit 10- SGI Timeout VyB Harm 1 Bit 11- SGI Timeout VyC Harm 1 Bit 12- SGI Timeout VyA Harm 2 Bit 13- SGI Timeout VyB Harm 2 Bit 14- SGI Timeout VyC Harm 2 Bit 15- SGI Timeout VyA Harm 3

Table 12 Oscillograph Setup

Oscillograph Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6139	1	—	W	0-2147483647	OSC SGI TRIGGERS3.H Bit 0- SGI Timeout VyB Harm 3 Bit 1- SGI Timeout VyC Harm 3 Bit 2- SGI Timeout VN Harm Bit 3- SGI Timeout Delta VN Harm Bit 4- SGI Timeout IG Dir Bit 5- SGI Timeout Delta IG Harm Dir Bit 6- Not Used Bit 7- Not Used Bit 8- Not Used Bit 9- Not Used Bit 10- Not Used Bit 11- Not Used Bit 12- Not Used Bit 13- Not Used Bit 14- Not Used Bit 15- Not Used
6140	1	—	W	0-65535	OSC AUTORESTORE TRIGGERS
6102	1	—	W	0-65535	FLEXDIGITAL.CHANNEL1
6103	1	—	W	0-65535	FLEXDIGITAL.CHANNEL2
6104	1	—	W	0-65535	FLEXDIGITAL.CHANNEL3
6105	1	—	W	0-65535	FLEXDIGITAL.CHANNEL4
6106	1	—	W	0-65535	FLEXDIGITAL.CHANNEL5
6107	1	—	W	0-65535	FLEXDIGITAL.CHANNEL6
6108	1	—	W	0-65535	FLEXDIGITAL.CHANNEL7
6109	1	—	W	0-65535	FLEXDIGITAL.CHANNEL8
6110	1	—	W	0-65535	FLEXDIGITAL.CHANNEL9
6111	1	—	W	0-65535	FLEXDIGITAL.CHANNEL10
6112	1	—	W	0-65535	FLEXDIGITAL.CHANNEL11
6113	1	—	W	0-65535	FLEXDIGITAL.CHANNEL12
6114	1	—	W	0-65535	FLEXDIGITAL.CHANNEL13
6115	1	—	W	0-65535	FLEXDIGITAL.CHANNEL14
6116	1	—	W	0-65535	FLEXDIGITAL.CHANNEL15
6117	1	—	W	0-65535	FLEXDIGITAL.CHANNEL16

Table 12 Oscillograph Setup

Oscilloscope Setup

Registers with GRAY shading are only available with M-7679 and are not available in M-7651A

MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6118	1	—	W	0-65535	FLEXDIGITAL.CHANNEL17
6119	1	—	W	0-65535	FLEXDIGITAL.CHANNEL18
6120	1	—	W	0-65535	FLEXDIGITAL.CHANNEL19
6121	1	—	W	0-65535	FLEXDIGITAL.CHANNEL20
6122	1	—	W	0-65535	FLEXDIGITAL.CHANNEL21
6123	1	—	W	0-65535	FLEXDIGITAL.CHANNEL22
6124	1	—	W	0-65535	FLEXDIGITAL.CHANNEL23
6125	1	—	W	0-65535	FLEXDIGITAL.CHANNEL24
6126	1	—	W	0-65535	FLEXDIGITAL.CHANNEL25
6127	1	—	W	0-65535	FLEXDIGITAL.CHANNEL26
6128	1	—	W	0-65535	FLEXDIGITAL.CHANNEL27
6129	1	—	W	0-65535	FLEXDIGITAL.CHANNEL28
6130	1	—	W	0-65535	FLEXDIGITAL.CHANNEL29
6131	1	—	W	0-65535	FLEXDIGITAL.CHANNEL30
6132	1	—	W	0-65535	FLEXDIGITAL.CHANNEL31
6133	1	—	W	0-65535	FLEXDIGITAL.CHANNEL32
6500	1	—	W	0-3/1	Oscilloscope Sample Rate
6501	1	%	W	5-95/1	Oscilloscope Post Trigger Delay
6502	1 or 0.3	Cycles	W	50-480 50 Hz = 50-400/25 60 Hz = 60-480/30	Oscilloscope Record Length 0 – 50 Hz 1 – 60 Hz
6503	1	—	W	0-1/1	Oscilloscope Records Erase Command This will erase all the stored records
6504	1	—	W	0-1/1	Oscilloscope Force Trigger Command

Table 12 Oscilloscope Setup

Alarms					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6700	1	–	W	0-4294967295/1	Alarms Least Significant Word Bit 0 – Trip Close Error Bit 1 – AC Power Error Bit 2 – EEPROM Setpoints Checksum Error Bit 3 – DSP Watchdog Error Bit 4 – Gas Pressure Error Bit 5 – EEPROM Calibration Checksum Error Bit 6 – DSP Failure Bit 7 – Flash Format Error Bit 8 – Maximum Breaker Operations Error Bit 9 – BBRAM Error Bit 10 – Setpoints Checksum Error Bit 11 – Calibration Checksum Error Bit 12 – Battery Charger Error Bit 13 – DSP Communication Error
6701	1	–	W	0-4294967295/1	Alarms Most Significant Word

Table 13 Alarms

Fault Location Parameters					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5554	1	-	W	0-2/1	FLT Rec Msg type
5555	1	-	W	0-1/1	FLT Erase
5556	1	-	W	0-1/1	Fault Record Current Only
5557	1	-	W	0-1/1	Auto Clear Fault Enable
5558	1	min	W	0-1500/1	Auto Clear Fault Time
6788	1000	miles	W	1-200000/0.001	Distribution Line Length Least Significant Word
6789	1000	miles	W	1-200000/0.001	Distribution Line Length Most Significant Word
6790	1000	ohm	W	1-1000000/0.001	Positive Sequence Resistance of the Line Least Significant Word
6791	1000	-ohm	W	1-1000000/0.001	Positive Sequence Resistance of the Line Most Significant Word
6792	1000	ohm	W	1-1000000/0.001	Positive Sequence Reactance of the Line Least Significant Word
6793	1000	ohm	W	1-1000000/0.001	Positive Sequence Reactance of the Line Most Significant Word
6794	1000	ohm	W	1-1000000/0.001	Zero Sequence Resistance of the Line Least Significant Word
6795	1000	ohm	W	1-1000000/0.001	Zero Sequence Resistance of the Line Most Significant Word
6796	1000	ohm	W	1-1000000/0.001	Zero Sequence Reactance of the Line Least Significant Word
6797	1000	ohm	W	1-1000000/0.001	Zero Sequence Reactance of the Line Most Significant Word

Table 14 Fault Location Parameters

Fault Location Parameters					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6798	1	–	W	0-65535/1	Participating Function Selection for 50P Bit 0 – F50P Phase A #1 Bit 1 – F50P Phase B #1 Bit 2 – F50P Phase C #1 Bit 3 – F50P Phase A #2 Bit 4 – F50P Phase B #2 Bit 5 – F50P Phase C #2 Bit 6 – F50P Phase A #3 Bit 7 – F50P Phase B #3 Bit 8 – F50P Phase C #3 Bit 9 – F50P Phase A #4 Bit 10 – F50P Phase B #4 Bit 11 – F50P Phase C #4 Bit 12 – F50P Phase A #5 Bit 13 – F50P Phase B #5 Bit 14 – F50P Phase C #5 Bit 15 –Not Used
6799	1	–	W	0-65535/1	Participating Function Selection for 50N,50G and 46DT Bit 0 – F50N #1 Bit 1 – F50N #2 Bit 2 – F50N #3 Bit 3 – F50N #4 Bit 4 – F50N #5 Bit 5 – F50G #1 Bit 6 – F50G #2 Bit 7 – F50G #3 Bit 8 – F50G #4 Bit 9 – F50G #5 Bit 10 – F46DT #1 Bit 11 – F46DT #2 Bit 12 – F46DT #3 Bit 13 – F46DT #4 Bit 14 – F46DT #5 Bit 15 –Not Used

Table 14 Fault Location Parameters

Fault Location Parameters					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6800	1	–	W	0-65535/1	Participating Function Selection for 51P Bit 0 – F51P Phase A #1 Bit 1 – F51P Phase B #1 Bit 2 – F51P Phase C #1 Bit 3 – F51P Phase A #2 Bit 4 – F51P Phase B #2 Bit 5 – F51P Phase C #2 Bit 6 – F51P Phase A #3 Bit 7 – F51P Phase B #3 Bit 8 – F51P Phase C #3 Bit 9 – F51P Phase A #4 Bit 10 – F51P Phase B #4 Bit 11 – F51P Phase C #4 Bit 12 – F51P Phase A #5 Bit 13 – F51P Phase B #5 Bit 14 – F51P Phase C #5 Bit 15 –Not Used
6801	1	–	W	0-65535/1	Participating Function Selection for 51N,51G and 46IT Bit 0 – F51N #1 Bit 1 – F51N #2 Bit 2 – F51N #3 Bit 3 – F51N #4 Bit 4 – F51N #5 Bit 5 – F51G #1 Bit 6 – F51G #2 Bit 7 – F51G #3 Bit 8 – F51G #4 Bit 9 – F51G #5 Bit 10 – F46IT #1 Bit 11 – F46IT #2 Bit 12 – F46IT #3 Bit 13 – F46IT #4 Bit 14 – F46IT #5 Bit 15 –Not Used

Table 14 Fault Location Parameters

Fault Location Parameters					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6802	1	–	W	0-65535/1	Participating Function Selection for 67P Bit 0 – F67P Phase A #1 Bit 1 – F67P Phase B #1 Bit 2 – F67P Phase C #1 Bit 3 – F67P Phase A #2 Bit 4 – F67P Phase B #2 Bit 5 – F67P Phase C #2 Bit 6 – F67P Phase A #3 Bit 7 – F67P Phase B #3 Bit 8 – F67P Phase C #3 Bit 9 – F67P Phase A #4 Bit 10 – F67P Phase B #4 Bit 11 – F67P Phase C #4 Bit 12 – F67P Phase A #5 Bit 13 – F67P Phase B #5 Bit 14 – F67P Phase C #5 Bit 15 –Not Used
6803	1	–	W	0-65535/1	Participating Function Selection for 67N,67G and 67Q Bit 0 – F67N #1 Bit 1 – F67N #2 Bit 2 – F67N #3 Bit 3 – F67N #4 Bit 4 – F67N #5 Bit 5 – F67G #1 Bit 6 – F67G #2 Bit 7 – F67G #3 Bit 8 – F67G #4 Bit 9 – F67G #5 Bit 10 – F67Q #1 Bit 11 – F67Q #2 Bit 12 – F67Q #3 Bit 13 – F67Q #4 Bit 14 – F67Q #5 Bit 15 –Not Used
5282	1	–	W	0-1	FAULTDISTANCEUNITSSELECTKM

Table 14 Fault Location Parameters

Communication					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1512	1	–	W	0-1/1	Com1 Type 0 – RS-232/RS-485 1 – Fiber
1513	1	–	W	0-1/1	Com2 Type 0 – RS-232/RS-485 1 – Fiber
1700	1	–	W	0-1/1	Com1 Enable 0 – Disable 1 – Enable
1701	1	bps	W	0-7/1	Com1 Baud Rate 0 – 1200 1 – 2400 2 – 4800 3 – 9600 4 – 19200 5 – 38400 6 – 57600 7 – 115200
1702	1	–	W	0-2/1	Com1 Parity 0 – None 1 – Odd 2 – Even
1703	1	–	W	0-1/1	Com1 Stop Bits 0 – 1 1 – 2
1704	1	–	W	0-2/1	Com1 Protocol 0 – Modbus 1 – DNP 2 – Analog Output
1705	1	ms	W	0-5000/1	Com1 Transmission Delay
1706	1	ms	W	0-5000/1	Com1 Sync Time
1707	1	–	W	0-1/1	Com2 Enable 0 – Disable 1 – Enable
1708	1	bps	W	0-7/1	Com2 Baud Rate 0 – 1200 1 – 2400 2 – 4800 3 – 9600 4 – 19200 5 – 38400 6 – 57600 7 – 115200

Table 15 Communication

Communication					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1709	1	–	W	0-2/1	Com2 Parity 0 – None 1 – Odd 2 – Even
1710	1	–	W	0-1/1	Com2 Stop Bits 0 – 1 1 – 2
1711	1	–	W	0-1/1	Com2 Protocol 0 – Modbus 1 – DNP
1712	1	ms	W	0-5000/1	Com2 Transmission Delay
1713	1	ms	W	0-5000/1	Com2 Sync Time
1714	1	–	W	0-4294967295/1	Static IP Address Least significant word
1715	1	–	W	0-4294967295/1	Static IP Address Most significant word
1716	1	–	W	0-4294967295/1	Net Mask Address Least significant word
1717	1	–	W	0-4294967295/1	Net Mask Address Most significant word
1718	1	–	W	0-4294967295/1	Gateway Address Least significant word
1719	1	–	W	0-4294967295/1	Gateway Address Most significant word
1720	1	–	W	0-1/1	Ethernet Dhcp Mode 0 – Disable 1 – Enable
1721	1	–	W	0-1/1	Ethernet Auto Negotiate 0 – Disable 1 – Enable
1722	1	–	W	0-3/1	SNTP Enable 0 – Disable 1 – Enable
1723	1	–	W	1-65535/1	Modbus Ethernet Port
1724	1	–	W	1-255/1	Modbus Address
1725	1	–	W	0-4294967295/1	SNTP Server IP Least significant word
1726	1	–	W	0-4294967295/1	SNTP Server IP Most significant word

Table 15 Communication

Communication					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
5998	1	–	W	0- 4294967295	SNTP SERVER 2 IP
5999	1	–	W	0- 4294967295	SNTP SERVER 2 IP .H
1500-1509	1	–	W	0-65535	Radius Secret Text 2 ASCII characters of 20 character Example: “Beckwith Electric P1” Now ‘B’ and ‘e’ ASCII values are stored in 1500 register, ‘c’ and ‘k’ in 1501 and so on until ‘P’ and ‘1’ in 1509. User should make sure that all 10 registers are written at the same time to get the correct string.
1738	1	–	W	0-4294967295/1	Radius Server IP Least significant word
1739	1	–	W	0-4294967295/1	Radius Server IP Most significant word
1794	1	–	W	1-65535/1	Radius Authentication Port
1795	1	–	W	1-65535/1	Radius Accounting Port
1796	1	–	W	0-4294967295/1	Radius Server IP2 Least significant word
1797	1	–	W	0-4294967295/1	Radius Server IP2 Most significant word
1798	1	–	W	1-65535/1	Radius Authentication Port 2
1799	1	–	W	1-65535/1	Radius Accounting Port 2
1741	1	–	W	0-4294967295/1	Global Ports Enable Least significant word Bit 0 – USB Enable Bit 1 – Modbus Enable Bit 2 – FTP Enable Bit 3 – ICMP Enable Bit 4 – DNP TCP Enable Bit 5 – DNP UDP Enable Bit 6 – Http Enable Bit 7 – IEC Enable Bit 8 – Terminal Enable Bit 9 – USB Enable Bit 10 – Com 1 Enable Bit 11 – Com4 Enable Bit 12 – Ethernet Enable Bit 13 – IPsec Enable Bit 14 – Radius Enable Bit 15 – Accounting Enable
1742	1	–	W	0-4294967295/1	Global Ports Enable Most significant word Bit 0 – Remote Ethernet Firmware Utility Enable

Table 15 Communication

Communication					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1749	1	–	W	0-1/1	Use Mac Address for Hot Line Tag Source Validation. If this is enabled the unit remembers the PC from which the Hot Line Tag is enabled and does not allow any other connections from other PCs to disable it 0 – Disable 1 – Enable
1756	1	–	RD	0-16/1	Channel id – Channel that is used to enable the Hot Line Tag 0 – HLT (MM) Inactive 1 – Front Panel Button 2 – Input contacts 3 – USB Channel 4 – Serial Port 4 5 – Serial Port 1 6 – Modbus Ethernet Ch1 7 – Modbus Ethernet Ch2 8 – Modbus Ethernet Ch3 9 – Modbus Ethernet Ch4 10 – Dnp Tcp Ethernet Ch1 11 – Dnp Tcp Ethernet Ch2 12 – Dnp Tcp Ethernet Ch3 13 – Dnp Tcp Ethernet Ch4 14 – Dnp Udp Ethernet Ch1 15 – Dnp Udp Ethernet Ch2 16 – Dnp Udp Ethernet Ch3 17 – Dnp Udp Ethernet Ch4
1757	1	–	W	1-65535/1	DNP Ethernet Port
1758	1	–	W	1-65519/1	DNP Address
1759	1	–	W	0-1/1	Enable DNP Source Address Validation
1760	1	–	W	0-1/1	Enable DNP Data Link Reset (ENABLELINKSTATUSPERIOD)
1761	1	S	W	0-65535/1	DNP Data Link Status Period (LINKSTATUSPERIOD)
1762	1	Sec	W	1-50000/1	TCP KeepAlive Timer
1763	1	–	W	0-1/1	Enable SynchroPhasor
1764	1	–	W	1	Synchrophasor Protocol type 1 – UDP
1766	1	–	W	1-65535/1	Synchrophasor ID CODE
1767	1	–	W	1-65535/1	Synchrophasor LOCAL PORT
1768	1	–	W	1-65535/1	Synchrophasor REMOTE UDP PORT

Table 15 Communication

Communication					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1769	1	–	W	0-4294967295/1	Synchrophasor REMOTE IP Address Least significant word
1770	1	–	W	0-4294967295/1	Synchrophasor REMOTE IP Address Most significant word
1771	1	Sec	W	1-65535/1	Synchro phasor Configuration Frame Interval
1772	1	mSec	W	1-65535/1	synchro phasor Reporting Rate
1773-1780	1	–	W	0-65535/1	synchro phasor STATION NAME 2 ASCII characters of 16 character Example: "Station Name ABC" Now 'S' and 't' ASCII values are stored in 1773 register, 'a' and 't' in 1774 and so on until 'B' and 'C' in 1775. User should make sure that all 8 registers are written at the same time to get the correct string.
1781	1	–	W	0-65535/1	DNP REMOTE UDP PORT for Session 1
1782	1	–	W	0-65535/1	DNP REMOTE UDP PORT for Session 2
1783	1	–	W	0-65535/1	DNP REMOTE UDP PORT for Session 3
1784	1	–	W	0-65535/1	DNP REMOTE UDP PORT for Session 4
1785	1	–	W	0-4294967295/1	DNP UDP REMOTE IP Address for Session 1 Least significant word
1786	1	–	W	0-4294967295/1	DNP UDP REMOTE Address for Session 1 Most significant word
1787	1	–	W	0-4294967295/1	DNP UDP REMOTE Address for Session 2 Least significant word
1788	1	–	W	0-4294967295/1	DNP UDP REMOTE Address for Session 2 Most significant word
1789	1	–	W	0-4294967295/1	DNP UDP REMOTE Address for Session 3 Least significant word
1790	1	–	W	0-4294967295/1	DNP UDP REMOTE Address for Session 3 Most significant word
1791	1	–	W	0-4294967295/1	DNP UDP REMOTE Address for Session 4 Least significant word
1792	1	–	W	0-4294967295/1	DNP UDP REMOTE Address for Session 4 Most significant word
1993	1	–	W	0-2/1	IPSEC Message Log Enable 0 – Disable 1 – Enable
1994	1	–	W	0-60/1	synchro phasor FRAME RATE

Table 15 Communication

Communication					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
1995	1	–	W	0-1/1	synchro phasor – PHASOR FORMAT 0 – Rectangular 1 – Polar
1793	1	–	W	1-65535/1	REFU IP PORT
1765	1	–	W	0-10/1	LINKSTATUSPERIOD
2124	1	-	W	0-4294967295/1	Static IP Address2[Low]
2125	1	-	W	0-4294967295/1	Static IP Address2[High] High Byte register
2126	1	-	W	0-4294967295/1	Net Mask Address2[Low]
2127	1	-	W	0-4294967295/1	Net Mask Address2[High]
2128	1	-	W	0-4294967295/1	Gateway Address2[Low]
2129	1	-	W	0-4294967295/1	Gateway Address2[High] High byte register
2130	1	-	W	0-1/1	Ethernet DHCP Mode
2131	1	-	W	0-1/1	Ethernet Switch Configuration
2138	1	-	R	0-2/1	ETH Hardware
2192	-	-	W	1-65535	IEC60870 IP PORT
2193	-	-	W	1-255	IEC60870 ADDRESS
65530	1	-	R	0-65535/1	EXT MODBUS SUPPORT

Table 15 Communication

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
25997	1	–	W	64-64/1	CUSTCURVE.1.SIZE
25998	1	–	W	64-64/1	CUSTCURVE.2.SIZE
25999	1	–	W	64-64/1	CUSTCURVE.3.SIZE
26000	1	–	W	64-64/1	CUSTCURVE.4.SIZE
26001	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.1
26002	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.2
26003	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.3
26004	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.4
26005	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.5
26006	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.6
26007	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.7
26008	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.8
26009	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.9
26010	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.10
26011	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.11
26012	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.12
26013	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.13
26014	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.14
26015	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.15
26016	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.16
26017	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.17
26018	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.18
26019	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.19
26020	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.20
26021	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.21
26022	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.22
26023	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.23
26024	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.24

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26025	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.25
26026	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.26
26027	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.27
26028	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.28
26029	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.29
26030	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.30
26031	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.31
26032	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.32
26033	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.33
26034	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.34
26035	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.35
26036	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.36
26037	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.37
26038	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.38
26039	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.39
26040	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.40
26041	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.41
26042	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.42
26043	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.43
26044	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.44
26045	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.45
26046	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.46
26047	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.47
26048	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.48
26049	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.49
26050	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.50
26051	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.51
26052	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.52

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26053	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.53
26054	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.54
26055	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.55
26056	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.56
26057	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.57
26058	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.58
26059	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.59
26060	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.60
26061	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.61
26062	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.62
26063	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.63
26064	–	–	W	0.01-100/0.01	CUSTCURVE.1.X.64
26065	–	–	W	51-51200/1	DSPCURVE.1.X.1
26066	–	–	W	51-51200/1	DSPCURVE.1.X.2
26067	–	–	W	51-51200/1	DSPCURVE.1.X.3
26068	–	–	W	51-51200/1	DSPCURVE.1.X.4
26069	–	–	W	51-51200/1	DSPCURVE.1.X.5
26070	–	–	W	51-51200/1	DSPCURVE.1.X.6
26071	–	–	W	51-51200/1	DSPCURVE.1.X.7
26072	–	–	W	51-51200/1	DSPCURVE.1.X.8
26073	–	–	W	51-51200/1	DSPCURVE.1.X.9
26074	–	–	W	51-51200/1	DSPCURVE.1.X.10
26075	–	–	W	51-51200/1	DSPCURVE.1.X.11
26076	–	–	W	51-51200/1	DSPCURVE.1.X.12
26077	–	–	W	51-51200/1	DSPCURVE.1.X.13
26078	–	–	W	51-51200/1	DSPCURVE.1.X.14
26079	–	–	W	51-51200/1	DSPCURVE.1.X.15
26080	–	–	W	51-51200/1	DSPCURVE.1.X.16

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26081	–	–	W	51-51200/1	DSPCURVE.1.X.17
26082	–	–	W	51-51200/1	DSPCURVE.1.X.18
26083	–	–	W	51-51200/1	DSPCURVE.1.X.19
26084	–	–	W	51-51200/1	DSPCURVE.1.X.20
26085	–	–	W	51-51200/1	DSPCURVE.1.X.21
26086	–	–	W	51-51200/1	DSPCURVE.1.X.22
26087	–	–	W	51-51200/1	DSPCURVE.1.X.23
26088	–	–	W	51-51200/1	DSPCURVE.1.X.24
26089	–	–	W	51-51200/1	DSPCURVE.1.X.25
26090	–	–	W	51-51200/1	DSPCURVE.1.X.26
26091	–	–	W	51-51200/1	DSPCURVE.1.X.27
26092	–	–	W	51-51200/1	DSPCURVE.1.X.28
26093	–	–	W	51-51200/1	DSPCURVE.1.X.29
26094	–	–	W	51-51200/1	DSPCURVE.1.X.30
26095	–	–	W	51-51200/1	DSPCURVE.1.X.31
26096	–	–	W	51-51200/1	DSPCURVE.1.X.32
26097	–	–	W	51-51200/1	DSPCURVE.1.X.33
26098	–	–	W	51-51200/1	DSPCURVE.1.X.34
26099	–	–	W	51-51200/1	DSPCURVE.1.X.35
26100	–	–	W	51-51200/1	DSPCURVE.1.X.36
26101	–	–	W	51-51200/1	DSPCURVE.1.X.37
26102	–	–	W	51-51200/1	DSPCURVE.1.X.38
26103	–	–	W	51-51200/1	DSPCURVE.1.X.39
26104	–	–	W	51-51200/1	DSPCURVE.1.X.40
26105	–	–	W	51-51200/1	DSPCURVE.1.X.41
26106	–	–	W	51-51200/1	DSPCURVE.1.X.42
26107	–	–	W	51-51200/1	DSPCURVE.1.X.43
26108	–	–	W	51-51200/1	DSPCURVE.1.X.44

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26109	–	–	W	51-51200/1	DSPCURVE.1.X.45
26110	–	–	W	51-51200/1	DSPCURVE.1.X.46
26111	–	–	W	51-51200/1	DSPCURVE.1.X.47
26112	–	–	W	51-51200/1	DSPCURVE.1.X.48
26113	–	–	W	51-51200/1	DSPCURVE.1.X.49
26114	–	–	W	51-51200/1	DSPCURVE.1.X.50
26115	–	–	W	51-51200/1	DSPCURVE.1.X.51
26116	–	–	W	51-51200/1	DSPCURVE.1.X.52
26117	–	–	W	51-51200/1	DSPCURVE.1.X.53
26118	–	–	W	51-51200/1	DSPCURVE.1.X.54
26119	–	–	W	51-51200/1	DSPCURVE.1.X.55
26120	–	–	W	51-51200/1	DSPCURVE.1.X.56
26121	–	–	W	51-51200/1	DSPCURVE.1.X.57
26122	–	–	W	51-51200/1	DSPCURVE.1.X.58
26123	–	–	W	51-51200/1	DSPCURVE.1.X.59
26124	–	–	W	51-51200/1	DSPCURVE.1.X.60
26125	–	–	W	51-51200/1	DSPCURVE.1.X.61
26126	–	–	W	51-51200/1	DSPCURVE.1.X.62
26127	–	–	W	51-51200/1	DSPCURVE.1.X.63
26128	–	–	W	51-51200/1	DSPCURVE.1.X.64
26129	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.1
26130	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.2
26131	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.3
26132	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.4
26133	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.5
26134	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.6
26135	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.7
26136	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.8

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26137	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.9
26138	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.10
26139	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.11
26140	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.12
26141	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.13
26142	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.14
26143	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.15
26144	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.16
26145	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.17
26146	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.18
26147	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.19
26148	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.20
26149	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.21
26150	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.22
26151	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.23
26152	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.24
26153	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.25
26154	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.26
26155	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.27
26156	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.28
26157	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.29
26158	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.30
26159	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.31
26160	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.32
26161	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.33
26162	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.34
26163	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.35
26164	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.36

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26165	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.37
26166	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.38
26167	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.39
26168	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.40
26169	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.41
26170	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.42
26171	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.43
26172	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.44
26173	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.45
26174	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.46
26175	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.47
26176	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.48
26177	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.49
26178	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.50
26179	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.51
26180	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.52
26181	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.53
26182	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.54
26183	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.55
26184	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.56
26185	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.57
26186	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.58
26187	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.59
26188	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.60
26189	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.61
26190	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.62
26191	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.63
26192	–	–	W	1-65535/0.01	CUSTCURVE.1.Y.64

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26193	–	–	W	1-4294967295/1	DSPCURVE.1.Y.1
26194	–	–	W	1-4294967295/1	DSPCURVE.1.Y.1.H
26195	–	–	W	1-4294967295/1	DSPCURVE.1.Y.2
26196	–	–	W	1-4294967295/1	DSPCURVE.1.Y.2.H
26197	–	–	W	1-4294967295/1	DSPCURVE.1.Y.3
26198	–	–	W	1-4294967295/1	DSPCURVE.1.Y.3.H
26199	–	–	W	1-4294967295/1	DSPCURVE.1.Y.4
26200	–	–	W	1-4294967295/1	DSPCURVE.1.Y.4.H
26201	–	–	W	1-4294967295/1	DSPCURVE.1.Y.5
26202	–	–	W	1-4294967295/1	DSPCURVE.1.Y.5.H
26203	–	–	W	1-4294967295/1	DSPCURVE.1.Y.6
26204	–	–	W	1-4294967295/1	DSPCURVE.1.Y.6.H
26205	–	–	W	1-4294967295/1	DSPCURVE.1.Y.7
26206	–	–	W	1-4294967295/1	DSPCURVE.1.Y.7.H
26207	–	–	W	1-4294967295/1	DSPCURVE.1.Y.8
26208	–	–	W	1-4294967295/1	DSPCURVE.1.Y.8.H
26209	–	–	W	1-4294967295/1	DSPCURVE.1.Y.9
26210	–	–	W	1-4294967295/1	DSPCURVE.1.Y.9.H
26211	–	–	W	1-4294967295/1	DSPCURVE.1.Y.10
26212	–	–	W	1-4294967295/1	DSPCURVE.1.Y.10.H
26213	–	–	W	1-4294967295/1	DSPCURVE.1.Y.11
26214	–	–	W	1-4294967295/1	DSPCURVE.1.Y.11.H
26215	–	–	W	1-4294967295/1	DSPCURVE.1.Y.12
26216	–	–	W	1-4294967295/1	DSPCURVE.1.Y.12.H
26217	–	–	W	1-4294967295/1	DSPCURVE.1.Y.13
26218	–	–	W	1-4294967295/1	DSPCURVE.1.Y.13.H
26219	–	–	W	1-4294967295/1	DSPCURVE.1.Y.14
26220	–	–	W	1-4294967295/1	DSPCURVE.1.Y.14.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26221	–	–	W	1-4294967295/1	DSPCURVE.1.Y.15
26222	–	–	W	1-4294967295/1	DSPCURVE.1.Y.15.H
26223	–	–	W	1-4294967295/1	DSPCURVE.1.Y.16
26224	–	–	W	1-4294967295/1	DSPCURVE.1.Y.16.H
26225	–	–	W	1-4294967295/1	DSPCURVE.1.Y.17
26226	–	–	W	1-4294967295/1	DSPCURVE.1.Y.17.H
26227	–	–	W	1-4294967295/1	DSPCURVE.1.Y.18
26228	–	–	W	1-4294967295/1	DSPCURVE.1.Y.18.H
26229	–	–	W	1-4294967295/1	DSPCURVE.1.Y.19
26230	–	–	W	1-4294967295/1	DSPCURVE.1.Y.19.H
26231	–	–	W	1-4294967295/1	DSPCURVE.1.Y.20
26232	–	–	W	1-4294967295/1	DSPCURVE.1.Y.20.H
26233	–	–	W	1-4294967295/1	DSPCURVE.1.Y.21
26234	–	–	W	1-4294967295/1	DSPCURVE.1.Y.21.H
26235	–	–	W	1-4294967295/1	DSPCURVE.1.Y.22
26236	–	–	W	1-4294967295/1	DSPCURVE.1.Y.22.H
26237	–	–	W	1-4294967295/1	DSPCURVE.1.Y.23
26238	–	–	W	1-4294967295/1	DSPCURVE.1.Y.23.H
26239	–	–	W	1-4294967295/1	DSPCURVE.1.Y.24
26240	–	–	W	1-4294967295/1	DSPCURVE.1.Y.24.H
26241	–	–	W	1-4294967295/1	DSPCURVE.1.Y.25
26242	–	–	W	1-4294967295/1	DSPCURVE.1.Y.25.H
26243	–	–	W	1-4294967295/1	DSPCURVE.1.Y.26
26244	–	–	W	1-4294967295/1	DSPCURVE.1.Y.26.H
26245	–	–	W	1-4294967295/1	DSPCURVE.1.Y.27
26246	–	–	W	1-4294967295/1	DSPCURVE.1.Y.27.H
26247	–	–	W	1-4294967295/1	DSPCURVE.1.Y.28
26248	–	–	W	1-4294967295/1	DSPCURVE.1.Y.28.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26249	–	–	W	1-4294967295/1	DSPCURVE.1.Y.29
26250	–	–	W	1-4294967295/1	DSPCURVE.1.Y.29.H
26251	–	–	W	1-4294967295/1	DSPCURVE.1.Y.30
26252	–	–	W	1-4294967295/1	DSPCURVE.1.Y.30.H
26253	–	–	W	1-4294967295/1	DSPCURVE.1.Y.31
26254	–	–	W	1-4294967295/1	DSPCURVE.1.Y.31.H
26255	–	–	W	1-4294967295/1	DSPCURVE.1.Y.32
26256	–	–	W	1-4294967295/1	DSPCURVE.1.Y.32.H
26257	–	–	W	1-4294967295/1	DSPCURVE.1.Y.33
26258	–	–	W	1-4294967295/1	DSPCURVE.1.Y.33.H
26259	–	–	W	1-4294967295/1	DSPCURVE.1.Y.34
26260	–	–	W	1-4294967295/1	DSPCURVE.1.Y.34.H
26261	–	–	W	1-4294967295/1	DSPCURVE.1.Y.35
26262	–	–	W	1-4294967295/1	DSPCURVE.1.Y.35.H
26263	–	–	W	1-4294967295/1	DSPCURVE.1.Y.36
26264	–	–	W	1-4294967295/1	DSPCURVE.1.Y.36.H
26265	–	–	W	1-4294967295/1	DSPCURVE.1.Y.37
26266	–	–	W	1-4294967295/1	DSPCURVE.1.Y.37.H
26267	–	–	W	1-4294967295/1	DSPCURVE.1.Y.38
26268	–	–	W	1-4294967295/1	DSPCURVE.1.Y.38.H
26269	–	–	W	1-4294967295/1	DSPCURVE.1.Y.39
26270	–	–	W	1-4294967295/1	DSPCURVE.1.Y.39.H
26271	–	–	W	1-4294967295/1	DSPCURVE.1.Y.40
26272	–	–	W	1-4294967295/1	DSPCURVE.1.Y.40.H
26273	–	–	W	1-4294967295/1	DSPCURVE.1.Y.41
26274	–	–	W	1-4294967295/1	DSPCURVE.1.Y.41.H
26275	–	–	W	1-4294967295/1	DSPCURVE.1.Y.42
26276	–	–	W	1-4294967295/1	DSPCURVE.1.Y.42.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26277	–	–	W	1-4294967295/1	DSPCURVE.1.Y.43
26278	–	–	W	1-4294967295/1	DSPCURVE.1.Y.43.H
26279	–	–	W	1-4294967295/1	DSPCURVE.1.Y.44
26280	–	–	W	1-4294967295/1	DSPCURVE.1.Y.44.H
26281	–	–	W	1-4294967295/1	DSPCURVE.1.Y.45
26282	–	–	W	1-4294967295/1	DSPCURVE.1.Y.45.H
26283	–	–	W	1-4294967295/1	DSPCURVE.1.Y.46
26284	–	–	W	1-4294967295/1	DSPCURVE.1.Y.46.H
26285	–	–	W	1-4294967295/1	DSPCURVE.1.Y.47
26286	–	–	W	1-4294967295/1	DSPCURVE.1.Y.47.H
26287	–	–	W	1-4294967295/1	DSPCURVE.1.Y.48
26288	–	–	W	1-4294967295/1	DSPCURVE.1.Y.48.H
26289	–	–	W	1-4294967295/1	DSPCURVE.1.Y.49
26290	–	–	W	1-4294967295/1	DSPCURVE.1.Y.49.H
26291	–	–	W	1-4294967295/1	DSPCURVE.1.Y.50
26292	–	–	W	1-4294967295/1	DSPCURVE.1.Y.50.H
26293	–	–	W	1-4294967295/1	DSPCURVE.1.Y.51
26294	–	–	W	1-4294967295/1	DSPCURVE.1.Y.51.H
26295	–	–	W	1-4294967295/1	DSPCURVE.1.Y.52
26296	–	–	W	1-4294967295/1	DSPCURVE.1.Y.52.H
26297	–	–	W	1-4294967295/1	DSPCURVE.1.Y.53
26298	–	–	W	1-4294967295/1	DSPCURVE.1.Y.53.H
26299	–	–	W	1-4294967295/1	DSPCURVE.1.Y.54
26300	–	–	W	1-4294967295/1	DSPCURVE.1.Y.54.H
26301	–	–	W	1-4294967295/1	DSPCURVE.1.Y.55
26302	–	–	W	1-4294967295/1	DSPCURVE.1.Y.55.H
26303	–	–	W	1-4294967295/1	DSPCURVE.1.Y.56
26304	–	–	W	1-4294967295/1	DSPCURVE.1.Y.56.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26305	–	–	W	1-4294967295/1	DSPCURVE.1.Y.57
26306	–	–	W	1-4294967295/1	DSPCURVE.1.Y.57.H
26307	–	–	W	1-4294967295/1	DSPCURVE.1.Y.58
26308	–	–	W	1-4294967295/1	DSPCURVE.1.Y.58.H
26309	–	–	W	1-4294967295/1	DSPCURVE.1.Y.59
26310	–	–	W	1-4294967295/1	DSPCURVE.1.Y.59.H
26311	–	–	W	1-4294967295/1	DSPCURVE.1.Y.60
26312	–	–	W	1-4294967295/1	DSPCURVE.1.Y.60.H
26313	–	–	W	1-4294967295/1	DSPCURVE.1.Y.61
26314	–	–	W	1-4294967295/1	DSPCURVE.1.Y.61.H
26315	–	–	W	1-4294967295/1	DSPCURVE.1.Y.62
26316	–	–	W	1-4294967295/1	DSPCURVE.1.Y.62.H
26317	–	–	W	1-4294967295/1	DSPCURVE.1.Y.63
26318	–	–	W	1-4294967295/1	DSPCURVE.1.Y.63.H
26319	–	–	W	1-4294967295/1	DSPCURVE.1.Y.64
26320	–	–	W	1-4294967295/1	DSPCURVE.1.Y.64.H
26321	–	–	W	1-10000/0.01	CUSTCURVE.2.X.1
26322	–	–	W	1-10000/0.01	CUSTCURVE.2.X.2
26323	–	–	W	1-10000/0.01	CUSTCURVE.2.X.3
26324	–	–	W	1-10000/0.01	CUSTCURVE.2.X.4
26325	–	–	W	1-10000/0.01	CUSTCURVE.2.X.5
26326	–	–	W	1-10000/0.01	CUSTCURVE.2.X.6
26327	–	–	W	1-10000/0.01	CUSTCURVE.2.X.7
26328	–	–	W	1-10000/0.01	CUSTCURVE.2.X.8
26329	–	–	W	1-10000/0.01	CUSTCURVE.2.X.9
26330	–	–	W	1-10000/0.01	CUSTCURVE.2.X.10
26331	–	–	W	1-10000/0.01	CUSTCURVE.2.X.11
26332	–	–	W	1-10000/0.01	CUSTCURVE.2.X.12

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26333	–	–	W	1-10000/0.01	CUSTCURVE.2.X.13
26334	–	–	W	1-10000/0.01	CUSTCURVE.2.X.14
26335	–	–	W	1-10000/0.01	CUSTCURVE.2.X.15
26336	–	–	W	1-10000/0.01	CUSTCURVE.2.X.16
26337	–	–	W	1-10000/0.01	CUSTCURVE.2.X.17
26338	–	–	W	1-10000/0.01	CUSTCURVE.2.X.18
26339	–	–	W	1-10000/0.01	CUSTCURVE.2.X.19
26340	–	–	W	1-10000/0.01	CUSTCURVE.2.X.20
26341	–	–	W	1-10000/0.01	CUSTCURVE.2.X.21
26342	–	–	W	1-10000/0.01	CUSTCURVE.2.X.22
26343	–	–	W	1-10000/0.01	CUSTCURVE.2.X.23
26344	–	–	W	1-10000/0.01	CUSTCURVE.2.X.24
26345	–	–	W	1-10000/0.01	CUSTCURVE.2.X.25
26346	–	–	W	1-10000/0.01	CUSTCURVE.2.X.26
26347	–	–	W	1-10000/0.01	CUSTCURVE.2.X.27
26348	–	–	W	1-10000/0.01	CUSTCURVE.2.X.28
26349	–	–	W	1-10000/0.01	CUSTCURVE.2.X.29
26350	–	–	W	1-10000/0.01	CUSTCURVE.2.X.30
26351	–	–	W	1-10000/0.01	CUSTCURVE.2.X.31
26352	–	–	W	1-10000/0.01	CUSTCURVE.2.X.32
26353	–	–	W	1-10000/0.01	CUSTCURVE.2.X.33
26354	–	–	W	1-10000/0.01	CUSTCURVE.2.X.34
26355	–	–	W	1-10000/0.01	CUSTCURVE.2.X.35
26356	–	–	W	1-10000/0.01	CUSTCURVE.2.X.36
26357	–	–	W	1-10000/0.01	CUSTCURVE.2.X.37
26358	–	–	W	1-10000/0.01	CUSTCURVE.2.X.38
26359	–	–	W	1-10000/0.01	CUSTCURVE.2.X.39
26360	–	–	W	1-10000/0.01	CUSTCURVE.2.X.40

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26361	–	–	W	1-10000/0.01	CUSTCURVE.2.X.41
26362	–	–	W	1-10000/0.01	CUSTCURVE.2.X.42
26363	–	–	W	1-10000/0.01	CUSTCURVE.2.X.43
26364	–	–	W	1-10000/0.01	CUSTCURVE.2.X.44
26365	–	–	W	1-10000/0.01	CUSTCURVE.2.X.45
26366	–	–	W	1-10000/0.01	CUSTCURVE.2.X.46
26367	–	–	W	1-10000/0.01	CUSTCURVE.2.X.47
26368	–	–	W	1-10000/0.01	CUSTCURVE.2.X.48
26369	–	–	W	1-10000/0.01	CUSTCURVE.2.X.49
26370	–	–	W	1-10000/0.01	CUSTCURVE.2.X.50
26371	–	–	W	1-10000/0.01	CUSTCURVE.2.X.51
26372	–	–	W	1-10000/0.01	CUSTCURVE.2.X.52
26373	–	–	W	1-10000/0.01	CUSTCURVE.2.X.53
26374	–	–	W	1-10000/0.01	CUSTCURVE.2.X.54
26375	–	–	W	1-10000/0.01	CUSTCURVE.2.X.55
26376	–	–	W	1-10000/0.01	CUSTCURVE.2.X.56
26377	–	–	W	1-10000/0.01	CUSTCURVE.2.X.57
26378	–	–	W	1-10000/0.01	CUSTCURVE.2.X.58
26379	–	–	W	1-10000/0.01	CUSTCURVE.2.X.59
26380	–	–	W	1-10000/0.01	CUSTCURVE.2.X.60
26381	–	–	W	1-10000/0.01	CUSTCURVE.2.X.61
26382	–	–	W	1-10000/0.01	CUSTCURVE.2.X.62
26383	–	–	W	1-10000/0.01	CUSTCURVE.2.X.63
26384	–	–	W	1-10000/0.01	CUSTCURVE.2.X.64
26385	–	–	W	51-51200/1	DSPCURVE.2.X.1
26386	–	–	W	51-51200/1	DSPCURVE.2.X.2
26387	–	–	W	51-51200/1	DSPCURVE.2.X.3
26388	–	–	W	51-51200/1	DSPCURVE.2.X.4

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26389	–	–	W	51-51200/1	DSPCURVE.2.X.5
26390	–	–	W	51-51200/1	DSPCURVE.2.X.6
26391	–	–	W	51-51200/1	DSPCURVE.2.X.7
26392	–	–	W	51-51200/1	DSPCURVE.2.X.8
26393	–	–	W	51-51200/1	DSPCURVE.2.X.9
26394	–	–	W	51-51200/1	DSPCURVE.2.X.10
26395	–	–	W	51-51200/1	DSPCURVE.2.X.11
26396	–	–	W	51-51200/1	DSPCURVE.2.X.12
26397	–	–	W	51-51200/1	DSPCURVE.2.X.13
26398	–	–	W	51-51200/1	DSPCURVE.2.X.14
26399	–	–	W	51-51200/1	DSPCURVE.2.X.15
26400	–	–	W	51-51200/1	DSPCURVE.2.X.16
26401	–	–	W	51-51200/1	DSPCURVE.2.X.17
26402	–	–	W	51-51200/1	DSPCURVE.2.X.18
26403	–	–	W	51-51200/1	DSPCURVE.2.X.19
26404	–	–	W	51-51200/1	DSPCURVE.2.X.20
26405	–	–	W	51-51200/1	DSPCURVE.2.X.21
26406	–	–	W	51-51200/1	DSPCURVE.2.X.22
26407	–	–	W	51-51200/1	DSPCURVE.2.X.23
26408	–	–	W	51-51200/1	DSPCURVE.2.X.24
26409	–	–	W	51-51200/1	DSPCURVE.2.X.25
26410	–	–	W	51-51200/1	DSPCURVE.2.X.26
26411	–	–	W	51-51200/1	DSPCURVE.2.X.27
26412	–	–	W	51-51200/1	DSPCURVE.2.X.28
26413	–	–	W	51-51200/1	DSPCURVE.2.X.29
26414	–	–	W	51-51200/1	DSPCURVE.2.X.30
26415	–	–	W	51-51200/1	DSPCURVE.2.X.31
26416	–	–	W	51-51200/1	DSPCURVE.2.X.32

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26417	–	–	W	51-51200/1	DSPCURVE.2.X.33
26418	–	–	W	51-51200/1	DSPCURVE.2.X.34
26419	–	–	W	51-51200/1	DSPCURVE.2.X.35
26420	–	–	W	51-51200/1	DSPCURVE.2.X.36
26421	–	–	W	51-51200/1	DSPCURVE.2.X.37
26422	–	–	W	51-51200/1	DSPCURVE.2.X.38
26423	–	–	W	51-51200/1	DSPCURVE.2.X.39
26424	–	–	W	51-51200/1	DSPCURVE.2.X.40
26425	–	–	W	51-51200/1	DSPCURVE.2.X.41
26426	–	–	W	51-51200/1	DSPCURVE.2.X.42
26427	–	–	W	51-51200/1	DSPCURVE.2.X.43
26428	–	–	W	51-51200/1	DSPCURVE.2.X.44
26429	–	–	W	51-51200/1	DSPCURVE.2.X.45
26430	–	–	W	51-51200/1	DSPCURVE.2.X.46
26431	–	–	W	51-51200/1	DSPCURVE.2.X.47
26432	–	–	W	51-51200/1	DSPCURVE.2.X.48
26433	–	–	W	51-51200/1	DSPCURVE.2.X.49
26434	–	–	W	51-51200/1	DSPCURVE.2.X.50
26435	–	–	W	51-51200/1	DSPCURVE.2.X.51
26436	–	–	W	51-51200/1	DSPCURVE.2.X.52
26437	–	–	W	51-51200/1	DSPCURVE.2.X.53
26438	–	–	W	51-51200/1	DSPCURVE.2.X.54
26439	–	–	W	51-51200/1	DSPCURVE.2.X.55
26440	–	–	W	51-51200/1	DSPCURVE.2.X.56
26441	–	–	W	51-51200/1	DSPCURVE.2.X.57
26442	–	–	W	51-51200/1	DSPCURVE.2.X.58
26443	–	–	W	51-51200/1	DSPCURVE.2.X.59
26444	–	–	W	51-51200/1	DSPCURVE.2.X.60

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26445	–	–	W	51-51200/1	DSPCURVE.2.X.61
26446	–	–	W	51-51200/1	DSPCURVE.2.X.62
26447	–	–	W	51-51200/1	DSPCURVE.2.X.63
26448	–	–	W	51-51200/1	DSPCURVE.2.X.64
26449	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.1
26450	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.2
26451	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.3
26452	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.4
26453	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.5
26454	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.6
26455	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.7
26456	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.8
26457	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.9
26458	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.10
26459	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.11
26460	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.12
26461	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.13
26462	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.14
26463	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.15
26464	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.16
26465	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.17
26466	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.18
26467	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.19
26468	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.20
26469	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.21
26470	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.22
26471	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.23
26472	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.24

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26473	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.25
26474	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.26
26475	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.27
26476	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.28
26477	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.29
26478	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.30
26479	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.31
26480	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.32
26481	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.33
26482	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.34
26483	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.35
26484	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.36
26485	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.37
26486	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.38
26487	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.39
26488	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.40
26489	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.41
26490	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.42
26491	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.43
26492	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.44
26493	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.45
26494	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.46
26495	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.47
26496	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.48
26497	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.49
26498	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.50
26499	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.51
26500	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.52

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26501	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.53
26502	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.54
26503	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.55
26504	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.56
26505	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.57
26506	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.58
26507	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.59
26508	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.60
26509	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.61
26510	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.62
26511	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.63
26512	–	–	W	1-65535/0.01	CUSTCURVE.2.Y.64
26513	–	–	W	1-4294967295/1	DSPCURVE.2.Y.1
26514	–	–	W	1-4294967295/1	DSPCURVE.2.Y.1.H
26515	–	–	W	1-4294967295/1	DSPCURVE.2.Y.2
26516	–	–	W	1-4294967295/1	DSPCURVE.2.Y.2.H
26517	–	–	W	1-4294967295/1	DSPCURVE.2.Y.3
26518	–	–	W	1-4294967295/1	DSPCURVE.2.Y.3.H
26519	–	–	W	1-4294967295/1	DSPCURVE.2.Y.4
26520	–	–	W	1-4294967295/1	DSPCURVE.2.Y.4.H
26521	–	–	W	1-4294967295/1	DSPCURVE.2.Y.5
26522	–	–	W	1-4294967295/1	DSPCURVE.2.Y.5.H
26523	–	–	W	1-4294967295/1	DSPCURVE.2.Y.6
26524	–	–	W	1-4294967295/1	DSPCURVE.2.Y.6.H
26525	–	–	W	1-4294967295/1	DSPCURVE.2.Y.7
26526	–	–	W	1-4294967295/1	DSPCURVE.2.Y.7.H
26527	–	–	W	1-4294967295/1	DSPCURVE.2.Y.8
26528	–	–	W	1-4294967295/1	DSPCURVE.2.Y.8.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26529	–	–	W	1-4294967295/1	DSPCURVE.2.Y.9
26530	–	–	W	1-4294967295/1	DSPCURVE.2.Y.9.H
26531	–	–	W	1-4294967295/1	DSPCURVE.2.Y.10
26532	–	–	W	1-4294967295/1	DSPCURVE.2.Y.10.H
26533	–	–	W	1-4294967295/1	DSPCURVE.2.Y.11
26534	–	–	W	1-4294967295/1	DSPCURVE.2.Y.11.H
26535	–	–	W	1-4294967295/1	DSPCURVE.2.Y.12
26536	–	–	W	1-4294967295/1	DSPCURVE.2.Y.12.H
26537	–	–	W	1-4294967295/1	DSPCURVE.2.Y.13
26538	–	–	W	1-4294967295/1	DSPCURVE.2.Y.13.H
26539	–	–	W	1-4294967295/1	DSPCURVE.2.Y.14
26540	–	–	W	1-4294967295/1	DSPCURVE.2.Y.14.H
26541	–	–	W	1-4294967295/1	DSPCURVE.2.Y.15
26542	–	–	W	1-4294967295/1	DSPCURVE.2.Y.15.H
26543	–	–	W	1-4294967295/1	DSPCURVE.2.Y.16
26544	–	–	W	1-4294967295/1	DSPCURVE.2.Y.16.H
26545	–	–	W	1-4294967295/1	DSPCURVE.2.Y.17
26546	–	–	W	1-4294967295/1	DSPCURVE.2.Y.17.H
26547	–	–	W	1-4294967295/1	DSPCURVE.2.Y.18
26548	–	–	W	1-4294967295/1	DSPCURVE.2.Y.18.H
26549	–	–	W	1-4294967295/1	DSPCURVE.2.Y.19
26550	–	–	W	1-4294967295/1	DSPCURVE.2.Y.19.H
26551	–	–	W	1-4294967295/1	DSPCURVE.2.Y.20
26552	–	–	W	1-4294967295/1	DSPCURVE.2.Y.20.H
26553	–	–	W	1-4294967295/1	DSPCURVE.2.Y.21
26554	–	–	W	1-4294967295/1	DSPCURVE.2.Y.21.H
26555	–	–	W	1-4294967295/1	DSPCURVE.2.Y.22
26556	–	–	W	1-4294967295/1	DSPCURVE.2.Y.22.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26557	–	–	W	1-4294967295/1	DSPCURVE.2.Y.23
26558	–	–	W	1-4294967295/1	DSPCURVE.2.Y.23.H
26559	–	–	W	1-4294967295/1	DSPCURVE.2.Y.24
26560	–	–	W	1-4294967295/1	DSPCURVE.2.Y.24.H
26561	–	–	W	1-4294967295/1	DSPCURVE.2.Y.25
26562	–	–	W	1-4294967295/1	DSPCURVE.2.Y.25.H
26563	–	–	W	1-4294967295/1	DSPCURVE.2.Y.26
26564	–	–	W	1-4294967295/1	DSPCURVE.2.Y.26.H
26565	–	–	W	1-4294967295/1	DSPCURVE.2.Y.27
26566	–	–	W	1-4294967295/1	DSPCURVE.2.Y.27.H
26567	–	–	W	1-4294967295/1	DSPCURVE.2.Y.28
26568	–	–	W	1-4294967295/1	DSPCURVE.2.Y.28.H
26569	–	–	W	1-4294967295/1	DSPCURVE.2.Y.29
26570	–	–	W	1-4294967295/1	DSPCURVE.2.Y.29.H
26571	–	–	W	1-4294967295/1	DSPCURVE.2.Y.30
26572	–	–	W	1-4294967295/1	DSPCURVE.2.Y.30.H
26573	–	–	W	1-4294967295/1	DSPCURVE.2.Y.31
26574	–	–	W	1-4294967295/1	DSPCURVE.2.Y.31.H
26575	–	–	W	1-4294967295/1	DSPCURVE.2.Y.32
26576	–	–	W	1-4294967295/1	DSPCURVE.2.Y.32.H
26577	–	–	W	1-4294967295/1	DSPCURVE.2.Y.33
26578	–	–	W	1-4294967295/1	DSPCURVE.2.Y.33.H
26579	–	–	W	1-4294967295/1	DSPCURVE.2.Y.34
26580	–	–	W	1-4294967295/1	DSPCURVE.2.Y.34.H
26581	–	–	W	1-4294967295/1	DSPCURVE.2.Y.35
26582	–	–	W	1-4294967295/1	DSPCURVE.2.Y.35.H
26583	–	–	W	1-4294967295/1	DSPCURVE.2.Y.36
26584	–	–	W	1-4294967295/1	DSPCURVE.2.Y.36.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26585	–	–	W	1-4294967295/1	DSPCURVE.2.Y.37
26586	–	–	W	1-4294967295/1	DSPCURVE.2.Y.37.H
26587	–	–	W	1-4294967295/1	DSPCURVE.2.Y.38
26588	–	–	W	1-4294967295/1	DSPCURVE.2.Y.38.H
26589	–	–	W	1-4294967295/1	DSPCURVE.2.Y.39
26590	–	–	W	1-4294967295/1	DSPCURVE.2.Y.39.H
26591	–	–	W	1-4294967295/1	DSPCURVE.2.Y.40
26592	–	–	W	1-4294967295/1	DSPCURVE.2.Y.40.H
26593	–	–	W	1-4294967295/1	DSPCURVE.2.Y.41
26594	–	–	W	1-4294967295/1	DSPCURVE.2.Y.41.H
26595	–	–	W	1-4294967295/1	DSPCURVE.2.Y.42
26596	–	–	W	1-4294967295/1	DSPCURVE.2.Y.42.H
26597	–	–	W	1-4294967295/1	DSPCURVE.2.Y.43
26598	–	–	W	1-4294967295/1	DSPCURVE.2.Y.43.H
26599	–	–	W	1-4294967295/1	DSPCURVE.2.Y.44
26600	–	–	W	1-4294967295/1	DSPCURVE.2.Y.44.H
26601	–	–	W	1-4294967295/1	DSPCURVE.2.Y.45
26602	–	–	W	1-4294967295/1	DSPCURVE.2.Y.45.H
26603	–	–	W	1-4294967295/1	DSPCURVE.2.Y.46
26604	–	–	W	1-4294967295/1	DSPCURVE.2.Y.46.H
26605	–	–	W	1-4294967295/1	DSPCURVE.2.Y.47
26606	–	–	W	1-4294967295/1	DSPCURVE.2.Y.47.H
26607	–	–	W	1-4294967295/1	DSPCURVE.2.Y.48
26608	–	–	W	1-4294967295/1	DSPCURVE.2.Y.48.H
26609	–	–	W	1-4294967295/1	DSPCURVE.2.Y.49
26610	–	–	W	1-4294967295/1	DSPCURVE.2.Y.49.H
26611	–	–	W	1-4294967295/1	DSPCURVE.2.Y.50
26612	–	–	W	1-4294967295/1	DSPCURVE.2.Y.50.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26613	–	–	W	1-4294967295/1	DSPCURVE.2.Y.51
26614	–	–	W	1-4294967295/1	DSPCURVE.2.Y.51.H
26615	–	–	W	1-4294967295/1	DSPCURVE.2.Y.52
26616	–	–	W	1-4294967295/1	DSPCURVE.2.Y.52.H
26617	–	–	W	1-4294967295/1	DSPCURVE.2.Y.53
26618	–	–	W	1-4294967295/1	DSPCURVE.2.Y.53.H
26619	–	–	W	1-4294967295/1	DSPCURVE.2.Y.54
26620	–	–	W	1-4294967295/1	DSPCURVE.2.Y.54.H
26621	–	–	W	1-4294967295/1	DSPCURVE.2.Y.55
26622	–	–	W	1-4294967295/1	DSPCURVE.2.Y.55.H
26623	–	–	W	1-4294967295/1	DSPCURVE.2.Y.56
26624	–	–	W	1-4294967295/1	DSPCURVE.2.Y.56.H
26625	–	–	W	1-4294967295/1	DSPCURVE.2.Y.57
26626	–	–	W	1-4294967295/1	DSPCURVE.2.Y.57.H
26627	–	–	W	1-4294967295/1	DSPCURVE.2.Y.58
26628	–	–	W	1-4294967295/1	DSPCURVE.2.Y.58.H
26629	–	–	W	1-4294967295/1	DSPCURVE.2.Y.59
26630	–	–	W	1-4294967295/1	DSPCURVE.2.Y.59.H
26631	–	–	W	1-4294967295/1	DSPCURVE.2.Y.60
26632	–	–	W	1-4294967295/1	DSPCURVE.2.Y.60.H
26633	–	–	W	1-4294967295/1	DSPCURVE.2.Y.61
26634	–	–	W	1-4294967295/1	DSPCURVE.2.Y.61.H
26635	–	–	W	1-4294967295/1	DSPCURVE.2.Y.62
26636	–	–	W	1-4294967295/1	DSPCURVE.2.Y.62.H
26637	–	–	W	1-4294967295/1	DSPCURVE.2.Y.63
26638	–	–	W	1-4294967295/1	DSPCURVE.2.Y.63.H
26639	–	–	W	1-4294967295/1	DSPCURVE.2.Y.64
26640	–	–	W	1-4294967295/1	DSPCURVE.2.Y.64.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26641	–	–	W	1-10000/0.01	CUSTCURVE.3.X.1
26642	–	–	W	1-10000/0.01	CUSTCURVE.3.X.2
26643	–	–	W	1-10000/0.01	CUSTCURVE.3.X.3
26644	–	–	W	1-10000/0.01	CUSTCURVE.3.X.4
26645	–	–	W	1-10000/0.01	CUSTCURVE.3.X.5
26646	–	–	W	1-10000/0.01	CUSTCURVE.3.X.6
26647	–	–	W	1-10000/0.01	CUSTCURVE.3.X.7
26648	–	–	W	1-10000/0.01	CUSTCURVE.3.X.8
26649	–	–	W	1-10000/0.01	CUSTCURVE.3.X.9
26650	–	–	W	1-10000/0.01	CUSTCURVE.3.X.10
26651	–	–	W	1-10000/0.01	CUSTCURVE.3.X.11
26652	–	–	W	1-10000/0.01	CUSTCURVE.3.X.12
26653	–	–	W	1-10000/0.01	CUSTCURVE.3.X.13
26654	–	–	W	1-10000/0.01	CUSTCURVE.3.X.14
26655	–	–	W	1-10000/0.01	CUSTCURVE.3.X.15
26656	–	–	W	1-10000/0.01	CUSTCURVE.3.X.16
26657	–	–	W	1-10000/0.01	CUSTCURVE.3.X.17
26658	–	–	W	1-10000/0.01	CUSTCURVE.3.X.18
26659	–	–	W	1-10000/0.01	CUSTCURVE.3.X.19
26660	–	–	W	1-10000/0.01	CUSTCURVE.3.X.20
26661	–	–	W	1-10000/0.01	CUSTCURVE.3.X.21
26662	–	–	W	1-10000/0.01	CUSTCURVE.3.X.22
26663	–	–	W	1-10000/0.01	CUSTCURVE.3.X.23
26664	–	–	W	1-10000/0.01	CUSTCURVE.3.X.24
26665	–	–	W	1-10000/0.01	CUSTCURVE.3.X.25
26666	–	–	W	1-10000/0.01	CUSTCURVE.3.X.26
26667	–	–	W	1-10000/0.01	CUSTCURVE.3.X.27
26668	–	–	W	1-10000/0.01	CUSTCURVE.3.X.28

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26669	–	–	W	1-10000/0.01	CUSTCURVE.3.X.29
26670	–	–	W	1-10000/0.01	CUSTCURVE.3.X.30
26671	–	–	W	1-10000/0.01	CUSTCURVE.3.X.31
26672	–	–	W	1-10000/0.01	CUSTCURVE.3.X.32
26673	–	–	W	1-10000/0.01	CUSTCURVE.3.X.33
26674	–	–	W	1-10000/0.01	CUSTCURVE.3.X.34
26675	–	–	W	1-10000/0.01	CUSTCURVE.3.X.35
26676	–	–	W	1-10000/0.01	CUSTCURVE.3.X.36
26677	–	–	W	1-10000/0.01	CUSTCURVE.3.X.37
26678	–	–	W	1-10000/0.01	CUSTCURVE.3.X.38
26679	–	–	W	1-10000/0.01	CUSTCURVE.3.X.39
26680	–	–	W	1-10000/0.01	CUSTCURVE.3.X.40
26681	–	–	W	1-10000/0.01	CUSTCURVE.3.X.41
26682	–	–	W	1-10000/0.01	CUSTCURVE.3.X.42
26683	–	–	W	1-10000/0.01	CUSTCURVE.3.X.43
26684	–	–	W	1-10000/0.01	CUSTCURVE.3.X.44
26685	–	–	W	1-10000/0.01	CUSTCURVE.3.X.45
26686	–	–	W	1-10000/0.01	CUSTCURVE.3.X.46
26687	–	–	W	1-10000/0.01	CUSTCURVE.3.X.47
26688	–	–	W	1-10000/0.01	CUSTCURVE.3.X.48
26689	–	–	W	1-10000/0.01	CUSTCURVE.3.X.49
26690	–	–	W	1-10000/0.01	CUSTCURVE.3.X.50
26691	–	–	W	1-10000/0.01	CUSTCURVE.3.X.51
26692	–	–	W	1-10000/0.01	CUSTCURVE.3.X.52
26693	–	–	W	1-10000/0.01	CUSTCURVE.3.X.53
26694	–	–	W	1-10000/0.01	CUSTCURVE.3.X.54
26695	–	–	W	1-10000/0.01	CUSTCURVE.3.X.55
26696	–	–	W	1-10000/0.01	CUSTCURVE.3.X.56

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26697	–	–	W	1-10000/0.01	CUSTCURVE.3.X.57
26698	–	–	W	1-10000/0.01	CUSTCURVE.3.X.58
26699	–	–	W	1-10000/0.01	CUSTCURVE.3.X.59
26700	–	–	W	1-10000/0.01	CUSTCURVE.3.X.60
26701	–	–	W	1-10000/0.01	CUSTCURVE.3.X.61
26702	–	–	W	1-10000/0.01	CUSTCURVE.3.X.62
26703	–	–	W	1-10000/0.01	CUSTCURVE.3.X.63
26704	–	–	W	1-10000/0.01	CUSTCURVE.3.X.64
26705	–	–	W	51-51200/1	DSPCURVE.3.X.1
26706	–	–	W	51-51200/1	DSPCURVE.3.X.2
26707	–	–	W	51-51200/1	DSPCURVE.3.X.3
26708	–	–	W	51-51200/1	DSPCURVE.3.X.4
26709	–	–	W	51-51200/1	DSPCURVE.3.X.5
26710	–	–	W	51-51200/1	DSPCURVE.3.X.6
26711	–	–	W	51-51200/1	DSPCURVE.3.X.7
26712	–	–	W	51-51200/1	DSPCURVE.3.X.8
26713	–	–	W	51-51200/1	DSPCURVE.3.X.9
26714	–	–	W	51-51200/1	DSPCURVE.3.X.10
26715	–	–	W	51-51200/1	DSPCURVE.3.X.11
26716	–	–	W	51-51200/1	DSPCURVE.3.X.12
26717	–	–	W	51-51200/1	DSPCURVE.3.X.13
26718	–	–	W	51-51200/1	DSPCURVE.3.X.14
26719	–	–	W	51-51200/1	DSPCURVE.3.X.15
26720	–	–	W	51-51200/1	DSPCURVE.3.X.16
26721	–	–	W	51-51200/1	DSPCURVE.3.X.17
26722	–	–	W	51-51200/1	DSPCURVE.3.X.18
26723	–	–	W	51-51200/1	DSPCURVE.3.X.19
26724	–	–	W	51-51200/1	DSPCURVE.3.X.20

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26725	–	–	W	51-51200/1	DSPCURVE.3.X.21
26726	–	–	W	51-51200/1	DSPCURVE.3.X.22
26727	–	–	W	51-51200/1	DSPCURVE.3.X.23
26728	–	–	W	51-51200/1	DSPCURVE.3.X.24
26729	–	–	W	51-51200/1	DSPCURVE.3.X.25
26730	–	–	W	51-51200/1	DSPCURVE.3.X.26
26731	–	–	W	51-51200/1	DSPCURVE.3.X.27
26732	–	–	W	51-51200/1	DSPCURVE.3.X.28
26733	–	–	W	51-51200/1	DSPCURVE.3.X.29
26734	–	–	W	51-51200/1	DSPCURVE.3.X.30
26735	–	–	W	51-51200/1	DSPCURVE.3.X.31
26736	–	–	W	51-51200/1	DSPCURVE.3.X.32
26737	–	–	W	51-51200/1	DSPCURVE.3.X.33
26738	–	–	W	51-51200/1	DSPCURVE.3.X.34
26739	–	–	W	51-51200/1	DSPCURVE.3.X.35
26740	–	–	W	51-51200/1	DSPCURVE.3.X.36
26741	–	–	W	51-51200/1	DSPCURVE.3.X.37
26742	–	–	W	51-51200/1	DSPCURVE.3.X.38
26743	–	–	W	51-51200/1	DSPCURVE.3.X.39
26744	–	–	W	51-51200/1	DSPCURVE.3.X.40
26745	–	–	W	51-51200/1	DSPCURVE.3.X.41
26746	–	–	W	51-51200/1	DSPCURVE.3.X.42
26747	–	–	W	51-51200/1	DSPCURVE.3.X.43
26748	–	–	W	51-51200/1	DSPCURVE.3.X.44
26749	–	–	W	51-51200/1	DSPCURVE.3.X.45
26750	–	–	W	51-51200/1	DSPCURVE.3.X.46
26751	–	–	W	51-51200/1	DSPCURVE.3.X.47
26752	–	–	W	51-51200/1	DSPCURVE.3.X.48

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26753	–	–	W	51-51200/1	DSPCURVE.3.X.49
26754	–	–	W	51-51200/1	DSPCURVE.3.X.50
26755	–	–	W	51-51200/1	DSPCURVE.3.X.51
26756	–	–	W	51-51200/1	DSPCURVE.3.X.52
26757	–	–	W	51-51200/1	DSPCURVE.3.X.53
26758	–	–	W	51-51200/1	DSPCURVE.3.X.54
26759	–	–	W	51-51200/1	DSPCURVE.3.X.55
26760	–	–	W	51-51200/1	DSPCURVE.3.X.56
26761	–	–	W	51-51200/1	DSPCURVE.3.X.57
26762	–	–	W	51-51200/1	DSPCURVE.3.X.58
26763	–	–	W	51-51200/1	DSPCURVE.3.X.59
26764	–	–	W	51-51200/1	DSPCURVE.3.X.60
26765	–	–	W	51-51200/1	DSPCURVE.3.X.61
26766	–	–	W	51-51200/1	DSPCURVE.3.X.62
26767	–	–	W	51-51200/1	DSPCURVE.3.X.63
26768	–	–	W	51-51200/1	DSPCURVE.3.X.64
26769	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.1
26770	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.2
26771	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.3
26772	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.4
26773	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.5
26774	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.6
26775	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.7
26776	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.8
26777	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.9
26778	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.10
26779	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.11
26780	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.12

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26781	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.13
26782	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.14
26783	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.15
26784	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.16
26785	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.17
26786	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.18
26787	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.19
26788	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.20
26789	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.21
26790	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.22
26791	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.23
26792	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.24
26793	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.25
26794	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.26
26795	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.27
26796	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.28
26797	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.29
26798	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.30
26799	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.31
26800	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.32
26801	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.33
26802	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.34
26803	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.35
26804	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.36
26805	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.37
26806	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.38
26807	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.39
26808	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.40

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26809	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.41
26810	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.42
26811	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.43
26812	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.44
26813	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.45
26814	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.46
26815	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.47
26816	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.48
26817	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.49
26818	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.50
26819	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.51
26820	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.52
26821	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.53
26822	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.54
26823	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.55
26824	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.56
26825	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.57
26826	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.58
26827	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.59
26828	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.60
26829	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.61
26830	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.62
26831	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.63
26832	–	–	W	1-65535/0.01	CUSTCURVE.3.Y.64
26833	–	–	W	1-4294967295/1	DSPCURVE.3.Y.1
26834	–	–	W	1-4294967295/1	DSPCURVE.3.Y.1.H
26835	–	–	W	1-4294967295/1	DSPCURVE.3.Y.2
26836	–	–	W	1-4294967295/1	DSPCURVE.3.Y.2.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26837	–	–	W	1-4294967295/1	DSPCURVE.3.Y.3
26838	–	–	W	1-4294967295/1	DSPCURVE.3.Y.3.H
26839	–	–	W	1-4294967295/1	DSPCURVE.3.Y.4
26840	–	–	W	1-4294967295/1	DSPCURVE.3.Y.4.H
26841	–	–	W	1-4294967295/1	DSPCURVE.3.Y.5
26842	–	–	W	1-4294967295/1	DSPCURVE.3.Y.5.H
26843	–	–	W	1-4294967295/1	DSPCURVE.3.Y.6
26844	–	–	W	1-4294967295/1	DSPCURVE.3.Y.6.H
26845	–	–	W	1-4294967295/1	DSPCURVE.3.Y.7
26846	–	–	W	1-4294967295/1	DSPCURVE.3.Y.7.H
26847	–	–	W	1-4294967295/1	DSPCURVE.3.Y.8
26848	–	–	W	1-4294967295/1	DSPCURVE.3.Y.8.H
26849	–	–	W	1-4294967295/1	DSPCURVE.3.Y.9
26850	–	–	W	1-4294967295/1	DSPCURVE.3.Y.9.H
26851	–	–	W	1-4294967295/1	DSPCURVE.3.Y.10
26852	–	–	W	1-4294967295/1	DSPCURVE.3.Y.10.H
26853	–	–	W	1-4294967295/1	DSPCURVE.3.Y.11
26854	–	–	W	1-4294967295/1	DSPCURVE.3.Y.11.H
26855	–	–	W	1-4294967295/1	DSPCURVE.3.Y.12
26856	–	–	W	1-4294967295/1	DSPCURVE.3.Y.12.H
26857	–	–	W	1-4294967295/1	DSPCURVE.3.Y.13
26858	–	–	W	1-4294967295/1	DSPCURVE.3.Y.13.H
26859	–	–	W	1-4294967295/1	DSPCURVE.3.Y.14
26860	–	–	W	1-4294967295/1	DSPCURVE.3.Y.14.H
26861	–	–	W	1-4294967295/1	DSPCURVE.3.Y.15
26862	–	–	W	1-4294967295/1	DSPCURVE.3.Y.15.H
26863	–	–	W	1-4294967295/1	DSPCURVE.3.Y.16
26864	–	–	W	1-4294967295/1	DSPCURVE.3.Y.16.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26865	–	–	W	1-4294967295/1	DSPCURVE.3.Y.17
26866	–	–	W	1-4294967295/1	DSPCURVE.3.Y.17.H
26867	–	–	W	1-4294967295/1	DSPCURVE.3.Y.18
26868	–	–	W	1-4294967295/1	DSPCURVE.3.Y.18.H
26869	–	–	W	1-4294967295/1	DSPCURVE.3.Y.19
26870	–	–	W	1-4294967295/1	DSPCURVE.3.Y.19.H
26871	–	–	W	1-4294967295/1	DSPCURVE.3.Y.20
26872	–	–	W	1-4294967295/1	DSPCURVE.3.Y.20.H
26873	–	–	W	1-4294967295/1	DSPCURVE.3.Y.21
26874	–	–	W	1-4294967295/1	DSPCURVE.3.Y.21.H
26875	–	–	W	1-4294967295/1	DSPCURVE.3.Y.22
26876	–	–	W	1-4294967295/1	DSPCURVE.3.Y.22.H
26877	–	–	W	1-4294967295/1	DSPCURVE.3.Y.23
26878	–	–	W	1-4294967295/1	DSPCURVE.3.Y.23.H
26879	–	–	W	1-4294967295/1	DSPCURVE.3.Y.24
26880	–	–	W	1-4294967295/1	DSPCURVE.3.Y.24.H
26881	–	–	W	1-4294967295/1	DSPCURVE.3.Y.25
26882	–	–	W	1-4294967295/1	DSPCURVE.3.Y.25.H
26883	–	–	W	1-4294967295/1	DSPCURVE.3.Y.26
26884	–	–	W	1-4294967295/1	DSPCURVE.3.Y.26.H
26885	–	–	W	1-4294967295/1	DSPCURVE.3.Y.27
26886	–	–	W	1-4294967295/1	DSPCURVE.3.Y.27.H
26887	–	–	W	1-4294967295/1	DSPCURVE.3.Y.28
26888	–	–	W	1-4294967295/1	DSPCURVE.3.Y.28.H
26889	–	–	W	1-4294967295/1	DSPCURVE.3.Y.29
26890	–	–	W	1-4294967295/1	DSPCURVE.3.Y.29.H
26891	–	–	W	1-4294967295/1	DSPCURVE.3.Y.30
26892	–	–	W	1-4294967295/1	DSPCURVE.3.Y.30.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26893	–	–	W	1-4294967295/1	DSPCURVE.3.Y.31
26894	–	–	W	1-4294967295/1	DSPCURVE.3.Y.31.H
26895	–	–	W	1-4294967295/1	DSPCURVE.3.Y.32
26896	–	–	W	1-4294967295/1	DSPCURVE.3.Y.32.H
26897	–	–	W	1-4294967295/1	DSPCURVE.3.Y.33
26898	–	–	W	1-4294967295/1	DSPCURVE.3.Y.33.H
26899	–	–	W	1-4294967295/1	DSPCURVE.3.Y.34
26900	–	–	W	1-4294967295/1	DSPCURVE.3.Y.34.H
26901	–	–	W	1-4294967295/1	DSPCURVE.3.Y.35
26902	–	–	W	1-4294967295/1	DSPCURVE.3.Y.35.H
26903	–	–	W	1-4294967295/1	DSPCURVE.3.Y.36
26904	–	–	W	1-4294967295/1	DSPCURVE.3.Y.36.H
26905	–	–	W	1-4294967295/1	DSPCURVE.3.Y.37
26906	–	–	W	1-4294967295/1	DSPCURVE.3.Y.37.H
26907	–	–	W	1-4294967295/1	DSPCURVE.3.Y.38
26908	–	–	W	1-4294967295/1	DSPCURVE.3.Y.38.H
26909	–	–	W	1-4294967295/1	DSPCURVE.3.Y.39
26910	–	–	W	1-4294967295/1	DSPCURVE.3.Y.39.H
26911	–	–	W	1-4294967295/1	DSPCURVE.3.Y.40
26912	–	–	W	1-4294967295/1	DSPCURVE.3.Y.40.H
26913	–	–	W	1-4294967295/1	DSPCURVE.3.Y.41
26914	–	–	W	1-4294967295/1	DSPCURVE.3.Y.41.H
26915	–	–	W	1-4294967295/1	DSPCURVE.3.Y.42
26916	–	–	W	1-4294967295/1	DSPCURVE.3.Y.42.H
26917	–	–	W	1-4294967295/1	DSPCURVE.3.Y.43
26918	–	–	W	1-4294967295/1	DSPCURVE.3.Y.43.H
26919	–	–	W	1-4294967295/1	DSPCURVE.3.Y.44
26920	–	–	W	1-4294967295/1	DSPCURVE.3.Y.44.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26921	–	–	W	1-4294967295/1	DSPCURVE.3.Y.45
26922	–	–	W	1-4294967295/1	DSPCURVE.3.Y.45.H
26923	–	–	W	1-4294967295/1	DSPCURVE.3.Y.46
26924	–	–	W	1-4294967295/1	DSPCURVE.3.Y.46.H
26925	–	–	W	1-4294967295/1	DSPCURVE.3.Y.47
26926	–	–	W	1-4294967295/1	DSPCURVE.3.Y.47.H
26927	–	–	W	1-4294967295/1	DSPCURVE.3.Y.48
26928	–	–	W	1-4294967295/1	DSPCURVE.3.Y.48.H
26929	–	–	W	1-4294967295/1	DSPCURVE.3.Y.49
26930	–	–	W	1-4294967295/1	DSPCURVE.3.Y.49.H
26931	–	–	W	1-4294967295/1	DSPCURVE.3.Y.50
26932	–	–	W	1-4294967295/1	DSPCURVE.3.Y.50.H
26933	–	–	W	1-4294967295/1	DSPCURVE.3.Y.51
26934	–	–	W	1-4294967295/1	DSPCURVE.3.Y.51.H
26935	–	–	W	1-4294967295/1	DSPCURVE.3.Y.52
26936	–	–	W	1-4294967295/1	DSPCURVE.3.Y.52.H
26937	–	–	W	1-4294967295/1	DSPCURVE.3.Y.53
26938	–	–	W	1-4294967295/1	DSPCURVE.3.Y.53.H
26939	–	–	W	1-4294967295/1	DSPCURVE.3.Y.54
26940	–	–	W	1-4294967295/1	DSPCURVE.3.Y.54.H
26941	–	–	W	1-4294967295/1	DSPCURVE.3.Y.55
26942	–	–	W	1-4294967295/1	DSPCURVE.3.Y.55.H
26943	–	–	W	1-4294967295/1	DSPCURVE.3.Y.56
26944	–	–	W	1-4294967295/1	DSPCURVE.3.Y.56.H
26945	–	–	W	1-4294967295/1	DSPCURVE.3.Y.57
26946	–	–	W	1-4294967295/1	DSPCURVE.3.Y.57.H
26947	–	–	W	1-4294967295/1	DSPCURVE.3.Y.58
26948	–	–	W	1-4294967295/1	DSPCURVE.3.Y.58.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26949	–	–	W	1-4294967295/1	DSPCURVE.3.Y.59
26950	–	–	W	1-4294967295/1	DSPCURVE.3.Y.59.H
26951	–	–	W	1-4294967295/1	DSPCURVE.3.Y.60
26952	–	–	W	1-4294967295/1	DSPCURVE.3.Y.60.H
26953	–	–	W	1-4294967295/1	DSPCURVE.3.Y.61
26954	–	–	W	1-4294967295/1	DSPCURVE.3.Y.61.H
26955	–	–	W	1-4294967295/1	DSPCURVE.3.Y.62
26956	–	–	W	1-4294967295/1	DSPCURVE.3.Y.62.H
26957	–	–	W	1-4294967295/1	DSPCURVE.3.Y.63
26958	–	–	W	1-4294967295/1	DSPCURVE.3.Y.63.H
26959	–	–	W	1-4294967295/1	DSPCURVE.3.Y.64
26960	–	–	W	1-4294967295/1	DSPCURVE.3.Y.64.H
26961	–	–	W	1-10000/0.01	CUSTCURVE.4.X.1
26962	–	–	W	1-10000/0.01	CUSTCURVE.4.X.2
26963	–	–	W	1-10000/0.01	CUSTCURVE.4.X.3
26964	–	–	W	1-10000/0.01	CUSTCURVE.4.X.4
26965	–	–	W	1-10000/0.01	CUSTCURVE.4.X.5
26966	–	–	W	1-10000/0.01	CUSTCURVE.4.X.6
26967	–	–	W	1-10000/0.01	CUSTCURVE.4.X.7
26968	–	–	W	1-10000/0.01	CUSTCURVE.4.X.8
26969	–	–	W	1-10000/0.01	CUSTCURVE.4.X.9
26970	–	–	W	1-10000/0.01	CUSTCURVE.4.X.10
26971	–	–	W	1-10000/0.01	CUSTCURVE.4.X.11
26972	–	–	W	1-10000/0.01	CUSTCURVE.4.X.12
26973	–	–	W	1-10000/0.01	CUSTCURVE.4.X.13
26974	–	–	W	1-10000/0.01	CUSTCURVE.4.X.14
26975	–	–	W	1-10000/0.01	CUSTCURVE.4.X.15
26976	–	–	W	1-10000/0.01	CUSTCURVE.4.X.16

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
26977	–	–	W	1-10000/0.01	CUSTCURVE.4.X.17
26978	–	–	W	1-10000/0.01	CUSTCURVE.4.X.18
26979	–	–	W	1-10000/0.01	CUSTCURVE.4.X.19
26980	–	–	W	1-10000/0.01	CUSTCURVE.4.X.20
26981	–	–	W	1-10000/0.01	CUSTCURVE.4.X.21
26982	–	–	W	1-10000/0.01	CUSTCURVE.4.X.22
26983	–	–	W	1-10000/0.01	CUSTCURVE.4.X.23
26984	–	–	W	1-10000/0.01	CUSTCURVE.4.X.24
26985	–	–	W	1-10000/0.01	CUSTCURVE.4.X.25
26986	–	–	W	1-10000/0.01	CUSTCURVE.4.X.26
26987	–	–	W	1-10000/0.01	CUSTCURVE.4.X.27
26988	–	–	W	1-10000/0.01	CUSTCURVE.4.X.28
26989	–	–	W	1-10000/0.01	CUSTCURVE.4.X.29
26990	–	–	W	1-10000/0.01	CUSTCURVE.4.X.30
26991	–	–	W	1-10000/0.01	CUSTCURVE.4.X.31
26992	–	–	W	1-10000/0.01	CUSTCURVE.4.X.32
26993	–	–	W	1-10000/0.01	CUSTCURVE.4.X.33
26994	–	–	W	1-10000/0.01	CUSTCURVE.4.X.34
26995	–	–	W	1-10000/0.01	CUSTCURVE.4.X.35
26996	–	–	W	1-10000/0.01	CUSTCURVE.4.X.36
26997	–	–	W	1-10000/0.01	CUSTCURVE.4.X.37
26998	–	–	W	1-10000/0.01	CUSTCURVE.4.X.38
26999	–	–	W	1-10000/0.01	CUSTCURVE.4.X.39
27000	–	–	W	1-10000/0.01	CUSTCURVE.4.X.40
27001	–	–	W	1-10000/0.01	CUSTCURVE.4.X.41
27002	–	–	W	1-10000/0.01	CUSTCURVE.4.X.42
27003	–	–	W	1-10000/0.01	CUSTCURVE.4.X.43
27004	–	–	W	1-10000/0.01	CUSTCURVE.4.X.44

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27005	–	–	W	1-10000/0.01	CUSTCURVE.4.X.45
27006	–	–	W	1-10000/0.01	CUSTCURVE.4.X.46
27007	–	–	W	1-10000/0.01	CUSTCURVE.4.X.47
27008	–	–	W	1-10000/0.01	CUSTCURVE.4.X.48
27009	–	–	W	1-10000/0.01	CUSTCURVE.4.X.49
27010	–	–	W	1-10000/0.01	CUSTCURVE.4.X.50
27011	–	–	W	1-10000/0.01	CUSTCURVE.4.X.51
27012	–	–	W	1-10000/0.01	CUSTCURVE.4.X.52
27013	–	–	W	1-10000/0.01	CUSTCURVE.4.X.53
27014	–	–	W	1-10000/0.01	CUSTCURVE.4.X.54
27015	–	–	W	1-10000/0.01	CUSTCURVE.4.X.55
27016	–	–	W	1-10000/0.01	CUSTCURVE.4.X.56
27017	–	–	W	1-10000/0.01	CUSTCURVE.4.X.57
27018	–	–	W	1-10000/0.01	CUSTCURVE.4.X.58
27019	–	–	W	1-10000/0.01	CUSTCURVE.4.X.59
27020	–	–	W	1-10000/0.01	CUSTCURVE.4.X.60
27021	–	–	W	1-10000/0.01	CUSTCURVE.4.X.61
27022	–	–	W	1-10000/0.01	CUSTCURVE.4.X.62
27023	–	–	W	1-10000/0.01	CUSTCURVE.4.X.63
27024	–	–	W	1-10000/0.01	CUSTCURVE.4.X.64
27025	–	–	W	51-51200/1	DSPCURVE.4.X.1
27026	–	–	W	51-51200/1	DSPCURVE.4.X.2
27027	–	–	W	51-51200/1	DSPCURVE.4.X.3
27028	–	–	W	51-51200/1	DSPCURVE.4.X.4
27029	–	–	W	51-51200/1	DSPCURVE.4.X.5
27030	–	–	W	51-51200/1	DSPCURVE.4.X.6
27031	–	–	W	51-51200/1	DSPCURVE.4.X.7
27032	–	–	W	51-51200/1	DSPCURVE.4.X.8

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27033	–	–	W	51-51200/1	DSPCURVE.4.X.9
27034	–	–	W	51-51200/1	DSPCURVE.4.X.10
27035	–	–	W	51-51200/1	DSPCURVE.4.X.11
27036	–	–	W	51-51200/1	DSPCURVE.4.X.12
27037	–	–	W	51-51200/1	DSPCURVE.4.X.13
27038	–	–	W	51-51200/1	DSPCURVE.4.X.14
27039	–	–	W	51-51200/1	DSPCURVE.4.X.15
27040	–	–	W	51-51200/1	DSPCURVE.4.X.16
27041	–	–	W	51-51200/1	DSPCURVE.4.X.17
27042	–	–	W	51-51200/1	DSPCURVE.4.X.18
27043	–	–	W	51-51200/1	DSPCURVE.4.X.19
27044	–	–	W	51-51200/1	DSPCURVE.4.X.20
27045	–	–	W	51-51200/1	DSPCURVE.4.X.21
27046	–	–	W	51-51200/1	DSPCURVE.4.X.22
27047	–	–	W	51-51200/1	DSPCURVE.4.X.23
27048	–	–	W	51-51200/1	DSPCURVE.4.X.24
27049	–	–	W	51-51200/1	DSPCURVE.4.X.25
27050	–	–	W	51-51200/1	DSPCURVE.4.X.26
27051	–	–	W	51-51200/1	DSPCURVE.4.X.27
27052	–	–	W	51-51200/1	DSPCURVE.4.X.28
27053	–	–	W	51-51200/1	DSPCURVE.4.X.29
27054	–	–	W	51-51200/1	DSPCURVE.4.X.30
27055	–	–	W	51-51200/1	DSPCURVE.4.X.31
27056	–	–	W	51-51200/1	DSPCURVE.4.X.32
27057	–	–	W	51-51200/1	DSPCURVE.4.X.33
27058	–	–	W	51-51200/1	DSPCURVE.4.X.34
27059	–	–	W	51-51200/1	DSPCURVE.4.X.35
27060	–	–	W	51-51200/1	DSPCURVE.4.X.36

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27061	–	–	W	51-51200/1	DSPCURVE.4.X.37
27062	–	–	W	51-51200/1	DSPCURVE.4.X.38
27063	–	–	W	51-51200/1	DSPCURVE.4.X.39
27064	–	–	W	51-51200/1	DSPCURVE.4.X.40
27065	–	–	W	51-51200/1	DSPCURVE.4.X.41
27066	–	–	W	51-51200/1	DSPCURVE.4.X.42
27067	–	–	W	51-51200/1	DSPCURVE.4.X.43
27068	–	–	W	51-51200/1	DSPCURVE.4.X.44
27069	–	–	W	51-51200/1	DSPCURVE.4.X.45
27070	–	–	W	51-51200/1	DSPCURVE.4.X.46
27071	–	–	W	51-51200/1	DSPCURVE.4.X.47
27072	–	–	W	51-51200/1	DSPCURVE.4.X.48
27073	–	–	W	51-51200/1	DSPCURVE.4.X.49
27074	–	–	W	51-51200/1	DSPCURVE.4.X.50
27075	–	–	W	51-51200/1	DSPCURVE.4.X.51
27076	–	–	W	51-51200/1	DSPCURVE.4.X.52
27077	–	–	W	51-51200/1	DSPCURVE.4.X.53
27078	–	–	W	51-51200/1	DSPCURVE.4.X.54
27079	–	–	W	51-51200/1	DSPCURVE.4.X.55
27080	–	–	W	51-51200/1	DSPCURVE.4.X.56
27081	–	–	W	51-51200/1	DSPCURVE.4.X.57
27082	–	–	W	51-51200/1	DSPCURVE.4.X.58
27083	–	–	W	51-51200/1	DSPCURVE.4.X.59
27084	–	–	W	51-51200/1	DSPCURVE.4.X.60
27085	–	–	W	51-51200/1	DSPCURVE.4.X.61
27086	–	–	W	51-51200/1	DSPCURVE.4.X.62
27087	–	–	W	51-51200/1	DSPCURVE.4.X.63
27088	–	–	W	51-51200/1	DSPCURVE.4.X.64

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27089	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.1
27090	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.2
27091	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.3
27092	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.4
27093	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.5
27094	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.6
27095	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.7
27096	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.8
27097	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.9
27098	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.10
27099	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.11
27100	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.12
27101	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.13
27102	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.14
27103	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.15
27104	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.16
27105	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.17
27106	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.18
27107	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.19
27108	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.20
27109	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.21
27110	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.22
27111	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.23
27112	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.24
27113	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.25
27114	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.26
27115	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.27
27116	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.28

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27117	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.29
27118	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.30
27119	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.31
27120	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.32
27121	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.33
27122	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.34
27123	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.35
27124	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.36
27125	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.37
27126	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.38
27127	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.39
27128	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.40
27129	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.41
27130	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.42
27131	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.43
27132	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.44
27133	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.45
27134	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.46
27135	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.47
27136	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.48
27137	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.49
27138	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.50
27139	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.51
27140	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.52
27141	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.53
27142	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.54
27143	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.55
27144	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.56

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27145	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.57
27146	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.58
27147	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.59
27148	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.60
27149	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.61
27150	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.62
27151	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.63
27152	–	–	W	1-65535/0.01	CUSTCURVE.4.Y.64
27153	–	–	W	1-4294967295/1	DSPCURVE.4.Y.1
27154	–	–	W	1-4294967295/1	DSPCURVE.4.Y.1.H
27155	–	–	W	1-4294967295/1	DSPCURVE.4.Y.2
27156	–	–	W	1-4294967295/1	DSPCURVE.4.Y.2.H
27157	–	–	W	1-4294967295/1	DSPCURVE.4.Y.3
27158	–	–	W	1-4294967295/1	DSPCURVE.4.Y.3.H
27159	–	–	W	1-4294967295/1	DSPCURVE.4.Y.4
27160	–	–	W	1-4294967295/1	DSPCURVE.4.Y.4.H
27161	–	–	W	1-4294967295/1	DSPCURVE.4.Y.5
27162	–	–	W	1-4294967295/1	DSPCURVE.4.Y.5.H
27163	–	–	W	1-4294967295/1	DSPCURVE.4.Y.6
27164	–	–	W	1-4294967295/1	DSPCURVE.4.Y.6.H
27165	–	–	W	1-4294967295/1	DSPCURVE.4.Y.7
27166	–	–	W	1-4294967295/1	DSPCURVE.4.Y.7.H
27167	–	–	W	1-4294967295/1	DSPCURVE.4.Y.8
27168	–	–	W	1-4294967295/1	DSPCURVE.4.Y.8.H
27169	–	–	W	1-4294967295/1	DSPCURVE.4.Y.9
27170	–	–	W	1-4294967295/1	DSPCURVE.4.Y.9.H
27171	–	–	W	1-4294967295/1	DSPCURVE.4.Y.10
27172	–	–	W	1-4294967295/1	DSPCURVE.4.Y.10.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27173	–	–	W	1-4294967295/1	DSPCURVE.4.Y.11
27174	–	–	W	1-4294967295/1	DSPCURVE.4.Y.11.H
27175	–	–	W	1-4294967295/1	DSPCURVE.4.Y.12
27176	–	–	W	1-4294967295/1	DSPCURVE.4.Y.12.H
27177	–	–	W	1-4294967295/1	DSPCURVE.4.Y.13
27178	–	–	W	1-4294967295/1	DSPCURVE.4.Y.13.H
27179	–	–	W	1-4294967295/1	DSPCURVE.4.Y.14
27180	–	–	W	1-4294967295/1	DSPCURVE.4.Y.14.H
27181	–	–	W	1-4294967295/1	DSPCURVE.4.Y.15
27182	–	–	W	1-4294967295/1	DSPCURVE.4.Y.15.H
27183	–	–	W	1-4294967295/1	DSPCURVE.4.Y.16
27184	–	–	W	1-4294967295/1	DSPCURVE.4.Y.16.H
27185	–	–	W	1-4294967295/1	DSPCURVE.4.Y.17
27186	–	–	W	1-4294967295/1	DSPCURVE.4.Y.17.H
27187	–	–	W	1-4294967295/1	DSPCURVE.4.Y.18
27188	–	–	W	1-4294967295/1	DSPCURVE.4.Y.18.H
27189	–	–	W	1-4294967295/1	DSPCURVE.4.Y.19
27190	–	–	W	1-4294967295/1	DSPCURVE.4.Y.19.H
27191	–	–	W	1-4294967295/1	DSPCURVE.4.Y.20
27192	–	–	W	1-4294967295/1	DSPCURVE.4.Y.20.H
27193	–	–	W	1-4294967295/1	DSPCURVE.4.Y.21
27194	–	–	W	1-4294967295/1	DSPCURVE.4.Y.21.H
27195	–	–	W	1-4294967295/1	DSPCURVE.4.Y.22
27196	–	–	W	1-4294967295/1	DSPCURVE.4.Y.22.H
27197	–	–	W	1-4294967295/1	DSPCURVE.4.Y.23
27198	–	–	W	1-4294967295/1	DSPCURVE.4.Y.23.H
27199	–	–	W	1-4294967295/1	DSPCURVE.4.Y.24
27200	–	–	W	1-4294967295/1	DSPCURVE.4.Y.24.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27201	–	–	W	1-4294967295/1	DSPCURVE.4.Y.25
27202	–	–	W	1-4294967295/1	DSPCURVE.4.Y.25.H
27203	–	–	W	1-4294967295/1	DSPCURVE.4.Y.26
27204	–	–	W	1-4294967295/1	DSPCURVE.4.Y.26.H
27205	–	–	W	1-4294967295/1	DSPCURVE.4.Y.27
27206	–	–	W	1-4294967295/1	DSPCURVE.4.Y.27.H
27207	–	–	W	1-4294967295/1	DSPCURVE.4.Y.28
27208	–	–	W	1-4294967295/1	DSPCURVE.4.Y.28.H
27209	–	–	W	1-4294967295/1	DSPCURVE.4.Y.29
27210	–	–	W	1-4294967295/1	DSPCURVE.4.Y.29.H
27211	–	–	W	1-4294967295/1	DSPCURVE.4.Y.30
27212	–	–	W	1-4294967295/1	DSPCURVE.4.Y.30.H
27213	–	–	W	1-4294967295/1	DSPCURVE.4.Y.31
27214	–	–	W	1-4294967295/1	DSPCURVE.4.Y.31.H
27215	–	–	W	1-4294967295/1	DSPCURVE.4.Y.32
27216	–	–	W	1-4294967295/1	DSPCURVE.4.Y.32.H
27217	–	–	W	1-4294967295/1	DSPCURVE.4.Y.33
27218	–	–	W	1-4294967295/1	DSPCURVE.4.Y.33.H
27219	–	–	W	1-4294967295/1	DSPCURVE.4.Y.34
27220	–	–	W	1-4294967295/1	DSPCURVE.4.Y.34.H
27221	–	–	W	1-4294967295/1	DSPCURVE.4.Y.35
27222	–	–	W	1-4294967295/1	DSPCURVE.4.Y.35.H
27223	–	–	W	1-4294967295/1	DSPCURVE.4.Y.36
27224	–	–	W	1-4294967295/1	DSPCURVE.4.Y.36.H
27225	–	–	W	1-4294967295/1	DSPCURVE.4.Y.37
27226	–	–	W	1-4294967295/1	DSPCURVE.4.Y.37.H
27227	–	–	W	1-4294967295/1	DSPCURVE.4.Y.38
27228	–	–	W	1-4294967295/1	DSPCURVE.4.Y.38.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27229	–	–	W	1-4294967295/1	DSPCURVE.4.Y.39
27230	–	–	W	1-4294967295/1	DSPCURVE.4.Y.39.H
27231	–	–	W	1-4294967295/1	DSPCURVE.4.Y.40
27232	–	–	W	1-4294967295/1	DSPCURVE.4.Y.40.H
27233	–	–	W	1-4294967295/1	DSPCURVE.4.Y.41
27234	–	–	W	1-4294967295/1	DSPCURVE.4.Y.41.H
27235	–	–	W	1-4294967295/1	DSPCURVE.4.Y.42
27236	–	–	W	1-4294967295/1	DSPCURVE.4.Y.42.H
27237	–	–	W	1-4294967295/1	DSPCURVE.4.Y.43
27238	–	–	W	1-4294967295/1	DSPCURVE.4.Y.43.H
27239	–	–	W	1-4294967295/1	DSPCURVE.4.Y.44
27240	–	–	W	1-4294967295/1	DSPCURVE.4.Y.44.H
27241	–	–	W	1-4294967295/1	DSPCURVE.4.Y.45
27242	–	–	W	1-4294967295/1	DSPCURVE.4.Y.45.H
27243	–	–	W	1-4294967295/1	DSPCURVE.4.Y.46
27244	–	–	W	1-4294967295/1	DSPCURVE.4.Y.46.H
27245	–	–	W	1-4294967295/1	DSPCURVE.4.Y.47
27246	–	–	W	1-4294967295/1	DSPCURVE.4.Y.47.H
27247	–	–	W	1-4294967295/1	DSPCURVE.4.Y.48
27248	–	–	W	1-4294967295/1	DSPCURVE.4.Y.48.H
27249	–	–	W	1-4294967295/1	DSPCURVE.4.Y.49
27250	–	–	W	1-4294967295/1	DSPCURVE.4.Y.49.H
27251	–	–	W	1-4294967295/1	DSPCURVE.4.Y.50
27252	–	–	W	1-4294967295/1	DSPCURVE.4.Y.50.H
27253	–	–	W	1-4294967295/1	DSPCURVE.4.Y.51
27254	–	–	W	1-4294967295/1	DSPCURVE.4.Y.51.H
27255	–	–	W	1-4294967295/1	DSPCURVE.4.Y.52
27256	–	–	W	1-4294967295/1	DSPCURVE.4.Y.52.H

Table 16 Custom Curves

Custom Curves					
MODBUS REGISTER*	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
27257	–	–	W	1-4294967295/1	DSPCURVE.4.Y.53
27258	–	–	W	1-4294967295/1	DSPCURVE.4.Y.53.H
27259	–	–	W	1-4294967295/1	DSPCURVE.4.Y.54
27260	–	–	W	1-4294967295/1	DSPCURVE.4.Y.54.H
27261	–	–	W	1-4294967295/1	DSPCURVE.4.Y.55
27262	–	–	W	1-4294967295/1	DSPCURVE.4.Y.55.H
27263	–	–	W	1-4294967295/1	DSPCURVE.4.Y.56
27264	–	–	W	1-4294967295/1	DSPCURVE.4.Y.56.H
27265	–	–	W	1-4294967295/1	DSPCURVE.4.Y.57
27266	–	–	W	1-4294967295/1	DSPCURVE.4.Y.57.H
27267	–	–	W	1-4294967295/1	DSPCURVE.4.Y.58
27268	–	–	W	1-4294967295/1	DSPCURVE.4.Y.58.H
27269	–	–	W	1-4294967295/1	DSPCURVE.4.Y.59
27270	–	–	W	1-4294967295/1	DSPCURVE.4.Y.59.H
27271	–	–	W	1-4294967295/1	DSPCURVE.4.Y.60
27272	–	–	W	1-4294967295/1	DSPCURVE.4.Y.60.H
27273	–	–	W	1-4294967295/1	DSPCURVE.4.Y.61
27274	–	–	W	1-4294967295/1	DSPCURVE.4.Y.61.H
27275	–	–	W	1-4294967295/1	DSPCURVE.4.Y.62
27276	–	–	W	1-4294967295/1	DSPCURVE.4.Y.62.H
27277	–	–	W	1-4294967295/1	DSPCURVE.4.Y.63
27278	–	–	W	1-4294967295/1	DSPCURVE.4.Y.63.H
27279	–	–	W	1-4294967295/1	DSPCURVE.4.Y.64
27280	–	–	W	1-4294967295/1	DSPCURVE.4.Y.64.H

Table 16 Custom Curves

Breaker Accumulator					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
6812	–	–	–	0-60000/1	BM.ACCUMPRESET_PhA
6813	–	–	–	0-60000/1	BM.ACCUMPRESET_PhB
6814	–	–	–	0-60000/1	BM.ACCUMPRESET_PhC
6815	–	–	W	0-2/1	BM.ARC_IOPTION
6811	–	–	W	0-3/1	BM BREAKER RATING Bit 0 – Load Break Switch Bit 1 – 8 kA Bit 2 – 12.5 kA Bit 3 – 16 kA
6816	10	–	W	0-100/1	BM.ACCUMPERCENT_PhA
6817	10	–	W	0-100/1	BM.ACCUMPERCENT_PhB
6818	10	–	W	0-100/1	BM.ACCUMPERCENT_PhC

Table 17 Breaker Accumulator

Factory					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
3914	1	-	R	0-65535/1	SERIAL NUMBER
3924	1	-	W	0-1/1	LOCK
3848	1	-	W	0-65535/1	TRANSFER DSP
3916	1	-	W	0-65535/1	MSG LOG MASK
3917	1	-	W	0-65535/1	DSP Special
3918	1	-	W	0-65535/1	Command Trip A
3919	1	-	W	0-65535/1	Command Trip B
3920	1	-	W	0-65535/1	Command Trip C
3921	1	-	W	0-65535/1	Command Close A
3922	1	-	W	0-65535/1	Command Close B
3923	1	-	W	0-65535/1	Command Close C
4185	1	-	W	0-65535/1	SP BACKUP RESTORE
3930	1	-	W	0-65535/1	Command Trip ABC
3931	1	-	W	0-65535/1	Command Close ABC
3932	1	-	W	0-23	HLT Channel
3933	1	-	W	0-65535/1	Block0
3934	1	-	W	0-65535/1	Block1
3935	1	-	W	0-65535/1	Block2
3936	1	-	W	0-65535/1	Block3
3937	1	-	W	0-65535/1	Block4
3938	1	-	W	0-65535/1	Block5
3939	1	-	W	0-65535/1	Block6
3940	1	-	W	0-65535/1	Block7
3941	1	-	W	0-65535/1	Block8
3948	1	-	R	0-6/1	LEAOPTION
3965	1	-	R	0-4294960000/1	DSP Run Time Err
3966	1	-	R	0	DSP Run Time Err.H
3967	1	-	R	0-1/1	Extended Option
3968	1	-	R	0-5/1	SEFENABLE
3969	1	-	W	0-65535/1	Block9
4371	1	-	W	0-65535/1	Block10

Table 18 Factory

Factory					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
4378	1	-	W	0-65535/1	Block11
4427	1	-	W	0-65535/1	Block12
4431	1	-	W	0-65535/1	Block13
4373	1	-	R	0-2/1	Test Static Memory
4375	1	-	R	--	CHARGER AUX INPUTS
4376	1	-	W	0-255/1	CHARGER AUX OUTPUTS
4470	1	-	W	0-255/1	Charger Ext Outputs
4377	1	-	-	0-5/1	Purchase Triple Single Configuration
3942	1	-	W	0-4294967295/1	Block Misc.
3943	1	-	W	0-4294967295/1	Block Misc.H
4413	1	-	W	0-65535/1	OutputBlock0
4414	1	-	W	0-65535/1	OutputBlock1
4415	1	-	W	0-65535/1	OutputBlock2
4416	1	-	W	0-65535/1	OutputBlock3
4417	1	-	W	0-65535/1	OutputBlock4
4418	1	-	W	0-65535/1	OutputBlock5
4419	1	-	W	0-65535/1	OutputBlock6
4420	1	-	W	0-65535/1	OutputBlock7
4421	1	-	W	0-65535/1	OutputBlock8
4422	1	-	W	0-65535/1	OutputBlock9
4423	1	-	W	0-65535/1	OutputBlock10
4424	1	-	W	0-65535/1	OutputBlock11
4428	1	-	W	0-65535/1	OutputBlock12
4432	1	-	W	0-65535/1	OutputBlock13
4430	1	-	-	0-1	IEC60870_purch_opt
3955	1	-	W	0-1	Clear Error Log
3970	1	-	W	0-65535	Comm DSP CloseA
3971	1	-	W	0-65535/1	Comm DSP CloseB
3972	1	-	W	0-65535/1	Comm DSP CloseC
3973	1	-	W	0-65535/1	Comm DSP Close ABC
0	1	-	W	0-65535/1	CommandReset
0	1	-	W	0-65535/1	CmdResetNStartTimer

Table 18 Factory

Factory					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
0	1	-	W	0-65535/1	CmdResetNStartTimerA
0	1	-	W	0-65535/1	CmdResetNStartTimerB
0	1	-	W	0-65535/1	CmdResetNStartTimerC
0	1	-	W	0-65535/1	CommandLockoutA
0	1	-	W	0-65535/1	CommandLockoutB
0	1	-	W	0-65535/1	CommandLockoutC
0	1	-	W	0-65535/1	CommandLockoutABC
0	1	-	W	0-65535/1	CmdCloseBlockOverride
4443	1	-	W	0-65535/1	IEC61850 Output Block0
4444	1	-	W	0-65535/1	IEC61850 Output Block1
4445	1	-	W	0-65535/1	IEC61850 Output Block2
4446	1	-	W	0-65535/1	IEC61850 Output Block3
4447	1	-	W	0-65535/1	IEC61850 Output Block4
4448	1	-	W	0-65535/1	IEC61850 Output Block5
4449	1	-	W	0-65535/1	IEC61850 Output Block6
4450	1	-	W	0-65535/1	IEC61850 Output Block7
4451	1	-	W	0-65535/1	IEC61850 Output Block8
4452	1	-	W	0-65535/1	IEC61850 Output Block9
4453	1	-	W	0-65535/1	IEC61850 Output Block10
4454	1	-	W	0-65535/1	IEC61850 Output Block11
4455	1	-	W	0-65535/1	IEC61850 Output Block12
4456	1	-	W	0-65535/1	IEC61850 Output Block13
4457	1	-	W	0-65535/1	IEC61850 Output Block14
4458	1	-	W	0-65535/1	IEC61850 Output Block15
4468	1	-	W	0-65535/1	IEC61850 Output Block16
4469	1	-	W	0-65535/1	IEC61850 Output Block17
0	1	s	—	0-255/1	I104 CYC PERIOD
0	1	s	—	0-255/1	I104 SBO TIMEOUT
0	1	—	—	0-4294967295/1	MASTER IP ADDR
0	1	—	—	0-4294967295/1	MASTER IP ADDR.H
0	1	—	—	1-1000/1	SGPT OFFSET
0	1	—	—	1-1000/1	SCMD OFFSET

Table 18 Factory

Factory					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/INCREMENT	DESCRIPTION
0	1	—	—	1-1000/1	MVPT OFFSET
0	1	—	—	1-1000/1	DCMD OFFSET
0	1	—	—	1-1000/1	INTG OFFSET
0	1	—	—	1-1000/1	DBPT OFFSET
0	1	—	—	32-255/1	MAX DATA LINK FRAME
0	1	—	—	0-65535/1	T1 ACK PERIOD
0	1	—	—	0-65535/1	T2 SFRAME PERIOD
0	1	—	—	0-65535/1	T3 TEST PERIOD
0	1	—	—	0-255/1	K VALUE
0	1	—	—	0-255/1	W VALUE
4439	1	—	W	0-65535/1	Block16
4440	1	—	W	0-65535/1	Block17
4441	1	—	W	0-65535/1	Output Block16
4442	1	—	W	0-65535/1	Output Block17
4459	1	—	—	0-65535/1	STORE CALIB
4464	1	—	W	0-65535/1	Cmd CLP INITIATE
0	1	—	—	0-1/1	DNP SYNC TIME FORMAT
4471	1	—	W	0-65535/1	DSP Special
4472	1	—	W	0-65535/1	Fault Location CMD
4473	1	—	W	0-65535/1	DNP Output Block Status
4474	1	—	W	0-65535/1	DNP Output Block Status 2
4475	1	—	W	0-65535/1	LoopSchemeCmdCounter

CALIB.IO.LED-Factory					
3803	1	—	W	0-65535/1	OUTPUT OFF
3804	1	—	W	0-65535/1	OUTPUT ON
0	1	—	W	0-65535/1	OUTPUT ON FACT
4460	1	—	W	0-4294967295/1	INPUT OFF
4461	1	—	W	0-4294967295/1	INPUT OFF.H
4462	1	—	W	0-4294967295/1	INPUT ON
4463	1	—	W	0-4294967295/1	INPUT ON.H
4184	1	—	R	0-5	PurchaseTrsingle

Table 18 Factory

4377	1	_	R	0-5	PurchaseTrSingle_CFG
4433	1	_	W	0-65535/1	OutputBlock14
4434	1	_	W	0-65535/1	OutputBlock15

Table 18 Factory

User Access					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
4159	1	-	W	0-2/1	USER ACCESS CFG
4476	1	-	W	0-1	USER DISABLE ACCESS
4160	1	-	W	0-65535/1	USER ACC PERMISSION 0
4161	1	-	W	0-65535/1	USER ACC PERMISSION 1
4000	1	-	W	0-65535/1	USER ACC PUB KEY 0
4001	1	-	W	0-65535/1	USER ACC PUB KEY 1
4002	1	-	W	0-65535/1	USER ACC PUB KEY 2
4003	1	-	W	0-65535/1	USER ACC PUB KEY 3
4004	1	-	W	0-65535/1	USER ACC PUB KEY 4
4005	1	-	W	0-65535/1	USER ACC PUB KEY 5
4006	1	-	W	0-65535/1	USER ACC PUB KEY 6
4007	1	-	W	0-65535/1	USER ACC PUB KEY 7
4008	1	-	W	0-65535/1	USER ACC PUB KEY 8
4009	1	-	W	0-65535/1	USER ACC PUB KEY 9
4010	1	-	W	0-65535/1	USER ACC PUB KEY 10
4011	1	-	W	0-65535/1	USER ACC PUB KEY 11
4012	1	-	W	0-65535/1	USER ACC PUB KEY 12
4013	1	-	W	0-65535/1	USER ACC PUB KEY 13
4014	1	-	W	0-65535/1	USER ACC PUB KEY 14
4015	1	-	W	0-65535/1	USER ACC PUB KEY 15
4016	1	-	W	0-65535/1	USER ACC PUB KEY 16
4017	1	-	W	0-65535/1	USER ACC PUB KEY 17
4018	1	-	W	0-65535/1	USER ACC PUB KEY 18
4019	1	-	W	0-65535/1	USER ACC PUB KEY 19
4020	1	-	W	0-65535/1	USER ACC PUB KEY 20
4021	1	-	W	0-65535/1	USER ACC PUB KEY 21
4022	1	-	W	0-65535/1	USER ACC PUB KEY 22
4023	1	-	W	0-65535/1	USER ACC PUB KEY 23
4024	1	-	W	0-65535/1	USER ACC PUB KEY 24
4025	1	-	W	0-65535/1	USER ACC PUB KEY 25
4026	1	-	W	0-65535/1	USER ACC PUB KEY 26
4027	1	-	W	0-65535/1	USER ACC PUB KEY 27

Table 19 User Access

User Access					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
4028	1	-	W	0-65535/1	USER ACC PUB KEY 28
4029	1	-	W	0-65535/1	USER ACC PUB KEY 29
4030	1	-	W	0-65535/1	USER ACC PUB KEY 30
4031	1	-	W	0-65535/1	USER ACC PUB KEY 31
4032	1	-	W	0-65535/1	USER ACC PUB KEY 32
4033	1	-	W	0-65535/1	USER ACC PUB KEY 33
4034	1	-	W	0-65535/1	USER ACC PUB KEY 34
4035	1	-	W	0-65535/1	USER ACC PUB KEY 35
4036	1	-	W	0-65535/1	USER ACC PUB KEY 36
4037	1	-	W	0-65535/1	USER ACC PUB KEY 37
4038	1	-	W	0-65535/1	USER ACC PUB KEY 38
4039	1	-	W	0-65535/1	USER ACC PUB KEY 39
4040	1	-	W	0-65535/1	USER ACC PUB KEY 40
4041	1	-	W	0-65535/1	USER ACC PUB KEY 41
4042	1	-	W	0-65535/1	USER ACC PUB KEY 42
4043	1	-	W	0-65535/1	USER ACC PUB KEY 43
4044	1	-	W	0-65535/1	USER ACC PUB KEY 44
4045	1	-	W	0-65535/1	USER ACC PUB KEY 45
4046	1	-	W	0-65535/1	USER ACC PUB KEY 46
4047	1	-	W	0-65535/1	USER ACC PUB KEY 47
4048	1	-	W	0-65535/1	USER ACC PUB KEY 48
4049	1	-	W	0-65535/1	USER ACC PUB KEY 49
4050	1	-	W	0-65535/1	USER ACC PUB KEY 50
4051	1	-	W	0-65535/1	USER ACC PUB KEY 51
4052	1	-	W	0-65535/1	USER ACC PUB KEY 52
4053	1	-	W	0-65535/1	USER ACC PUB KEY 53
4054	1	-	W	0-65535/1	USER ACC PUB KEY 54
4055	1	-	W	0-65535/1	USER ACC PUB KEY 55
4056	1	-	W	0-65535/1	USER ACC PUB KEY 56
4057	1	-	W	0-65535/1	USER ACC PUB KEY 57
4058	1	-	W	0-65535/1	USER ACC PUB KEY 58
4059	1	-	W	0-65535/1	USER ACC PUB KEY 59

Table 19 User Access

User Access					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
4060	1	-	W	0-65535/1	USER ACC PUB KEY 60
4061	1	-	W	0-65535/1	USER ACC PUB KEY 61
4062	1	-	W	0-65535/1	USER ACC PUB KEY 62
4063	1	-	W	0-65535/1	USER ACC PUB KEY 63
4064	1	-	W	0-65535/1	USER ACC PUB KEY 64
4065	1	-	W	0-65535/1	USER ACC PUB KEY 65
4066	1	-	W	0-65535/1	USER ACC HASH 0
4067	1	-	W	0-65535/1	USER ACC HASH 1
4068	1	-	W	0-65535/1	USER ACC HASH 2
4069	1	-	W	0-65535/1	USER ACC HASH 3
4070	1	-	W	0-65535/1	USER ACC HASH 4
4071	1	-	W	0-65535/1	USER ACC HASH 5
4072	1	-	W	0-65535/1	USER ACC HASH 6
4073	1	-	W	0-65535/1	USER ACC HASH 7
4074	1	-	W	0-65535/1	USER ACC LOGIN 0
4075	1	-	W	0-65535/1	USER ACC LOGIN 1
4076	1	-	W	0-65535/1	USER ACC LOGIN 2
4077	1	-	W	0-65535/1	USER ACC LOGIN 3
4078	1	-	W	0-65535/1	USER ACC LOGIN 4
4079	1	-	W	0-65535/1	USER ACC LOGIN 5
4080	1	-	W	0-65535/1	USER ACC LOGIN 6
4081	1	-	W	0-65535/1	USER ACC LOGIN 7
4082	1	-	W	0-65535/1	USER ACC PWD 0
4083	1	-	W	0-65535/1	USER ACC PWD 1
4084	1	-	W	0-65535/1	USER ACC PWD 2
4085	1	-	W	0-65535/1	USER ACC PWD 3
4086	1	-	W	0-65535/1	USER ACC PWD 4
4087	1	-	W	0-65535/1	USER ACC PWD 5
4088	1	-	W	0-65535/1	USER ACC PWD 6
4089	1	-	W	0-65535/1	USER ACC PWD 7
4090	1	-	W	0-65535/1	USER ACC PWD 8
4091	1	-	W	0-65535/1	USER ACC PWD 9

Table 19 User Access

User Access					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
4092	1	-	W	0-65535/1	USER ACC AUTH 0
4093	1	-	W	0-65535/1	USER ACC AUTH 1
4094	1	-	W	0-65535/1	USER ACC AUTH 2
4095	1	-	W	0-65535/1	USER ACC AUTH 3
4096	1	-	W	0-65535/1	USER ACC AUTH 4
4097	1	-	W	0-65535/1	USER ACC AUTH 5
4098	1	-	W	0-65535/1	USER ACC AUTH 6
4099	1	-	W	0-65535/1	USER ACC AUTH 7
4100	1	-	W	0-65535/1	USER ACC AUTH 8
4101	1	-	W	0-65535/1	USER ACC AUTH 9
4102	1	-	W	0-65535/1	USER ACC AUTH 10
4103	1	-	W	0-65535/1	USER ACC AUTH 11
4104	1	-	W	0-65535/1	USER ACC AUTH 12
4105	1	-	W	0-65535/1	USER ACC AUTH 13
4106	1	-	W	0-65535/1	USER ACC AUTH 14
4107	1	-	W	0-65535/1	USER ACC AUTH 15
4108	1	-	W	0-65535/1	USER ACC AUTH 16
4109	1	-	W	0-65535/1	USER ACC AUTH 17
4110	1	-	W	0-65535/1	USER ACC AUTH 18
4111	1	-	W	0-65535/1	USER ACC AUTH 19
4112	1	-	W	0-65535/1	USER ACC AUTH 20
4113	1	-	W	0-65535/1	USER ACC AUTH 21
4114	1	-	W	0-65535/1	USER ACC AUTH 22
4115	1	-	W	0-65535/1	USER ACC AUTH 23
4116	1	-	W	0-65535/1	USER ACC AUTH 24
4117	1	-	W	0-65535/1	USER ACC AUTH 25
4118	1	-	W	0-65535/1	USER ACC AUTH 26
4119	1	-	W	0-65535/1	USER ACC AUTH 27
4120	1	-	W	0-65535/1	USER ACC AUTH 28
4121	1	-	W	0-65535/1	USER ACC AUTH 29
4122	1	-	W	0-65535/1	USER ACC AUTH 30
4123	1	-	W	0-65535/1	USER ACC AUTH 31

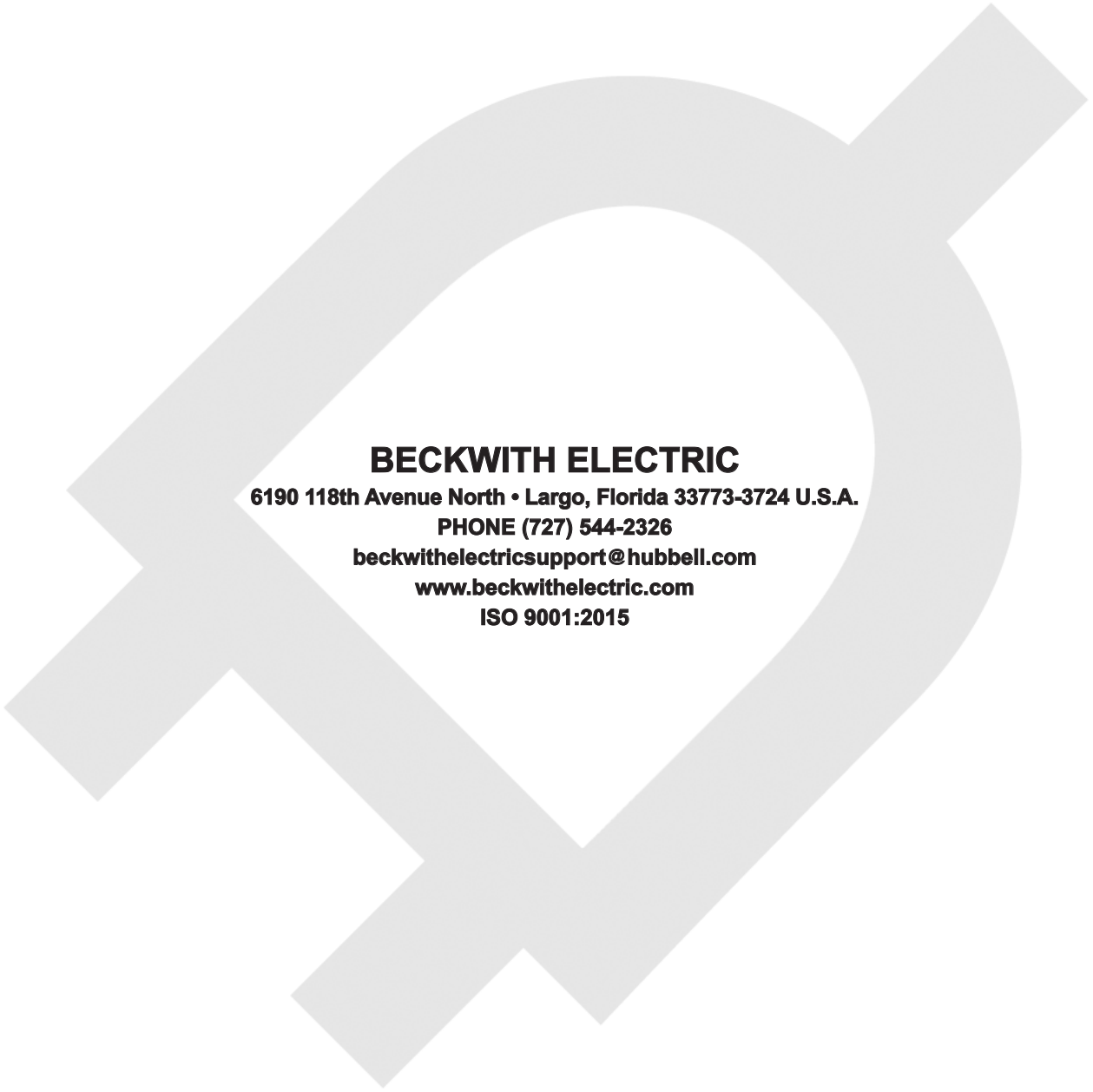
Table 19 User Access

User Access					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
4124	1	-	W	0-65535/1	USER ACC AUTH 32
4125	1	-	W	0-65535/1	USER ACC AUTH 33
4126	1	-	W	0-65535/1	USER ACC AUTH 34
4127	1	-	W	0-65535/1	USER ACC AUTH 35
4128	1	-	W	0-65535/1	USER ACC AUTH 36
4129	1	-	W	0-65535/1	USER ACC AUTH 37
4130	1	-	W	0-65535/1	USER ACC AUTH 38
4131	1	-	W	0-65535/1	USER ACC AUTH 39
4132	1	-	W	0-65535/1	USER ACC AUTH 40
4133	1	-	W	0-65535/1	USER ACC AUTH 41
4134	1	-	W	0-65535/1	USER ACC AUTH 42
4135	1	-	W	0-65535/1	USER ACC AUTH 43
4136	1	-	W	0-65535/1	USER ACC AUTH 44
4137	1	-	W	0-65535/1	USER ACC AUTH 45
4138	1	-	W	0-65535/1	USER ACC AUTH 46
4139	1	-	W	0-65535/1	USER ACC AUTH 47
4140	1	-	W	0-65535/1	USER ACC AUTH 48
4141	1	-	W	0-65535/1	USER ACC AUTH 49
4142	1	-	W	0-65535/1	USER ACC AUTH 50
4143	1	-	W	0-65535/1	USER ACC AUTH 51
4144	1	-	W	0-65535/1	USER ACC AUTH 52
4145	1	-	W	0-65535/1	USER ACC AUTH 53
4146	1	-	W	0-65535/1	USER ACC AUTH 54
4147	1	-	W	0-65535/1	USER ACC AUTH 55
4148	1	-	W	0-65535/1	USER ACC AUTH 56
4149	1	-	W	0-65535/1	USER ACC AUTH 57
4150	1	-	W	0-65535/1	USER ACC AUTH 58
4151	1	-	W	0-65535/1	USER ACC AUTH 59
4152	1	-	W	0-65535/1	USER ACC AUTH 60
4153	1	-	W	0-65535/1	USER ACC AUTH 61
4154	1	-	W	0-65535/1	USER ACC AUTH 62
4155	1	-	W	0-65535/1	USER ACC AUTH 63

Table 19 User Access

User Access					
MODBUS REGISTER	SCALE FACTOR	UNITS	RD/W	RANGE/ INCREMENT	DESCRIPTION
4156	1	-	W	0-65535/1	USER ACC CMD
4157	1	-	RD	0-65535/1	USER ACC STATUS
4158	1	-	RD	0-65535/1	USER ACCESS CFG MX

Table 19 User Access



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