

M-7679 R-PAC



Protection, Automation and Control System for Recloser, Switch, Sectionalizer and Advanced Distribution Automation Applications

Protection and Control

- Over 30 Protection Elements for optimal protection of Power Distribution Systems
- Compatible with Three-Phase Ganged (Std) and Independent Phase Capable Switching devices such as Reclosers, Switches, Sectionalizers and Breakers (Optional)
- Four (std) or Six (optional) Low Energy Analog (LEA) or VT voltage inputs
- Recloser Settings Wizard assists in creating file for most common settings for Recloser applications
- Comprehensive I/O Matrix provides visual confirmation of enabled functions and selected outputs improving security

Automation/Communications

- Pre-built functions for Advanced Distribution Automation Applications including Recloser, Switch, Sectionalizer, and Loop Schemes
- Comprehensive Embedded Cyber Security tools to implement NERC CIP requirements, including IPsec and Radius server security
- Front panel USB and SD Card ports for local programming and data transfer
- Optional single or dual Ethernet ports (copper or fiber) with simultaneous multi-user and multi-protocol support
- Protocols supported include:
 - MODBUS, DNP3.0
 - Optional: IEC 61850
 - Optional: IEC 60870-5-104
- IEEE 1686 Compliant
- One or two optional serial ports (TIA-232, TIA-485 or Serial Fiber)

IPScom® – Uncomplicated Software for Complex Power System Applications

- Integrated Metering, DFR and PQ Visualization Tools
- Search and filtering tools for analysis of SOE, DFR and PQ records
- IPSlogic Programmable Logic

Monitoring

- Recloser Status Monitoring tool displays real time reclosing sequence and fault clearing time
- Power Quality Monitoring up to the 63rd Harmonic including THD and TDD
- PQ Viewer (ITIC Curve)
- Sags, Swell and Sub-Synchronous Transient Detection
- Comprehensive suite of advanced diagnostic tools
- Advanced Data Logging and Load Profile Recorder
- 3500 Event Sequence of Events (SOE) Recorder
- 100 DFR quality records of up to 480 cycles with adjustable sampling rate up to 128 s/c

Flexibility

Two ways to upgrade your existing control:

- Beckwith Electric M-2979 Cabinet for replacement of select complete recloser or switch controls
- Beckwith Electric M-2400 series Adapters for retrofit of some of the most popular controls in the existing cabinet

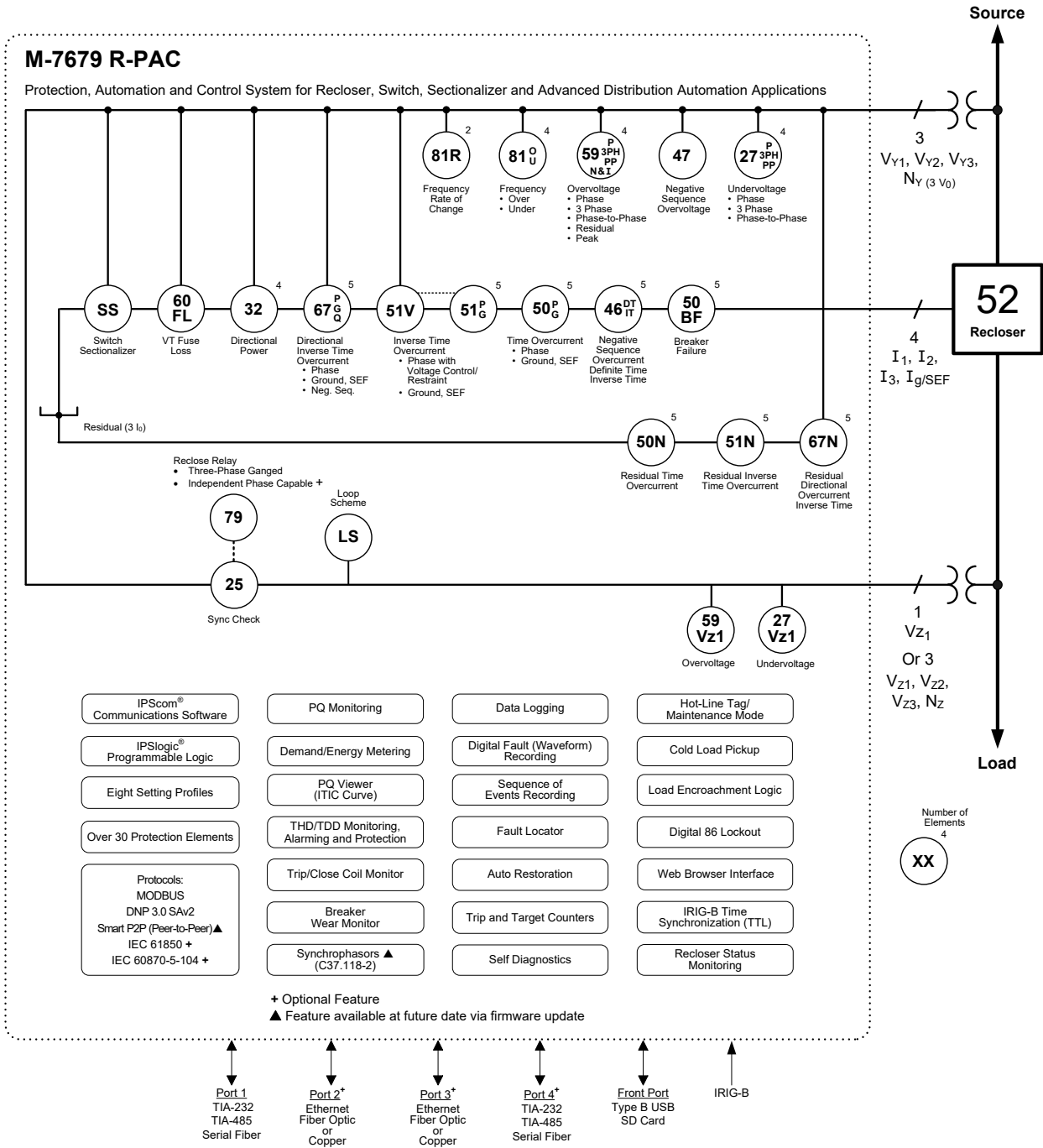


Figure 1 M-7679 R-PAC

Standard Control Features

- Over 30 protection functions
- Multi-Shot Auto Recloser, Three-Phase Reclose Operation
- Eight Setting Profiles
- Hot Line Tag
- Cold Load Pickup
- Load Encroachment Supervision
- Sequence Coordination
- Phantom Voltage
- Fault Locator
- Auto Restoration
- Three Phase Current Inputs plus one Ground or Sensitive Earth Current Input
- Three Phase Voltage Inputs plus one Sync Check Voltage Input
- Four User Programmable Digital Inputs
- Four User Programmable Digital Outputs
- Conformal Coated Circuit Boards
- Configurable Front HMI LEDs and Pushbuttons
- 12 Vdc Backup Power Input
- IPScm Communications Software
- IPSlogic Programmable Logic
- Reclosing Sequence Monitor and Recorder
- Recloser/Breaker Wear Monitor
- I/O Map
- Custom Curve Designer
- Compare Settings Tool
- Power Supply Monitor
- Trip/Close Coil Monitor
- Trip and Target Counters
- Digital Fault (Waveform) Recording
- Fault Event Records
- Synchrophasors (IEEE C37.118-2)▲
- Front Panel USB and SD Card ports
- IRIG-B Time Synchronization
- Custom DNP Mapping
- Port 1: Rear TIA-232
- Protocols Supported:
 - MODBUS
 - DNP3.0 SAV2
 - Smart P2P (Peer-To-Peer)▲
- IPsec (Internet Protocol Security)
- RADIUS Client Capability to manage local and remote access to the control
- Wide Variety of Communications Accessories
- Power Quality Monitoring
- ITIC Curve Violation Counters and Recording
- Data Logging
- THD/TDD Monitoring, Alarming and Protection
- Demand and Energy Metering
- Sequence of Events Recording
- Self-Diagnostics

▲ Feature available at future date via firmware update

M-7679 Mounting Options

M-2400 Series Adapters

The M-2400 Series Adapters allow a simple, easy installation of the M-7679 into an existing cabinet to retrofit the following controls:

- M-2406 to retrofit the Eaton Cooper Form 6 (for 14-Pin or 19-Pin reclosers)
- M-2410 to retrofit the SEL 351R-2
- M-2411 to retrofit the SEL 351P-3/Panacea

Please refer to the M-2400 Series Specifications for additional information and ordering options.

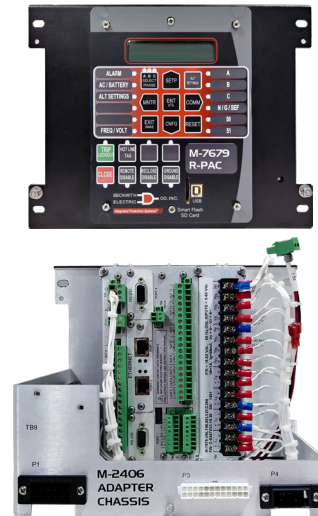


Figure 2 M-2406 Adapter Chassis

M-2979 Recloser Control Cabinet



Figure 3 M-2979 Recloser Control Cabinet

Please see the M-2979 Specification for additional information and ordering options.

