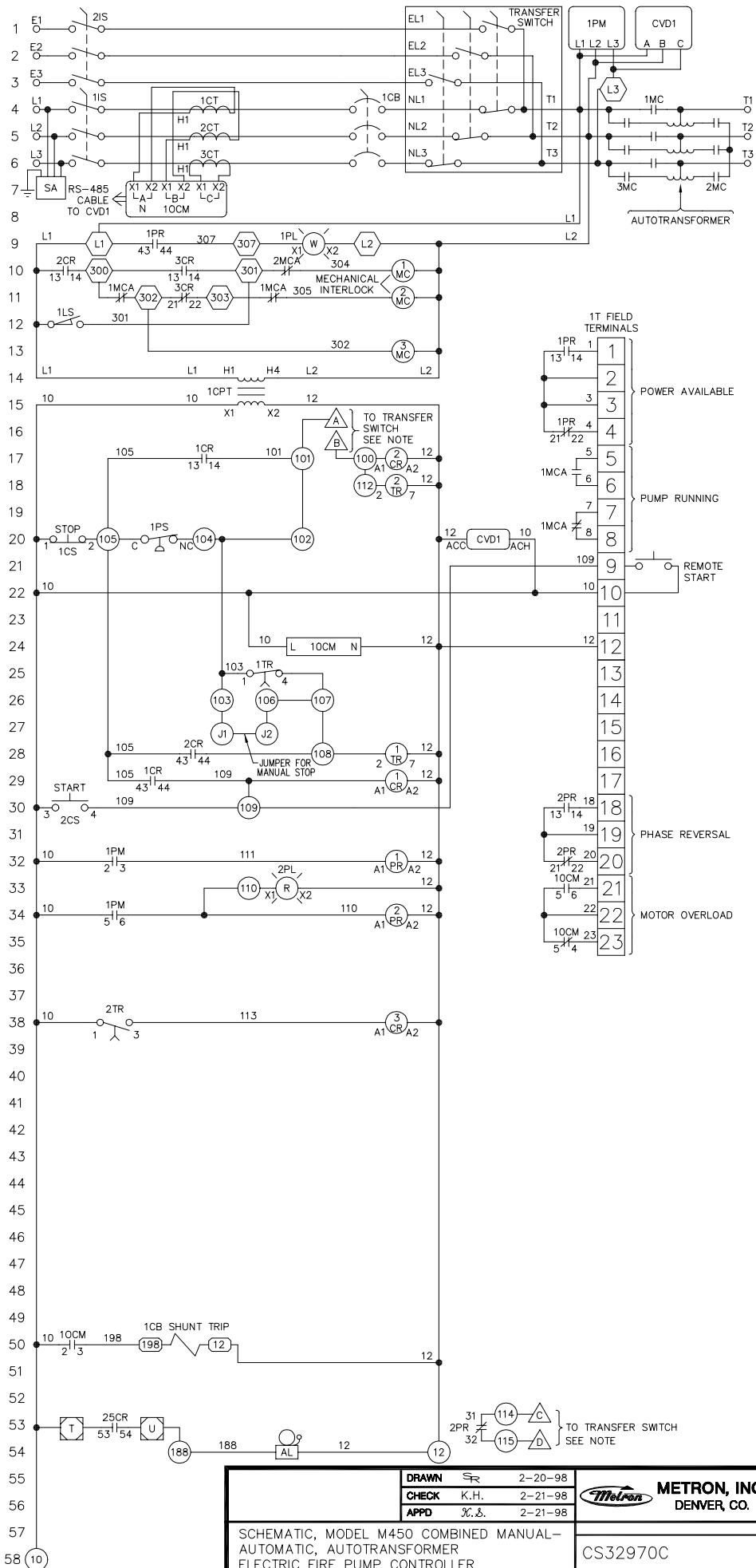


COMPONENTS	FUNCTION	LOCATION	CONTACTS
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1CR	MANUAL START RELAY	29	17,29
2CR	START RELAY	17	10,28
3CR	1MC DELAY RELAY	38	10,11
1PR	POWER FAILURE RELAY	32	9,13,16
2PR	PHASE REVERSAL RELAY	34	30,32,53
1TR	RUN PERIOD TIMER	28	25
2TR	1MC DELAY TIMER	18	38
1MC	RUN CONTACTOR 1	10	4,5,6
2MC	AUTOTRANSFORMER NEUTRAL CONT.	11	4,5,6
3MC	ACCELERATING CONTACTOR	13	4,5,6
10CM	OVERCURRENT MONITOR	7,24	33,35,50
1MCA	1MC AUXILIARY CONTACT	11,11,17,19	
2MCA	2MC AUXILIARY CONTACT	10	
1CS	STOP SWITCH	20	
2CS	START SWITCH	30	
1IS	NORMAL POWER ISOLATION SWITCH	4,5,6	
2IS	EMERGENCY POWER ISOLATION SW.	1,2,3	
1LS	EMERGENCY START LIMIT SWITCH	12	
1CB	CIRCUIT BREAKER	4,5,6	50
1PS	PRESSURE SWITCH	20	
1CPT	CONTROL POWER TRANSFORMER	14	
1PM	POWER MONITOR	1	32,34
AL	ALARM BELL	54	
1CT	CURRENT TRANSFORMER	4	
2CT	CURRENT TRANSFORMER	5	
3CT	CURRENT TRANSFORMER	6	
CVD1	NORM. CURRENT/VOLTAGE DISPLAY	1,20	
SA	SURGE ARRESTOR	7	
1PL	POWER ON LIGHT	9	
2PL	PHASE REVERSAL LIGHT	33	



NOTES FOR FIELD WIRING:  
 USE COPPER WIRING ONLY EXCEPT AT TERMINALS MARKED CU-AL. ALL 1T FIELD TERMINAL CONTACTS RATED 10A @ 600VAC.  
 □ DENOTES TERMINALS ON 1T TERMINAL STRIP  
 ○ DENOTES TERMINALS ON 2T TERMINAL STRIP  
 ○ DENOTES TERMINALS ON 3T TERMINAL STRIP  
 ○ DENOTES TERMINALS ON 4T TERMINAL STRIP  
 △ DENOTES MATCH POINT ON TRANSFER SWITCH SCHEMATIC LOCATED INSIDE TRANSFER SWITCH DOOR  
 □ DENOTES TERMINAL ON TRANSFER SWITCH SCHEMATIC

THERE IS A RS-485 CABLE THAT CONNECTS THE CVD TO THE OCM.

THE FOLLOWING TERMINAL JUMPERS ARE INSTALLED			
J-1-2	J-9-109	J-103-104	
J-1-103	J-10-10		
J-2-106	J-100-112		
	J-101-102	J-106-107	
J-2-3	J-12-12	J-102-103	J-107-108

DRAWN	SR	2-20-98
CHECK	K.H.	2-21-98
APPD	J.C.	2-21-98



SCHEMATIC, MODEL M450 COMBINED MANUAL-AUTOMATIC, AUTOTRANSFORMER ELECTRIC FIRE PUMP CONTROLLER WITH TRANSFER SWITCH - UTILITY/GEN-SET

CS32970C
SCALE N.T.S. SHEET 1 OF 1