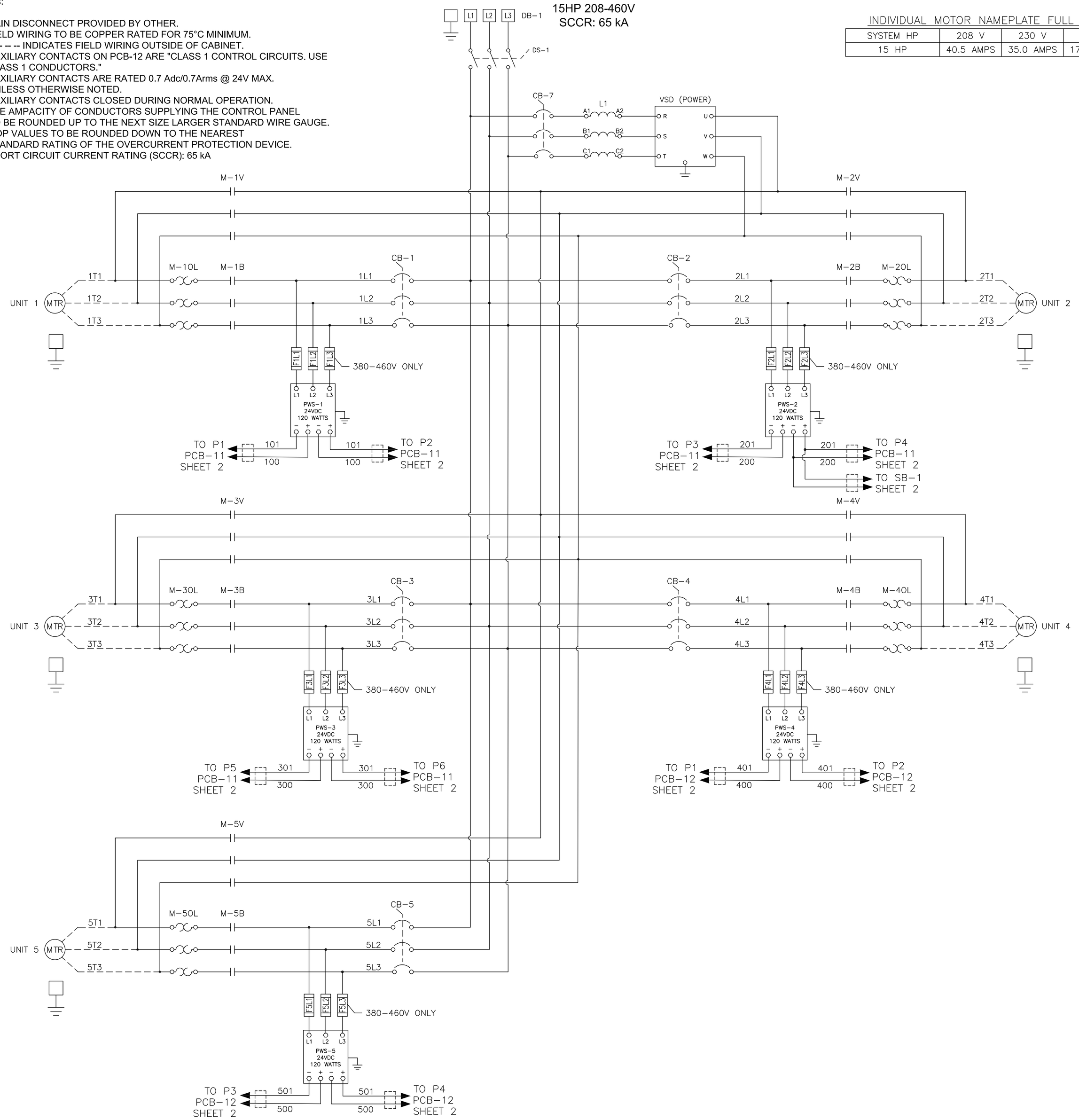
Notes:

1. MAIN DISCONNECT PROVIDED BY OTHER.
2. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.
3. -- -- -- -- INDICATES FIELD WIRING OUTSIDE OF CABINET.
4. AUXILIARY CONTACTS ON PCB-12 ARE "CLASS 1 CONTROL CIRCUITS. USE CLASS 1 CONDUCTORS."
5. AUXILIARY CONTACTS ARE RATED 0.7 Adc/0.7Arms @ 24V MAX. UNLESS OTHERWISE NOTED.
6. AUXILIARY CONTACTS CLOSED DURING NORMAL OPERATION.
7. THE AMPACITY OF CONDUCTORS SUPPLYING THE CONTROL PANEL TO BE ROUNDED UP TO THE NEXT SIZE LARGER STANDARD WIRE GAUGE.
8. MOP VALUES TO BE ROUNDED DOWN TO THE NEAREST STANDARD RATING OF THE OVERCURRENT PROTECTION DEVICE.
9. SHORT CIRCUIT CURRENT RATING (SCCR): 65 kA



INDIVIDUAL MOTOR NAMEPLATE FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	460 V	S.F.
15 HP	40.5 AMPS	35.0 AMPS	17.5 AMPS	1.15

380V/50Hz	S.F.
14.5 AMPS	1.15

INDIVIDUAL OPERATING FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
15 HP	40.5 AMPS	35.0 AMPS	14.5 AMPS	17.5 AMPS

DEFAULT VACUUM SETPOINT ("HgV)

ALTITUDE		O2 ASSURED
0-1000'	20	18
1001-2000'	19	17
2001-3000'	18	16
3001-4000'	17	16
>4000'	CONSULT FACTORY	

MINIMUM CIRCUIT AMPACITY (MCA)

SYSTEM HP	208 V	230 V	380 V	460 V
15 HP	246.9 AMPS	224.4 AMPS	144.9 AMPS	112.8 AMPS

RELIEF VALVE SETTINGS ("HgV)

ALTITUDE		O2 ASSURED
0-1000'	23	20
1001-2000'	22	19
2001-3000'	21	18
3001-4000'	20	18
>4000'	CONSULT FACTORY	

MAXIMUM OVERCURRENT PROTECTION (MOP)

SYSTEM HP	208 V	230 V	380 V	460 V
15 HP	288.8 AMPS	262.5 AMPS	168.8 AMPS	131.3 AMPS

PENTAPLEX SYSTEM FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
15 HP	206.0 AMPS	178.2 AMPS	75.0 AMPS	89.6 AMPS

FUSE SELECTION CHART (MAX FUSE SIZES SHOWN)

SYSTEM HP	FUSES	208 V	230 V	380 V	460 V
ALL	F1L1-F5L1 F1L2-F5L2	6.0 AMPS	6.0 AMPS	6.0 AMPS	6.0 AMPS
	F1L3-F5L3	---	---	6.0 AMPS	6.0 AMPS
	F1/F2/F3/F4 F5/F6	4.0 AMPS	4.0 AMPS	4.0 AMPS	4.0 AMPS
	F7/F8/F9/F10 F11/F12/F13	1.0 AMP	1.0 AMP	1.0 AMP	1.0 AMP
	F14	3.0 AMP	3.0 AMP	3.0 AMP	3.0 AMP

F1L1-F5L1/F1L2-F5L2/F1L3-F5L3 ARE LITTLEFUSE KLDR 600V TYPE
F1-F13 ARE SCHURTER UMT 250 TIME-LAG 250 VAC TYPE
F14 IS LITTELFUSE 2AG 250V TYPE

OVERLOAD SETTINGS

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
15 HP	44.6 AMPS	38.5 AMPS	16.0 AMPS	19.3 AMPS

AUTO OPERATION:

DURING NORMAL OPERATION, THE MASTER PCB WILL SIGNAL THE LEAD VACUUM PUMP TO START WHEN THE PRESSURE FALLS BELOW THE SET-POINT FOR THE LEAD PUMP. IF ONE PUMP CAN CARRY THE LOAD, THEN THE VACUUM WILL RISE TO THE SET-POINT. THE MASTER PCB WILL THEN SIGNAL THE PUMP PCB TO TURN OFF THE LEAD VACUUM PUMP WHEN ITS RUN TIMER EXPIRES. WHEN THE SYSTEM VACUUM DROPS AGAIN BELOW THE LEAD SET-POINT, THE MASTER PCB WILL SEQUENCE THE LEAD ROLE TO THE NEXT PUMP PCB AND IT WILL START. IF ANY LEAD PUMP RUNS FOR MORE THAN 17 MINUTES WITHOUT REACHING THE SET POINT, THE MASTER PCB WILL TURN OFF THE PUMP THAT IS RUNNING AND SEQUENCE TO THE NEXT PUMP. IF DURING OPERATION THE PRESSURE FALLS BELOW 15"Hg, THE LAG PUMP WILL START AND A LAG ALARM WILL OCCUR.

PUMP PCB S1 POSITION:

POSITION (A) - AUTO (DEFAULT):
THE PUMP WILL OPERATE NORMALLY AS DESCRIBED ABOVE IN "AUTO OPERATION".
POSITION (X) - OFF:
THE PUMP IS DISABLED FROM RUNNING.
POSITION (O) - MANUAL:
THE PUMP WILL RUN CONTINUOUSLY.

PCB FAULT:

IF A PUMP PCB FAULT OR A TRANSDUCER FAULT OCCURS, THE PUMP PCB WILL AUTOMATICALLY SWITCH TO MANUAL MODE. COMPRESSORS WILL START WHEN BVS-1 (BACKUP VACUUM SWITCH) CLOSES AND STOP WHEN IT OPENS AND THE RUN TIMER EXPIRES. PUMPS WILL NOT SEQUENCE IN THIS CONDITION AND CAN OPERATE UNTIL THE PCB OR TRANSDUCER FAULT IS REPAIRED.

BACKUP VACUUM SWITCH ("HgV)

			O2A
BVS-1	CUT-ON	15	14

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			D
Description: DWG WIRING CONTROL PX CLAW VSD 15HP GEN2 208-460/3/50-60, 65kA		Part Number: 4107 8581 35	
		DN: HOP230423	Rev: 00
		Sheet 1 of 4	DO NOT SCALE THIS DOCUMENT

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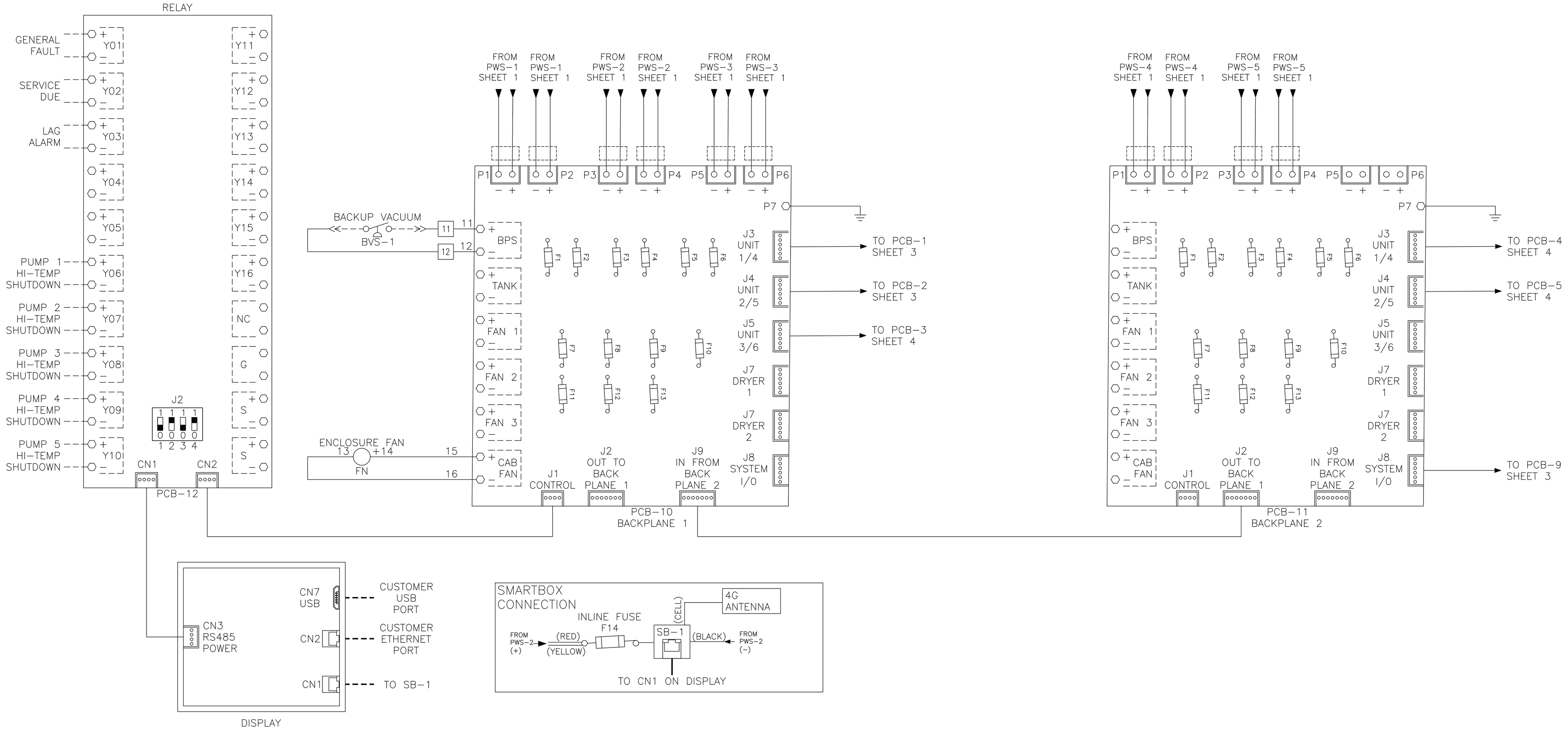

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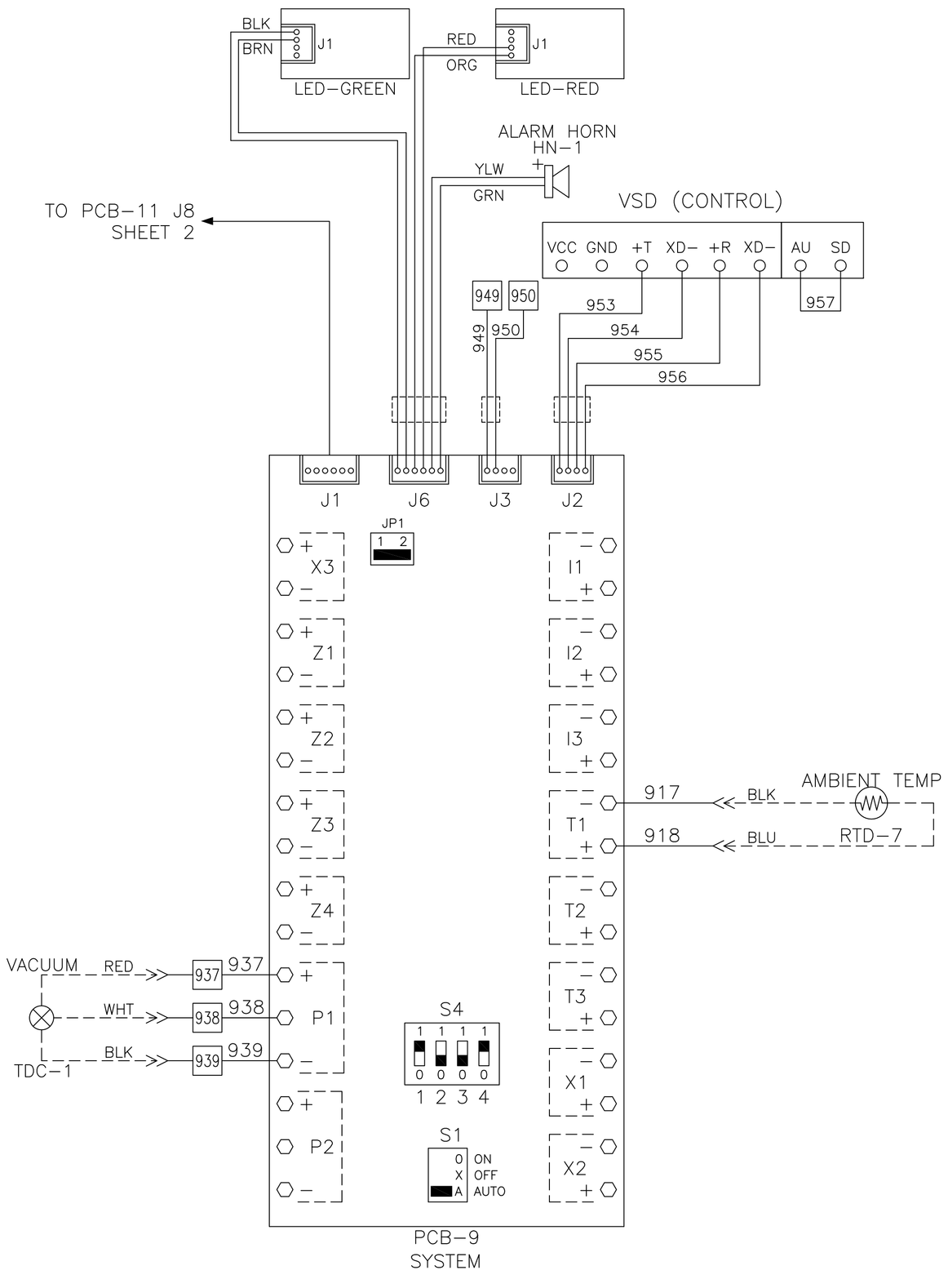

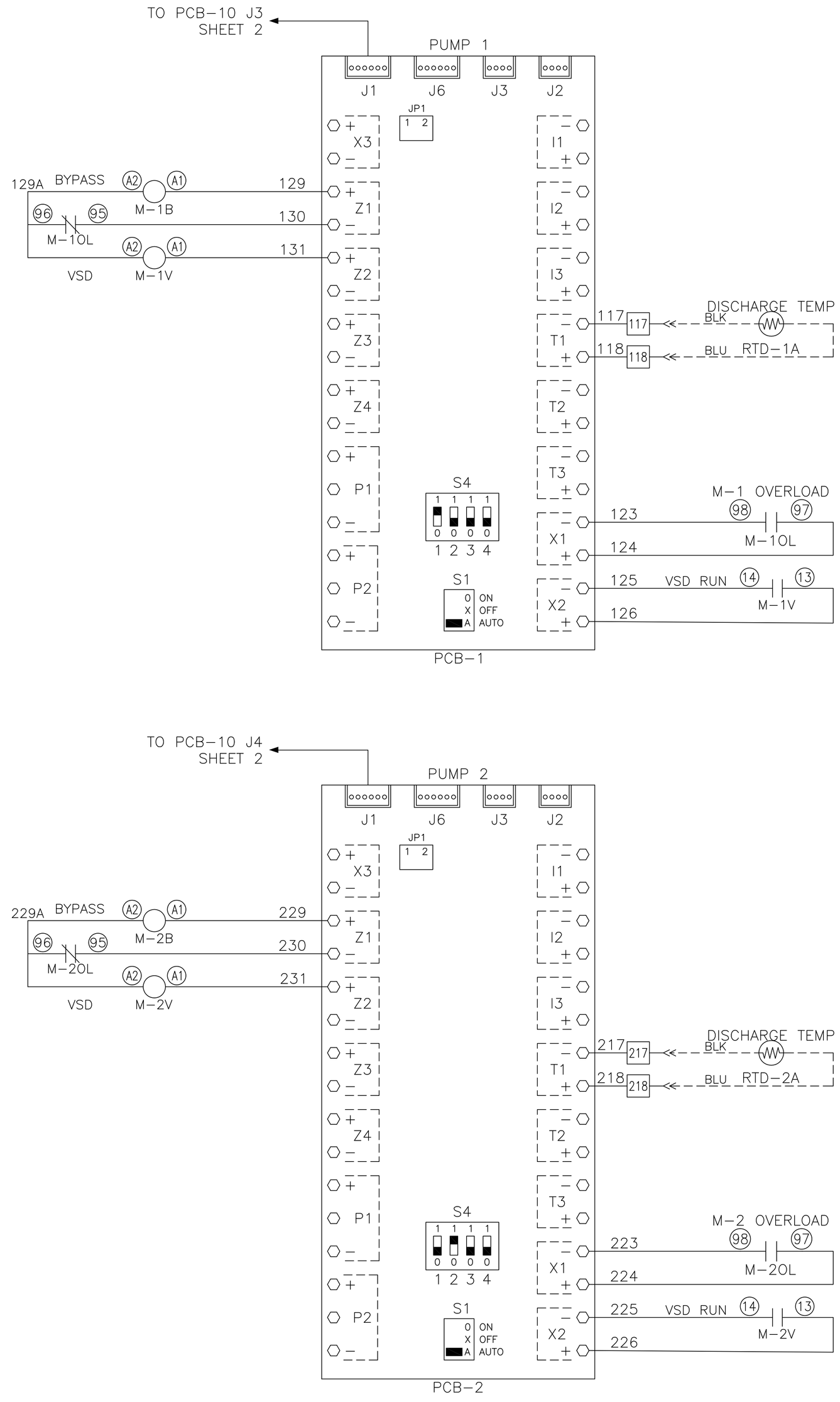

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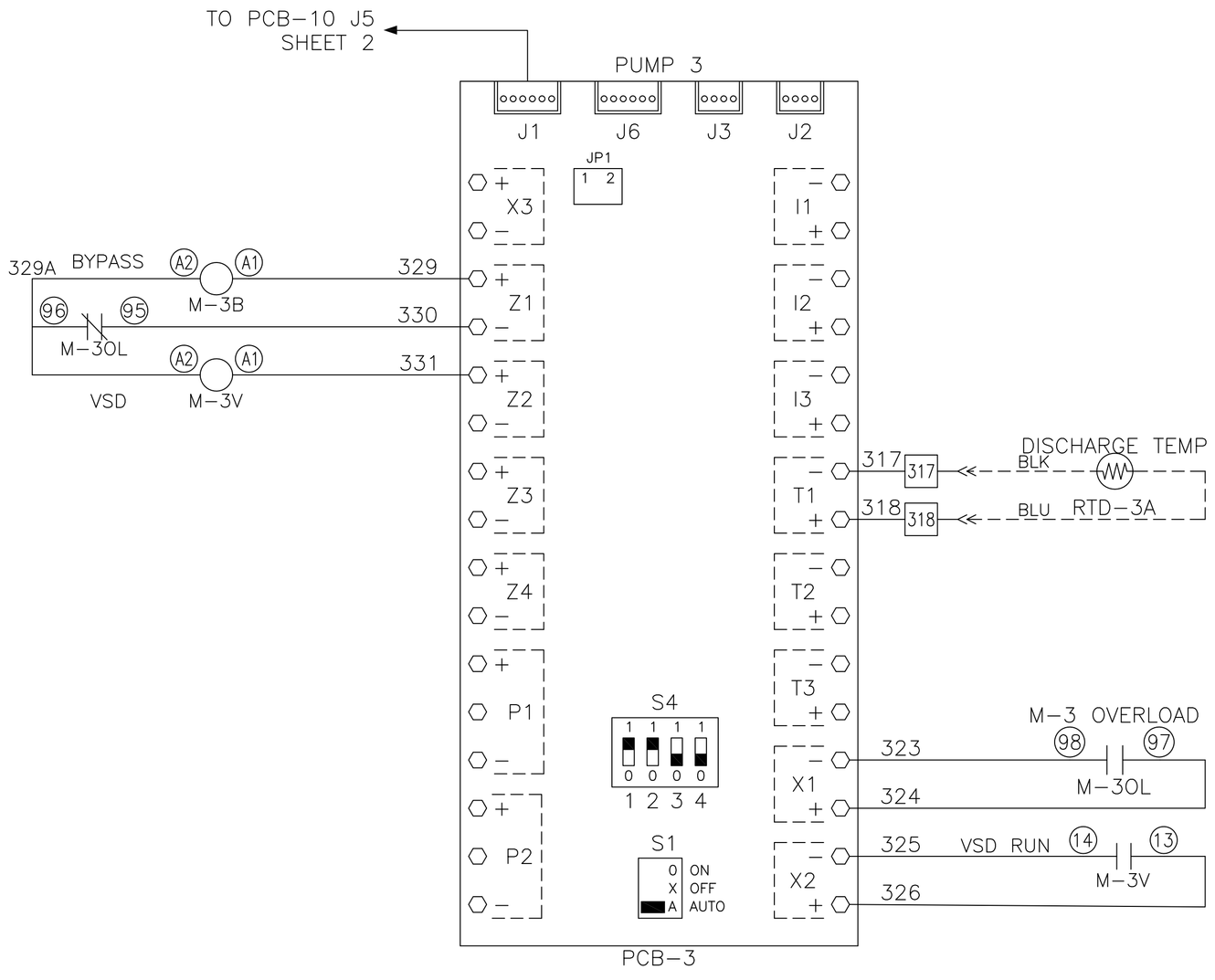

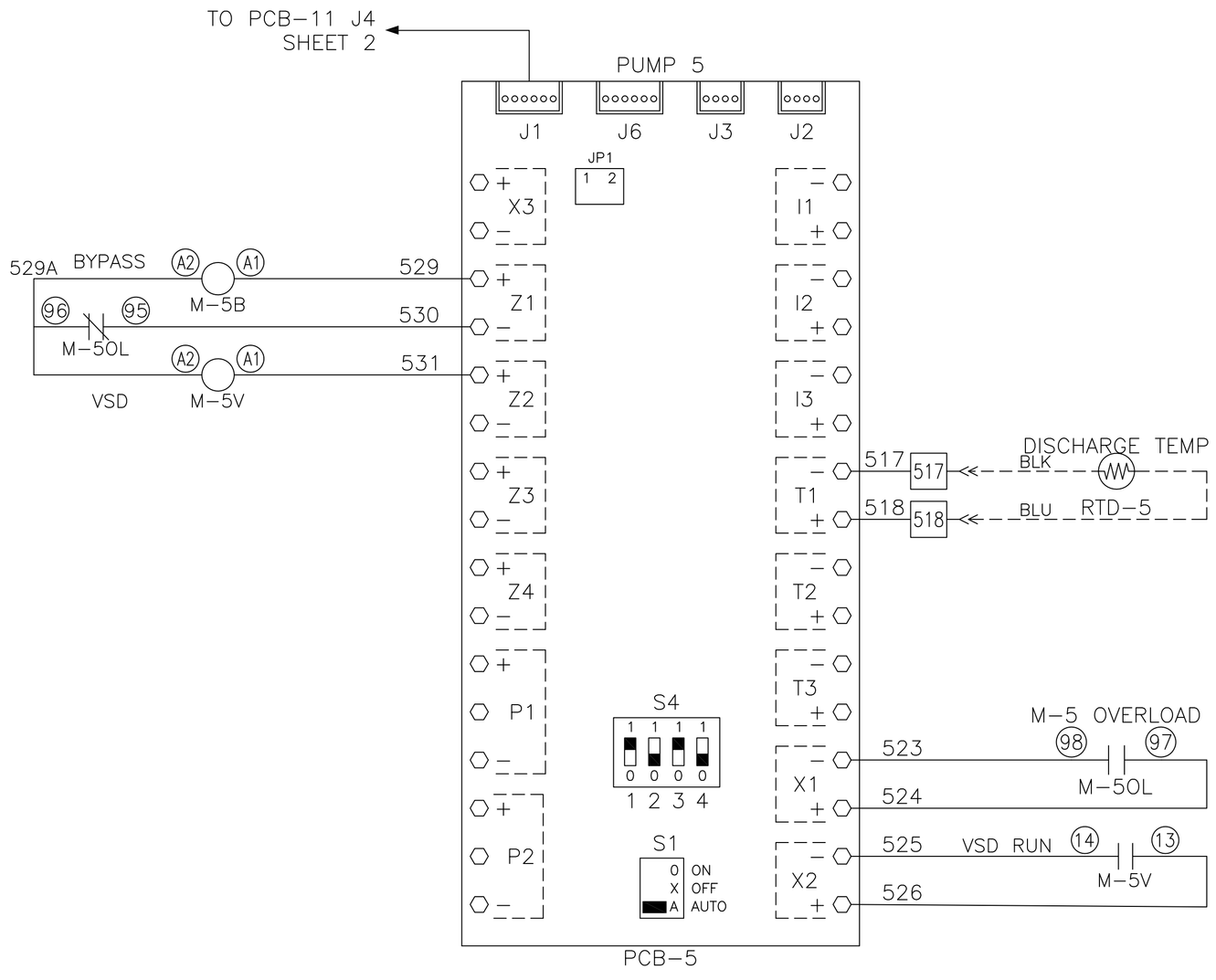

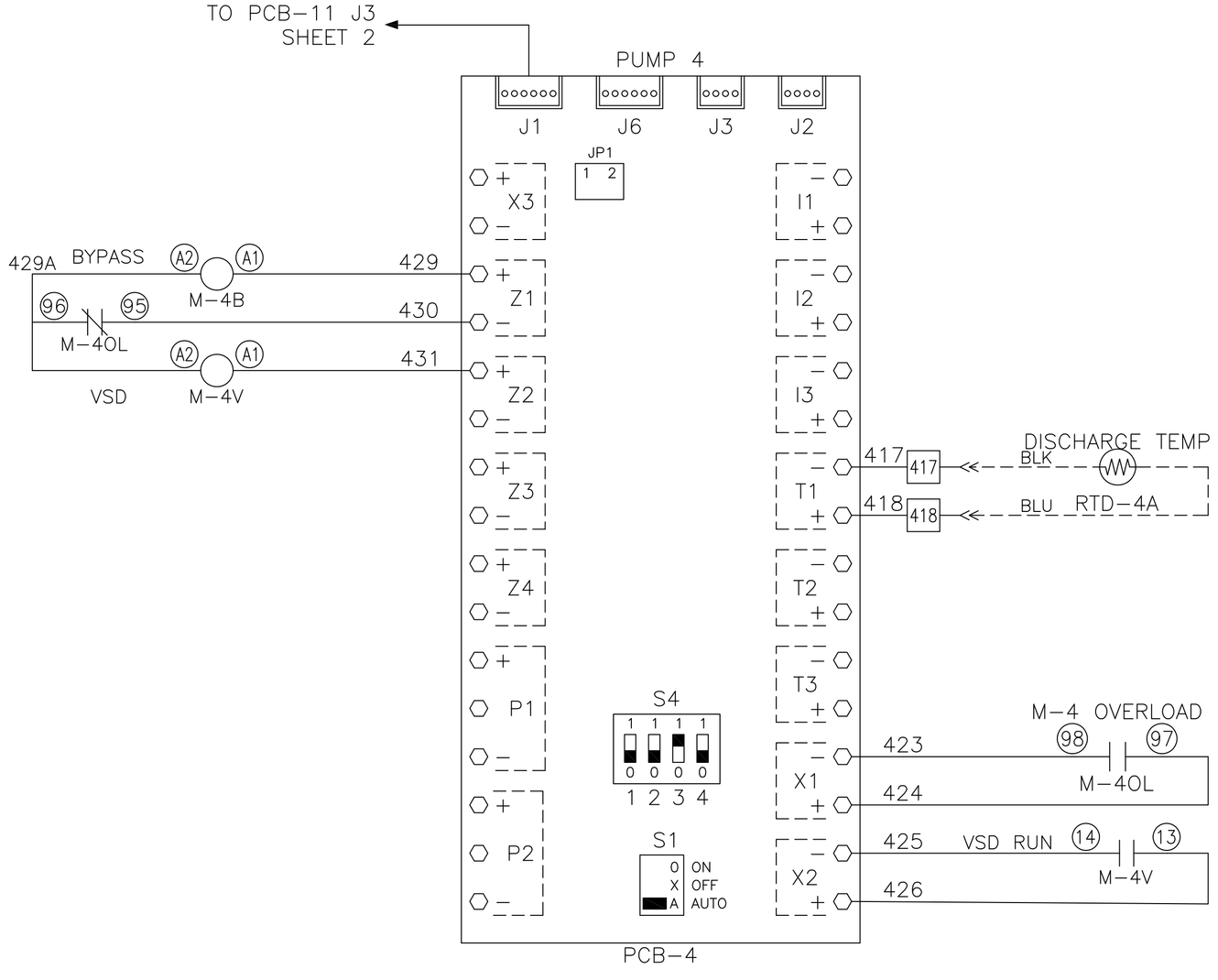

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