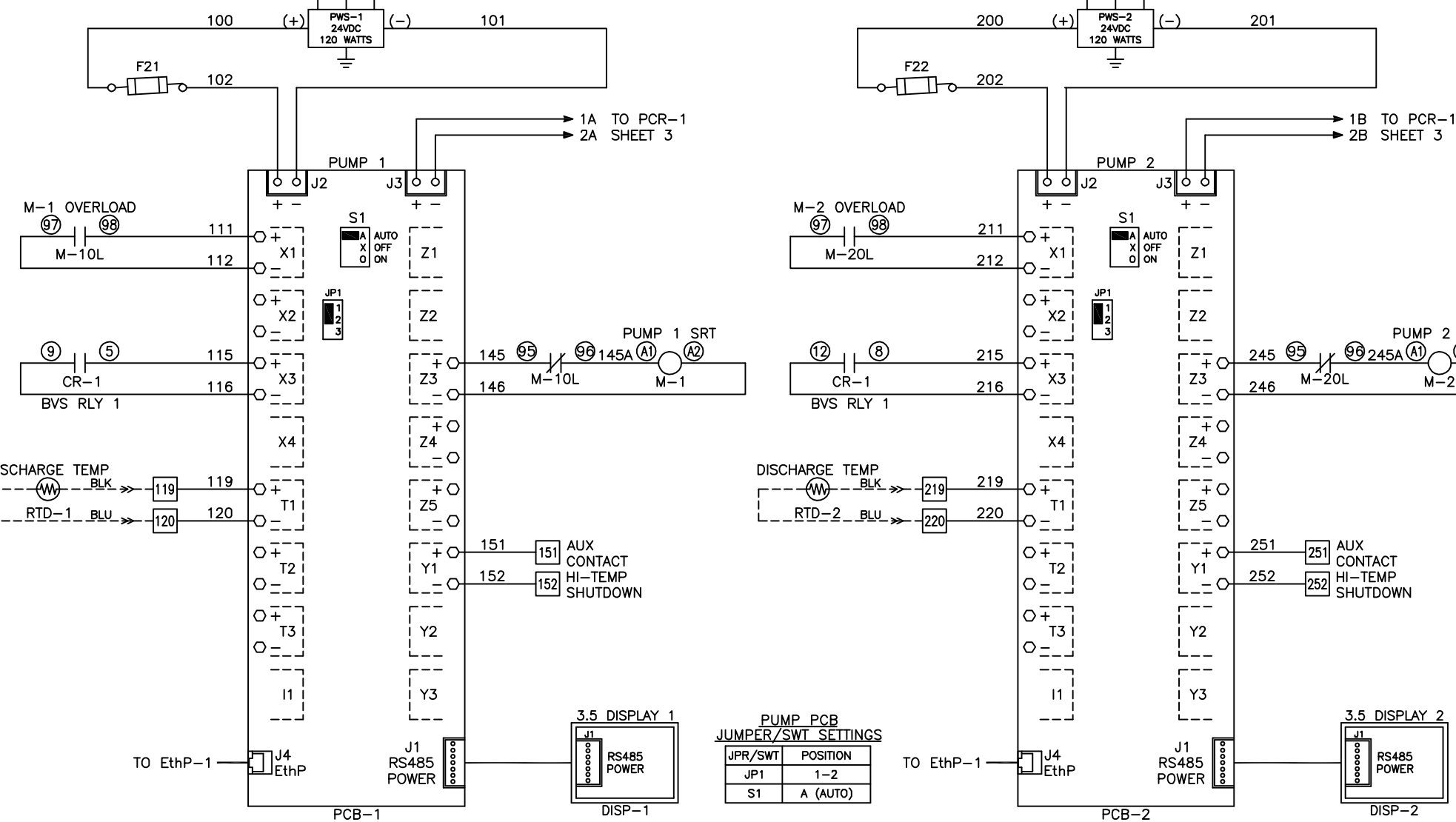
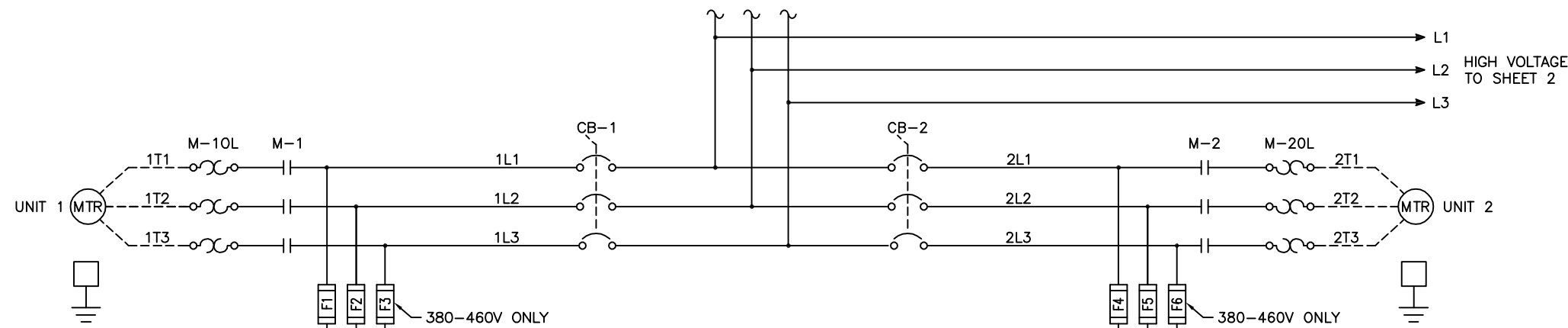
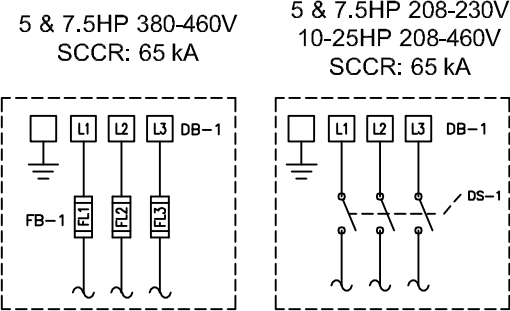


Notes:

1. MAIN DISCONNECT PROVIDED BY OTHERS.
2. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.
3. - - - - INDICATES FIELD WIRING OUTSIDE OF BOX.
4. AUXILIARY CONTACTS LIST AND OPERATION NOTES ON SHEET 3.
5. THE AMPACITY OF CONDUCTORS SUPPLYING THE CONTROL PANEL TO BE ROUNDED UP TO THE NEXT SIZE LARGER STANDARD WIRE GAUGE.
6. MOP VALUES TO BE ROUNDED DOWN TO THE NEAREST STANDARD RATING OF THE OVERCURRENT PROTECTION DEVICE.
7. SHORT CIRCUIT CURRENT RATING (SCCR): 65kA



PUMP PCB JUMPER/SWT SETTINGS

JPR/SWT	POSITION
JP1	1-2
S1	A (AUTO)

MINIMUM CIRCUIT AMPACITY (MCA)

SYSTEM HP	208 V	230 V	380 V	460 V
5 HP	74.5 AMPS	67.8 AMPS	43.7 AMPS	34.4 AMPS
7.5 HP	106.4 AMPS	96.7 AMPS	62.0 AMPS	48.8 AMPS
10 HP	134.4 AMPS	122.2 AMPS	79.0 AMPS	61.6 AMPS
15 HP	199.9 AMPS	181.7 AMPS	117.3 AMPS	91.3 AMPS
20 HP	256.0 AMPS	232.7 AMPS	147.0 AMPS	116.8 AMPS
25 HP	321.4 AMPS	292.2 AMPS	189.5 AMPS	146.6 AMPS

MAXIMUM OVERCURRENT PROTECTION (MOP)

SYSTEM HP	208 V	230 V	380 V	460 V
5 HP	87.7 AMPS	79.8 AMPS	50.9 AMPS	39.9 AMPS
7.5 HP	127.1 AMPS	115.5 AMPS	73.5 AMPS	57.8 AMPS
10 HP	161.7 AMPS	147.0 AMPS	94.5 AMPS	73.5 AMPS
15 HP	242.6 AMPS	220.5 AMPS	141.8 AMPS	110.3 AMPS
20 HP	311.9 AMPS	283.5 AMPS	178.5 AMPS	141.8 AMPS
25 HP	392.7 AMPS	357.0 AMPS	231.0 AMPS	178.5 AMPS

QUADRAPLEX SYSTEM FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
5 HP	62.0 AMPS	54.1 AMPS	33.0 AMPS	27.4 AMPS
7.5 HP	96.4 AMPS	89.7 AMPS	47.6 AMPS	45.2 AMPS
10 HP	136.4 AMPS	107.3 AMPS	55.2 AMPS	54.0 AMPS
15 HP	202.8 AMPS	152.1 AMPS	91.2 AMPS	76.4 AMPS
20 HP	250.8 AMPS	210.5 AMPS	114.0 AMPS	105.6 AMPS
25 HP	290.8 AMPS	250.5 AMPS	150.0 AMPS	125.6 AMPS

INDIVIDUAL FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
5 HP	14.8 AMPS	12.9 AMPS	7.7 AMPS	6.5 AMPS
7.5 HP	23.4 AMPS	21.8 AMPS	11.4 AMPS	10.9 AMPS
10 HP	33.4 AMPS	26.2 AMPS	13.3 AMPS	13.1 AMPS
15 HP	50.0 AMPS	37.4 AMPS	22.3 AMPS	18.7 AMPS
20 HP	62.0 AMPS	52.0 AMPS	28.0 AMPS	26.0 AMPS
25 HP	72.0 AMPS	62.0 AMPS	37.0 AMPS	31.0 AMPS

FUSE SELECTION CHART (MAX FUSE SIZES SHOWN)

SYSTEM HP	FUSES	208 V	230 V	380 V	460 V
5 HP	FL1/FL2/FL3	---	---	40 AMPS	35 AMPS
7.5 HP		---	---	60 AMPS	60 AMPS
10 HP		---	---	---	---
15 HP		---	---	---	---
20 HP		---	---	---	---
25 HP	---	---	---	---	
ALL	F1/F2/F4/F5/F7/F8/F10/F11	6.0 AMPS	6.0 AMPS	6.0 AMPS	6.0 AMPS
	F3/F6/F9/F12	---	---	6.0 AMPS	6.0 AMPS
1.5-20HP	F21-F24	2.5 AMPS	2.5 AMPS	2.5 AMPS	2.5 AMPS
25HP		4.0 AMPS	4.0 AMPS	4.0 AMPS	4.0 AMPS
ALL	F33	1.0 AMPS	1.0 AMPS	1.0 AMPS	1.0 AMPS
ALL	F35	0.5 AMPS	0.5 AMPS	0.5 AMPS	0.5 AMPS

FL1/FL2/FL3 ARE LITTELFUSE JTD 600V TYPE
 F1-F12 ARE LITTELFUSE KLDK 600V TYPE
 F21-F24/F33/F35 ARE LITTELFUSE 2AG 250V TYPE

DEFAULT VACUUM SETTINGS

ALTITUDE	LEAD CUT-OFF ("Hg)	LAG CUT-ON ("Hg)	Maximum Limits ("Hg)		Minimum Limits ("Hg)	
0-3000'	25	19	25	22	21	16
3001-4000'	24	19	25	22	21	16
4001-5000'	23	18	25	22	21	16
5001-6000'	22	18	24	21	20	16
6001-7000'	21	17	23	20	19	16
7001-8000'	20	17	22	20	19	16
8001-9000'	19	16	21	19	18	16
9001-10,000'	18	16	20	19	18	16
>10,000'	CONSULT FACTORY					

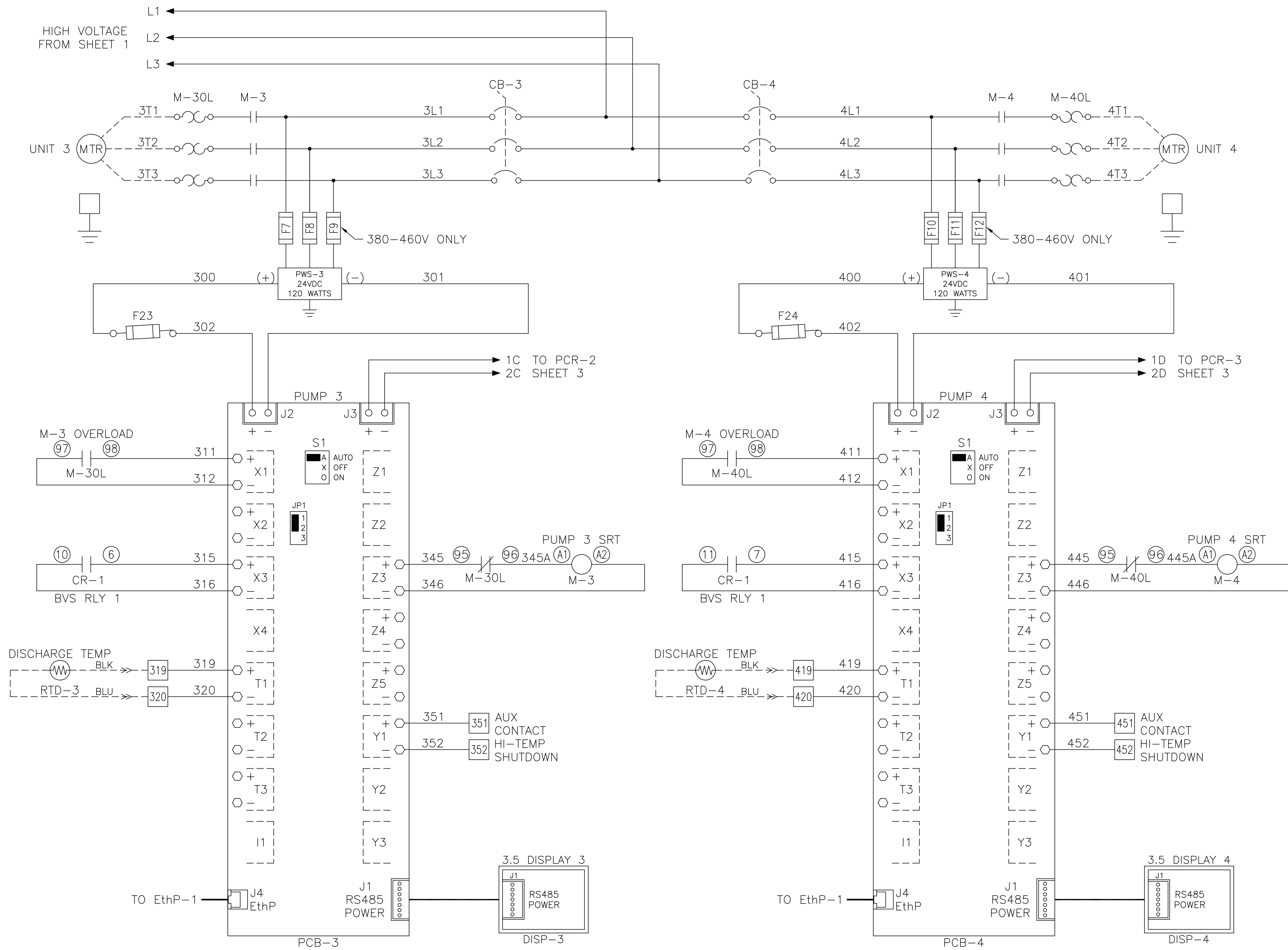
BACKUP VACUUM SWITCH

BVS-1	CUT-ON	15"
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Revised:	Date:	Drawn:	MDB	Date:	10/30/18
		<small>This drawing and the information contained therein are the property of BeaconMedias and may not be used for other than the purpose for which it is issued without the express written permission from BeaconMedias Engineering.</small>			
Scale:	NTS				
Part Number:	4107 8568 61				
DWG WIRING CONTROL	QX LUBE 5-25HP 208-460V	65kA	Rev:	00	
Sheet 1 of 3	DOCUMENT				

Notes:

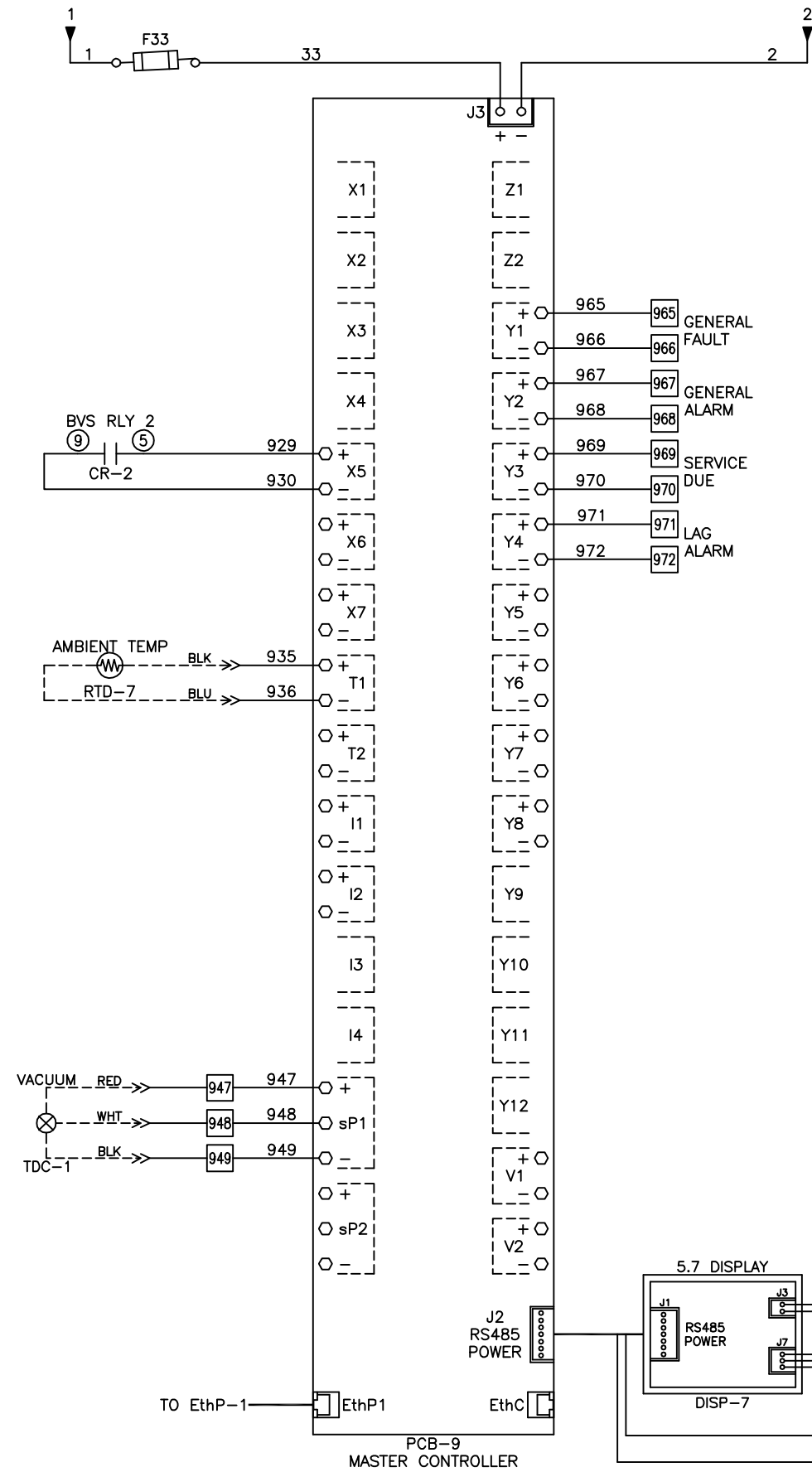
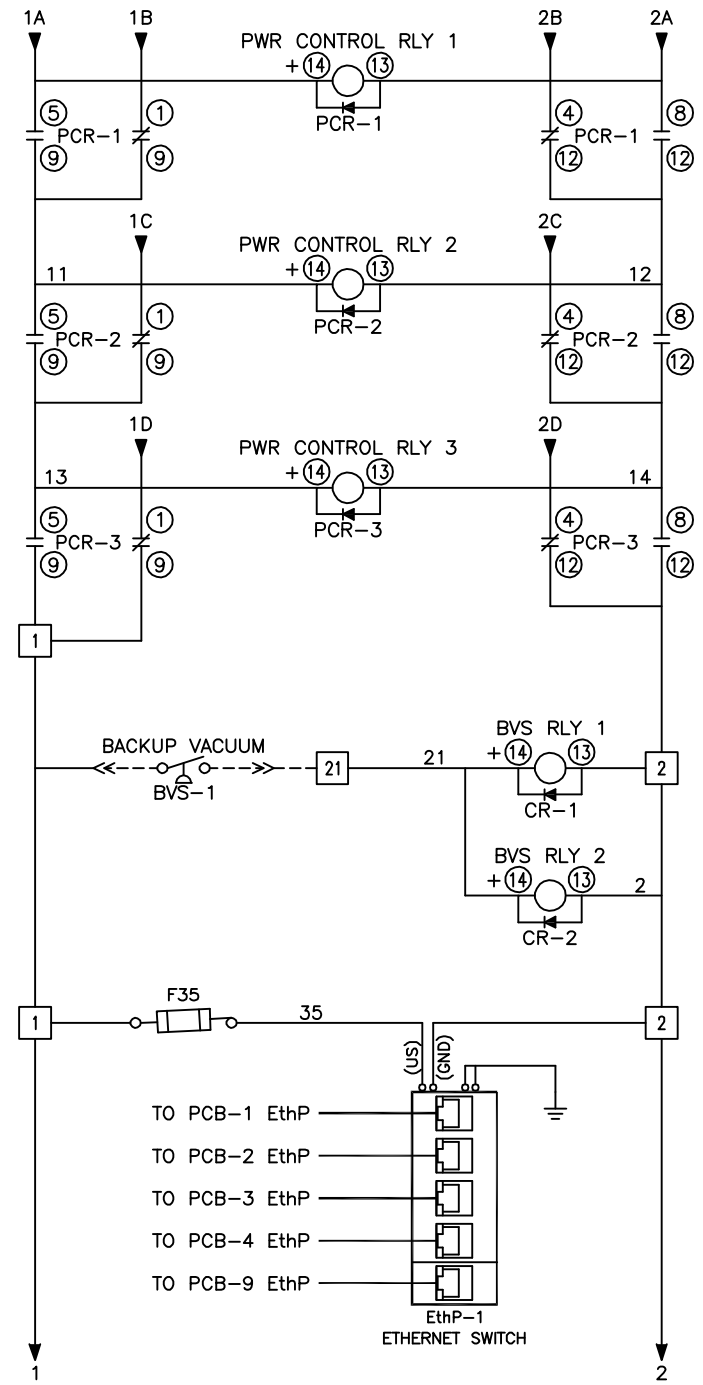
1. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.



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BEACONMEDIAS					D
Description:		Part Number:			
DWG WIRING CONTROL QX LUBE 5-15HP 208-460V & 20-25HP 380-460V, 65kA		4107 8568 61			
DN:	HOP 180863	Rev:	00		
Sheet 2 of 3			DO NOT SCALE THIS DOCUMENT		

Notes:

1. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.



AUTO OPERATION:

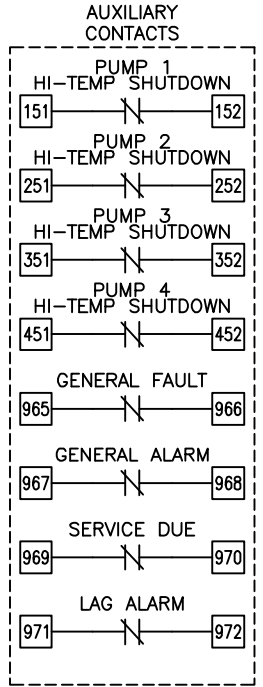
THE MASTER PCB WILL CONTROL THE ADAPTIVE FUNCTIONALITY OF THE SYSTEM. THE ADAPTIVE CONTROL CAUSES THE VACUUM PUMPS TO START BASED ON THE VACUUM LEVEL. THE SIGNAL TO STOP IS BASED ON THE LENGTH OF TIME THE VACUUM SYSTEM WAS NOT RUNNING. THE MASTER PCB DETERMINES THE MINIMUM RUN TIME OF A PUMP ONCE IT HAS STOPPED. IF THE VACUUM SYSTEM IS STOPPED FOR A LONG PERIOD OF TIME, THE MINIMUM RUN TIME AFTER A RESTART WILL BE SHORT. IF THE VACUUM SYSTEM IS NOT RUNNING FOR A SHORT PERIOD OF TIME, THE MINIMUM RUN TIME WILL BE LONGER. SEE O&M MANUAL FOR SPECIFIC VARIATIONS. IF DURING OPERATION THE FOURTH VACUUM PUMP IS REQUIRED TO TURN ON, THE MASTER CONTROLLER WILL SET A LAG ALARM CONDITION.

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:

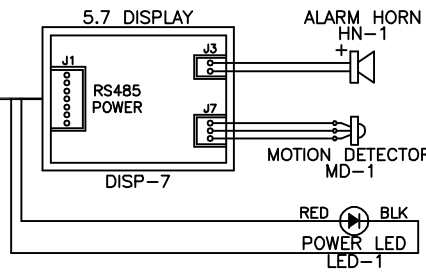
IF A PUMP PCB ETHERNET FAULT OR A TRANSDUCER FAULT OCCURS, THE PUMP PCB WILL AUTOMATICALLY SWITCH TO MANUAL MODE. VACUUM PUMPS WILL START WHEN BVS-1 (BACKUP VACUUM SWITCH) CLOSES AND STOP WHEN IT OPENS. COMPRESSORS WILL NOT SEQUENCE IN THIS CONDITION AND CAN OPERATE UNTIL THE ETHERNET OR TRANSDUCER FAULT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



NOTE:
AUXILIARY CONTACTS 151-152, 251-252, 351-352, 451-452, & 965-972 ARE "CLASS 1 CONTROL CIRCUITS. USE CLASS 1 CONDUCTORS."

AUX CONTACTS ARE RATED 0.7Adc/0.7Arms @ 24V MAX. UNLESS OTHERWISE NOTED.

AUX CONTACTS CLOSED DURING NORMAL OPERATION.



NOTE: RED WIRE TO GOLD TERMINAL ON LED-1.

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BEACONMEDICS			D		
Description: DWG WIRING CONTROL QX LUBE 5-15HP 208-460V & 20-25HP 380-460V, 65kA		Part Number: 4107 8568 61		Scale: NTS	
Drawn: HOP 180863		Rev: 00		Sheet 3 of 3	