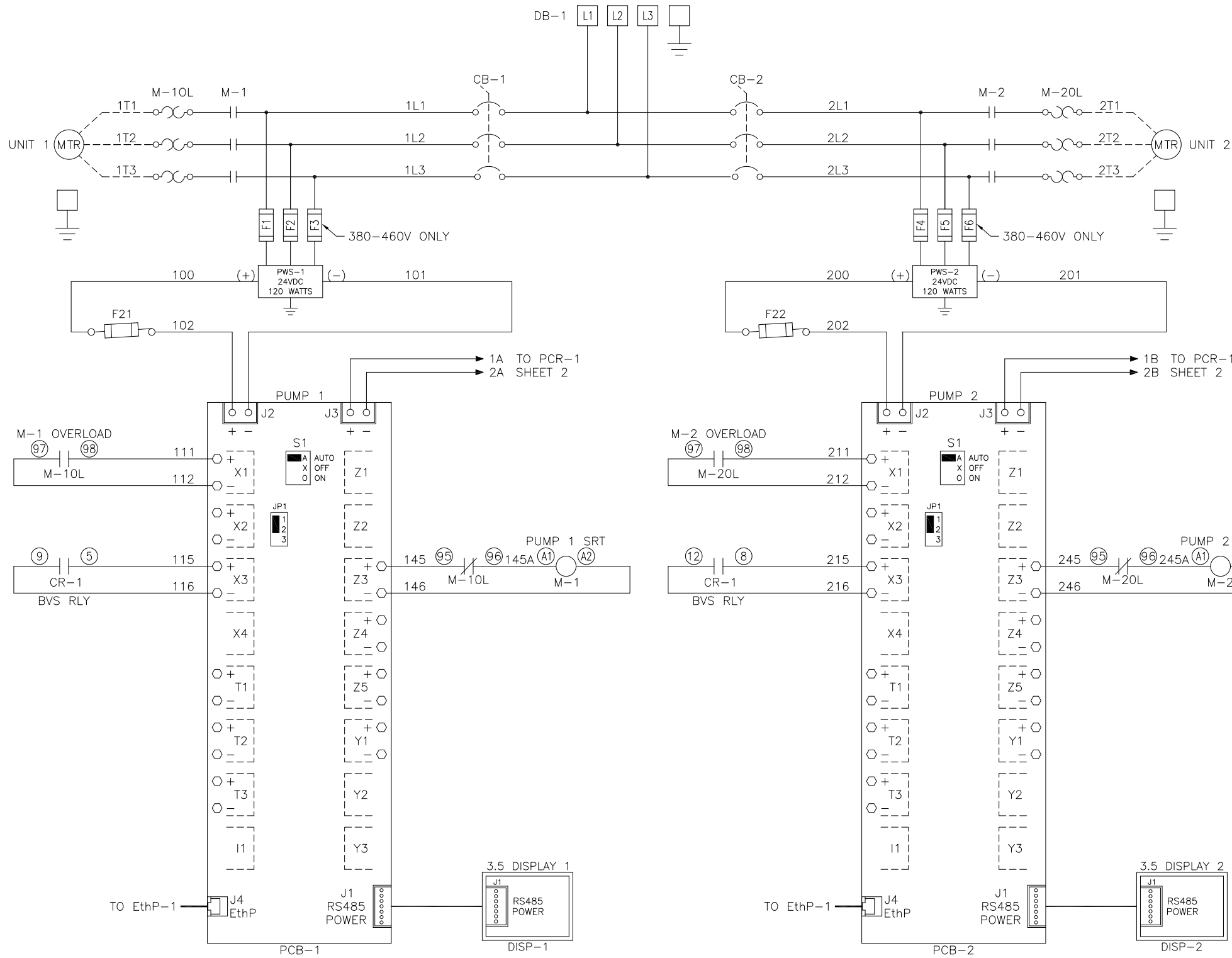


Notes:

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 2.
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): 5kA

208-460V
3Ø
50/60 Hz
SCCR: 5kA



MINIMUM CIRCUIT AMPACITY (MCA)

| SYSTEM HP | 208 V | 230 V | 380/400 V | 460 V |
|-----------|-----------|-----------|-----------|-----------|
| 1.5 HP | 16.6 AMPS | 15.1 AMPS | 8.7 AMPS | 7.8 AMPS |
| 2 HP | 18.6 AMPS | 16.9 AMPS | 10.9 AMPS | 8.7 AMPS |
| 3 HP | 25.6 AMPS | 23.2 AMPS | 15.0 AMPS | 11.8 AMPS |
| 5 HP | 41.2 AMPS | 35.8 AMPS | 23.1 AMPS | 18.1 AMPS |
| 7.5 HP | 55.8 AMPS | 50.6 AMPS | --- | 25.4 AMPS |
| 10 HP | 68.8 AMPS | 66.8 AMPS | --- | 36.4 AMPS |

MAXIMUM OVERCURRENT PROTECTION (MOP)

| SYSTEM HP | 208 V | 230 V | 380/400 V | 460 V |
|-----------|-----------|-----------|-----------|-----------|
| 1.5 HP | 21.5 AMPS | 19.5 AMPS | 10.7 AMPS | 9.8 AMPS |
| 2 HP | 24.4 AMPS | 22.1 AMPS | 14.0 AMPS | 11.1 AMPS |
| 3 HP | 34.5 AMPS | 31.2 AMPS | 19.8 AMPS | 15.6 AMPS |
| 5 HP | 56.8 AMPS | 49.4 AMPS | 31.5 AMPS | 24.7 AMPS |
| 7.5 HP | 82.2 AMPS | 71.5 AMPS | --- | 35.8 AMPS |
| 10 HP | 97.5 AMPS | 94.9 AMPS | --- | 51.6 AMPS |

DUPLEX SYSTEM FULL LOAD AMPERES

| SYSTEM HP | 208 V | 230 V | 380V/50Hz | 460 V |
|-----------|-----------|-----------|-----------|-----------|
| 1.5 HP | 11.8 AMPS | 11.3 AMPS | 7.2 AMPS | 6.2 AMPS |
| 2 HP | 15.6 AMPS | 14.2 AMPS | 7.6 AMPS | 7.4 AMPS |
| 3 HP | 21.0 AMPS | 20.1 AMPS | 10.4 AMPS | 10.2 AMPS |
| 5 HP | 36.0 AMPS | 34.9 AMPS | 19.4 AMPS | 15.9 AMPS |
| 7.5 HP | 43.4 AMPS | 40.6 AMPS | --- | 20.6 AMPS |
| 10 HP | 58.4 AMPS | 52.9 AMPS | --- | 26.7 AMPS |

INDIVIDUAL FULL LOAD AMPERES

| SYSTEM HP | 208 V | 230 V | 380V/50Hz | 460 V |
|-----------|-----------|-----------|-----------|-----------|
| 1.5 HP | 5.2 AMPS | 5.0 AMPS | 3.1 AMPS | 2.7 AMPS |
| 2 HP | 7.1 AMPS | 6.5 AMPS | 3.3 AMPS | 3.3 AMPS |
| 3 HP | 9.8 AMPS | 9.4 AMPS | 4.7 AMPS | 4.7 AMPS |
| 5 HP | 17.3 AMPS | 16.8 AMPS | 9.2 AMPS | 7.5 AMPS |
| 7.5 HP | 21.0 AMPS | 19.6 AMPS | --- | 9.8 AMPS |
| 10 HP | 28.5 AMPS | 25.8 AMPS | --- | 12.9 AMPS |

FUSE SELECTION CHART (MAX FUSE SIZES SHOWN)

| HP | FUSES | 208 V | 230 V | 380 V | 460 V |
|-----|-------------|---------|---------|---------|---------|
| ALL | F1/F2/F4/F5 | 6 AMP | 6 AMP | 6 AMP | 6 AMP |
| | F3/F6 | --- | --- | 6 AMP | 6 AMP |
| | F21/F22 | 2.5 AMP | 2.5 AMP | 2.5 AMP | 2.5 AMP |
| | F33 | 1.0 AMP | 1.0 AMP | 1.0 AMP | 1.0 AMP |
| | F35 | 0.5 AMP | 0.5 AMP | 0.5 AMP | 0.5 AMP |

F1-F6 ARE LITTELFUSE KLDK 600V TYPE
F21/F22/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'-1000' | 21" | 16" | 25" | 18" |
| 1001'-2000' | 20" | 16" | 24" | 18" |
| 2001'-3000' | 19" | 16" | 23" | 18" |
| 3001'-4000' | 18" | 16" | 22" | 18" |
| >4,000' | CONSULT FACTORY | | | |

RELIEF VALVE SETTINGS ("HgV)

| ALTITUDE | 1.5-2HP | 3-5HP | 7.5HP | 8.6HP |
|-------------|-----------------|-------|-------|-------|
| 0'-1000' | 25 | 26 | 21.5 | 23 |
| 1001'-2000' | 24 | 25 | 20.5 | 22 |
| 2001'-3000' | 23 | 24 | 19.5 | 21 |
| 3001'-4000' | 22 | 23 | 18.5 | 20 |
| >4000' | CONSULT FACTORY | | | |

BACKUP VACUUM SWITCH

| | | |
|-------|--------|-----|
| BVS-1 | CUT-ON | 15" |
|-------|--------|-----|

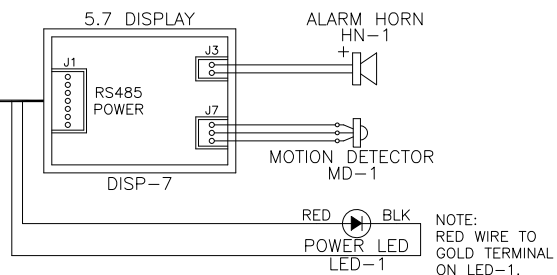
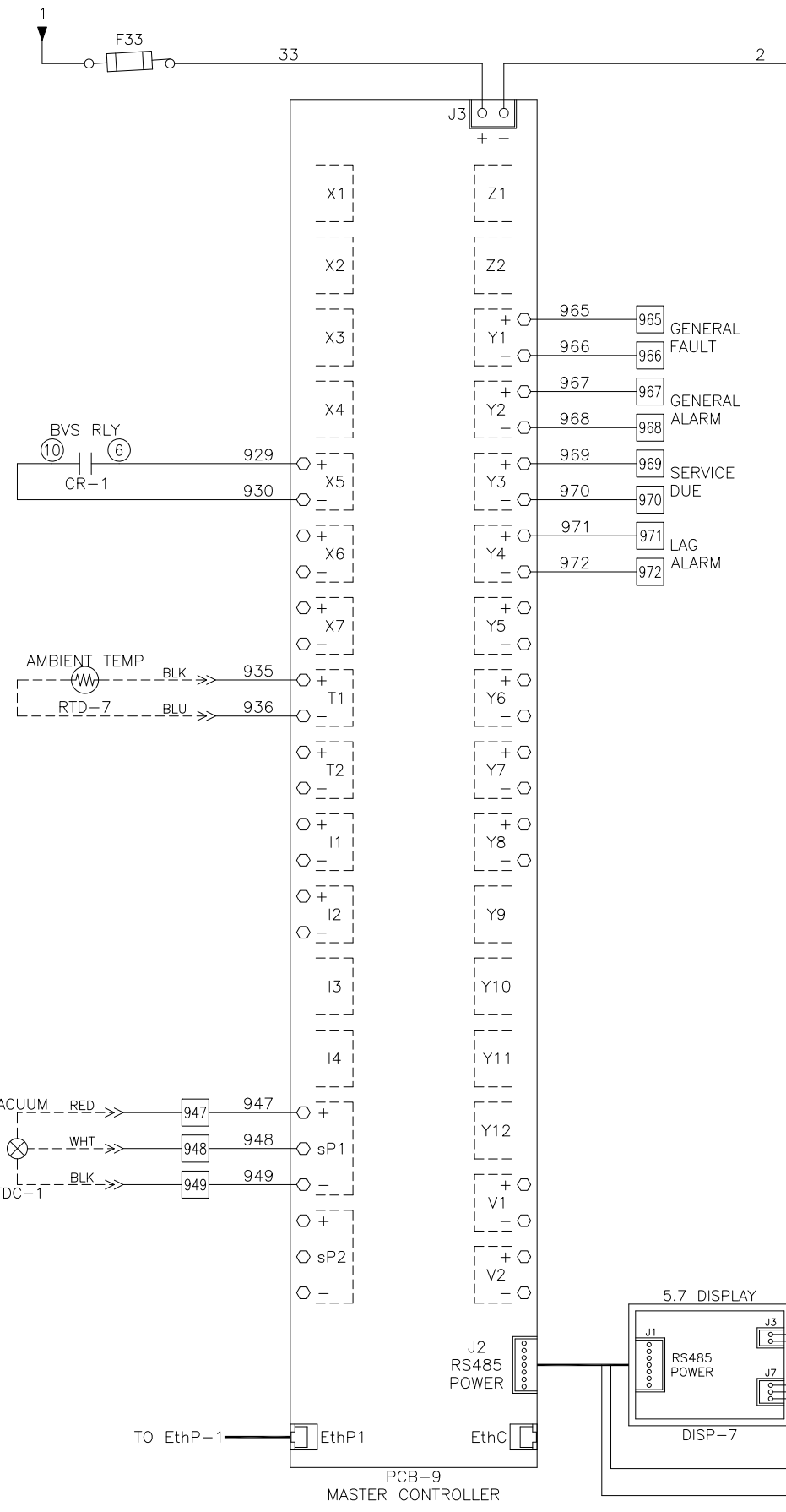
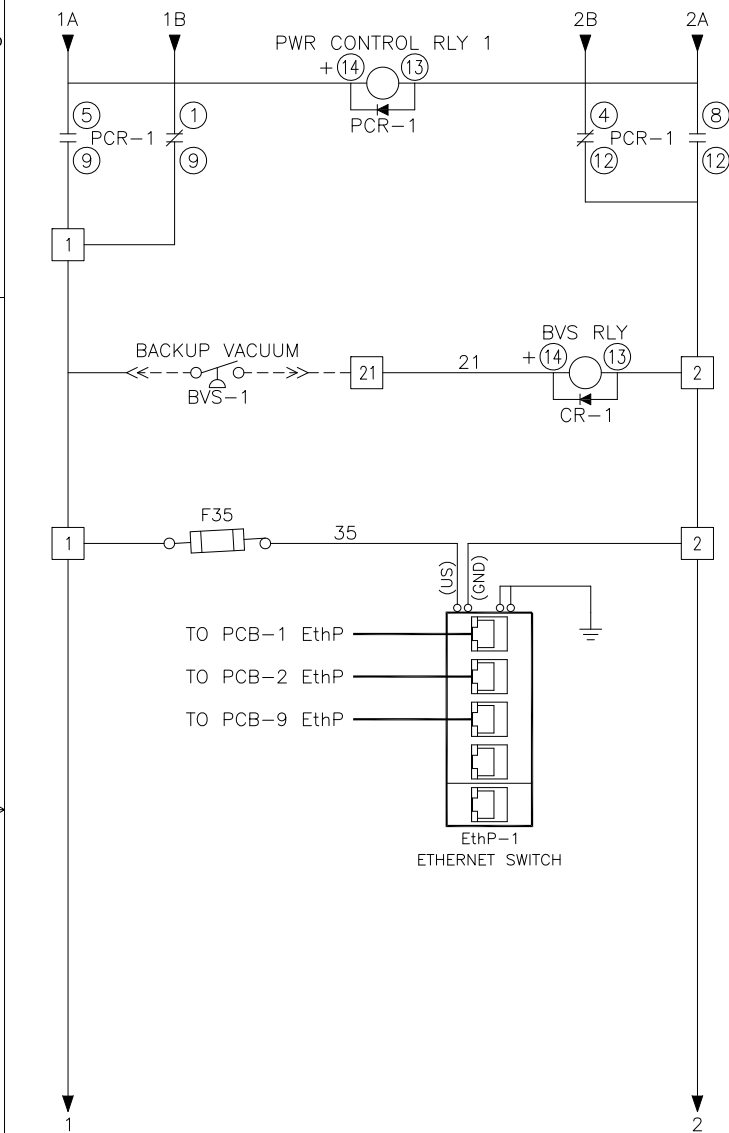
PUMP PCB JUMPER/SWT SETTINGS

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

Revised: BKW Date: 03/09/18 Drawn: JWO Date: 02/10/15
 Scale: NTS
 Description: DWG WIRING CONTROL DX DRY 1.5-10HP 208-460/3/50-60 Part Number: 4107 8553 98
 DN: HOP180218 Rev: 03
 Sheet 1 of 2 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 SECOND 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:

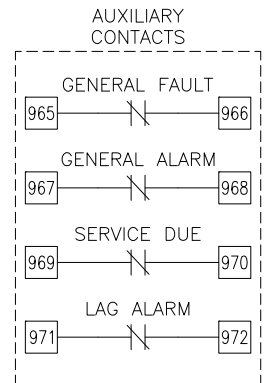
THE PUMP IS DISABLED FROM RUNNING.

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 EMERGENCY 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
965-972 ARE "CLASS 1
CONTROL CIRCUITS. USE
CLASS 1 CONDUCTORS."

AUX CONTACTS ARE RATED
0.7A_{dc}/0.7A_{rms} @ 24V
MAX. UNLESS OTHERWISE
NOTED.

AUX CONTACTS CLOSED
DURING NORMAL
OPERATION.

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

| | | | |
|--|----------------|--|----------------|
| Revised: BKW | Date: 03/09/18 | Drawn: JWO | Date: 02/10/15 |
| | | This drawing and the information contained therein remain the property of BeaconMedes and may not be used for other than the purpose for which it is loaned without the expressed written permission from BeaconMedes Engineering. | |
| Description: DWG WIRING CONTROL DX DRY 1.5-10HP 208-460/3/50-60 | | Part Number: 4107 8553 98 DN: HOP180218 Rev: 03 Sheet 2 of 2 | |
| | | Scale: NTS | |