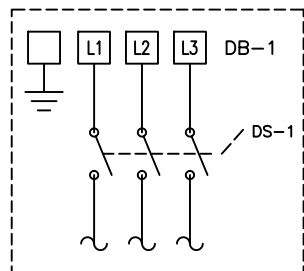
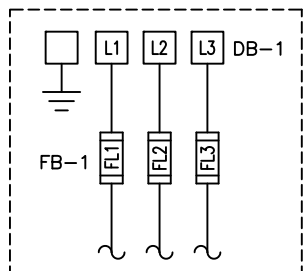


Notes:

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. RTD-1B & RTD-2B ON 10-15HP ONLY.
5. AUXILIARY CONTACTS LIST ON SHEET 2.
6. THE AMPACITY OF CONDUCTORS SUPPLYING THE CONTROL PANEL TO BE ROUNDED UP TO THE NEXT SIZE LARGER STANDARD WIRE GAUGE.
7. MOP VALUES TO BE ROUNDED DOWN TO THE NEAREST STANDARD RATING OF THE OVERCURRENT PROTECTION DEVICE.
8. SHORT CIRCUIT CURRENT RATING (SCCR): 65 kA
9. 60A FUSE BLOCKS ARE NOT USED DUE TO SIZE CONSTRAINTS.

2 & 3HP 208-460V
5 & 7.5HP 380-460V
SCCR: 65 kA

5 & 7.5HP 208-230V
10 & 15HP 208-460V
SCCR: 65 kA



MINIMUM CIRCUIT AMPACITY (MCA)

| SYSTEM HP | 208 V | 230 V | 380/400 V | 460 V |
|-----------|------------|-----------|-----------|-----------|
| 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 | 39.3 AMPS | 35.8 AMPS | 23.1 AMPS | 18.1 AMPS |
| 7.5 HP | 56.2 AMPS | 51.1 AMPS | 32.8 AMPS | 25.8 AMPS |
| 10 HP | 71.1 AMPS | 64.6 AMPS | 41.8 AMPS | 32.5 AMPS |
| 15 HP | 105.7 AMPS | 96.1 AMPS | 62.0 AMPS | 48.3 AMPS |

DEFAULT PUMP PSI SETTINGS

| PUMP SEQUENCE | PSI |
|---------------|-----|
| LEAD CUT-OFF | 140 |
| LAG CUT-ON | 120 |

BACKUP PRESSURE SWT SETTINGS

| | |
|---------------|-----|
| BPS-1 CUT-OFF | 140 |
| BPS-1 CUT-ON | 105 |

PUMP/DRYER PCB JUMPER/SWT SETTINGS

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

MAXIMUM OVERCURRENT PROTECTION (MOP)

| SYSTEM HP | 208 V | 230 V | 380/400 V | 460 V |
|-----------|------------|------------|-----------|-----------|
| 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 | 54.3 AMPS | 49.4 AMPS | 31.5 AMPS | 24.7 AMPS |
| 7.5 HP | 78.7 AMPS | 71.5 AMPS | 45.5 AMPS | 35.8 AMPS |
| 10 HP | 100.1 AMPS | 91.0 AMPS | 58.5 AMPS | 45.5 AMPS |
| 15 HP | 150.2 AMPS | 136.5 AMPS | 87.8 AMPS | 68.3 AMPS |

DUPLEX SYSTEM FULL LOAD AMPERES

| SYSTEM HP | 208 V | 230 V | 380V/50Hz | 460 V |
|-----------|-----------|-----------|-----------|-----------|
| 2 HP | 13.0 AMPS | 12.9 AMPS | 8.8 AMPS | 6.6 AMPS |
| 3 HP | 17.4 AMPS | 16.5 AMPS | 11.0 AMPS | 8.4 AMPS |
| 5 HP | 27.0 AMPS | 25.3 AMPS | 15.4 AMPS | 12.8 AMPS |
| 7.5 HP | 37.4 AMPS | 35.7 AMPS | 19.8 AMPS | 18.0 AMPS |
| 10 HP | 52.2 AMPS | 49.3 AMPS | 27.8 AMPS | 24.8 AMPS |
| 15 HP | 73.4 AMPS | 71.3 AMPS | 42.0 AMPS | 35.8 AMPS |

INDIVIDUAL FULL LOAD AMPERES

| SYSTEM HP | 208 V | 230 V | 380V/50Hz | 460 V |
|-----------|-----------|-----------|-----------|-----------|
| 2 HP | 5.8 AMPS | 5.8 AMPS | 3.9 AMPS | 2.9 AMPS |
| 3 HP | 8.0 AMPS | 7.6 AMPS | 5.0 AMPS | 3.8 AMPS |
| 5 HP | 12.8 AMPS | 12.0 AMPS | 7.2 AMPS | 6.0 AMPS |
| 7.5 HP | 18.0 AMPS | 17.2 AMPS | 9.4 AMPS | 8.6 AMPS |
| 10 HP | 25.6 AMPS | 24.0 AMPS | 13.4 AMPS | 12.0 AMPS |
| 15 HP | 36.0 AMPS | 35.0 AMPS | 20.5 AMPS | 17.5 AMPS |

FUSE SELECTION CHART (MAX FUSE SIZES SHOWN)

| SYSTEM HP | FUSES | 208 V | 230 V | 380 V | 460 V |
|-----------|-----------------|-----------|-----------|----------|-----------|
| 2 HP | FL1/FL2/FL3 | 17.5 AMPS | 17.5 AMPS | 12 AMPS | 12 AMPS |
| 3 HP | | 25 AMPS | 25 AMPS | 15 AMPS | 12 AMPS |
| 5 HP | | --- | --- | 20 AMPS | 17.5 AMPS |
| 7.5 HP | | --- | --- | 25 AMPS | 25 AMPS |
| 10 HP | | --- | --- | --- | --- |
| ALL | F1/F2/F4/F5 | 6.0 AMPS | 6.0 AMPS | 6.0 AMPS | 6.0 AMPS |
| | F3/F6 | --- | --- | 6.0 AMPS | 6.0 AMPS |
| | F21/F22 | 4.0 AMPS | 4.0 AMPS | 4.0 AMPS | 4.0 AMPS |
| | F31/F32/F33/F34 | 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 |

FL1/FL2/FL3 ARE LITTELFUSE JTD 600V TYPE
F1-F6 ARE LITTELFUSE KLDK 600V TYPE
F21-F22/F31-F35 ARE LITTELFUSE 2AG 250V TYPE

AUTO OPERATION:

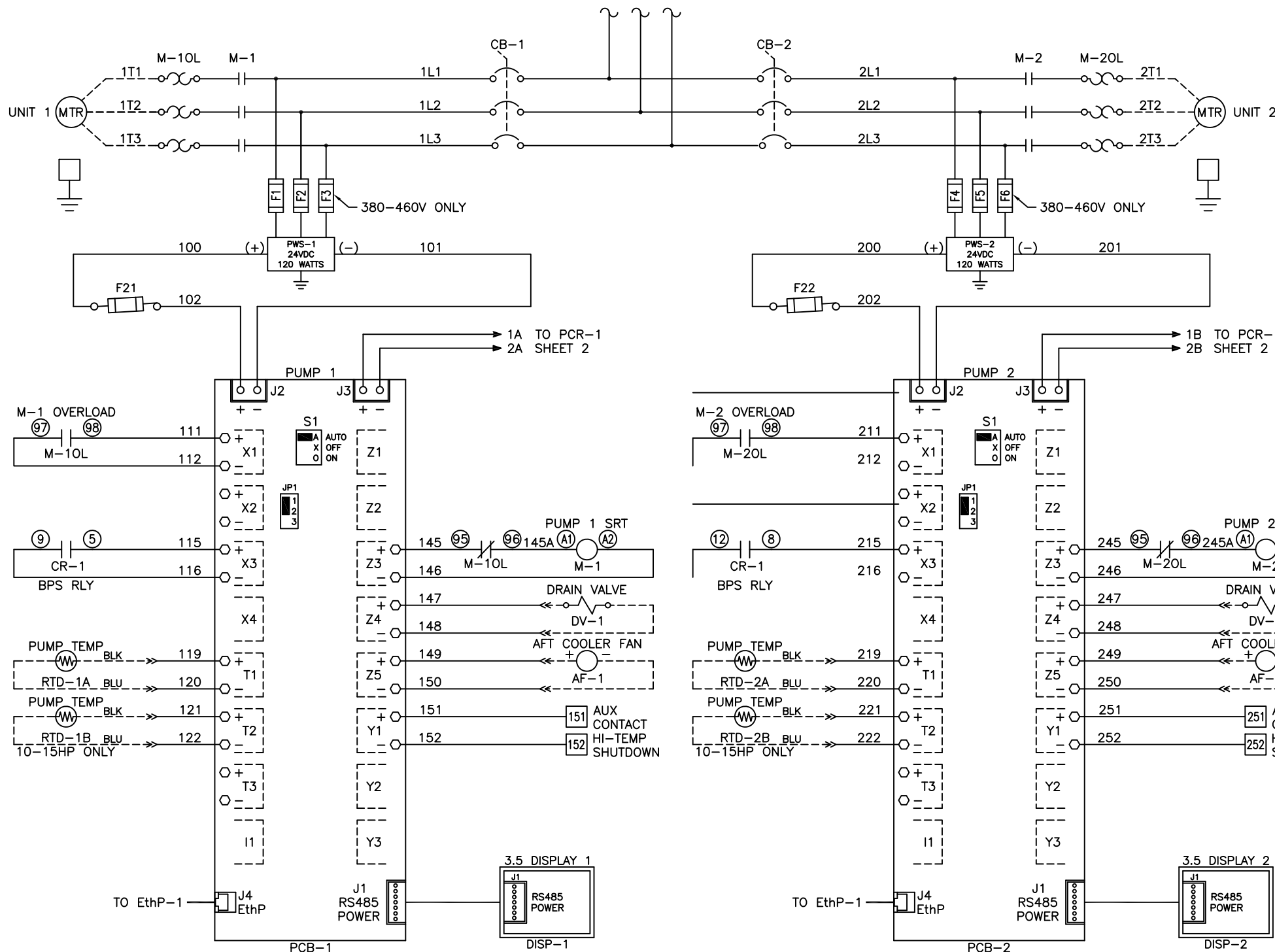
DURING NORMAL OPERATION, THE MASTER PCB WILL SIGNAL THE LEAD COMPRESSOR TO START WHEN THE PRESSURE FALLS BELOW THE SET-POINT FOR THE LEAD PUMP. IF ONE PUMP CAN CARRY THE LOAD, THE PRESSURE WILL RISE TO 140 PSI. THE MASTER PCB WILL THEN SIGNAL THE PUMP PCB TO TURN OFF THE LEAD COMPRESSOR. WHEN THE SYSTEM PRESSURE DROPS AGAIN BELOW THE LEAD SET-POINT, THE MASTER PCB WILL SEQUENCE THE LEAD ROLE TO THE OTHER COMPRESSOR AND IT WILL START. IF ANY LEAD COMPRESSOR RUNS FOR MORE THAN 17 MINUTES AND CANNOT REACH 140 PSI, THE MASTER PCB WILL TURN OFF THE COMPRESSOR THAT IS RUNNING AND SEQUENCE TO THE OTHER COMPRESSOR.

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 START AND STOP ON THE BACK UP PRESSURE SWITCH (BPS-1).

PCB FAULT:

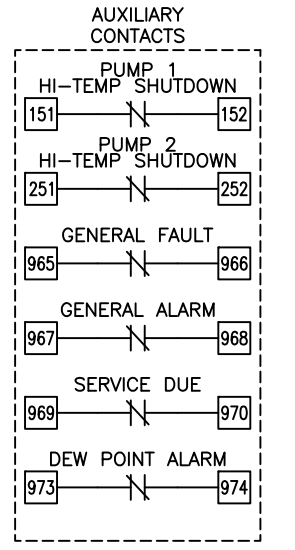
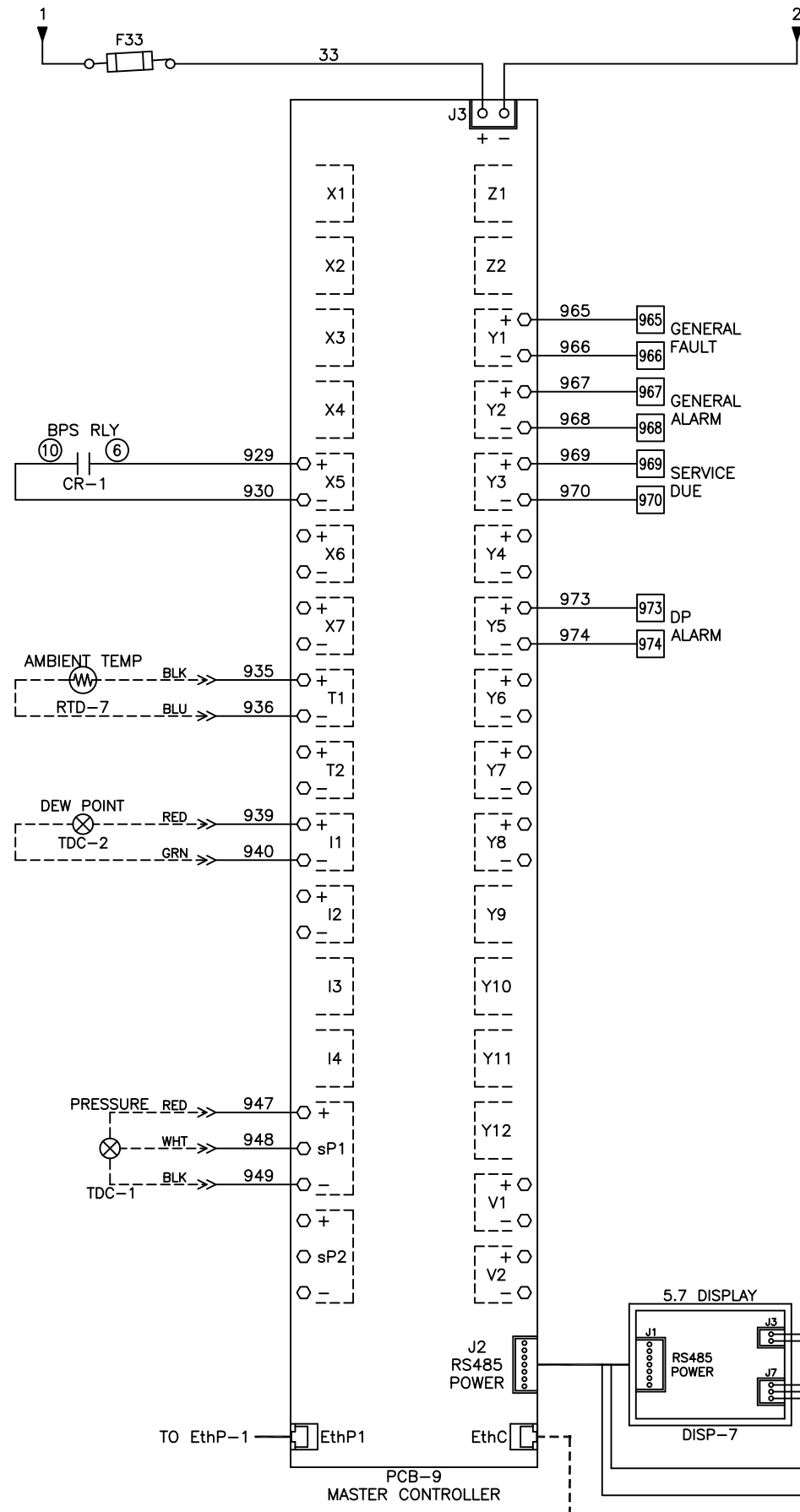
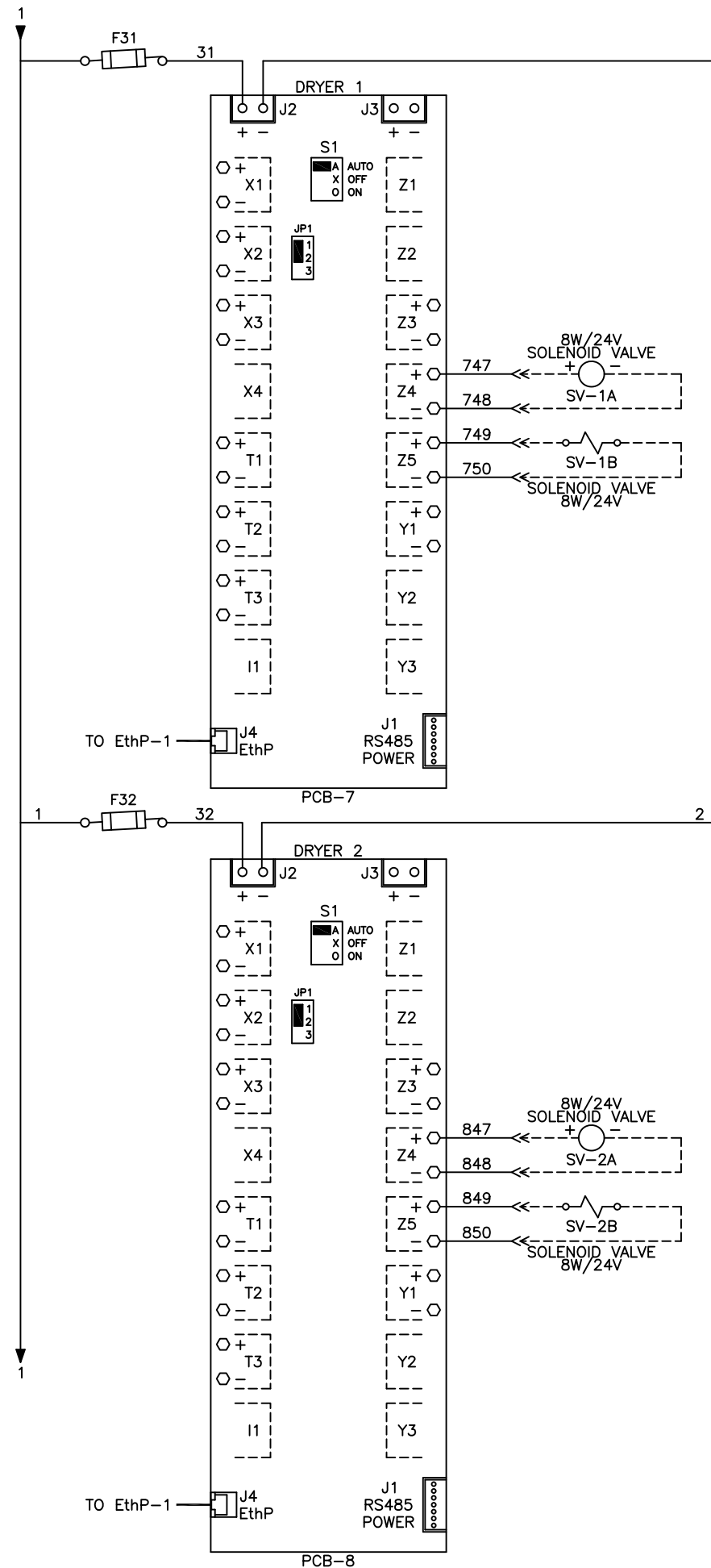
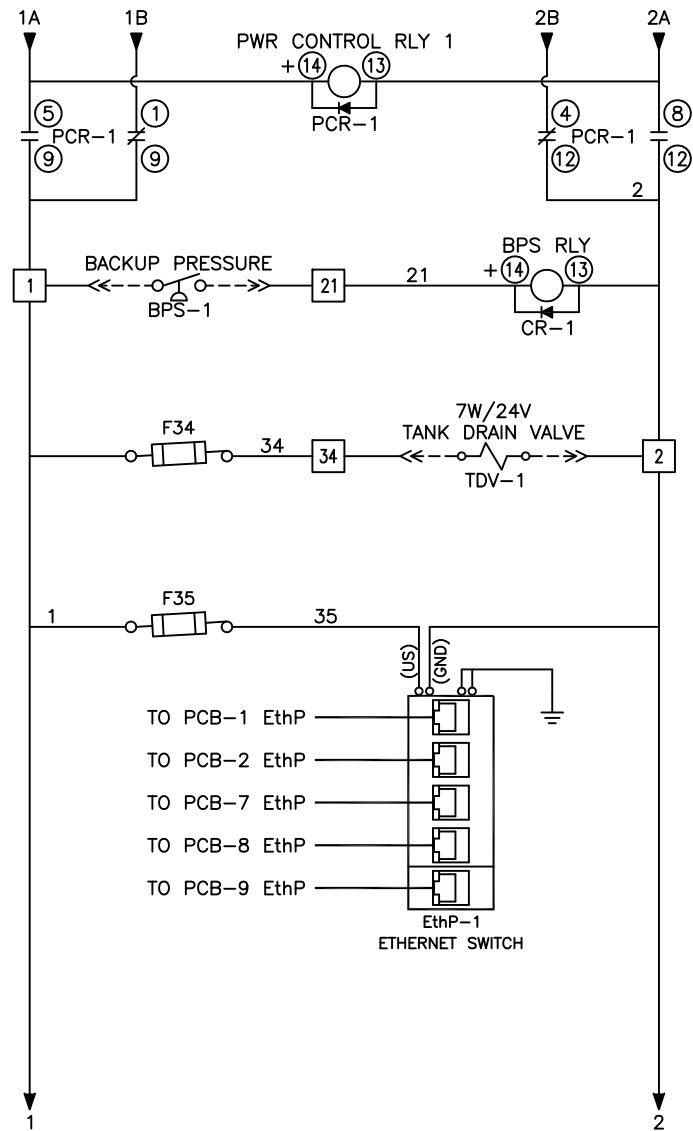
IF A PUMP PCB ETHERNET FAULT OR A TRANSDUCER FAULT OCCURS, THE PUMP PCB WILL AUTOMATICALLY SWITCH TO MANUAL MODE. COMPRESSORS WILL START WHEN BPS-1 (BACKUP PRESSURE SWITCH) CLOSES AND STOP WHEN IT OPENS. COMPRESSORS WILL NOT SEQUENCE IN THIS CONDITION AND CAN OPERATE UNTIL THE ETHERNET OR TRANSDUCER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



| | | | | | |
|---|-------|--|-----|---------------|----------|
| Revised: | Date: | Drawn: | TAR | Date: | 04/02/19 |
| | | This drawing and the information contained therein remain the property of BeaconMedias and may not be used for other than the purpose for which it is loaned without the expressed written permission from BeaconMedias Engineering. | | | |
| Description: DWG WIRING CONTROL DX LAB SCROLL 2-15HP -40 DRYER 208-460/3/50-60 | | Part Number: 4107 8569 12 | | Scale: NTS | |
| DN: HOP190383 | | Rev: 00 | | Sheet 1 of 2 | |

Notes:

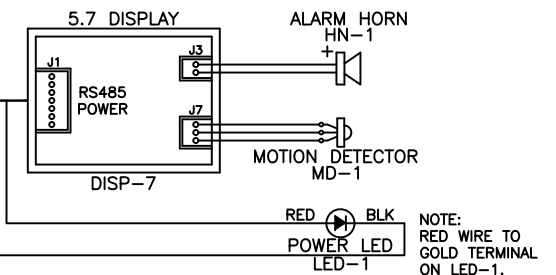
1. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.
2. - - - - - INDICATES FIELD WIRING OUTSIDE OF CABINET.



NOTE:
AUXILIARY CONTACTS 151-152, 251-252, 965-970, & 973-974 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.



| | | | | | |
|---|-------|--|-----|-------|----------|
| Revised: | Date: | Drawn: | TAR | Date: | 04/02/19 |
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| Description: DWG WIRING CONTROL DX LAB SCROLL 2-15HP -40 DRYER 208-460/3/50-60 | | Part Number: 4107 8569 12 DN: HOP190383 Rev: 00 | | | |
| Sheet 2 of 2 | | DO NOT SCALE THIS DOCUMENT | | | |