

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
J-1	ADDED GROUND TERMINAL BLOCKS	05/05/25	PXEC0688	JRD	WMM
K-1	ADDED PLEX ISOLATION	08/04/25	PXEC0639	SEK	WMM

OPTIONAL:

POWEREX™

CONFIDENTIAL DISCLOSURE:
This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination.

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

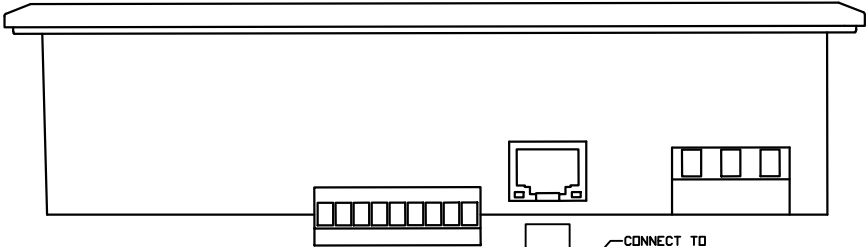
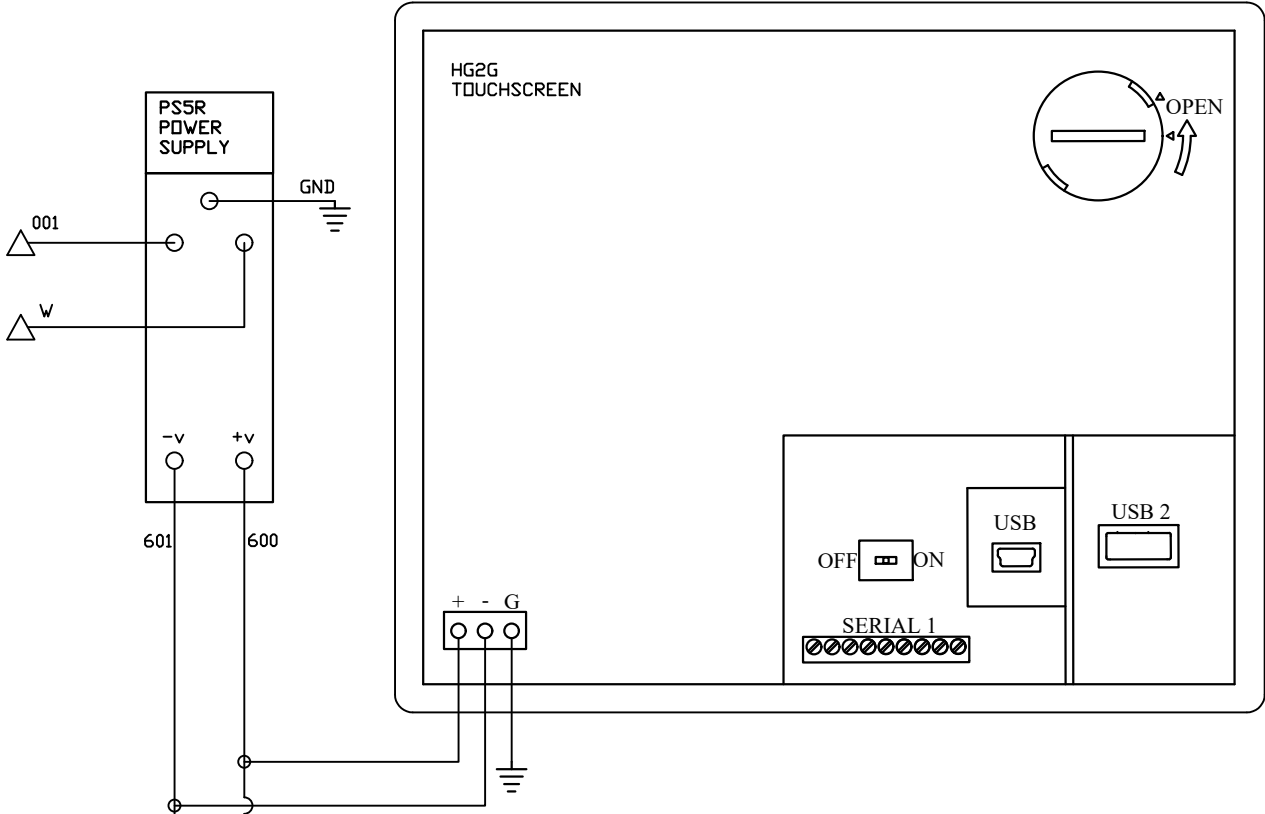
PANEL TYPE
QUAD LAB 2X SCROLL
HMI, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-LS416X

SHEET	SIZE
W-2	B

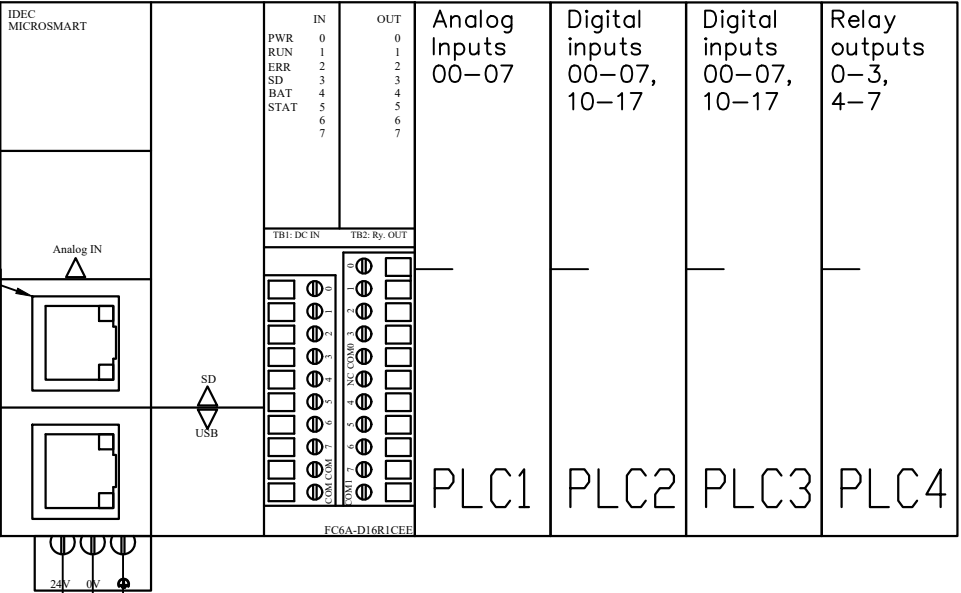
REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
J-1	ADDED GROUND TERMINAL BLOCKS	05/05/25	PXEC0688	JRD	WMM
K-1	ADDED PLEX ISOLATION	08/04/25	PXEC0639	SEK	WMM



ETHERNET CONNECTION HERE FOR RACNET

CONNECT TO BOTTOM ETHERNET PORT OF PLC

P/N PE000479AV



OPTIONAL:

POWEREX™

CONFIDENTIAL DISCLOSURE:
This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination.

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

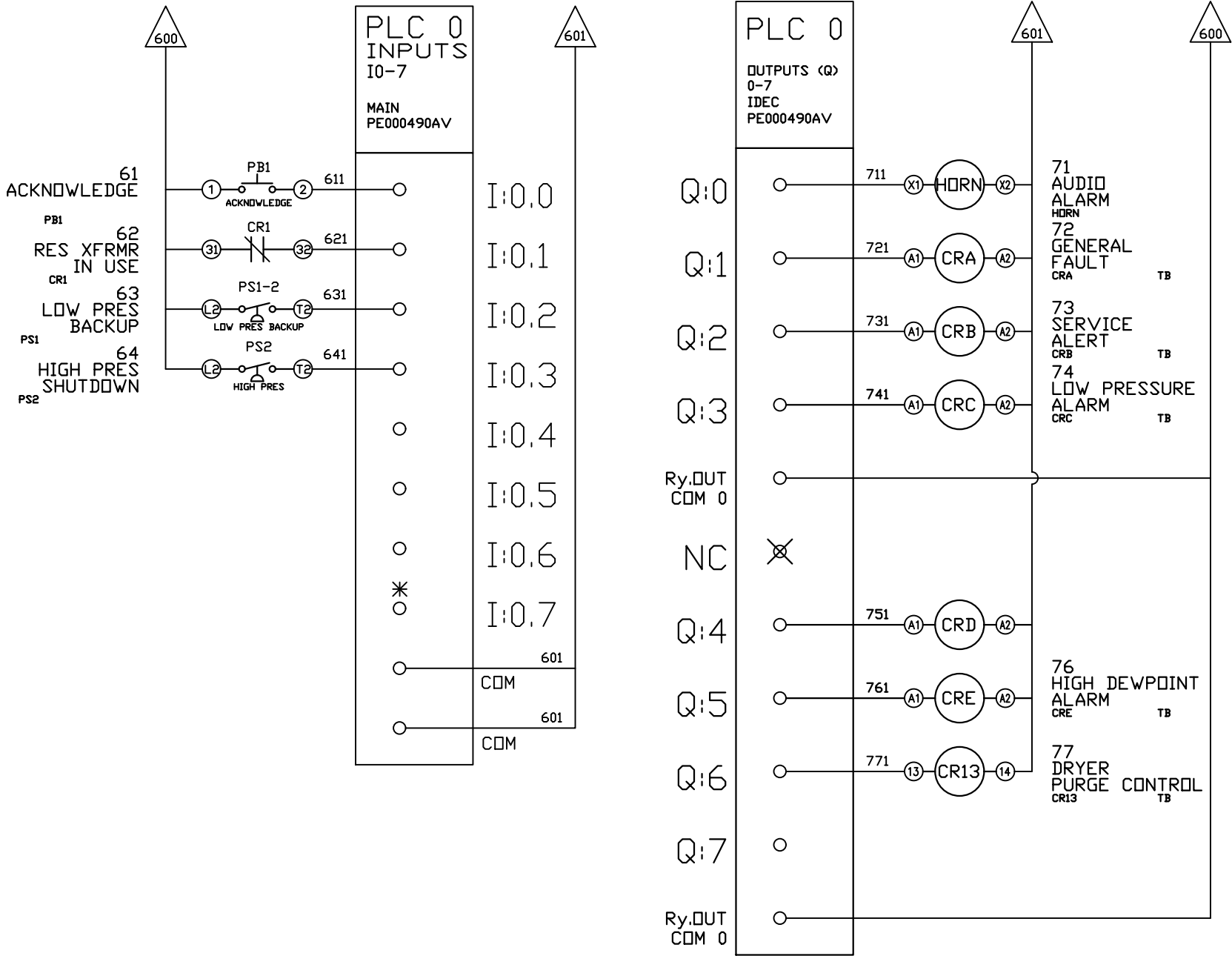
PANEL TYPE
QUAD LAB 2X SCROLL
HMI, NFPA

DWG. TYPE WIRING

DWG. NO.
PXMI-LS416X

SHEET	SIZE
W-6	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
J-1	ADDED GROUND TERMINAL BLOCKS	05/05/25	PXEC0688	JRD	WMM
K-1	ADDED PLEX ISOLATION	08/04/25	PXEC0639	SEK	WMM



OPTIONAL:

CONFIDENTIAL DISCLOSURE:

This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination.

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

PANEL TYPE

QUAD LAB 2X SCROLL
HMI, NFPA

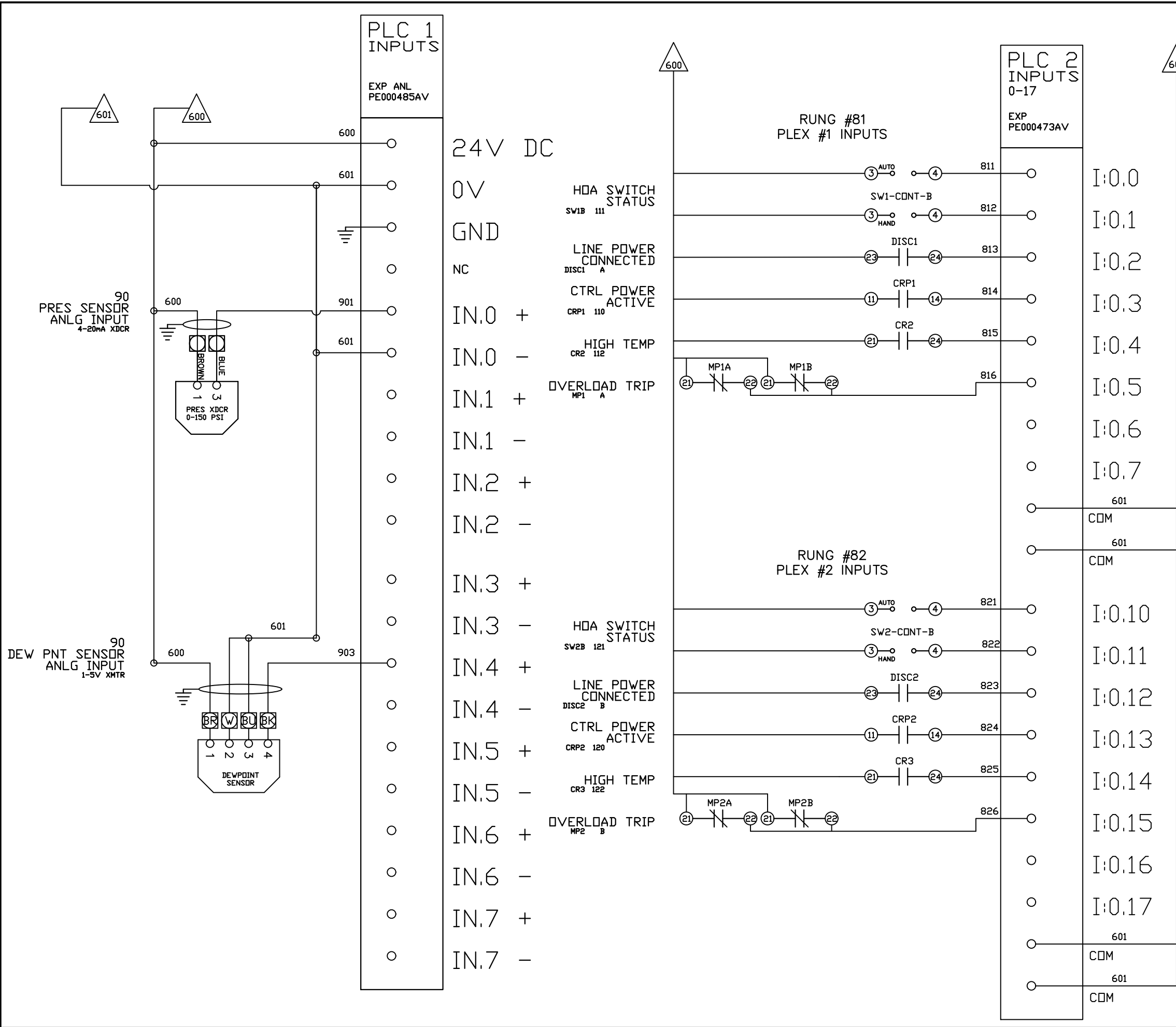
DWG. TYPE WIRING

DWG. NO.

PXMI-LS416X

SHEET	SIZE
W-7	B

PXMI-LS416X



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
J-1	ADDED GROUND TERMINAL BLOCKS	05/05/25	PXEC0688	JRD	WMM
K-1	ADDED PLEX ISOLATION	08/04/25	PXEC0639	SEK	WMM

OPTIONAL:

CONFIDENTIAL DISCLOSURE:
This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination.

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

PANEL TYPE

QUAD LAB 2X SCROLL
HMI, NFPA

DWG. TYPE WIRING

DWG. NO.

PXMI-LS416X

SHEET

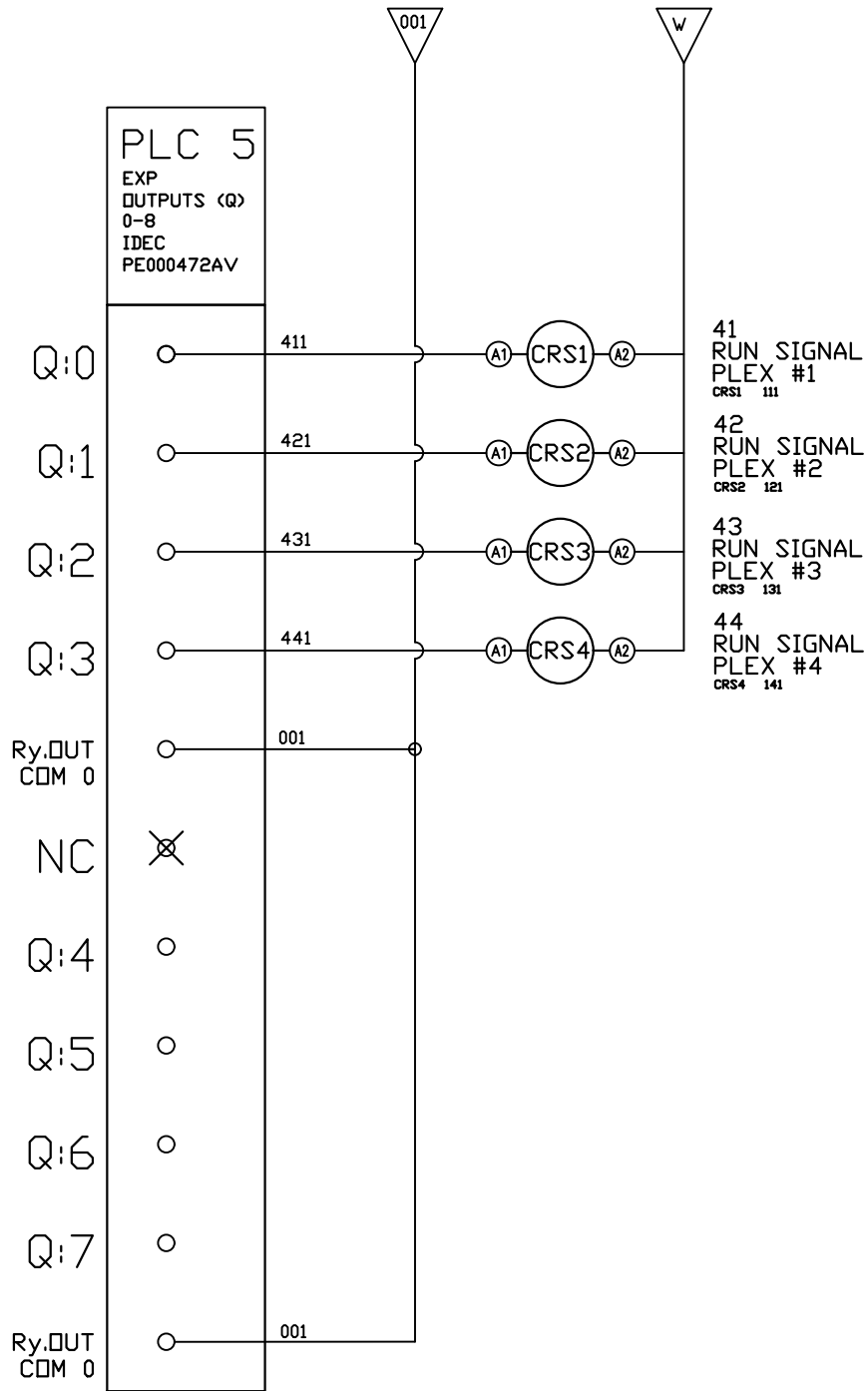
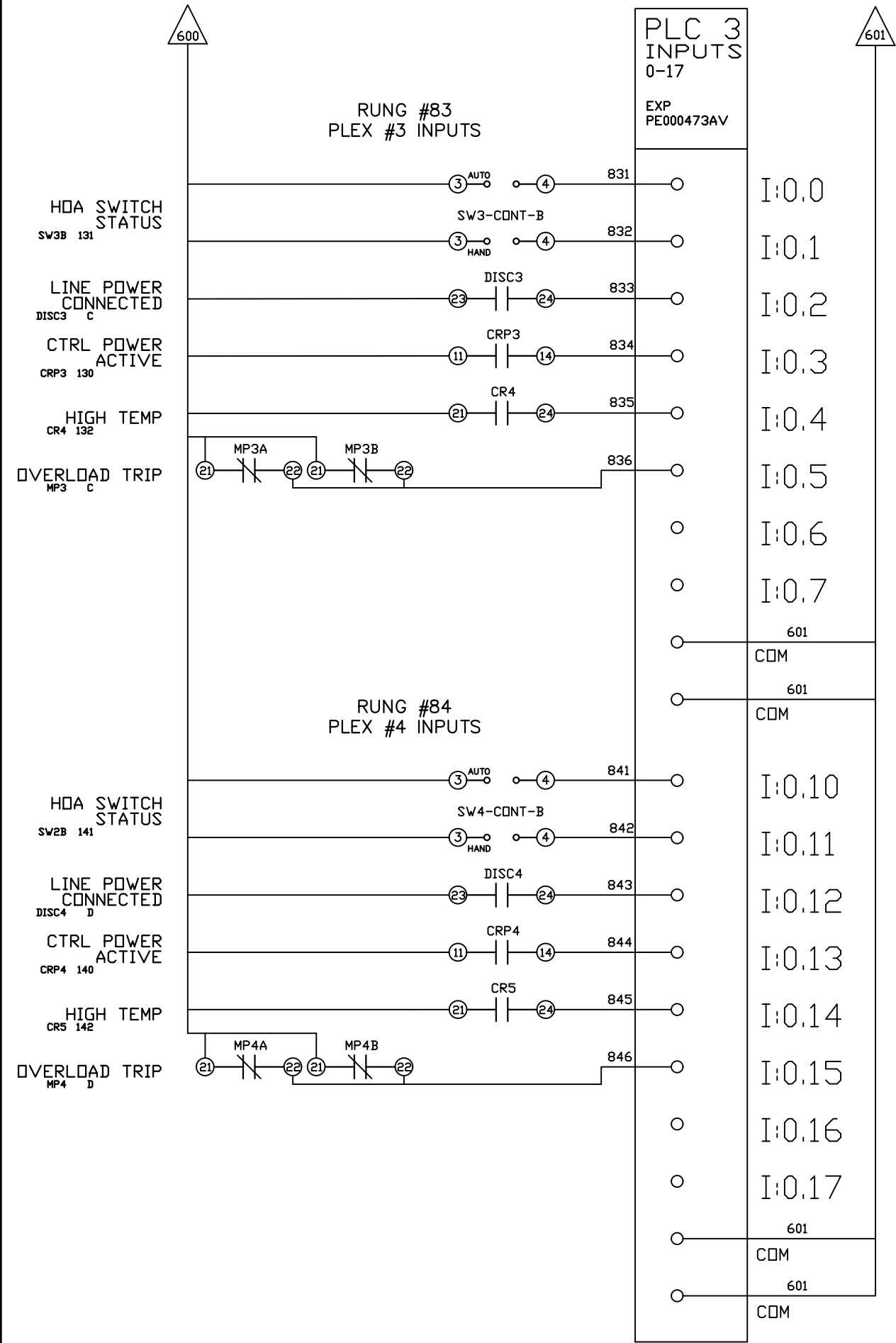
W-8

SIZE

B

PXMI-LS416X

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
J-1	ADDED GROUND TERMINAL BLOCKS	05/05/25	PXEC0688	JRD	WMM
K-1	ADDED PLEX ISOLATION	08/04/25	PXEC0639	SEK	WMM



OPTIONAL:

POWEREX™

CONFIDENTIAL DISCLOSURE:
This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination.

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

PANEL TYPE

QUAD LAB 2X SCROLL
HMI, NFPA

DWG. TYPE WIRING

DWG. NO.

PXMI-LS416X

SHEET

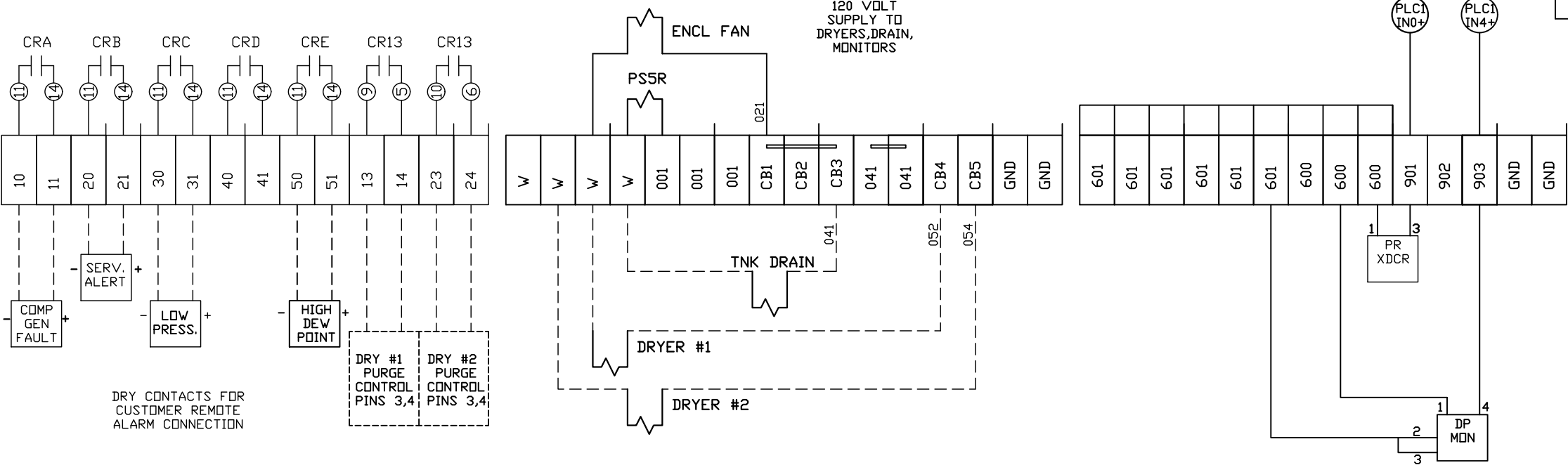
W-9

SIZE

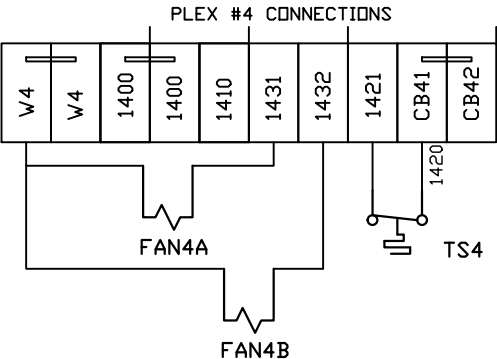
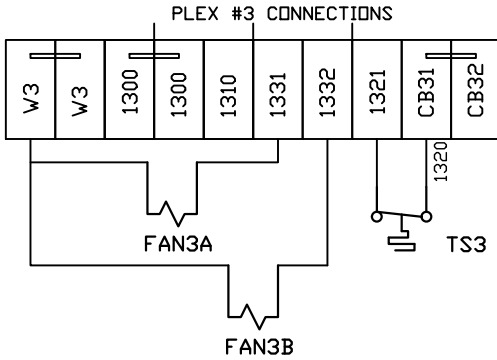
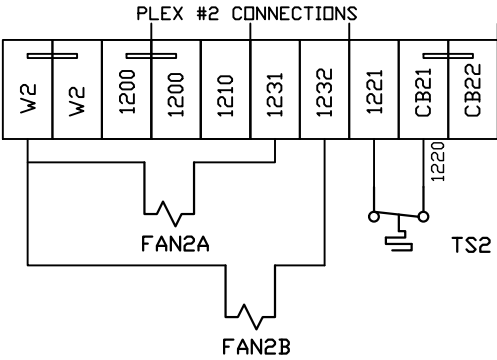
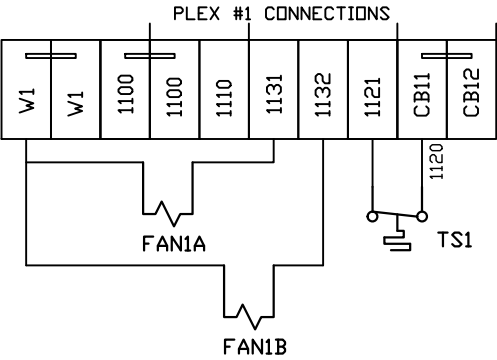
B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
J-1	ADDED GROUND TERMINAL BLOCKS	05/05/25	PXEC0688	JRD	WMM
K-1	ADDED PLEX ISOLATION	08/04/25	PXEC0639	SEK	WMM

TERMINAL BLOCKS



DRY CONTACTS FOR
CUSTOMER REMOTE
ALARM CONNECTION



FIELD WIRING NOTES:

- PANEL GROUND MUST BE CONNECTED TO EARTH GROUND
- TRANSFORMER IS SIZED FOR LOADS SHOWN ON DRAWING ONLY.
- FIELD WIRING INDICATED BY -----, WIRE TO BE COPPER RATED AT 75° C.
- ALL ALARM DRY CONTACTS ARE CLOSED FOR NORMAL OPERATION AND OPEN IN ALARM.
- DRY CONTACT RATING: 30V DC/2A (resistive load, inductive load L/R = 7 ms)
- USE CAT-5 CABLE W/RJ45 CONNECTOR FOR ETHERNET CONNECTION TO COMMUNICATION NETWORK OR BAS SYSTEM

OPTIONAL:

POWEREX™

CONFIDENTIAL DISCLOSURE:
This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination.

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

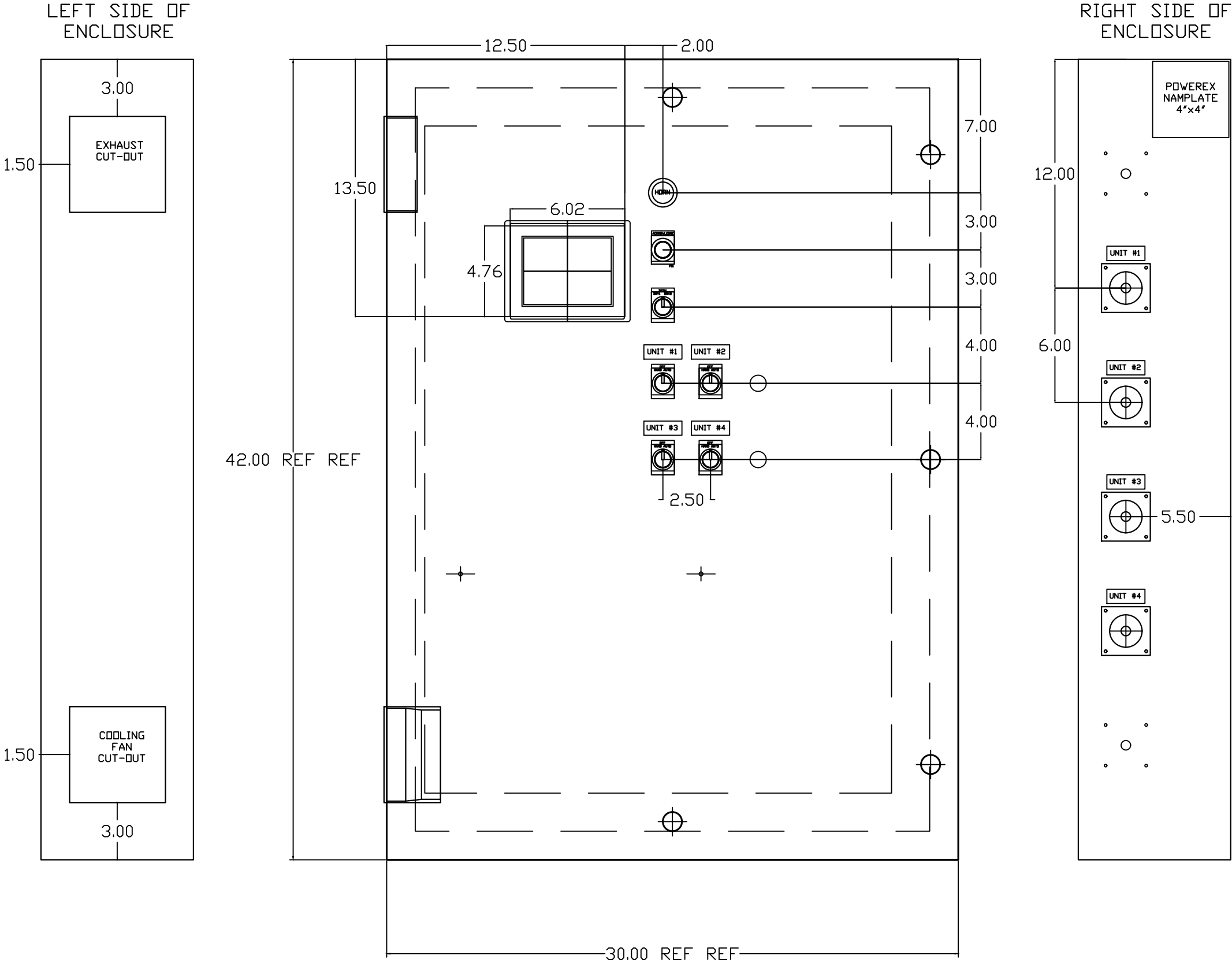
PANEL TYPE
QUAD LAB 2X SCROLL
HMI, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-LS416X

SHEET	SIZE
W-10	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
J-1	ADDED GROUND TERMINAL BLOCKS	05/05/25	PXEC0688	JRD	WMM
K-1	ADDED PLEX ISOLATION	08/04/25	PXEC0639	SEK	WMM



OPTIONAL:

CONFIDENTIAL DISCLOSURE:

This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination.

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

PANEL TYPE

QUAD LAB 2X SCROLL
HMI, NFPA

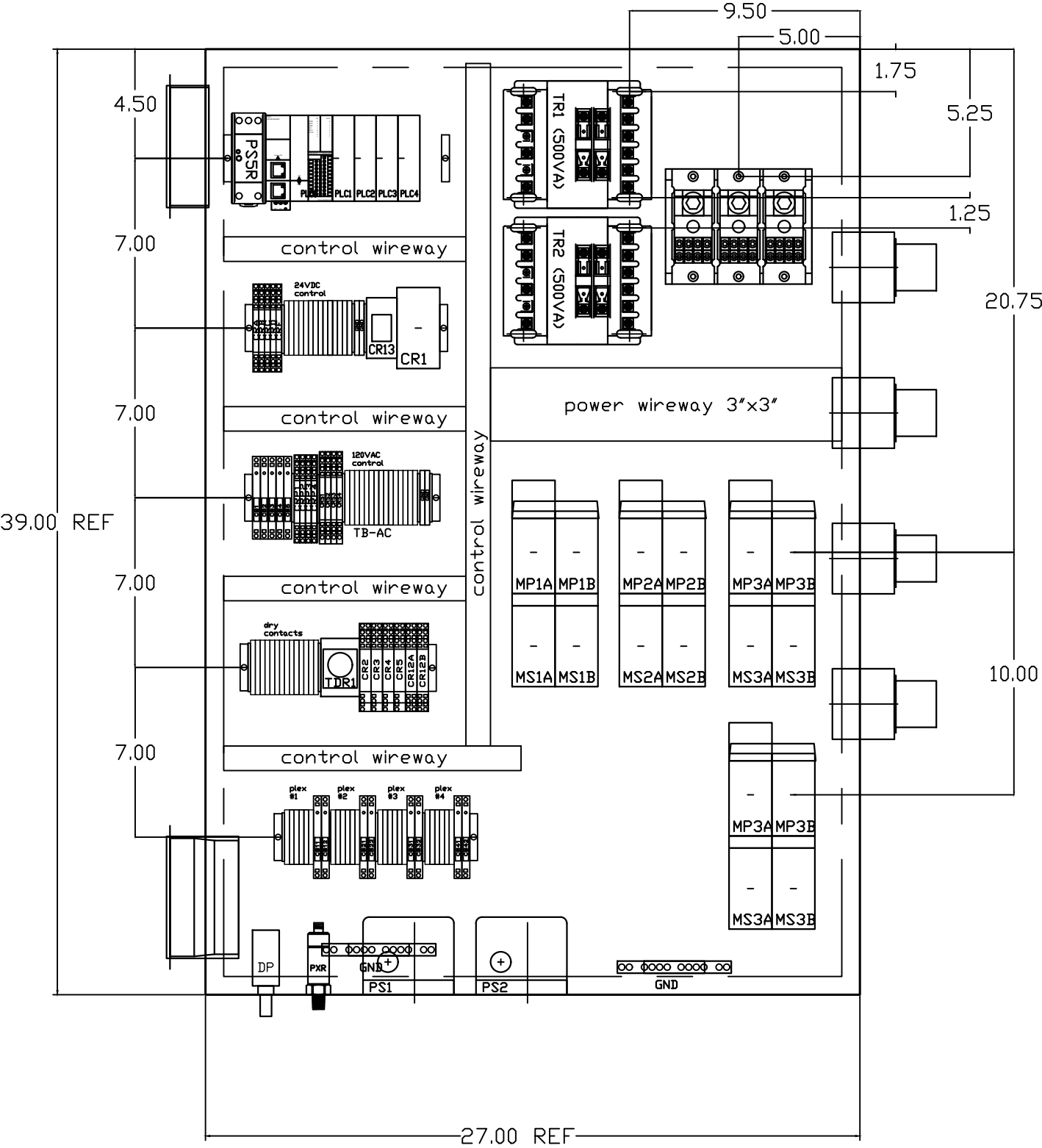
DWG. TYPE LAYOUT

DWG. NO. PXMI-LS416X

SHEET	SIZE
LA-1	B

PXMI-LS416X

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
J-1	ADDED GROUND TERMINAL BLOCKS	05/05/25	PXEC0688	JRD	WMM
K-1	ADDED PLEX ISOLATION	08/04/25	PXEC0639	SEK	WMM



OPTIONAL:

CONFIDENTIAL DISCLOSURE:
This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination.

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

PANEL TYPE

QUAD LAB 2X SCROLL
HMI, NFPA

DWG. TYPE LAYOUT

DWG. NO. PXMI-LS416X

SHEET	SIZE
LA-2	B

PXMI-LS416X

TABLE 1

PANEL DATA 3Ø – 60 Hz 500VA CONTROL CIRCUIT							
(A) LOAD SPECIFICATIONS					(B) BRANCH CIRCUIT PROTECTION – PROVIDED BY INSTALLER		
PANEL PART NUMBER	MOTOR SIZE EACH (HP)	(A) POWER (V/Ph)	(A) MOTOR LOAD EACH (FLA)	PANEL LOAD TOTAL (FLA)	NONTIME DELAY FUSE	TIME-DELAY FUSE	INVERSE-TIME CIRCUIT BREAKER
PXMILS416A2AJ	5(X2)	208V/3Ø	14.6	119.2	200A	150A	175A
PXMILS416A3AJ	5(X2)	230V/3Ø	12.7	103.8	175A	125A	150A
PXMILS416A4AJ	5(X2)	460V/3Ø	6.33	51.7	80A	70A	80A
NOTE– ADJUST OVERCURRENT PROTECTION DEVICE NOT TO EXCEED 115% OF MOTOR NAMEPLATE FLA VALUE							

NOTES:

1. RECOMMENDED TIGHTENING TORQUES FOR WIRE TERMINALS:
208-575 VOLT POWER 35 POUND INCHES
120 VOLT POWER AND CONTROL VOLTAGE 15 POUND INCHES
2. PANEL GROUND MUST BE CONNECTED TO EARTH GROUND
3. INSTALLER TO PROVIDE MAIN DISCONNECTING DEVICE FOR THIS ELECTRICAL ASSEMBLY. SHORT CIRCUIT PROTECTION IS RECOMMENDED. SEE TABLE 1. IF PROVIDING PANEL SHORT CIRCUIT PROTECTION USING TIME DELAY (CLASS J) FUSES, PANEL SCCR IS 65KA. OTHERWISE, PANEL SCCR IS 5KA.
4. ALL WIRES MUST BE LABELED ON BOTH ENDS
5. TRANSFORMER IS SIZED FOR LOADS SHOWN ON DRAWING ONLY. DO NOT CONNECT ANY OTHER DEVICES
6. △ -INDICATES A DRAWING WIRE CONNECTION TO ANOTHER PAGE.
7. SERVICE DISCONNECT USAGE – turn HOA switch to OFF position. Turn disconnect OF SAME UNIT to OFF position. Associated PLEX will be isolated for maintenance purposes. After completing maintenance, turn disconnect to ON position and return HOA switch to AUTO. This will return PLEX to normal operation.

SEQUENCE OF OPERATIONS

During normal operation the PBMI controller will signal the Lead compressor to run when pressure drops below lead cut-in set-point and stop when the pressure reaches the lead cut-out set-point. Lead alternation to the next pump, will occur with each lead run signal or every 10-minutes (which ever happens first). If demand cannot be satisfied by the lead pump, the lag pump(s) will start and stop based upon the lag cut-in and cut-out set-points. When more than one pump is running, lead alternation will occur when the lowest cut-out set-point is satisfied, or after 10-minutes (which ever happens first). The HOA switch’s place the pump in the following modes: Hand-turns pump on to run continuous. Off-disables pump from running. Auto-places pump in the “ready mode” and will start and stop based on sequence described above.

All plex configurations include a hardwired Back-up pressure switch circuit should a control failure occur. This circuit will call all pumps on and off based on the reserve pressure switch set-points.


Expandable systems include all control devices, operators, and programming for the maximum number of pumps (or plex) required. To expand the system: navigate to the “service screen” and enter the number of pumps.

Additional information and descriptions can be accessed through the HMI “service info” screen by pressing Sequence of Operations button.

CONTROL TRANSFORMERS – 500VA					WIRE TYPE TABLE			
REPLACEMENT		208	230	460	575			
FUSE TYPE		VOLT	VOLT	380 VOLT	VOLT	VOLTAGE	WIRE NUMBERS	GAUGE
FU1,2A	FNQR	6A	5A	5A	4A	120VAC	001-599,1100+	16-18AWG
FU1,2B						0VAC	W	16-18AWG
FU3A,B	FNM	7A	7A	7A	7A	24VDC	600-1099	16-18AWG
SEE XFRMR FOR CONNECTIONS						0VDC	601	16-18AWG
						GND	-	VARIES
						CUSTOMER SUPPLY	01-99	16-18AWG
								COLOR
								RED/BLK
								WHT/BLK
								PURPLE
								PURPLE
								GREEN
								YELLOW

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
J-1	ADDED GROUND TERMINAL BLOCKS	05/05/25	PXEC0688	JRD	WMM
K-1	ADDED PLEX ISOLATION	08/04/25	PXEC0639	SEK	WMM

OPTIONAL:



CONFIDENTIAL DISCLOSURE:
This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination.

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

PANEL TYPE

QUAD LAB 2X SCROLL
HMI, NFPA

DWG. TYPE DATA

DWG. NO.

PXMI-LS416X

SHEET

D-1

SIZE

B

PXMI-LS416X