

ALL NOTES AND DATA ARE LISTED ON D-1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/03/13	PXEC0029	AJL	KMD
C-1	CHANGED RUNG 27,LAYOUT,DATA TBL5,ADD TIME DELAY RLY,CHANGE NAME FRM 'S416A' TO 'S416X'	01/15/15	PXEC0093	KMD	DMS
D-1	ADD ISOLATION RELAYS	04/29/15	PXEC0093	AJL	KMD
E-1	UPDATED BACNET CARD	07/20/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0165	AKH	KMD

OPTIONAL:	SINGLE CYLINDER PUMPS	<input type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSVR, SCROLL PUMPS	SCROLL PUMPS	<input checked="" type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
AJL	KMD	DMS
10/03/13	10/03/13	10/03/13

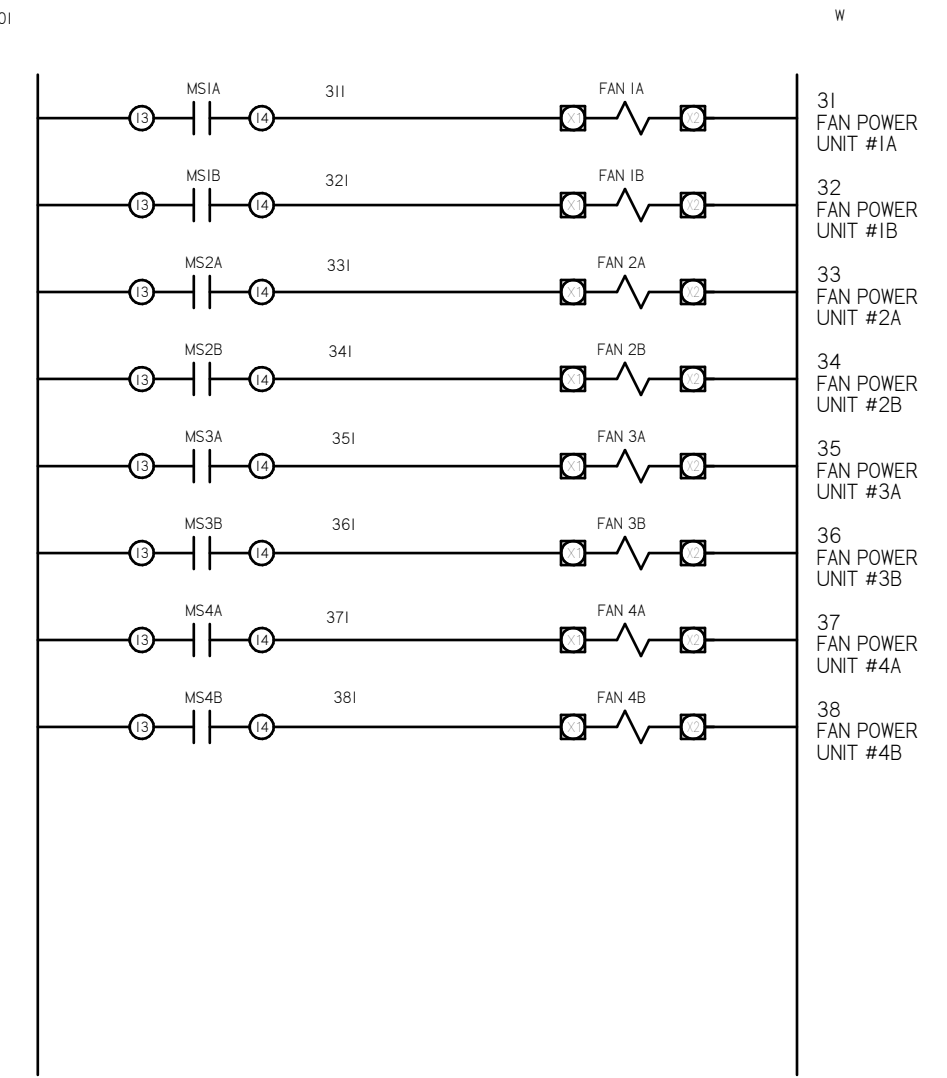
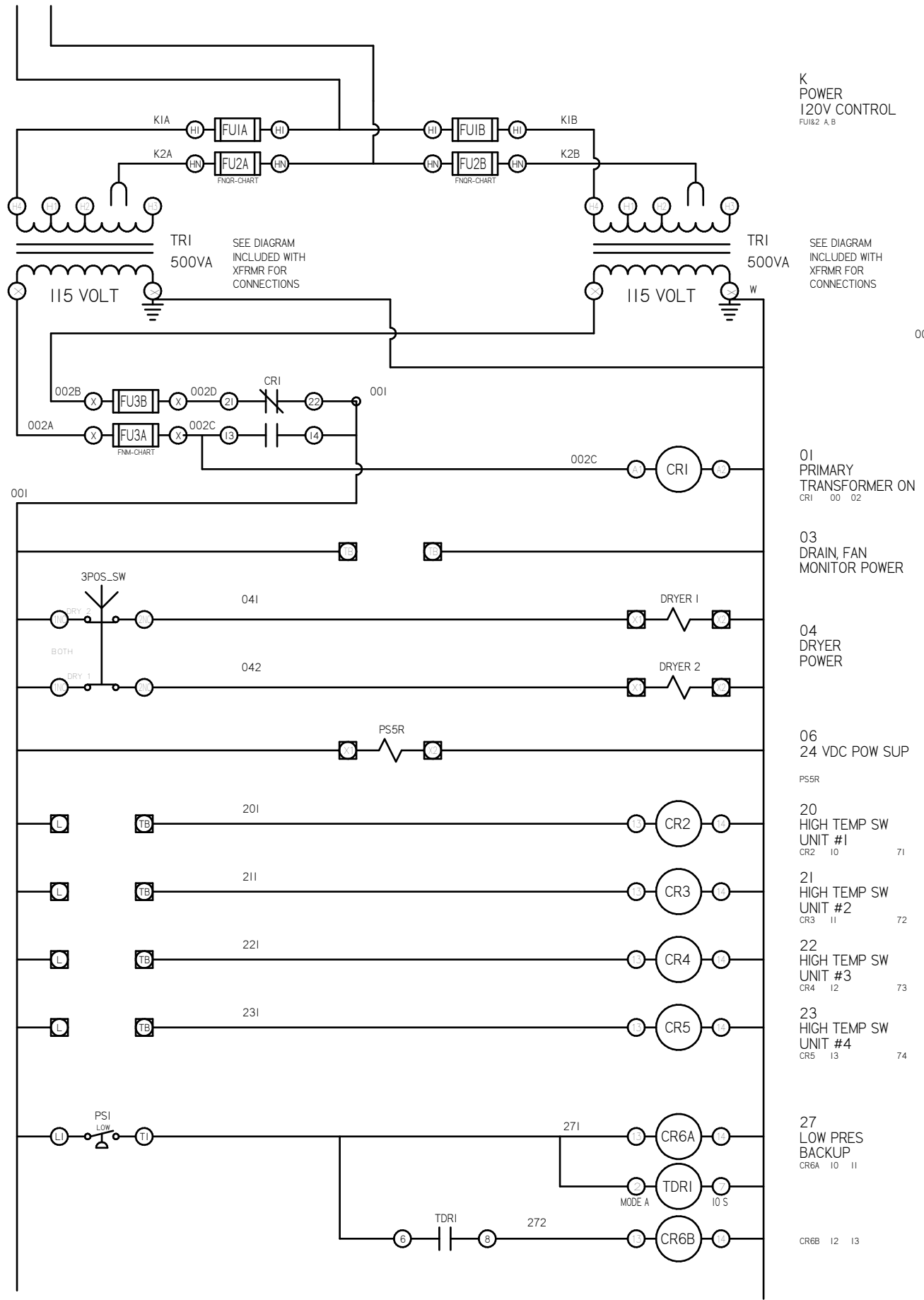
PANEL TYPE
 QUAD MED 2xSCROLL PER PLEX
 HMI, NFPA

DWG. TYPE
 WIRING

DWG. NO.
 PXMI-S416X

SHEET W-1	SIZE B
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REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/03/13	PXEC0029	AJL	KMD
C-1	CHANGED RUNG 27 LAYOUT, DATA TBL'S, ADD TIME DELAY RLY, CHANGE NAME FRM 'S416A' TO 'S416X'	01/15/15	PXEC0093	KMD	DMS
D-1	ADD ISOLATION RELAYS	04/29/15	PXEC0093	AJL	KMD
E-1	UPDATED BACNET CARD	07/20/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD



OPTIONAL:

SINGLE CYLINDER PUMPS	<input type="checkbox"/>
DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSVR, SCROLL PUMPS	<input checked="" type="checkbox"/>



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AJL	KMD	DMS
10/03/13	10/03/13	10/03/13

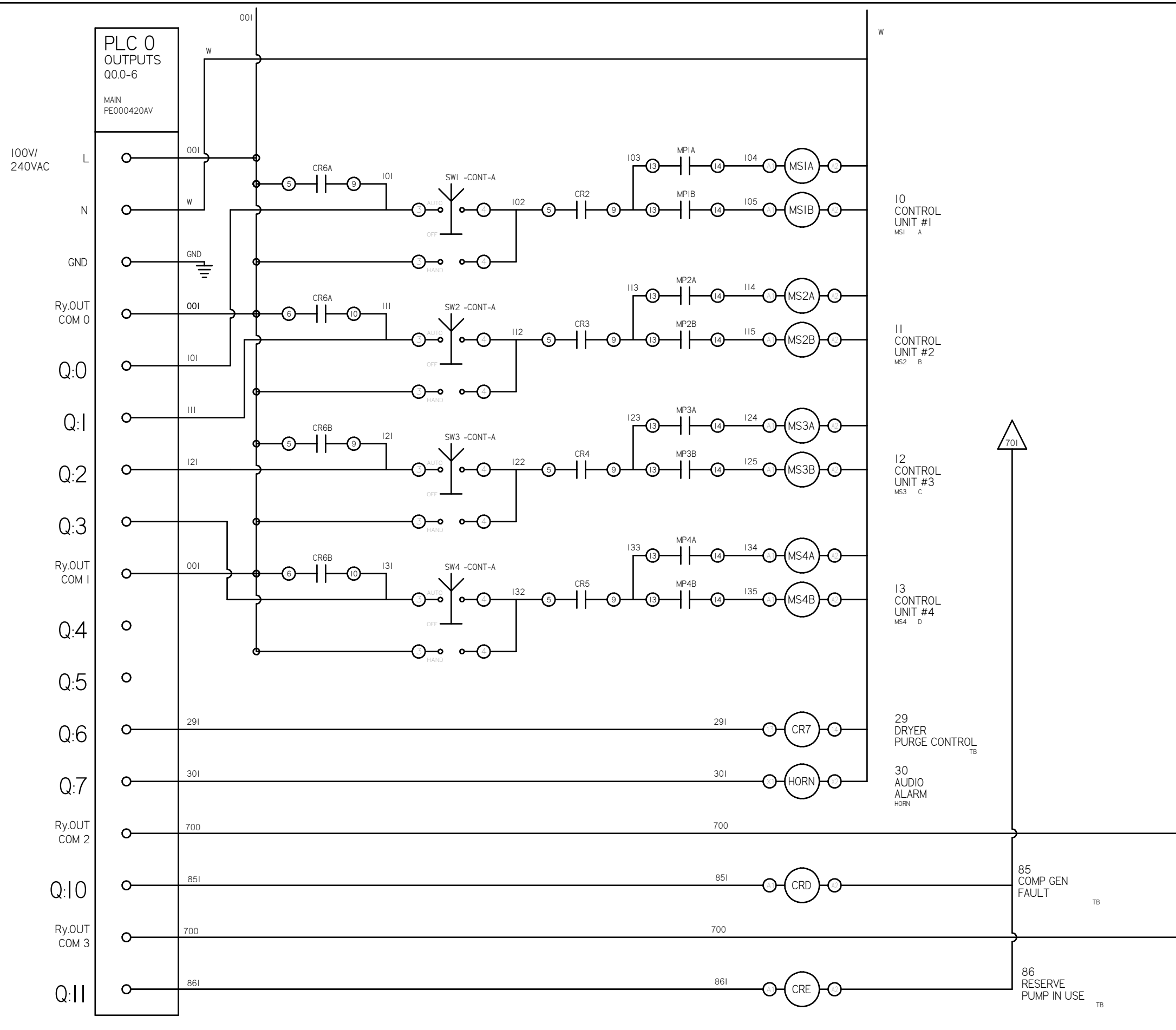
PANEL TYPE
QUAD MED 2xSCROLL PER PLEX
HMI, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-S416X

SHEET W-2 SIZE B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/03/13	PXEC0029	AJL	KMD
C-1	CHANGED RUNG 27_LAYOUT DATA TBL5 ADD TIME DELAY RLY, CHANGE NAME FRM 'S416A' TO 'S416X'	01/15/15	PXEC0093	KMD	DMS
D-1	ADD ISOLATION RELAYS	04/29/15	PXEC0093	AJL	KMD
E-1	UPDATED BACNET CARD	07/20/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD



OPTIONAL:

SINGLE CYLINDER PUMPS	<input type="checkbox"/>
DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
SCROLL PUMPS	<input checked="" type="checkbox"/>

BACNET, WEBSVR,



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
AJL	KMD	DMS
10/03/13	10/03/13	10/03/13

PANEL TYPE
QUAD MED 2xSCROLL PER PLEX HMI, NFPA

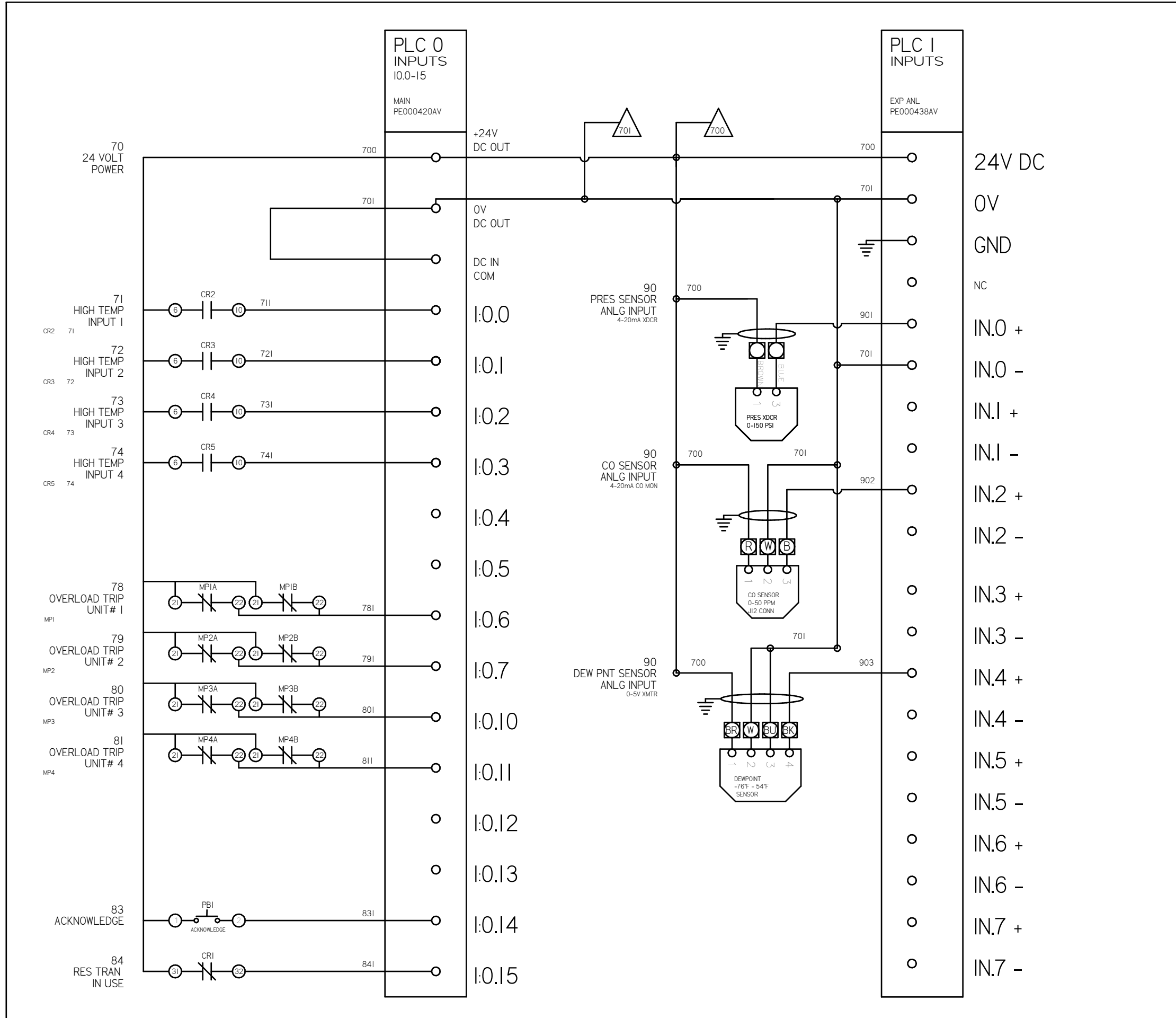
DWG. TYPE
WIRING

DWG. NO.
PXMI-S416X

SHEET
W-3

SIZE
B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/03/13	PXEC0029	AJL	KMD
C-1	CHANGED RUNG 27,LAYOUT,DATA TBL,ADD TIME DELAY RLY,CHANGE NAME FRM 'S416A' TO 'S416X'	01/15/15	PXEC0093	KMD	DMS
D-1	ADD ISOLATION RELAYS	04/29/15	PXEC0093	AJL	KMD
E-1	UPDATED BACNET CARD	07/20/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD



OPTIONAL:

SINGLE CYLINDER PUMPS	<input type="checkbox"/>
DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
SCROLL PUMPS	<input checked="" type="checkbox"/>

BACNET, WEBSVR,



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AJL	KMD	DMS
10/03/13	10/03/13	10/03/13

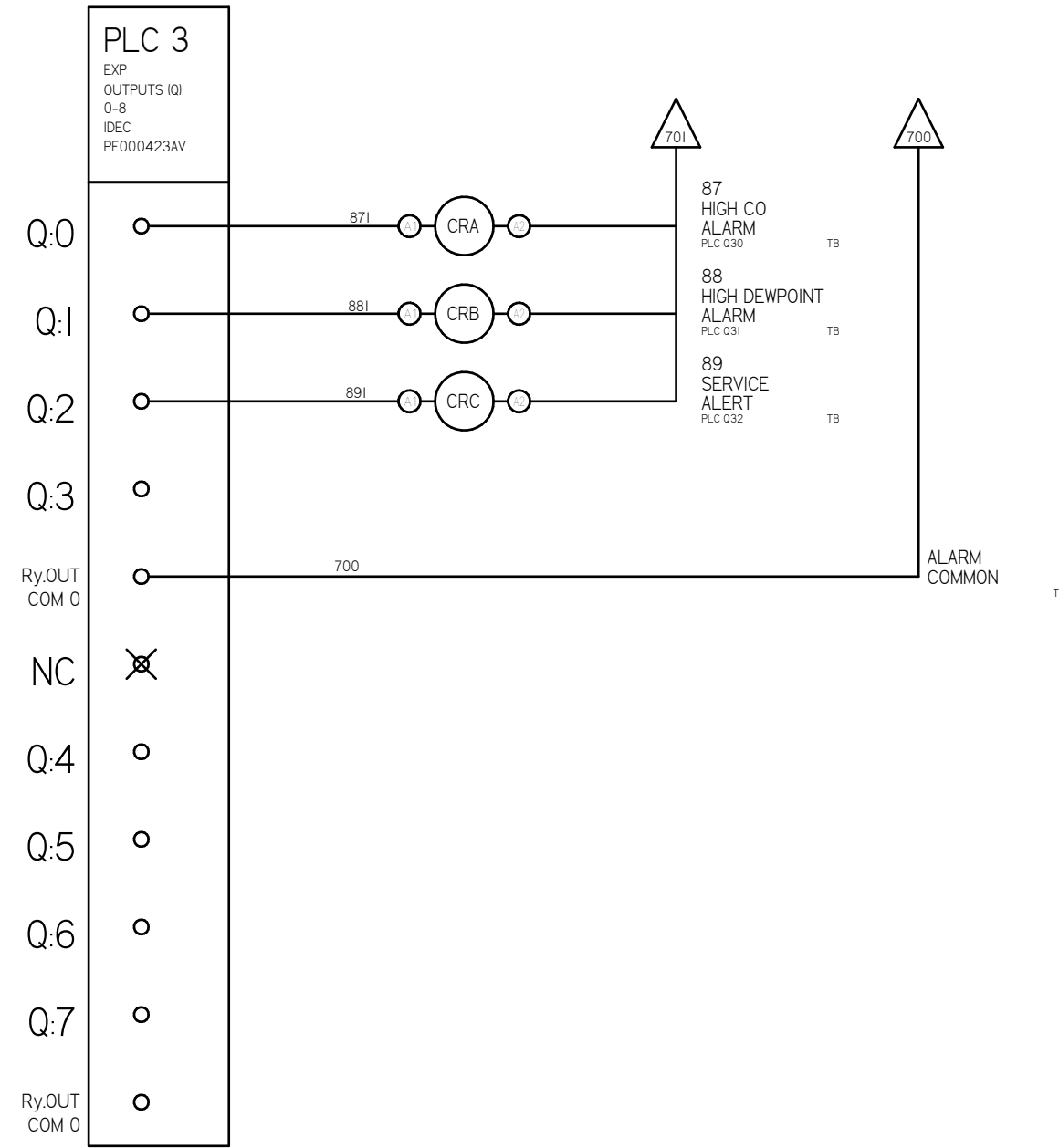
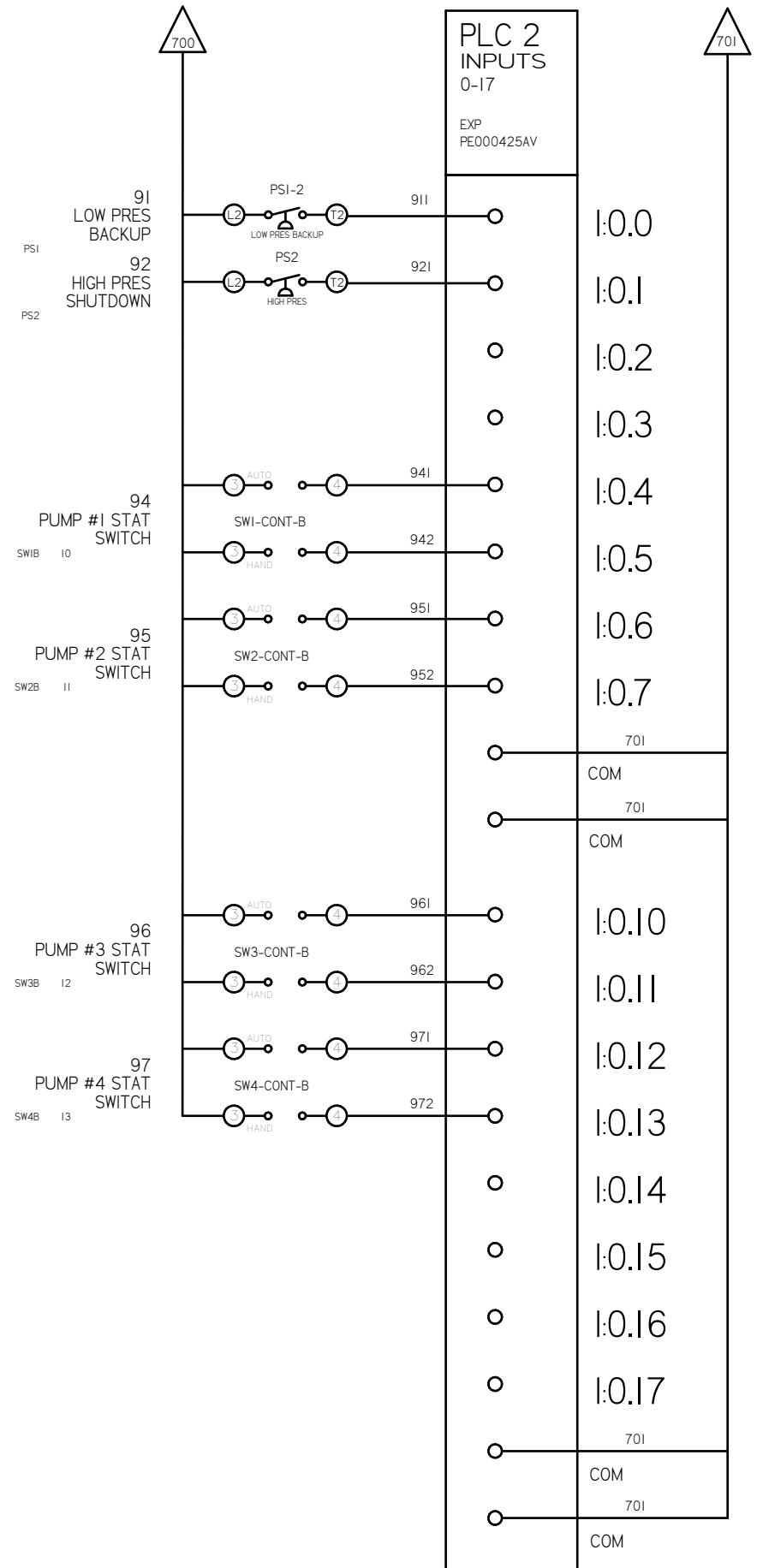
PANEL TYPE
QUAD MED 2xSCROLL PER PLEX
HMI, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-S416X

SHEET	SIZE
W-4	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/03/13	PXEC0029	AJL	KMD
C-1	CHANGED RUNG 27,LAYOUT,DATA TBL,ADD TIME DELAY RLY,CHANGE NAME FRM 'S416A' TO 'S416X'	01/15/15	PXEC0093	KMD	DMS
D-1	ADD ISOLATION RELAYS	04/29/15	PXEC0093	AJL	KMD
E-1	UPDATED BACNET CARD	07/20/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD



OPTIONAL:	SINGLE CYLINDER PUMPS	<input type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSRV, R	SCROLL PUMPS	<input checked="" type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
AJL	KMD	DMS
10/03/13	10/03/13	10/03/13

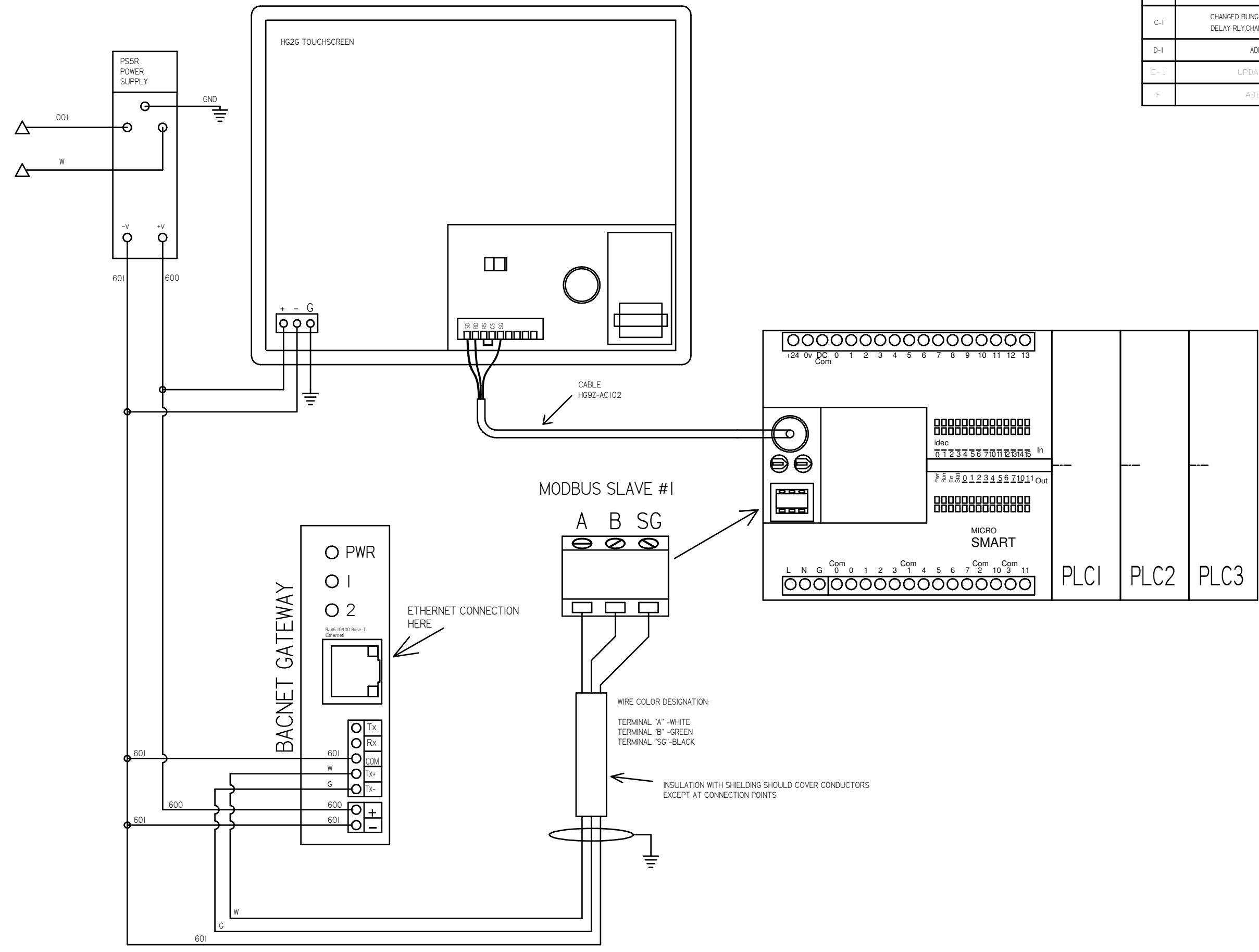
PANEL TYPE
QUAD MED 2xSCROLL PER PLEX
HMI, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-S416X

SHEET	SIZE
W-5	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/03/13	PXEC0029	AJL	KMD
C-1	CHANGED RUNG 27,LAYOUT,DATA TBL,ADD TIME DELAY RLY,CHANGE NAME FRM 'S416A' TO 'S416X'	01/15/15	PXEC0093	KMD	DMS
D-1	ADD ISOLATION RELAYS	04/29/15	PXEC0093	AJL	KMD
E-1	UPDATED BACNET CARD	07/20/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0165	AKH	KMD



OPTIONAL:	SINGLE CYLINDER PUMPS	<input type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
	SCROLL PUMPS	<input checked="" type="checkbox"/>



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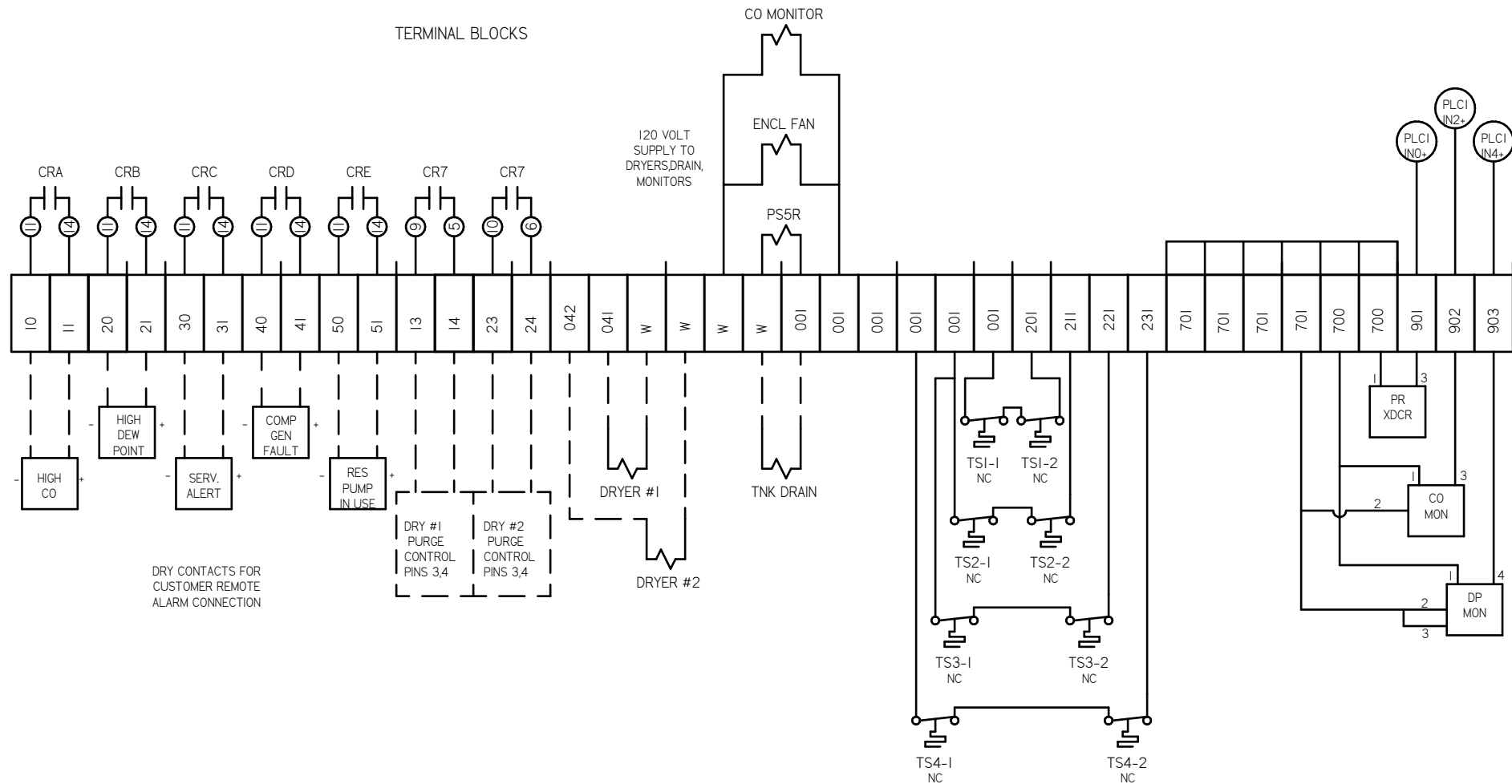
DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
AJL	KMD	DMS
10/03/13	10/03/13	10/03/13

PANEL TYPE
QUAD MED 2xSCROLL PER PLEX
HMI, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-S416X

SHEET	SIZE
W-6	B



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/03/13	PXEC0029	AJL	KMD
C-1	CHANGED RUNG 27_LAYOUT_DATA TBL_SADD TIME DELAY RLY, CHANGE NAME FRM 'S416A' TO 'S416X'	01/15/15	PXEC0093	KMD	DMS
D-1	ADD ISOLATION RELAYS	04/29/15	PXEC0093	AJL	KMD
E-1	UPDATED BACNET CARD	07/20/15	PXEC0118	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD

ASSEMBLY NOTE:

USE SHIELDED CABLE BETWEEN TERMINAL BLOCKS AND PLC. CONNECT GROUND LOOPS TO GROUND BLOCK. CABLE IS NOT TO BE ROUTED WITHIN A PROXIMITY OF 2" OF ANY 3-PHASE POWER CONDUCTORS.

OPTIONAL:	SINGLE CYLINDER PUMPS	<input type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSVR,	SCROLL PUMPS	<input checked="" type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
AJL	KMD	DMS
10/03/13	10/03/13	10/03/13

PANEL TYPE
QUAD MED 2xSCROLL PER PLEX
HMI, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-S416X

SHEET W-7	SIZE B
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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



FAN WIRING
SEE RUNGS 31-38 FOR DETAILS

TABLE 1

PANEL DATA 3Ø - 60 Hz 500VA CONTROL CIRCUIT					(B) BRANCH CIRCUIT PROTECTION - PROVIDED BY INSTALLER		
(A) LOAD SPECIFICATIONS					NON-TIME DELAY FUSE	TIME-DELAY FUSE	INVERSE-TIME CIRCUIT BREAKER
PANEL PART NUMBER	MOTOR SIZE EACH	(A) POWER (V/PH)	(A) MOTOR LOAD EACH (FLA)	PANEL LOAD TOTAL (FLA)			
PXMIS416A2AJ	5(X2)	208V/3Ø	14.0	114	150A	125A	150A
PXMIS416A3AJ	5(X2)	230V/3Ø	12.7	104	150A	125A	125A
PXMIS416A4AJ	5(X2)	460V/3Ø	6.33	53	70A	60A	70A
PXMIS416E2AJ	7.5(X2)	208V/3Ø	19.2	156	200A	175A	200A
PXMIS416E3AJ	7.5(X2)	230V/3Ø	17.3	141	200A	175A	200A
PXMIS416E4AJ	7.5(X2)	460V/3Ø	8.67	72	90A	80A	90A
PXMIS416G2AJ	10(X2)	208V/3Ø	26.5	214	300A	250A	300A
PXMIS416G3AJ	10(X2)	230V/3Ø	24.0	194	250A	225A	250A
PXMIS416G4AJ	10(X2)	460V/3Ø	12.0	98	125A	110A	125A

NOTE - ADJUST OVERCURRENT PROTECTION DEVICE NOT TO EXCEED
115% OF MOTOR NAMEPLATE FLA VALUE

NOTES:

- RECOMMENDED TIGHTENING TORQUES FOR WIRE TERMINALS:
208-575 VOLT POWER 35 POUND INCHES
120 VOLT POWER AND CONTROL 15 POUND INCHES
VOLTAGE
- PANEL GROUND MUST BE CONNECTED TO EARTH GROUND
- INSTALLER TO PROVIDE MAIN DISCONNECTING DEVICE WITH
SHORT CIRCUIT PROTECTION FOR THIS ELECTRICAL ASSEMBLY.
SEE TABLE 1 FOR REQUIREMENTS.
- ALL WIRES MUST BE LABELED ON BOTH ENDS
- TRANSFORMER IS SIZED FOR LOADS SHOWN ON DRAWING ONLY.
DO NOT CONNECT ANY OTHER DEVICES
- △ -INDICATES A DRAWING WIRE CONNECTION TO ANOTHER PAGE.

FIELD WIRING NOTES ON PAGE W-7.

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/03/13	PXEC0029	AJL	KMD
C-1	CHANGED RUNG 27 LAYOUT DATA TBL SADD TIME DELAY RLY CHANGE NAME FRM 'S416A' TO 'S416X'	01/15/15	PXEC0093	KMD	DMS
D-1	ADD ISOLATION RELAYS	04/29/15	PXEC0093	AJL	KMD
E-1	UPDATED BACNET CARD	07/20/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0165	AKH	KMD

WIRE TYPE TABLE			
VOLTAGE	WIRE NUMBERS	GAUGE	COLOR
120 VAC	01-699	16-18 AWG	RED/BLK
0VAC	W	16-18 AWG	WHT/BLK
24VDC	700-799	16-18 AWG	PURPLE
0VDC	701	16-18 AWG	PURPLE
GND	-	VARIES	GREEN
CUSTOMER SUPPLY	01-99	16 AWG	YELLOW

TABLE 2 - CONTROL CIRCUIT PROTECTION					
FUSE TYPE		208 VOLT	230 VOLT	460 VOLT	575 VOLT
FU1,2A FU1,2B	FNQR	6A	5A	5A	4A
FU3AB	FNM	7A	7A	7A	7A

OPTIONAL:	SINGLE CYLINDER PUMPS	<input type="checkbox"/>
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BACNET, WEBSVR,	SCROLL PUMPS	<input checked="" type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
AJL	KMD	DMS
10/03/13	10/03/13	10/03/13

PANEL TYPE
QUAD MED 2xSCROLL PER PLEX
HMI, NFPA

DWG. TYPE DATA

DWG. NO.
PXMI-S416X

SHEET D-1	SIZE B
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SEQUENCE OF OPERATIONS

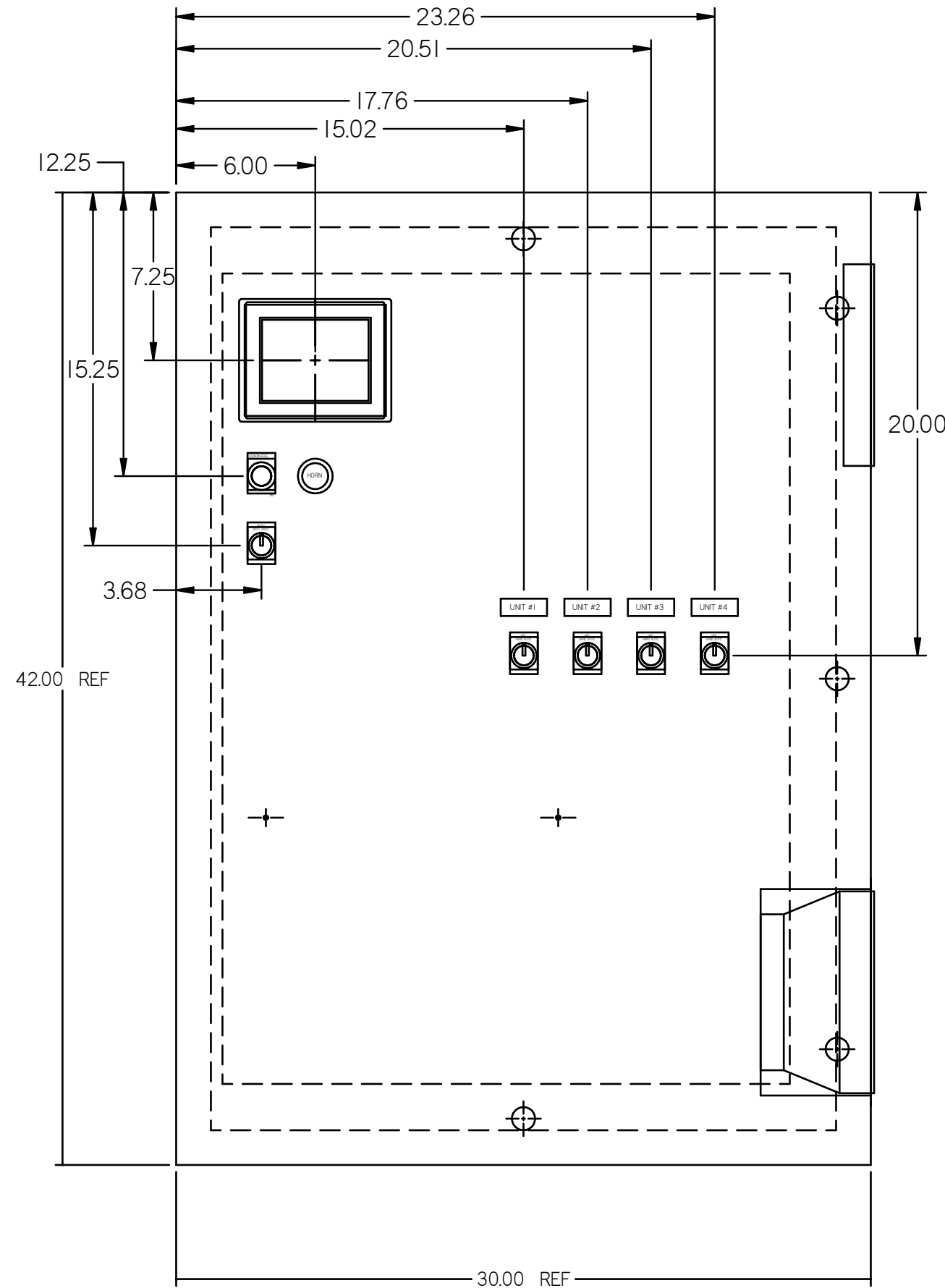
During normal operation the PBMI controller will signal the Lead compressor to run when pressure drops below lead cut-in set-point and stop when the pressure reaches the lead cut-out set-point. Lead alternation to the next pump, will occur with each lead run signal or every 10-minutes (which ever happens 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.

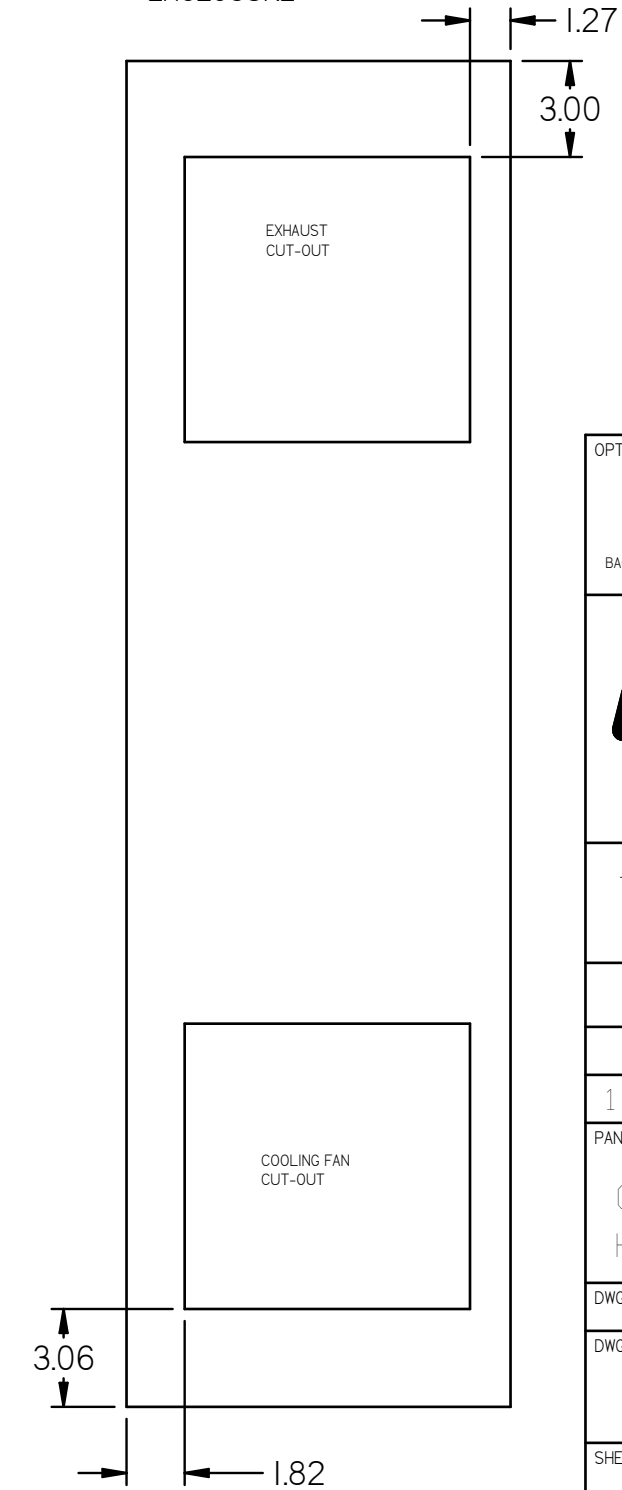
Expandable systems include all control devices, operators, and programming for the maximum number of pumps (or plex) required. To expand the system: navigate to the "service screen" and enter the number of pumps.

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

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E-1	UPDATED BACNET CARD	07/20/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD



RIGHT SIDE OF ENCLOSURE



- OPTIONAL:
- SINGLE CYLINDER PUMPS
 - DOUBLE-CYLINDER PUMPS
 - TRIPLE-CYLINDER PUMPS
 - SCROLL PUMPS
- BACNET, WEBSVR,



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10/03/13	10/03/13	10/03/13

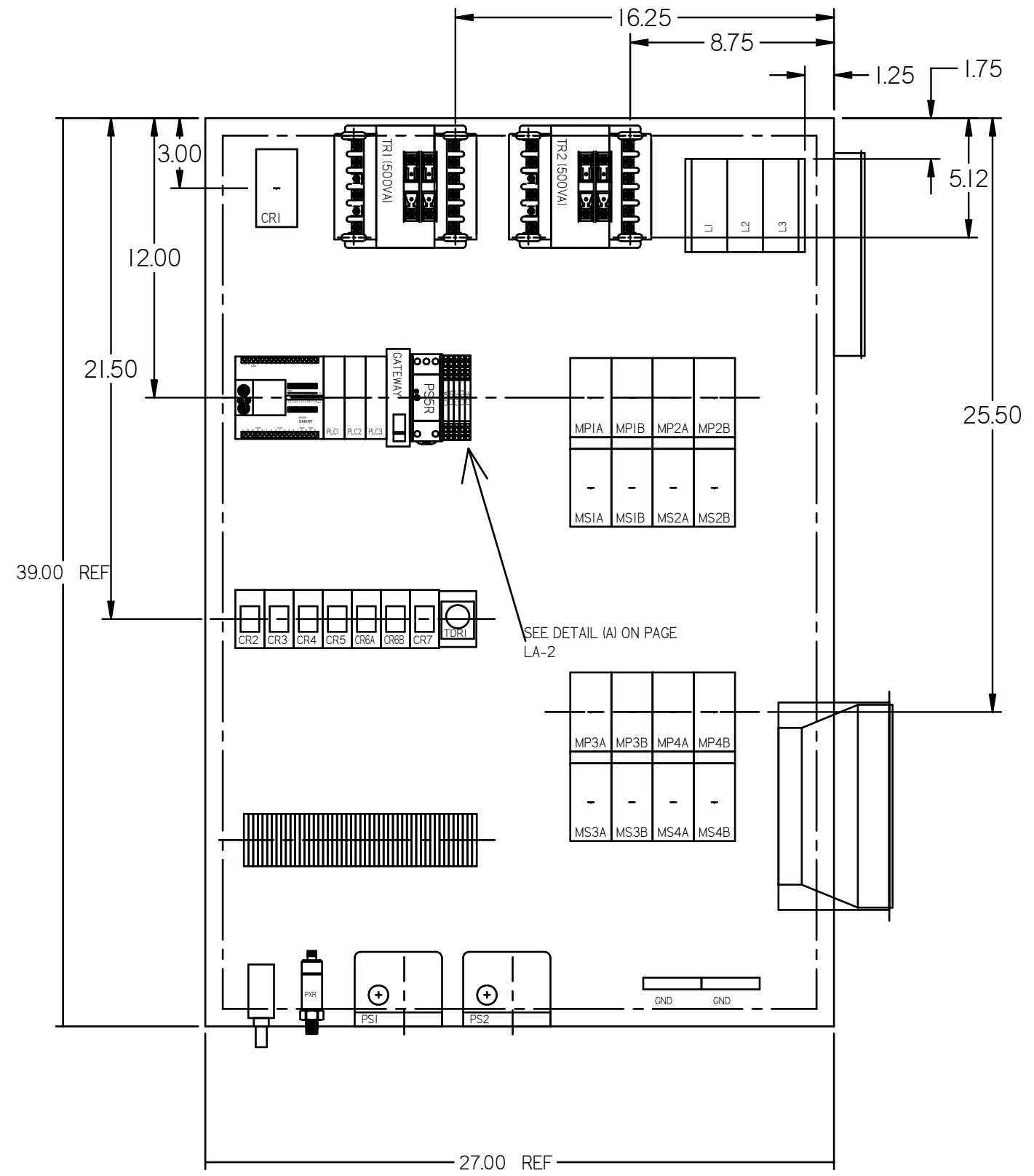
PANEL TYPE
 QUAD MED 10HP SCROLL
 HMI, NFPA

DWG. TYPE LAYOUT

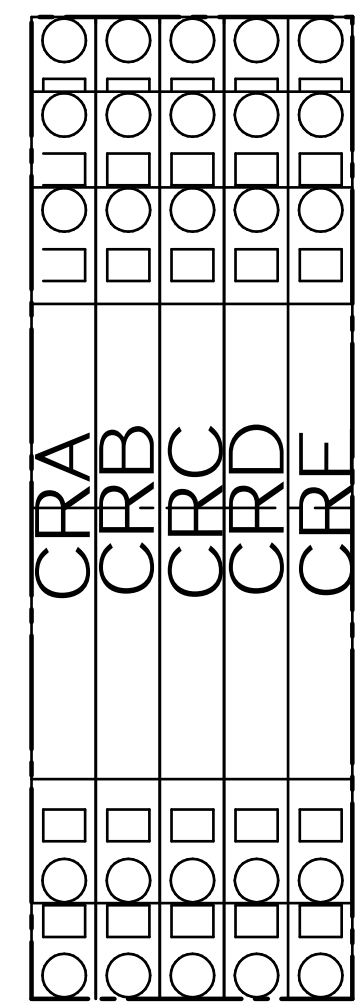
DWG. NO.
 PXMI-S416X

SHEET	SIZE
L-1	B

REV	REVISION	DATE	ECN	NAME	CHKD
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E-1	UPDATED BACNET CARD	07/20/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	09/10/18	PXEC0165	AKH	KMD



DETAIL (A)



OPTIONAL:

SINGLE CYLINDER PUMPS	<input type="checkbox"/>
DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
SCROLL PUMPS	<input checked="" type="checkbox"/>

BACNET, WEBSVR,



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AJL	KMD	DMS
10/03/13	10/03/13	10/03/13

PANEL TYPE
QUAD MED 2xSCROLL PER PLEX
HMI, NFPA

DWG. TYPE LAYOUT

DWG. NO. PXMI-S416X

SHEET	SIZE
L-2	B