

ALL NOTES AND DATA
ARE LISTED ON D-1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	10/09/12	22722	CHR	DMS
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	REVISED DATA TABLE	08/07/14	PXEC_67	DMS	KMD
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	9/04/18	PXEC0229	JPG	AH

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



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

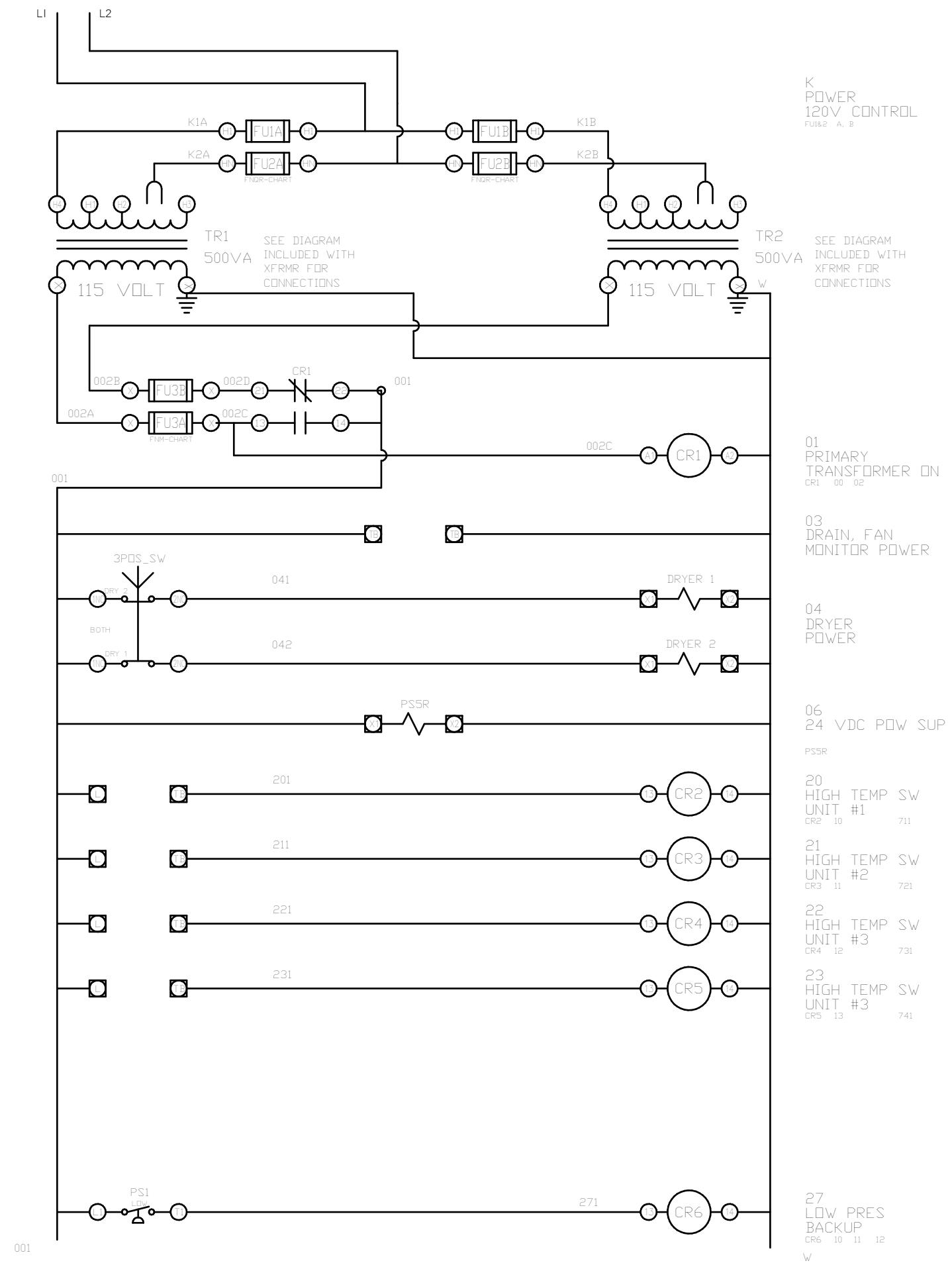
PANEL TYPE
QUAD LAB 10HP SCROLL
HMI, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-LS416A W

SHEET	SIZE
W-1	B

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K
POWER
120V CONTROL
FU1&2 A, B

TR1 500VA
SEE DIAGRAM
INCLUDED WITH
XFRMR FOR
CONNECTIONS

01
PRIMARY
TRANSFORMER ON
CR1 00 02

03
DRAIN, FAN
MONITOR POWER

04
DRYER
POWER

06
24 VDC POW SUP
PS5R

20
HIGH TEMP SW
UNIT #1
CR2 10 711

21
HIGH TEMP SW
UNIT #2
CR3 11 721

22
HIGH TEMP SW
UNIT #3
CR4 12 731

23
HIGH TEMP SW
UNIT #3
CR5 13 741

27
LOW PRES
BACKUP
CR6 10 11 12
W

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, WEBSRVR.



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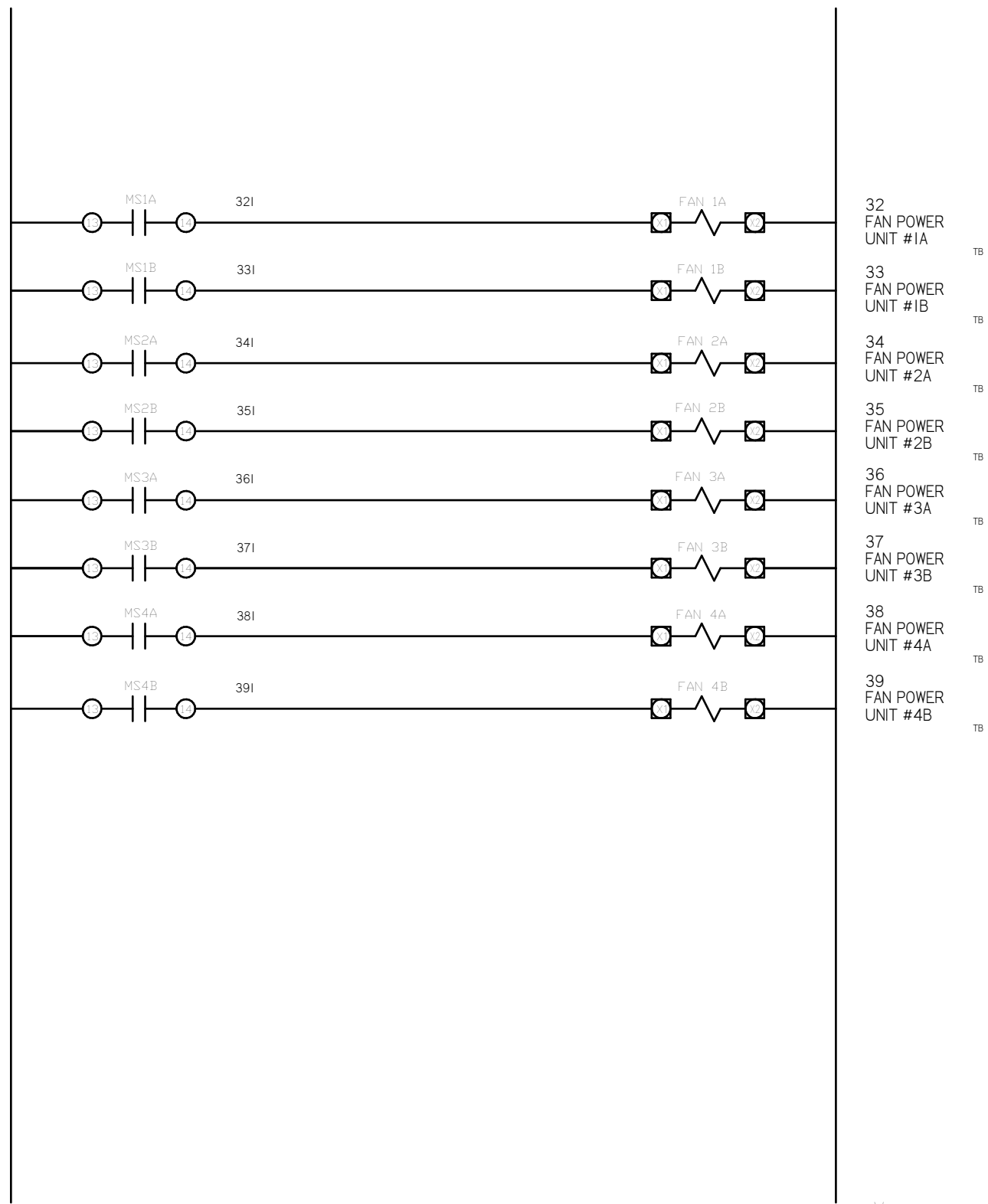
PANEL TYPE
QUAD LAB 10HP SCROLL
HMI, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-LS416A W

SHEET	SIZE
W-2	B

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BACNET, WEBSVR,



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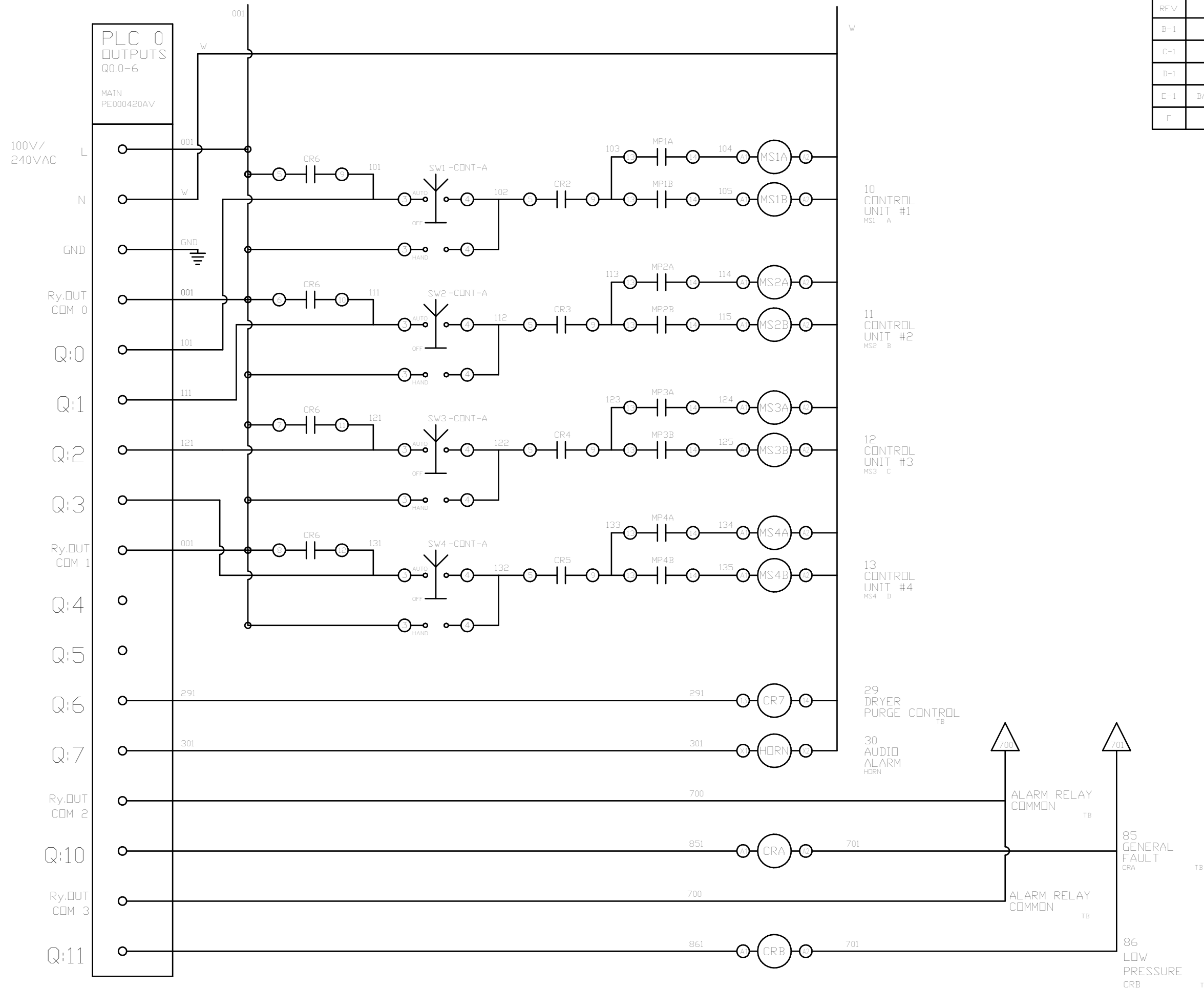
PANEL TYPE
QUAD LAB 10HP SCROLL
HMI, NFPA

DWG. TYPE WIRING

DWG. NO.
PXMI-LS416A W

SHEET	SIZE
W-3	B

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F	ADDED FAN WIRING	9/04/18	PXEC0225	JPG	AH



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

BACNET, WEBSRVR,



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10/09/12	10/09/12	10/09/12

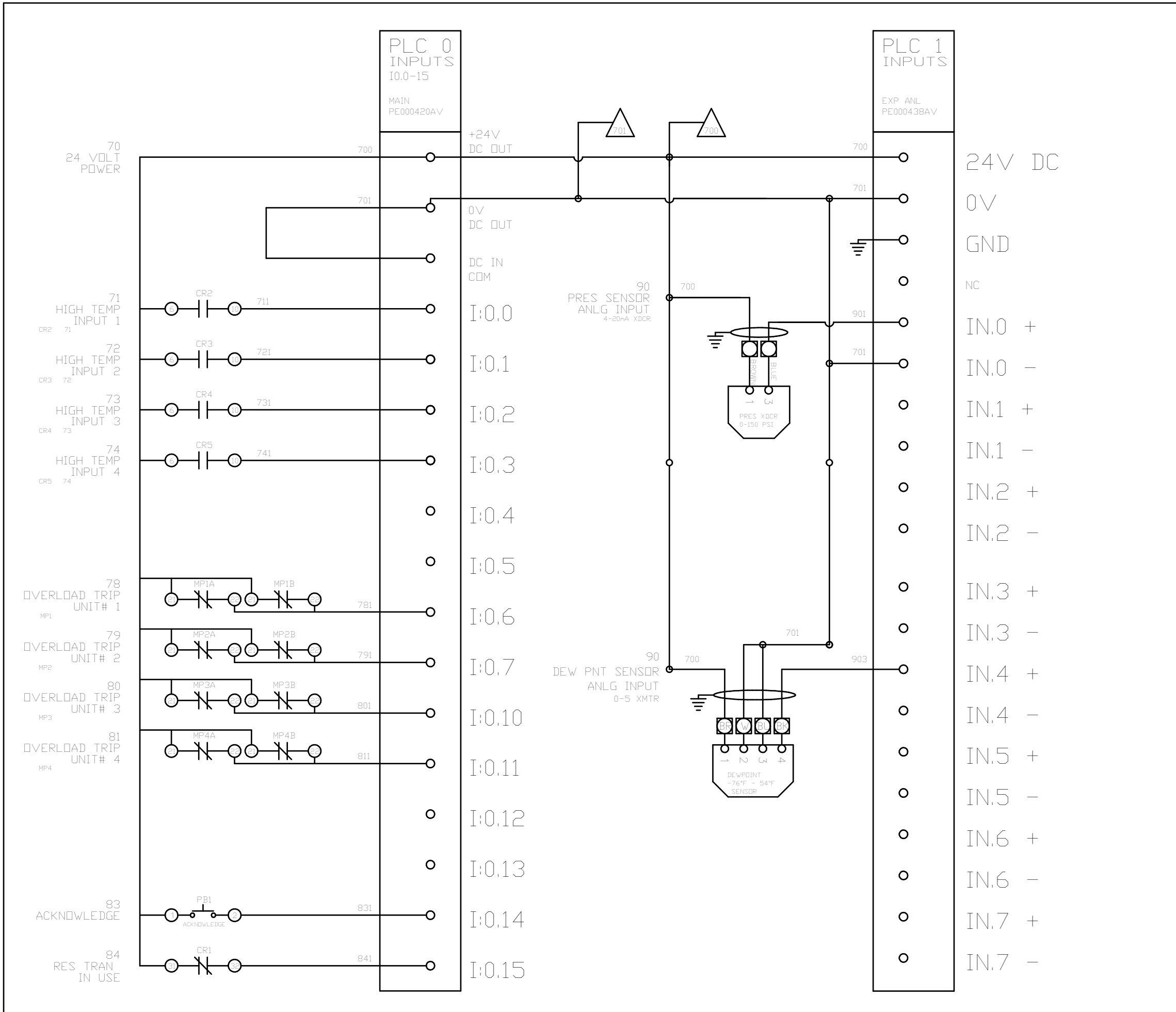
PANEL TYPE
 QUAD LAB 10HP SCROLL HMI, NFPA

DWG. TYPE
 WIRING

DWG. NO.
 PXMI-LS416A W

SHEET	SIZE
W-4	B

REV	REVISION	DATE	ECN	NAME	CHKD
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TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
SCROLL PUMPS	<input checked="" type="checkbox"/>

BACNET, WEBSRV,



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CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

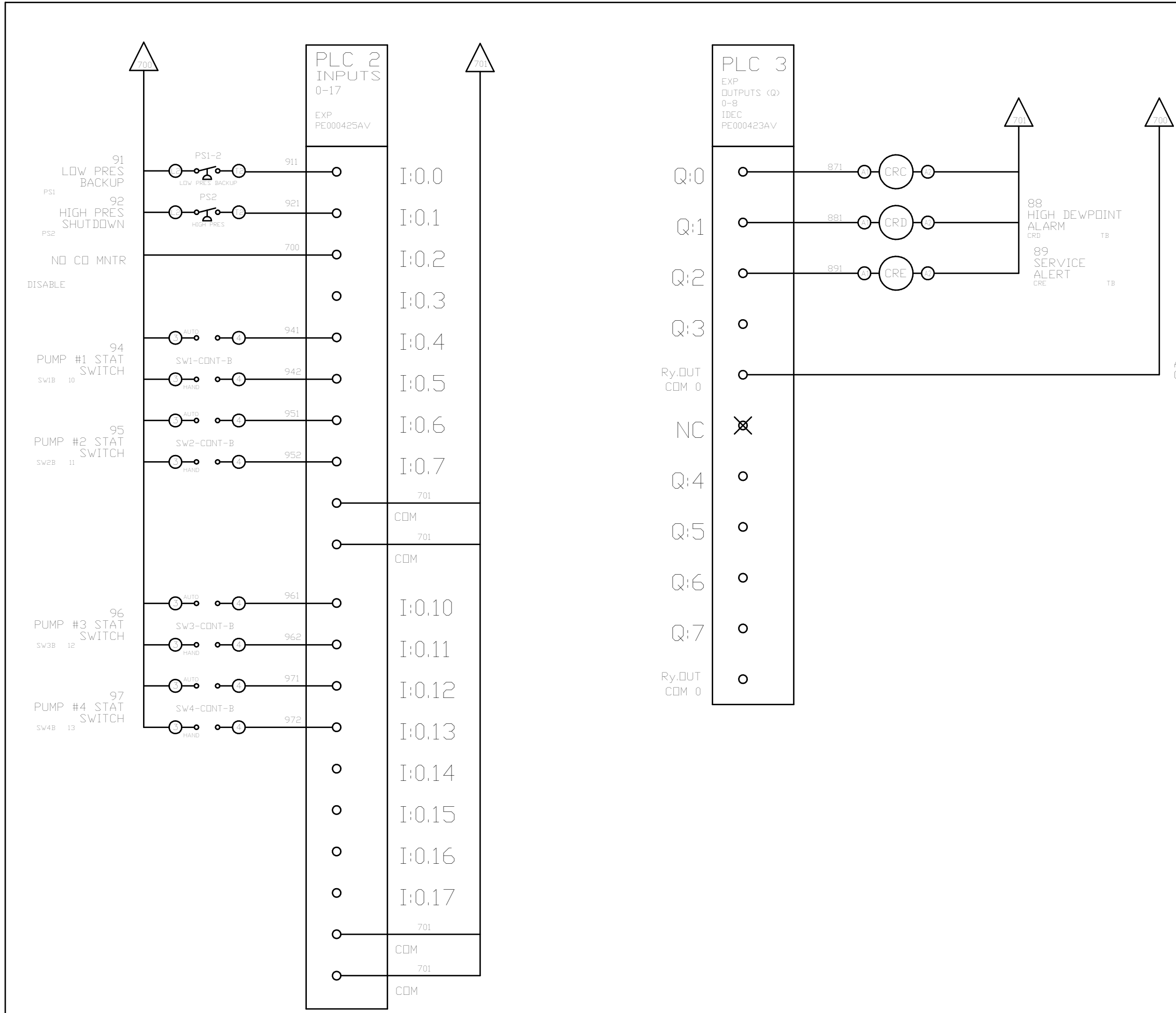
PANEL TYPE
QUAD LAB 10HP SCROLL
HMI, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-LS416A W

SHEET W-5	SIZE B
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TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>
SCROLL PUMPS	<input checked="" type="checkbox"/>

BACNET, WEBSVR,



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10/09/12	10/09/12	10/09/12

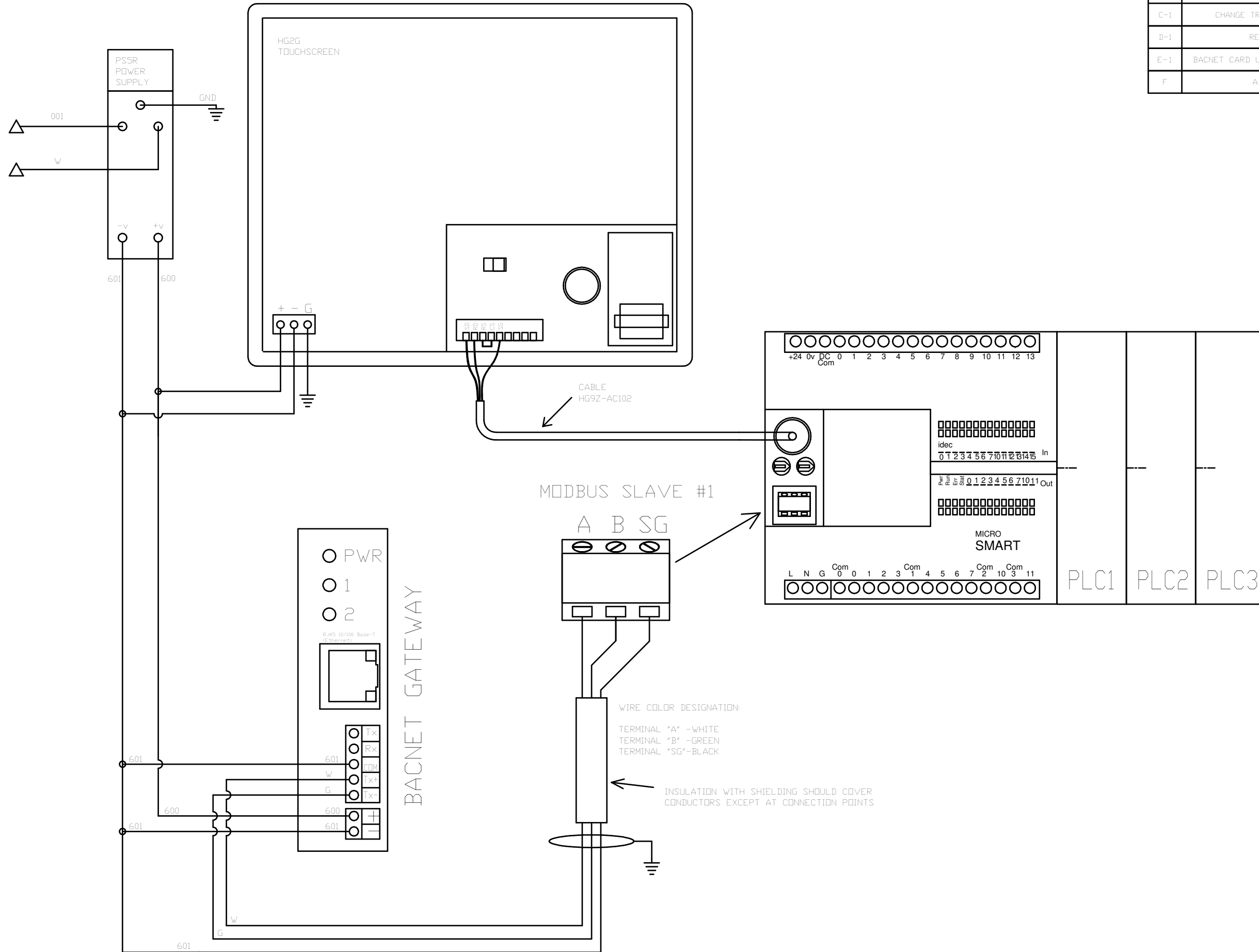
PANEL TYPE
 QUAD LAB 10HP SCROLL
 HMI, NFPA

DWG. TYPE WIRING

DWG. NO.
 PXMI-LS416A W

SHEET	SIZE
W-6	B

REV	REVISION	DATE	ECN	NAME	CHKD
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D-1	REVISED DATA TABLE	08/07/14	PXEC_67	DMS	KMD
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F	ADDED FAN WIRING	9/04/18	PXEC0225	JPG	AH



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"/>



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CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

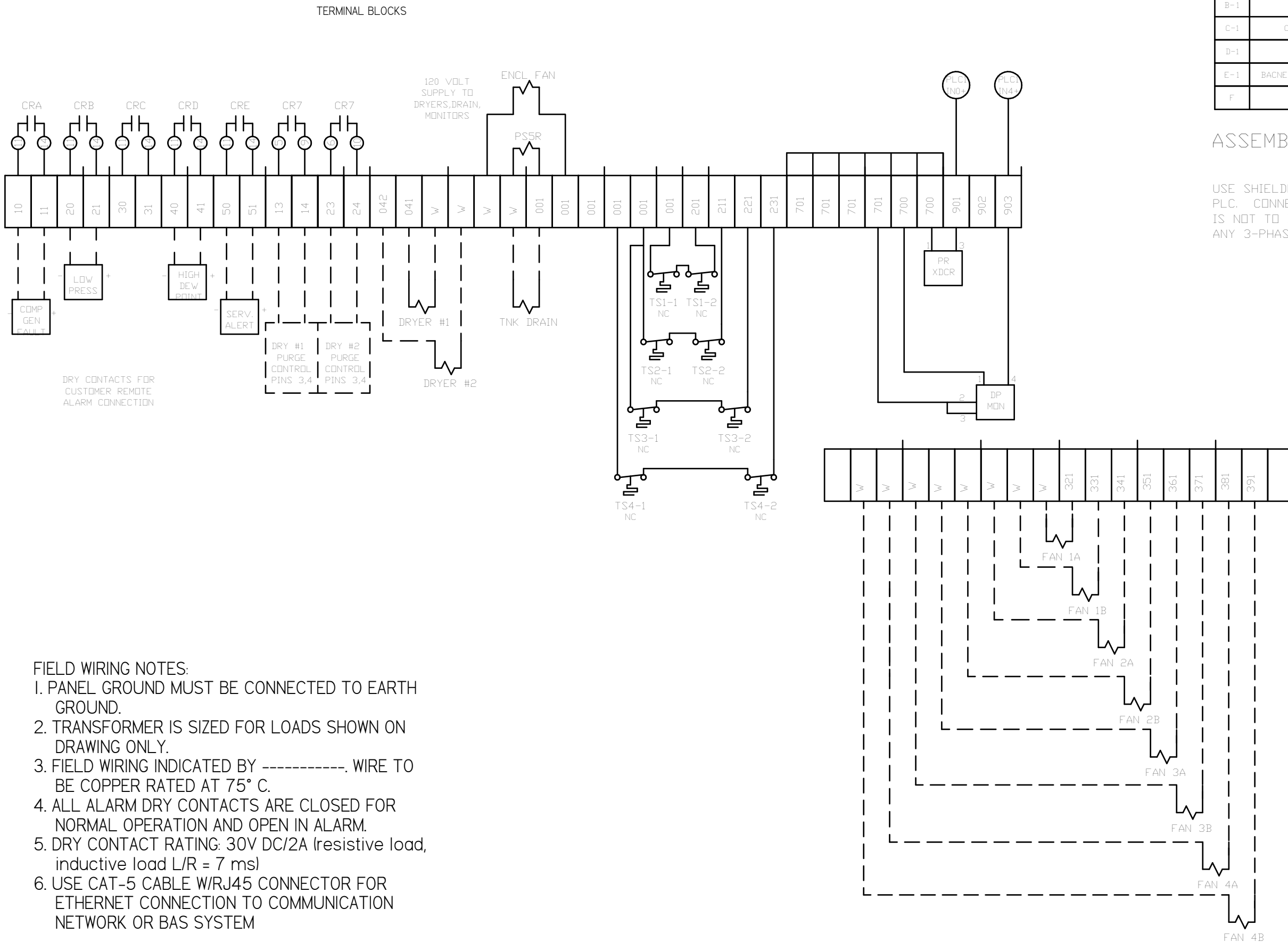
PANEL TYPE
 QUAD LAB 10HP SCROLL HMI, NFPA

DWG. TYPE WIRING

DWG. NO.

PXMI-LS416A W

SHEET	SIZE
W-7	B



FIELD WIRING NOTES:

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

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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.

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



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CHR	DMS	DMS
10/09/12	10/09/12	10/09/12

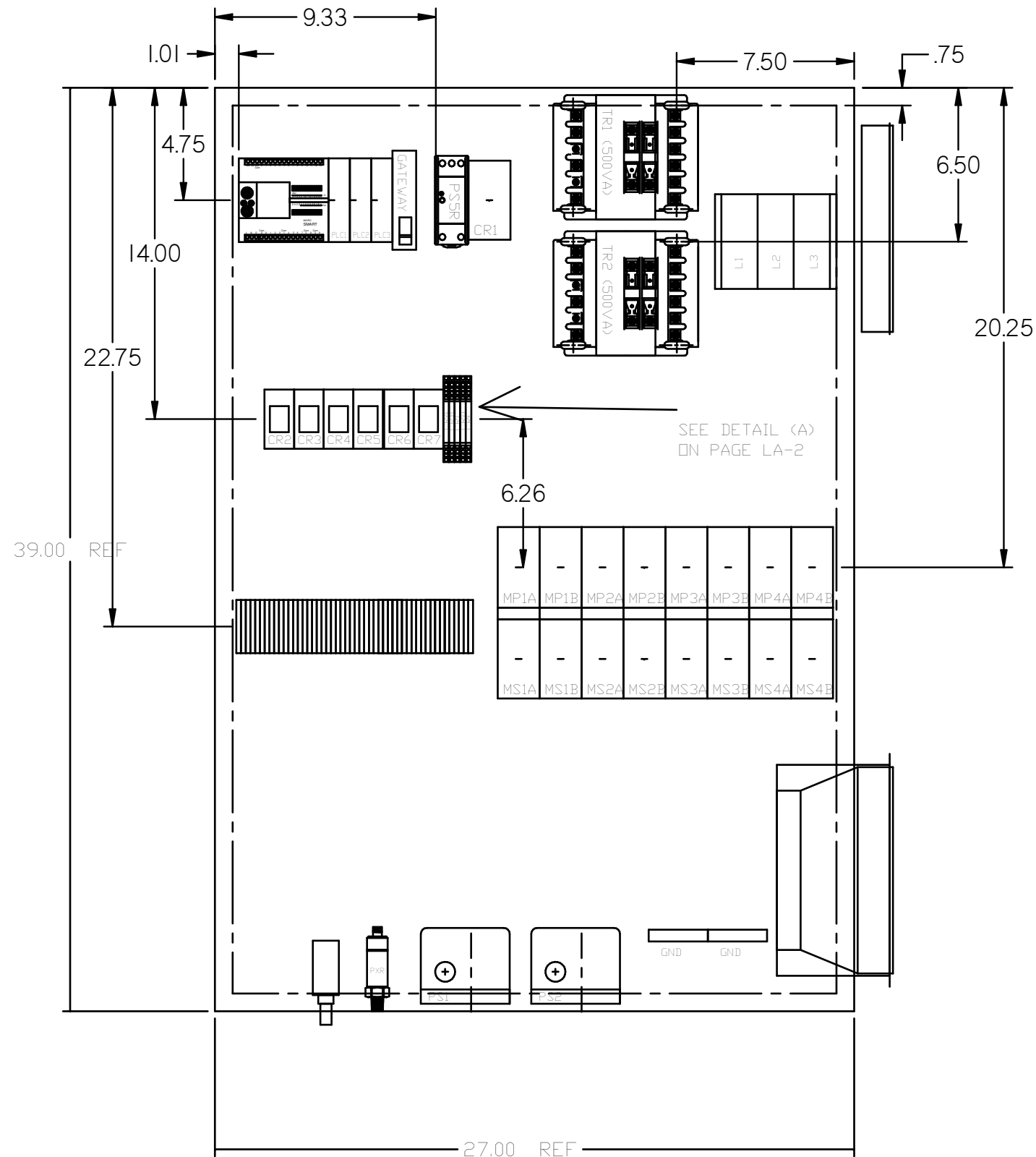
PANEL TYPE
 QUAD LAB 10HP SCROLL HMI, NFPA

DWG. TYPE WIRING

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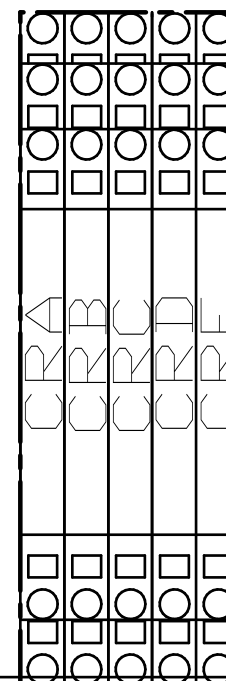
SHEET	SIZE
W-8	B

REV	REVISION	DATE	ECN	NAME	CHKD
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SEE DETAIL (A)
ON PAGE LA-2

DETAIL (A)



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



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10/09/12	10/09/12	10/09/12

PANEL TYPE
QUAD LAB 10HP SCROLL
HMI, NFPA

DWG. TYPE LAYOUT

DWG. NO.
PXMI-LS416A W

SHEET	SIZE
L-2	B

TABLE 1

PANEL DATA 3Ø - 60 Hz 500VA CONTROL CIRCUIT					(B) BRANCH CIRCUIT PROTECTION - PROVIDED BY INSTALLER		
(A) LOAD SPECIFICATIONS					NONTIME DELAY FUSE	TIME-DELAY FUSE	INVERSE-TIME CIRCUIT BREAKER
PANEL PART NUMBER	MOTOR SIZE EACH (HP)	(A) POWER (V/PH)	(A) MOTOR LOAD EACH (FLA)	PANEL LOAD TOTAL (FLA)			
PXMILS416A2AJ	5(X2)	208V/3Ø	14.0	114	150A	125A	150A
PXMILS416A3AJ	5(X2)	230V/3Ø	12.7	104	150A	125A	125A
PXMILS416A4AJ	5(X2)	460V/3Ø	6.49	53.92	70A	60A	70A

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
VOLTAGE 15 POUND INCHES
- 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 REQUIRMENTS.
- 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.

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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.

OPTIONAL:

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PANEL TYPE
QUAD LAB 10HP SCROLL
HMI, NFPA

DWG. TYPE DATA

DWG. NO. PXMI-LS416A W

SHEET D-1 SIZE B

CONTROL TRANSFORMERS - 500VA					
FUSE		208	230	460	575
TYPE		VOLT	VOLT	VOLT	VOLT
FU1,2A	FNR	6A	5A	5A	4A
FU3A,B	FNM	7A	7A	7A	7A
SEE XFMR FOR CONNECTIONS					

WIRE TYPE TABLE			
VOLTAGE	WIRE NUMBERS	GAUGE	COLOR
120VAC	001-699	16-18AWG	RED/BLK
24VDC	700-999	16-18AWG	WHT/BLK
24VDC	701	16-18AWG	PURPLE
0VDC	-	16-18AWG	PURPLE
BND	-	VARIES	GREEN
CUSTOMER SUPPLY	01-99	16AWG	YELLOW