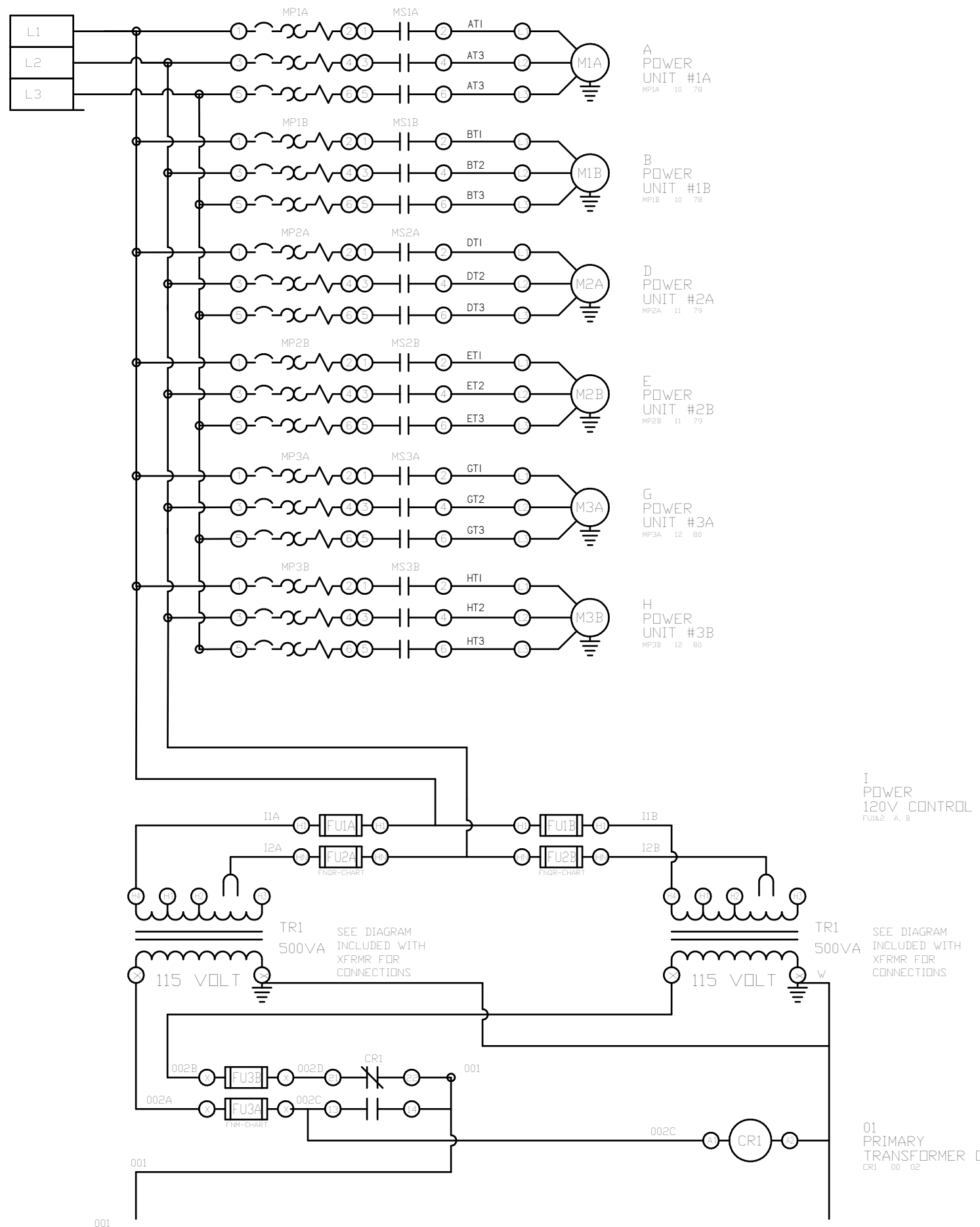


REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	9/04/18	PXEC0225	JPG	AH



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"/>

BACNET, WEBSRVR.



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

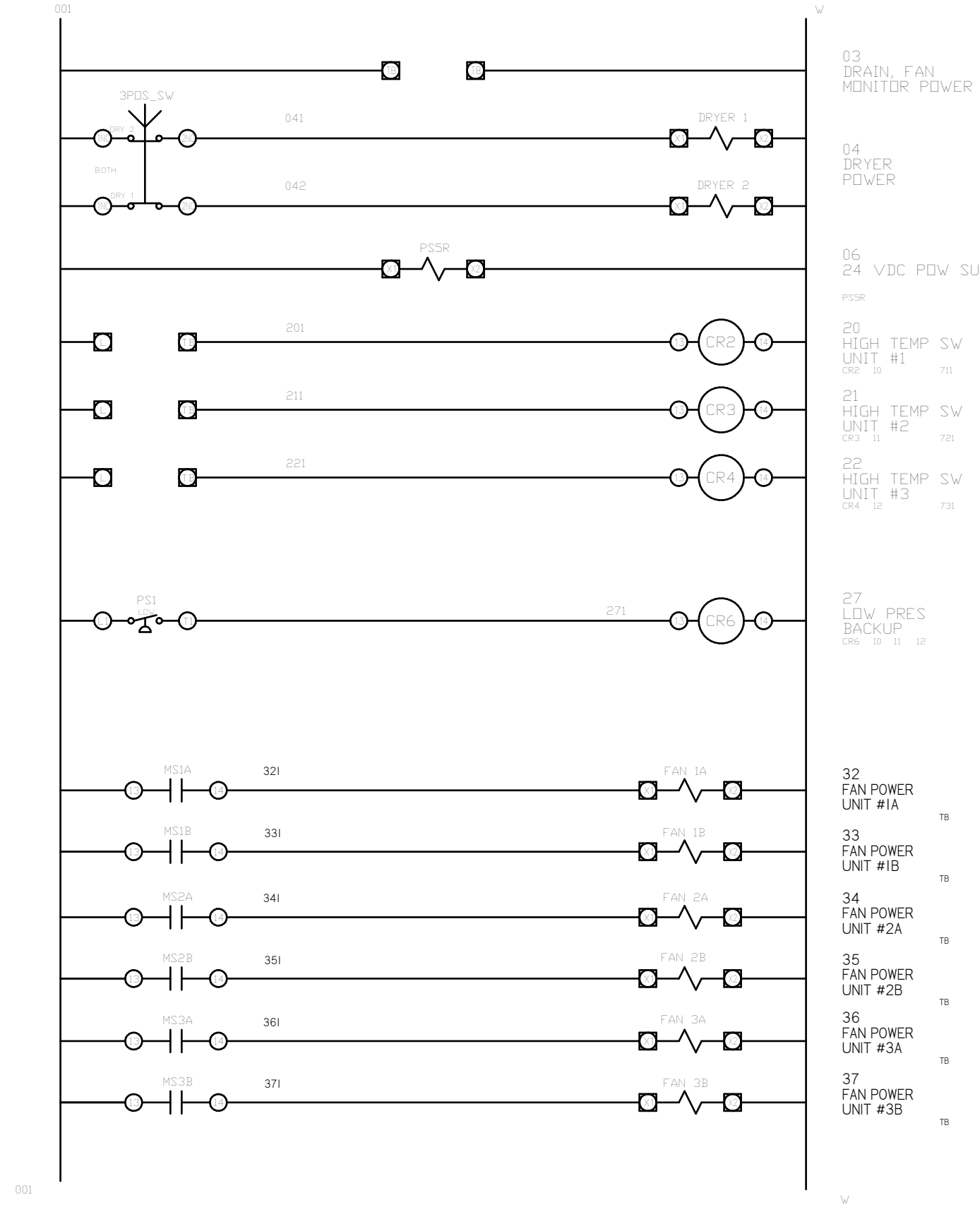
PANEL TYPE  
TRIPLEX LAB 10HP SCROLL HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-LS316A W

SHEET W-1	SIZE B
--------------	-----------

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	9/04/18	PXEC0229	JPG	AH



03  
DRAIN, FAN  
MONITOR POWER

04  
DRYER  
POWER

06  
24 VDC POW SUP

20  
HIGH TEMP SW  
UNIT #1

21  
HIGH TEMP SW  
UNIT #2

22  
HIGH TEMP SW  
UNIT #3

27  
LOW PRES  
BACKUP

32  
FAN POWER  
UNIT #1A

33  
FAN POWER  
UNIT #1B

34  
FAN POWER  
UNIT #2A

35  
FAN POWER  
UNIT #2B

36  
FAN POWER  
UNIT #3A

37  
FAN POWER  
UNIT #3B

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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DRAWN BY	OR EXAMINATION CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

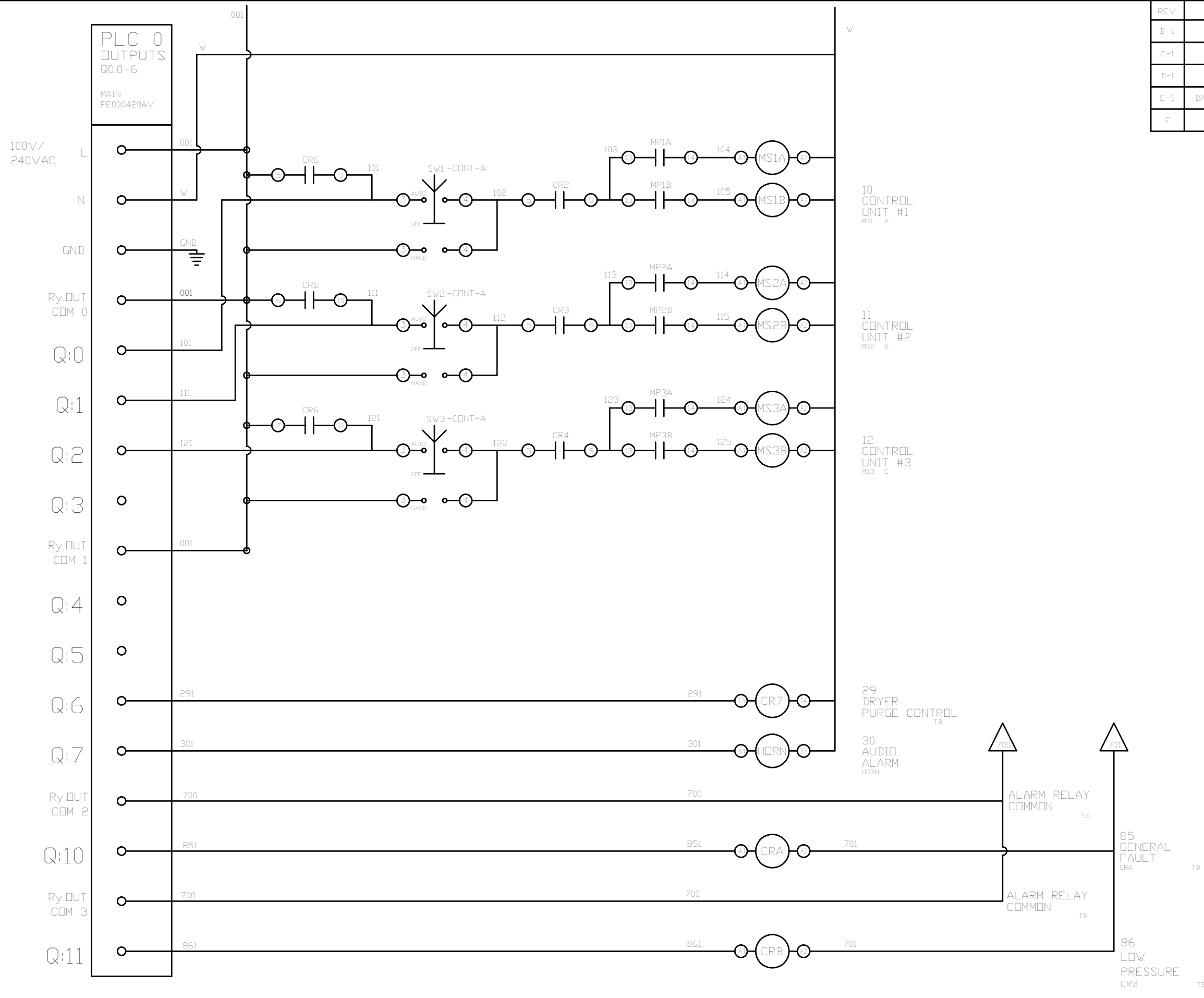
PANEL TYPE  
TRIPLEX LAB 10HP SCROLL  
HMI, NFPA

DWG. TYPE WIRING

DWG. NO.  
PXMI-LS316A W

SHEET	SIZE
W-2	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	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"/>
SCROLL PUMPS	<input checked="" type="checkbox"/>

BACNET, WEBSVR.



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

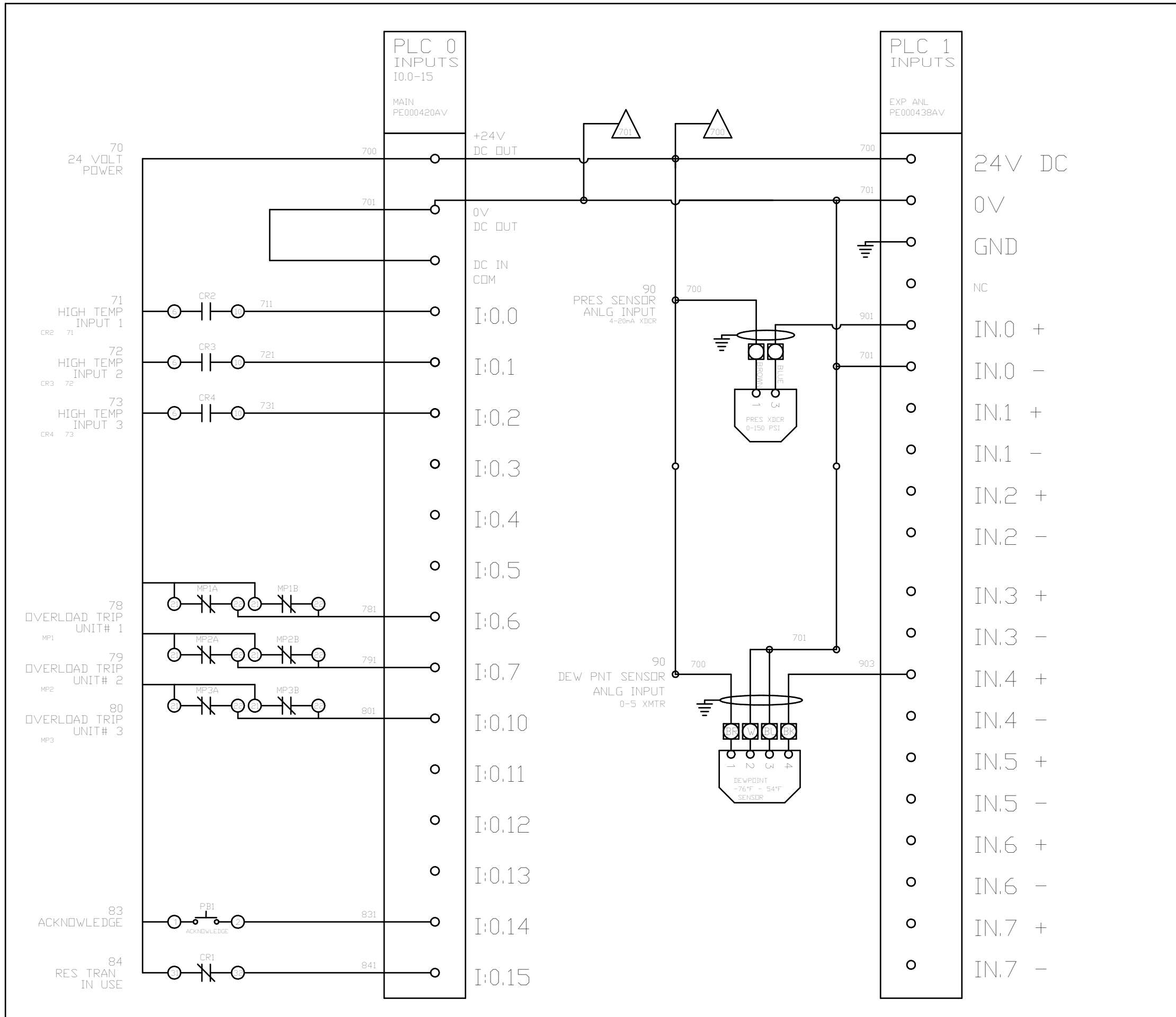
PANEL TYPE  
TRIPLEX LAB 10HP SCROLL  
HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-LS316A W

SHEET	SIZE
W-3	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	PXEC0110	AJL	KMD
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"/>

BACNET, WEBSVR,



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

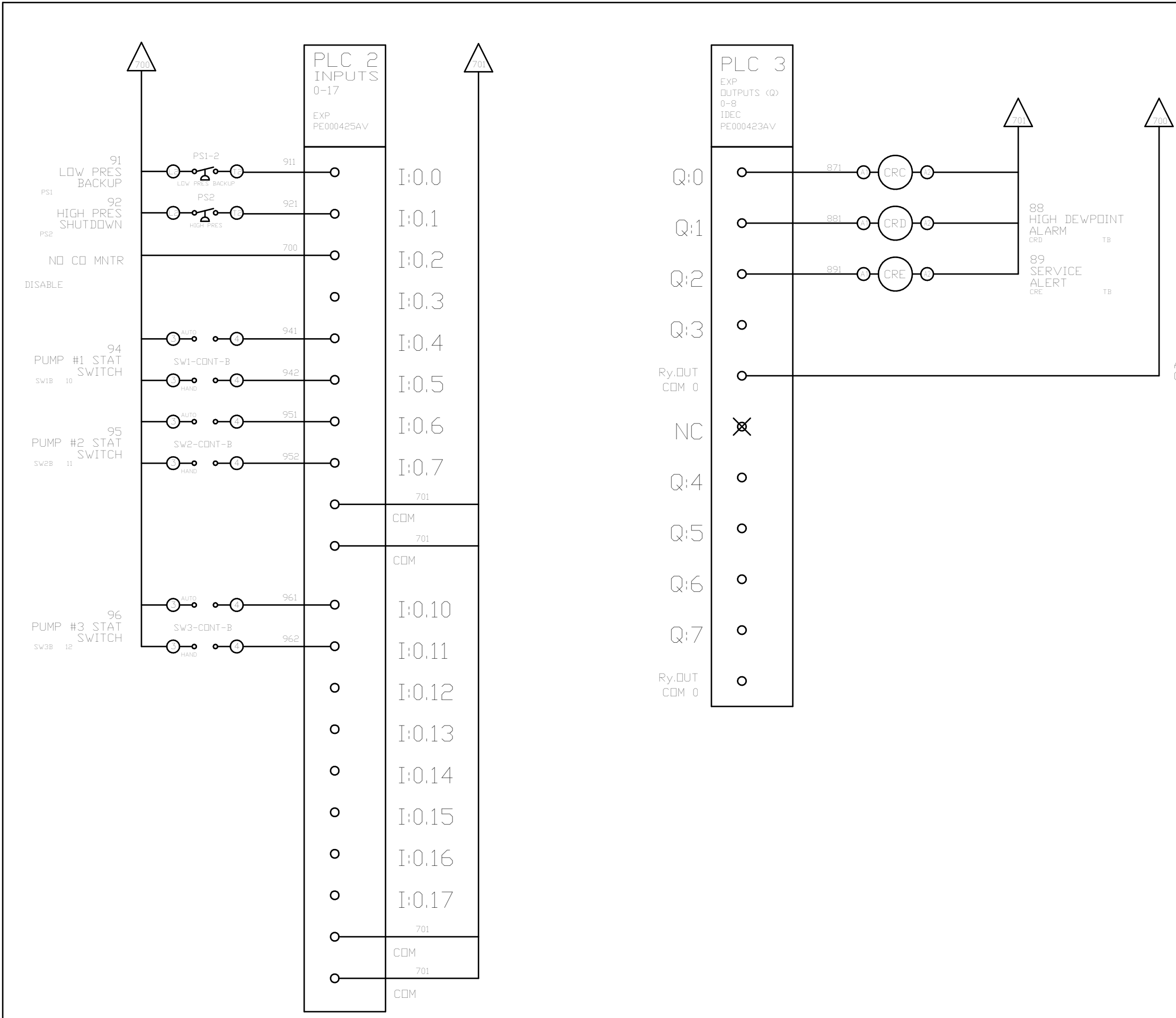
PANEL TYPE  
TRIPLEX LAB 10HP SCROLL HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-LS316A W

SHEET	SIZE
W-4	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	PXEC0110	AJL	KMD
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"/>

BACNET, WEBSVR,



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

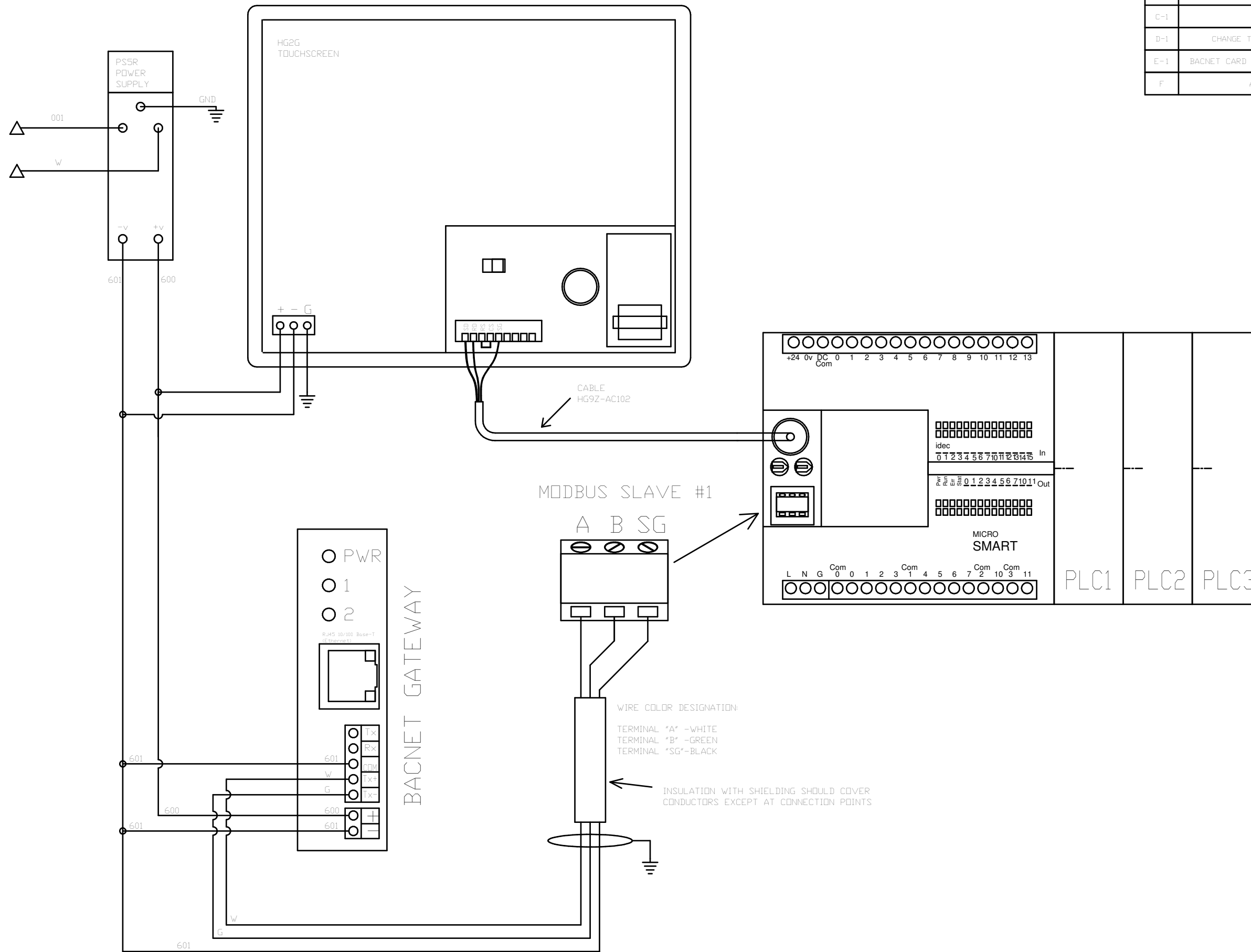
PANEL TYPE  
TRIPLEX LAB 10HP SCROLL HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-LS316A W

SHEET	SIZE
W-5	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	PXEC0110	AJL	KMD
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"/>

BACNET, WEBSVR.



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DRAWN BY	UPD EXAMINATION CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

PANEL TYPE  
TRIPLEX LAB 10HP SCROLL HMI, NFPA

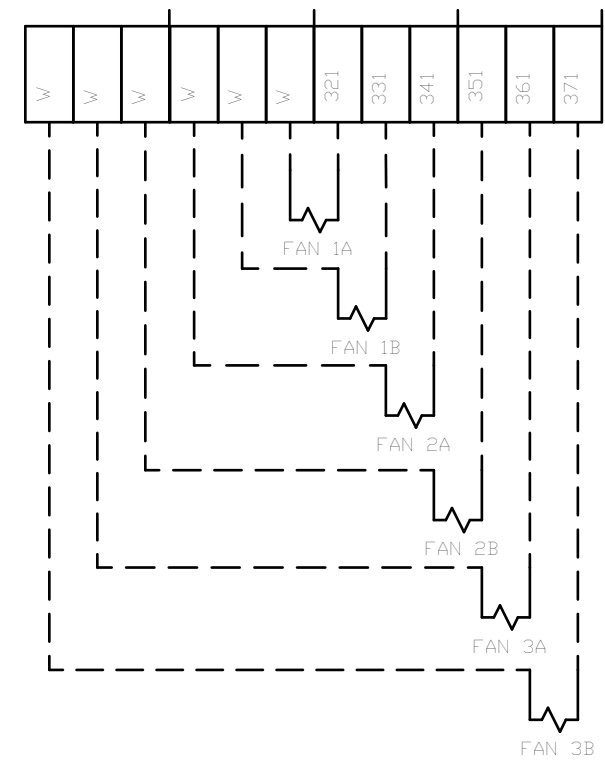
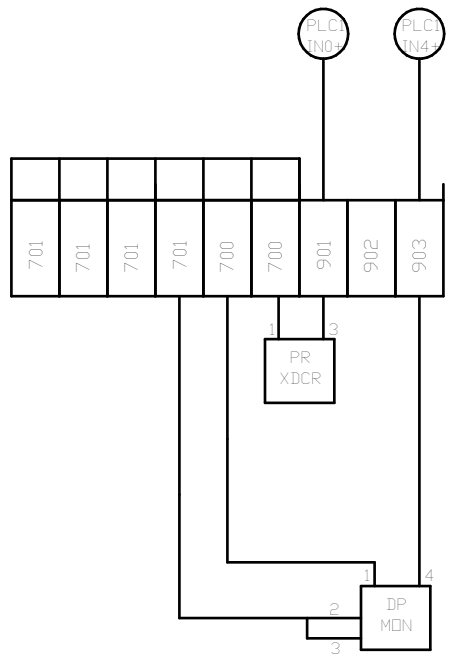
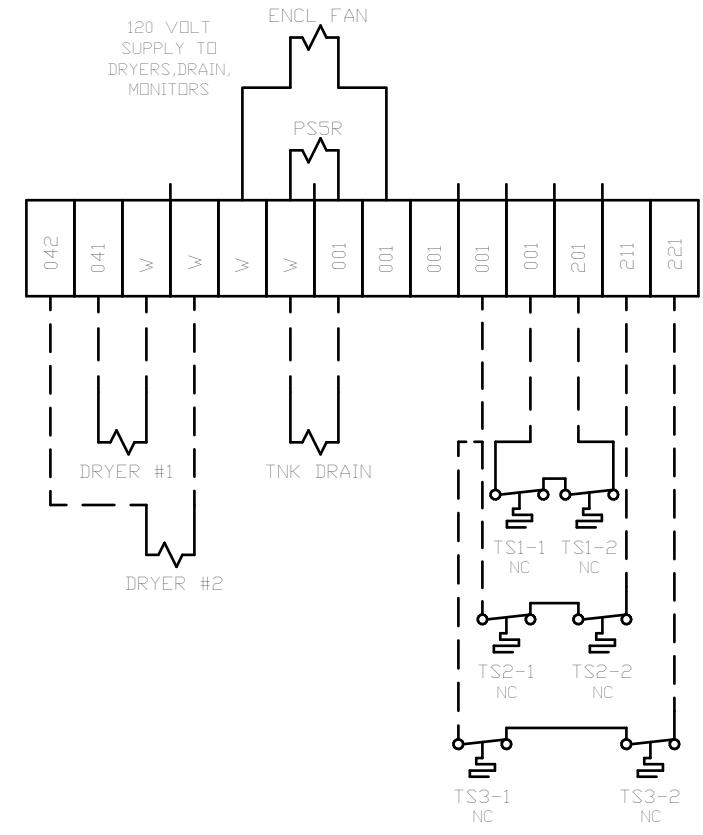
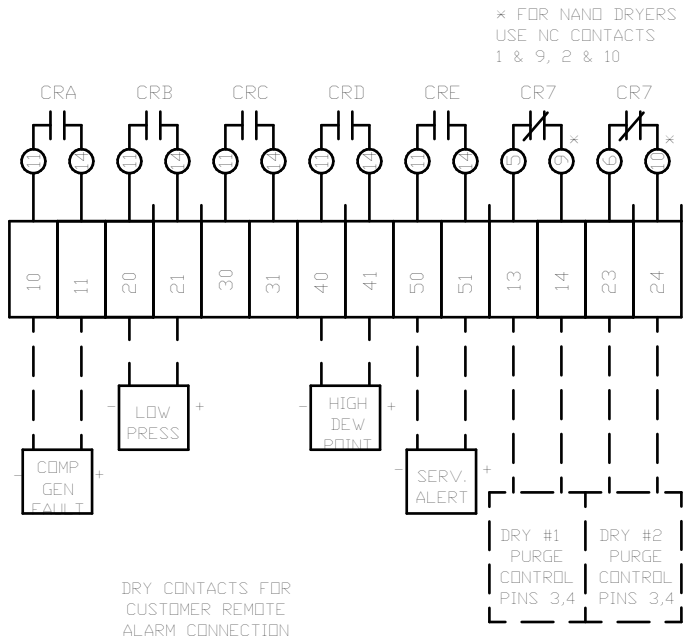
DWG. TYPE WIRING

DWG. NO. PXMI-LS316A W

SHEET	SIZE
W-6	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	9/04/18	PXEC0225	JPG	AH

TERMINAL BLOCKS



- 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

ASSEMBLY NOTE:

USE SHIELDED CABLE BETWEEN TERMINAL BLOCKS AND PLC. CONNECT GROUND LOOPS TO GROUND BLOCK. CABLE IS NOT TO BE ROUTED IN PROXIMITY (2") OR ROUTED IN WIRE TRAY OF ANY 3-PHASE POWER CONDUCTORS.

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



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DRAWN BY	OR examination CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

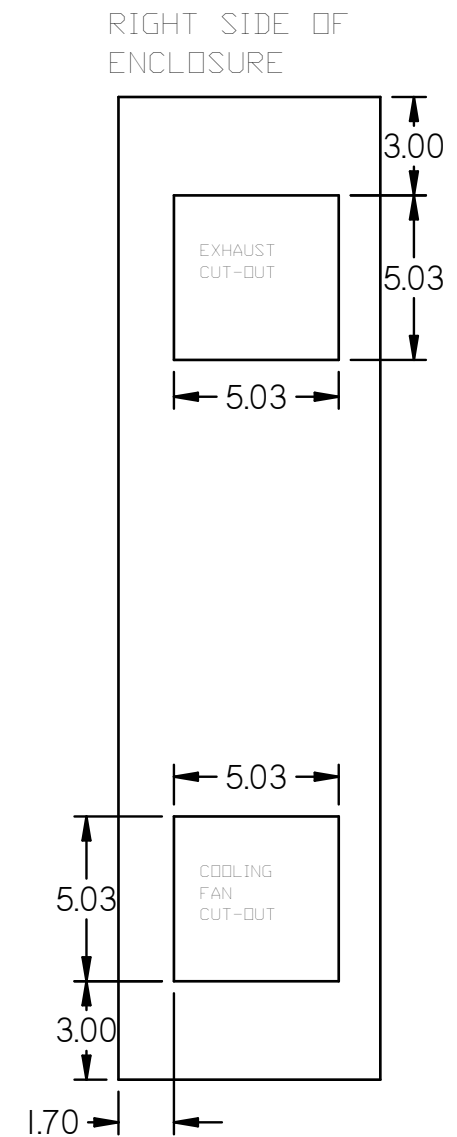
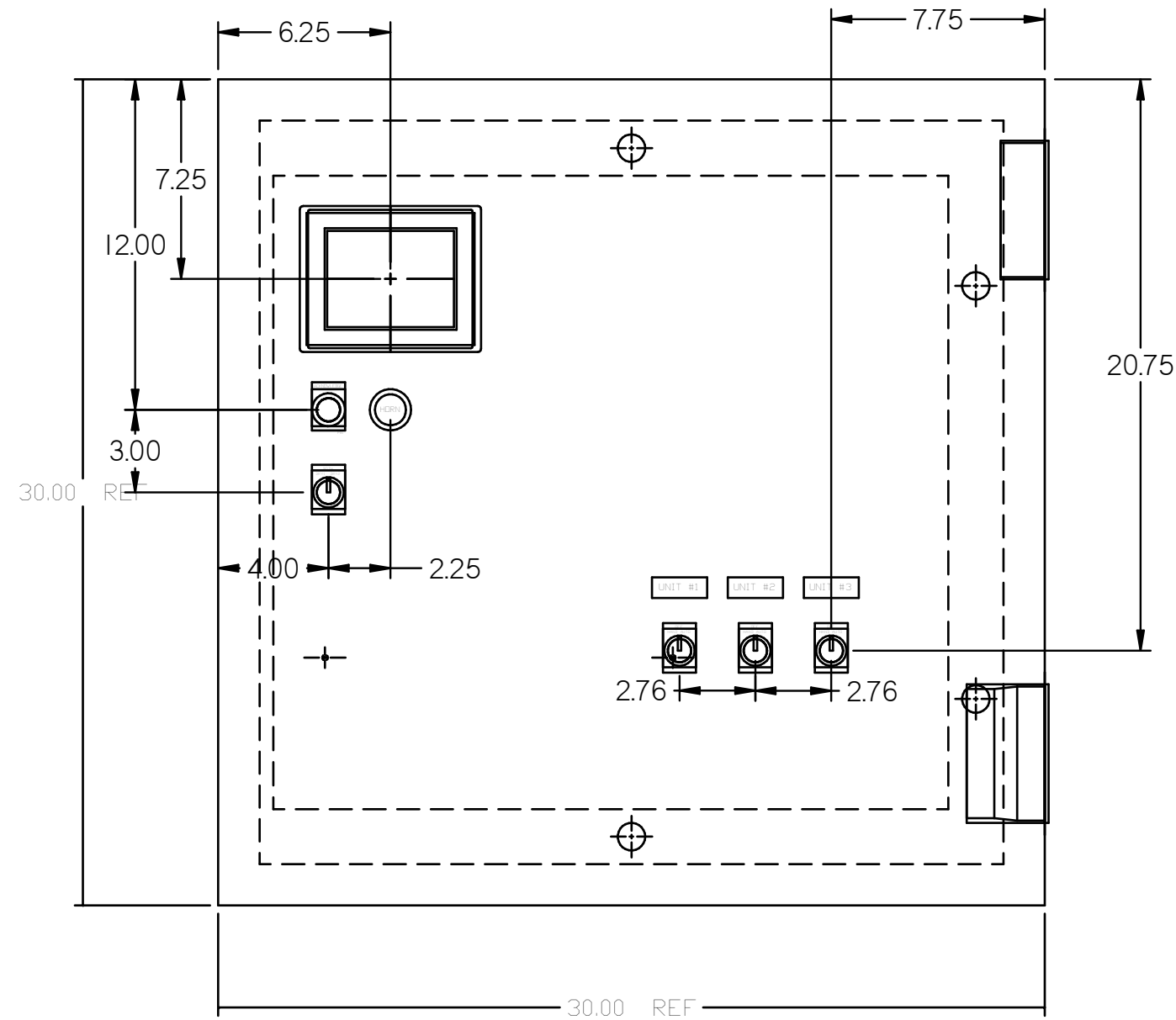
PANEL TYPE  
TRIPLEX LAB 10HP SCROLL HMI, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-LS316A W

SHEET	SIZE
W-7	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	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, WEBSVR,	SCROLL PUMPS	<input checked="" type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

PANEL TYPE  
TRIPLEX LAB 10HP SCROLL HMI, NFPA

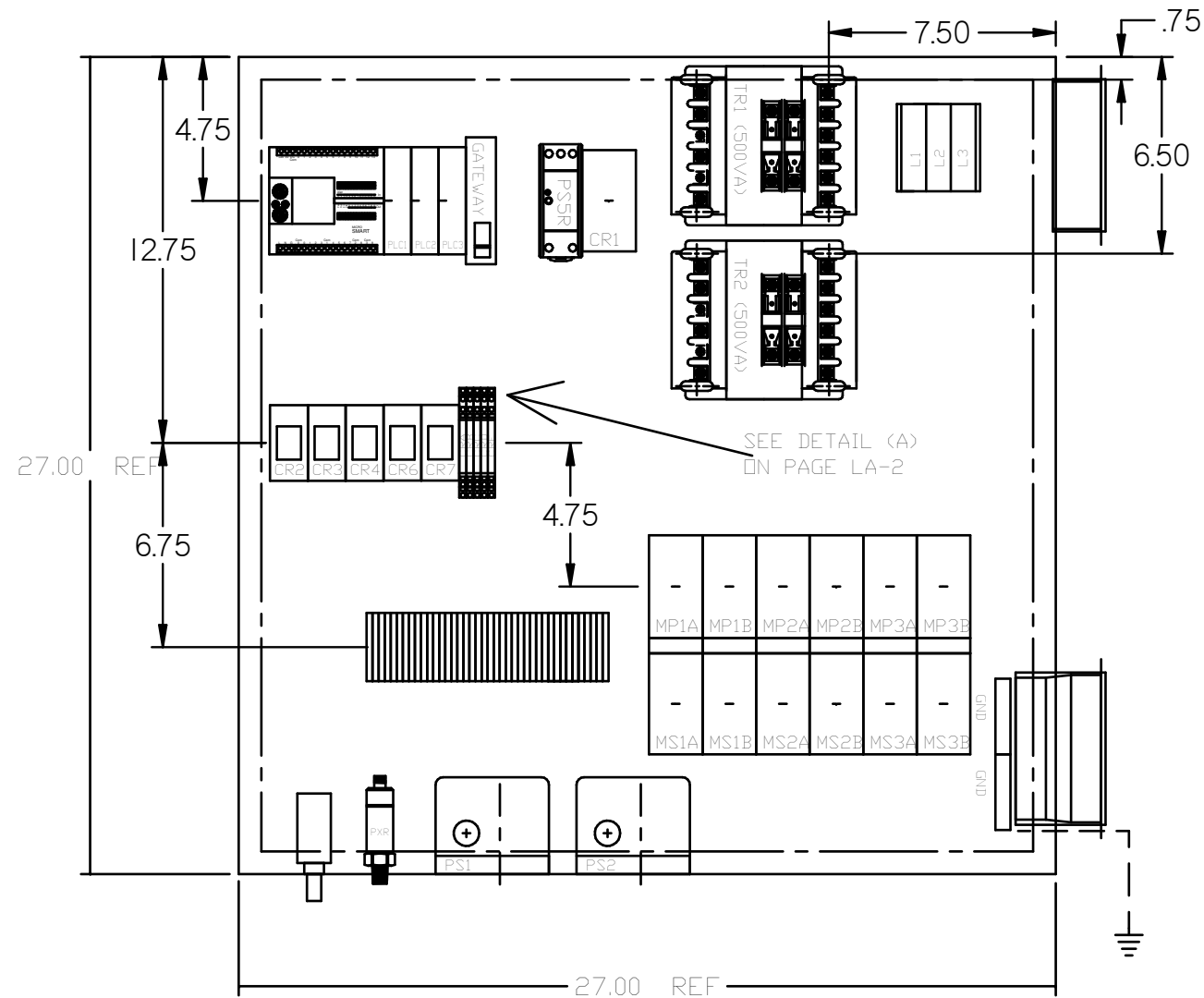
DWG. TYPE LAYOUT

DWG. NO.  
PXMI-LS316A W

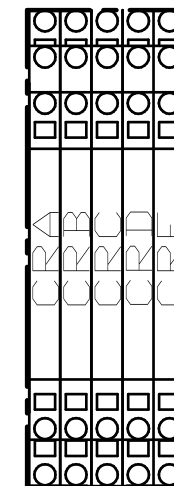
SHEET	SIZE
L-1	B



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	9/04/18	PXEC0229	JPG	AH



DETAIL (A)



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	OR EXAMINATION CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

PANEL TYPE  
TRIPLEX LAB 10HP SCROLL  
HMI, NFPA

DWG. TYPE LAYOUT

DWG. NO.  
PXMI-LS316A W

SHEET L-2	SIZE B
--------------	-----------

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
PBMILS316A2AJ	5(X2)	208V/3Ø	14.2	88	125A	100A	125A
PBMILS316A3AJ	5(X2)	230V/3Ø	12.8	80	110A	90A	100A
PBMILS316A4AJ	5(X2)	460V/3Ø	6.4	41	60A	50A	55A

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 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	02/20/12	22722	CHR	DMS
C-1	ADDED LAYOUT D-1	04/13/12	22723	BFH	CHR
D-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
E-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/03/15	PXEC0110	AJL	KMD
F	ADDED FAN WIRING	9/04/18	PXEC0229	JPG	AH

**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:  
  
BACNET, WEBSVR.



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	DMS	DMS
02/20/12	02/21/12	02/21/12

PANEL TYPE  
TRIPLEX LAB 10HP SCROLL  
HMI, NFPA

DWG. TYPE DATA

DWG. NO. PXMI-LS316A W

SHEET D-1 SIZE B

CONTROL TRANSFORMERS - 500VA						WIRE TYPE TABLE			
FUSE		208	230	460	575	VOLTAGE	WIRE NUMBERS	GAUGE	COLOR
TYPE		VOLT	VOLT	VOLT	VOLT				
FU1,2A	FNR	6A	5A	5A	4A	120VAC	001-599	16-18AW	RED/BLK
FU1,2B						0VAC	W	16-18AWG	WHT/BLK
FU3A,B	FNM	7A	7A	7A	7A	24VDC	600-999	16-18AWG	PURPLE
						0VDC	701	16-18AWG	PURPLE
						GND	-	VARIES	GREEN
						CUSTOMER SUPPLY	01-99	16-18AWG	YELLOW

SEE XFMR FOR CONNECTIONS

PXMI-LS316A B1