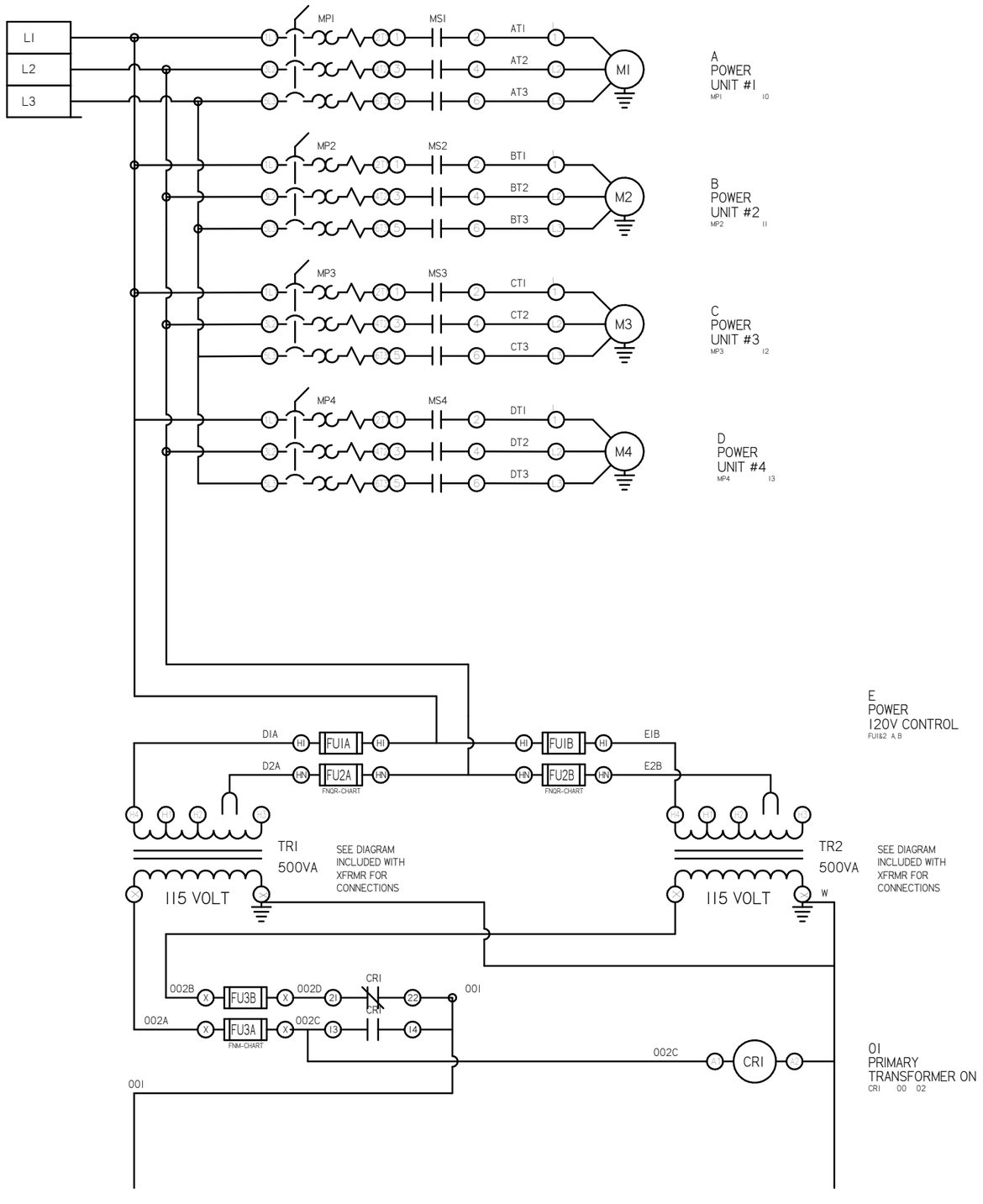


REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0165	AKH	KMD

OPTIONAL:

BACNET, WEBSRVR,

- [X] SINGLE CYLINDER AND SCROLLPUMPS
- [ ] DOUBLE-CYLINDER PUMPS
- [ ] TRIPLE-CYLINDER PUMPS

POWEREX
PURE AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE

QUAD LAB COMP
HMI

DWG. TYPE WIRING

DWG. NO.

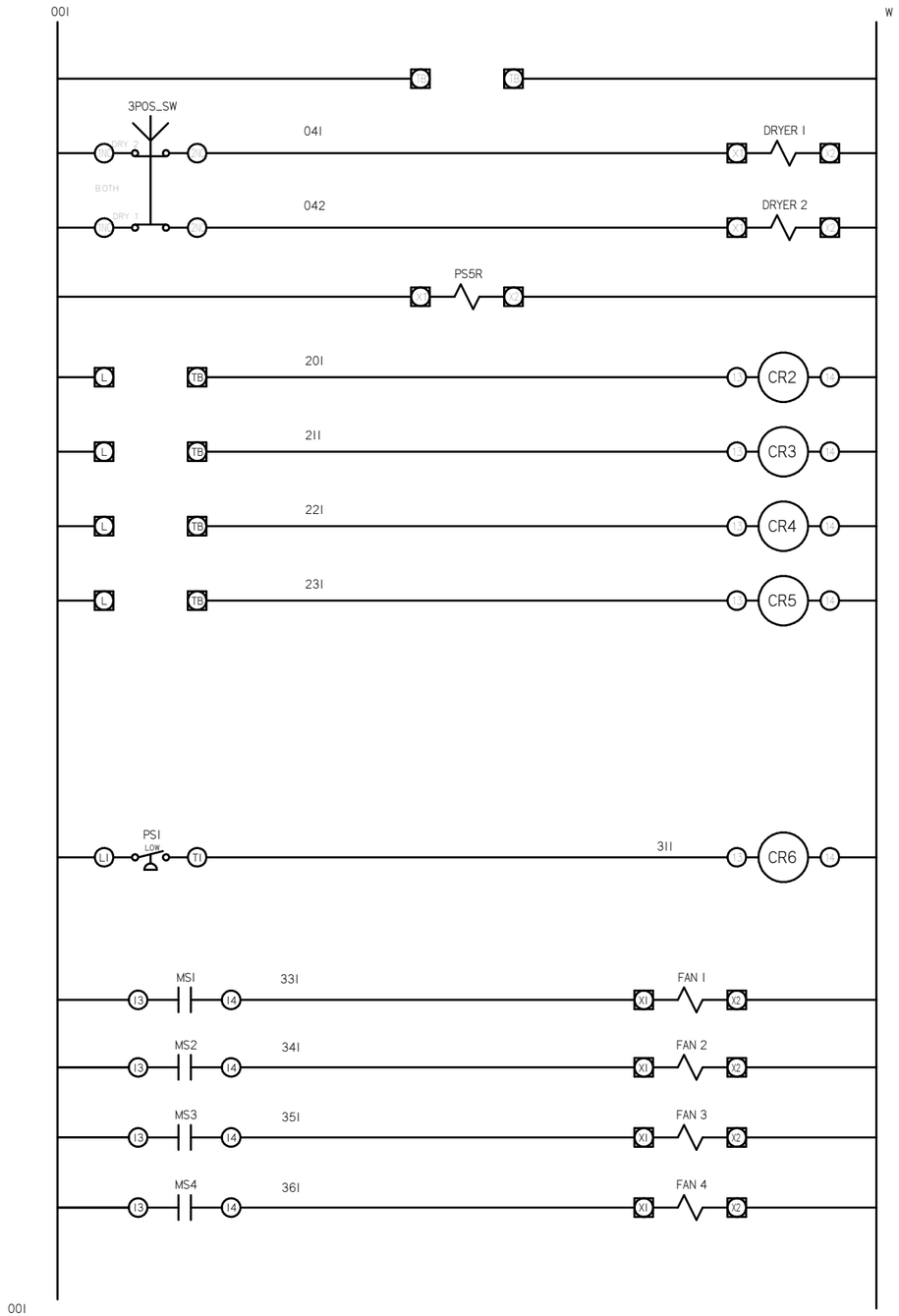
PXMI-LA416 W

SHEET W-1

SIZE B

PXMI-A416 B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0165	AKH	KMD



OPTIONAL:

BACNET, WEBSRVR,

SINGLE CYLINDER AND SCROLLPUMPS ☒

DOUBLE-CYLINDER PUMPS ☐

TRIPLE-CYLINDER PUMPS ☐

POWEREX
FIRE AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE

QUAD LAB COMP
HMI

DWG. TYPE WIRING

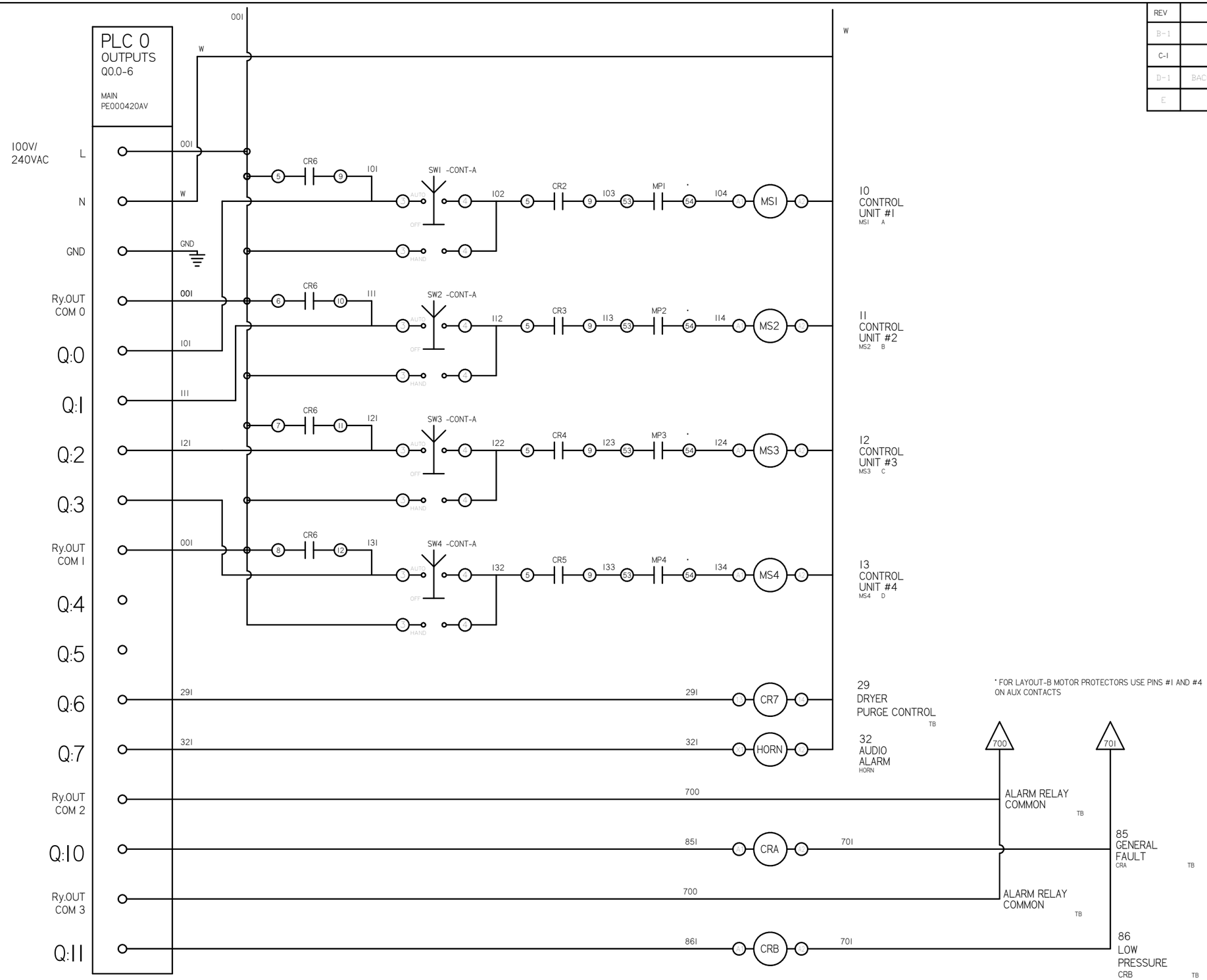
DWG. NO.

PXMI-LA416 W

SHEET W-2

SIZE B

PXMI-A416 B1



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0165	AKH	KMD

OPTIONAL:

SINGLE CYLINDER AND SCROLL PUMPS ☒

DOUBLE-CYLINDER PUMPS ☐

TRIPLE-CYLINDER PUMPS ☐

BACNET, WEBSRVR,

POWEREX
DRY AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE

QUAD LAB COMP
HMI

DWG. TYPE WIRING

DWG. NO.

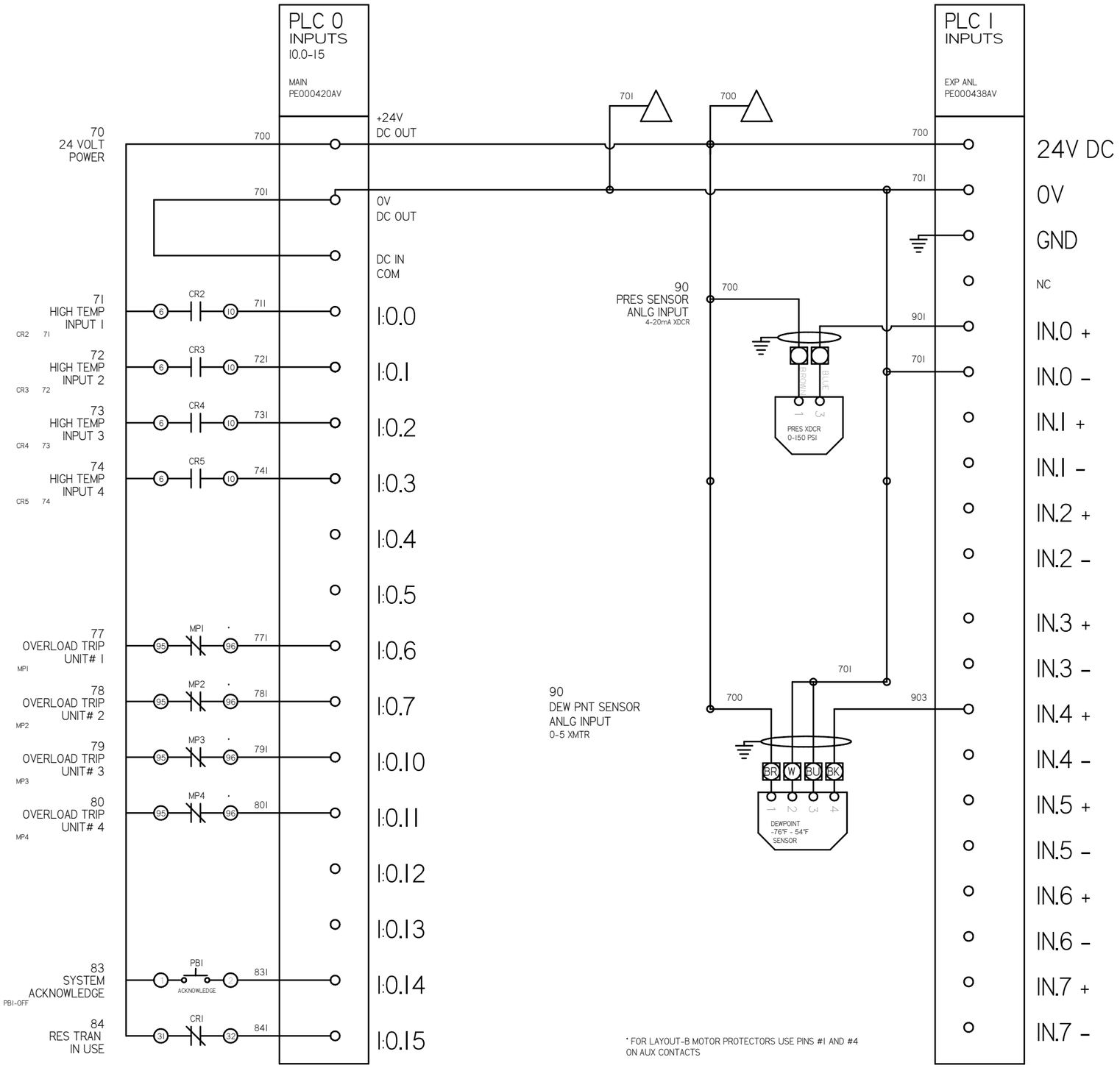
PXMI-LA416 W

SHEET W-3

SIZE B

PXMI-A416 B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0165	AKH	KMD



* FOR LAYOUT-B MOTOR PROTECTORS USE PINS #1 AND #4 ON AUX CONTACTS

OPTIONAL:

SINGLE CYLINDER AND SCROLLPUMPS ☒

DOUBLE-CYLINDER PUMPS ☐

TRIPLE-CYLINDER PUMPS ☐

BACNET, WEBSRVR,

POWEREX
PURE AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE

QUAD LAB COMP
HMI

DWG. TYPE WIRING

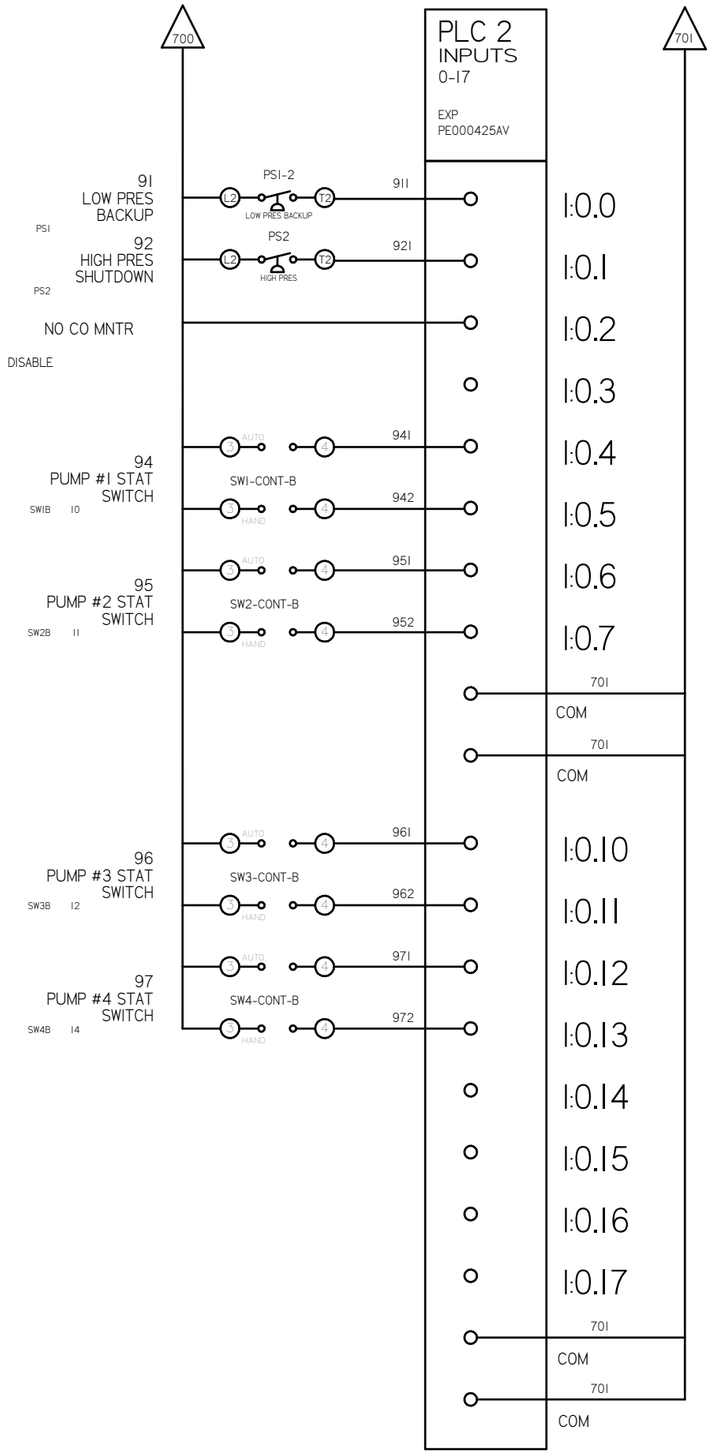
DWG. NO.

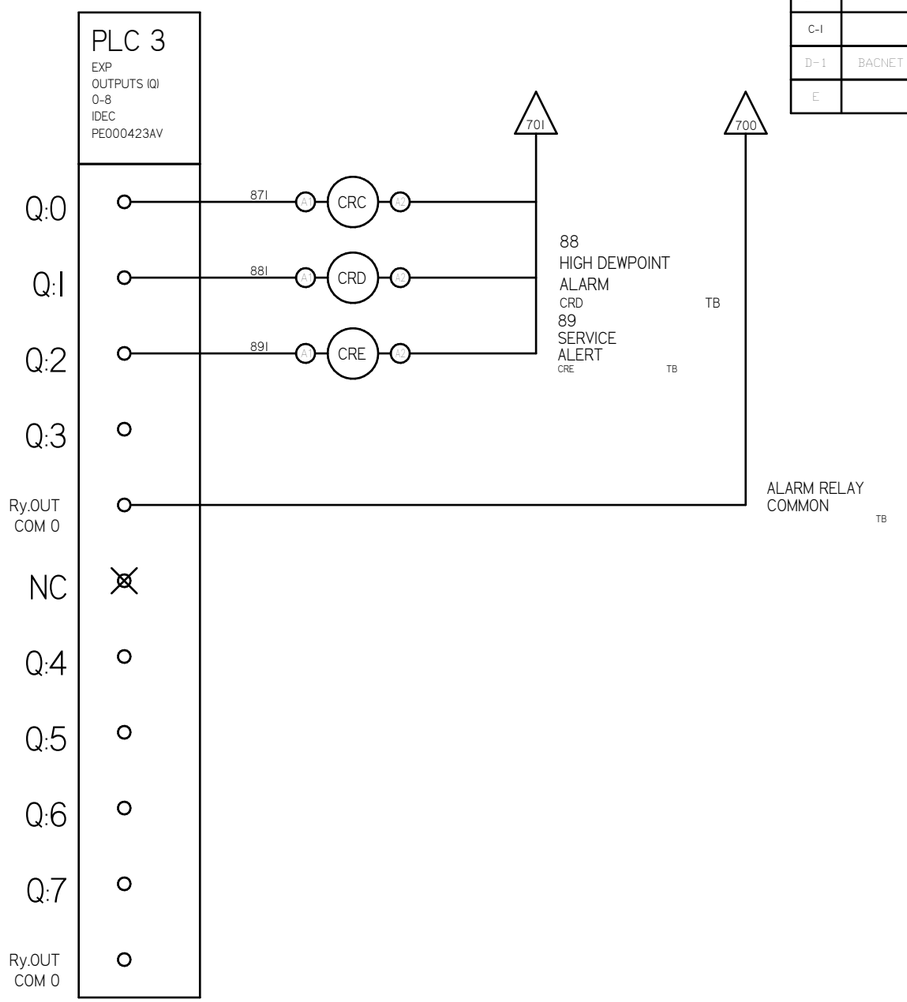
PXMI-LA416 W

SHEET W-4

SIZE B

PXMI-A416_B1





REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC...33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD

OPTIONAL:

BACNET, WEBSRVR,

- SINGLE CYLINDER AND SCROLLPUMPS ☒
- DOUBLE-CYLINDER PUMPS ☐
- TRIPLE-CYLINDER PUMPS ☐

POWEREX
DRY AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE
QUAD LAB COMP
HMI

DWG. TYPE
WIRING

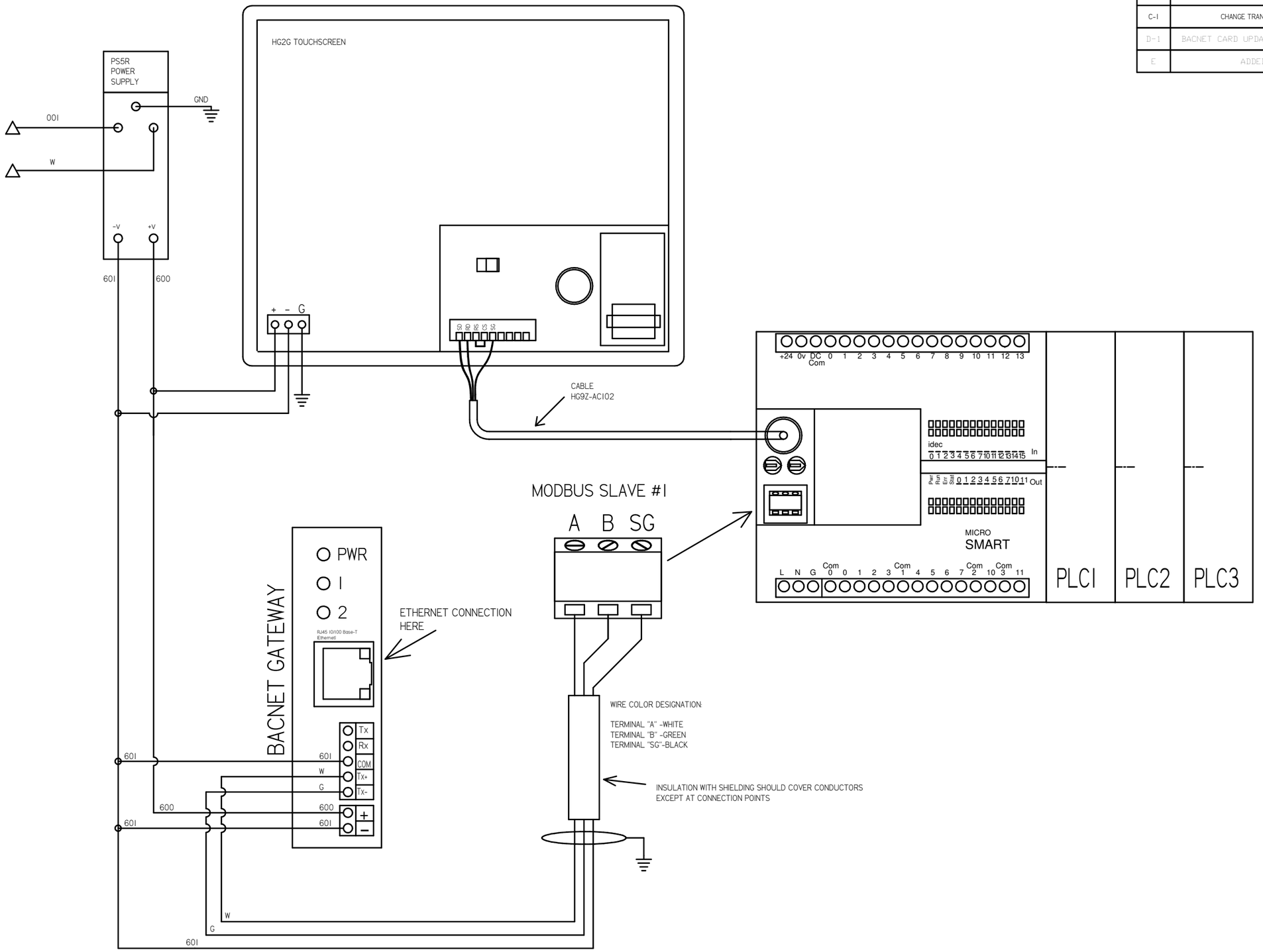
DWG. NO.
PXMI-LA416 W

SHEET
W-5

SIZE
B

PXMI-A416 B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC...33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD



OPTIONAL:

BACNET, WEBSRVR,

- SINGLE CYLINDER AND SCROLLPUMPS [X]
- DOUBLE-CYLINDER PUMPS [ ]
- TRIPLE-CYLINDER PUMPS [ ]

POWEREX
PURE AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE

QUAD LAB COMP
HMI

DWG. TYPE WIRING

DWG. NO.

PXMI-LA416 W

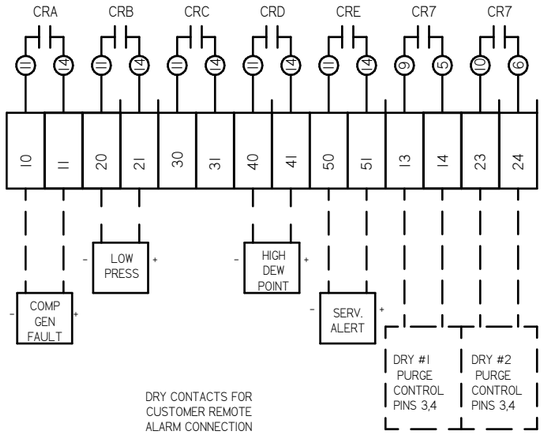
SHEET W-6

SIZE B

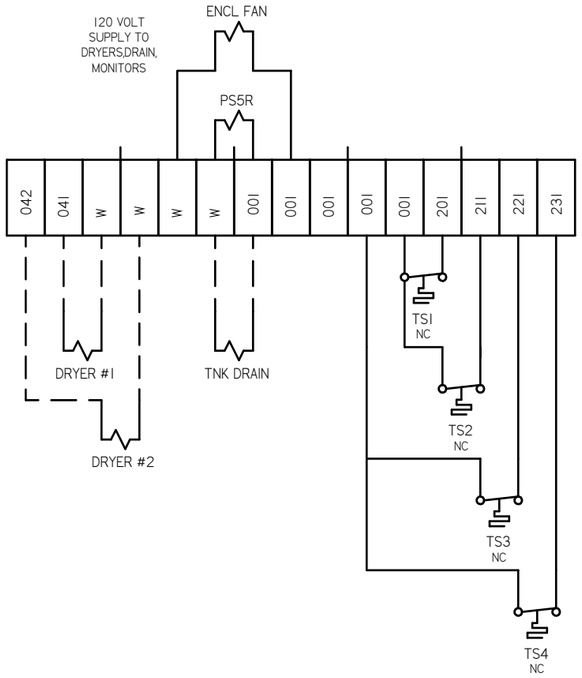
PXMI-A416 B1

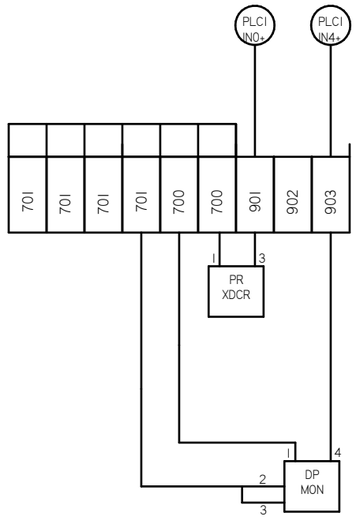
REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD

TERMINAL BLOCKS



DRY CONTACTS FOR CUSTOMER REMOTE ALARM CONNECTION





FAN WIRING
SEE RUNGS 33-36 FOR DETAILS

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

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, WEBSRVR,

SINGLE CYLINDER AND SCROLLPUMPS ☒

DOUBLE-CYLINDER PUMPS ☐

TRIPLE-CYLINDER PUMPS ☐

POWEREX
PURE AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE
QUAD LAB COMP
HMI

DWG. TYPE
WIRING

DWG. NO.
PXMI-LA416 W

SHEET
W-7

SIZE
B

TABLE 1	P/N	MOTOR FULL LOAD AMPS	TOTAL FULL LOAD AMPS	NON-TIME DELAY FUSE	TIME DELAY FUSE
208V (3Ø)	02AJ	4.1	18.4	30	25
	12AJ	4.5	20	30	25
	22AJ	6	26	40	35
	32AJ	8.5	36	60	45
	52AJ	14	58	90	70
	72AJ	20.5	84	125	100
	A2AJ *	27.4	111.6	175	150
	F2AJ *	41.1	166.4	250	200
230V (3Ø)	03AJ	3.6	16.4	25	20
	13AJ	4.4	19.6	30	25
	23AJ	5.8	25.2	40	30
	33AJ	7.7	32.8	50	40
	53AJ	12.7	52.8	80	70
	73AJ	18.5	76	125	90
	A3AJ	24.8	101.2	175	125
	F3AJ *	37.2	150.8	250	200
460V (3Ø)	04AJ	1.8	9.2	15	15
	14AJ	2.2	10.8	20	15
	24AJ	2.9	13.6	20	20
	34AJ	3.9	17.6	30	25
	54AJ	6.3	27.2	40	35
	74AJ	9.3	39.2	60	50
	A4AJ	12.4	51.6	80	70
	F4AJ	18.6	76.4	125	100
380V (3Ø) 50HZ	08AJ				
	18AJ				
	28AJ	3.4	15.6	25	20
	38AJ	4.6	20.4	30	25
	58AJ	7.7	32.8	50	40
	78AJ	11.1	46.4	70	60
	A8AJ	14.9	61.6	100	80
	F8AJ	22.1	90.4	150	125
575V (3Ø)	07AJ	1.1	6.4	10	10
	17AJ				
	27AJ	2.3	11.2	20	15
	37AJ	3.1	14.4	25	20
	57AJ	5.1	22.4	35	30
	77AJ	6.9	29.6	45	35
	A7AJ	9.9	41.6	70	50
	F7AJ	14.9	61.6	100	80

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 WITH SHORT CIRCUIT PROTECTION FOR THIS ELECTRICAL ASSEMBLY. SEE MOTOR DATA TABLE.
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.

FIELD WIRING NOTES ON PAGE W-7.

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	03/12/12	22545	BFH	CHR
C-1	FORMAT UPDATE	03/04/13	PXEC0038	BFH	CHR
E	ADDED FAN WIRING	8/27/18	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
FU3A,B	FNM	7A	7A	7A	7A

OPTIONAL:

208V/230V/460V

POWEREX AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
03/12/12	03/12/12	03/12/12

PANEL TYPE

COMPRESSOR DATA TABLE
3PH 4-PLEX PANEL DATA

DWG. TYPE MISC

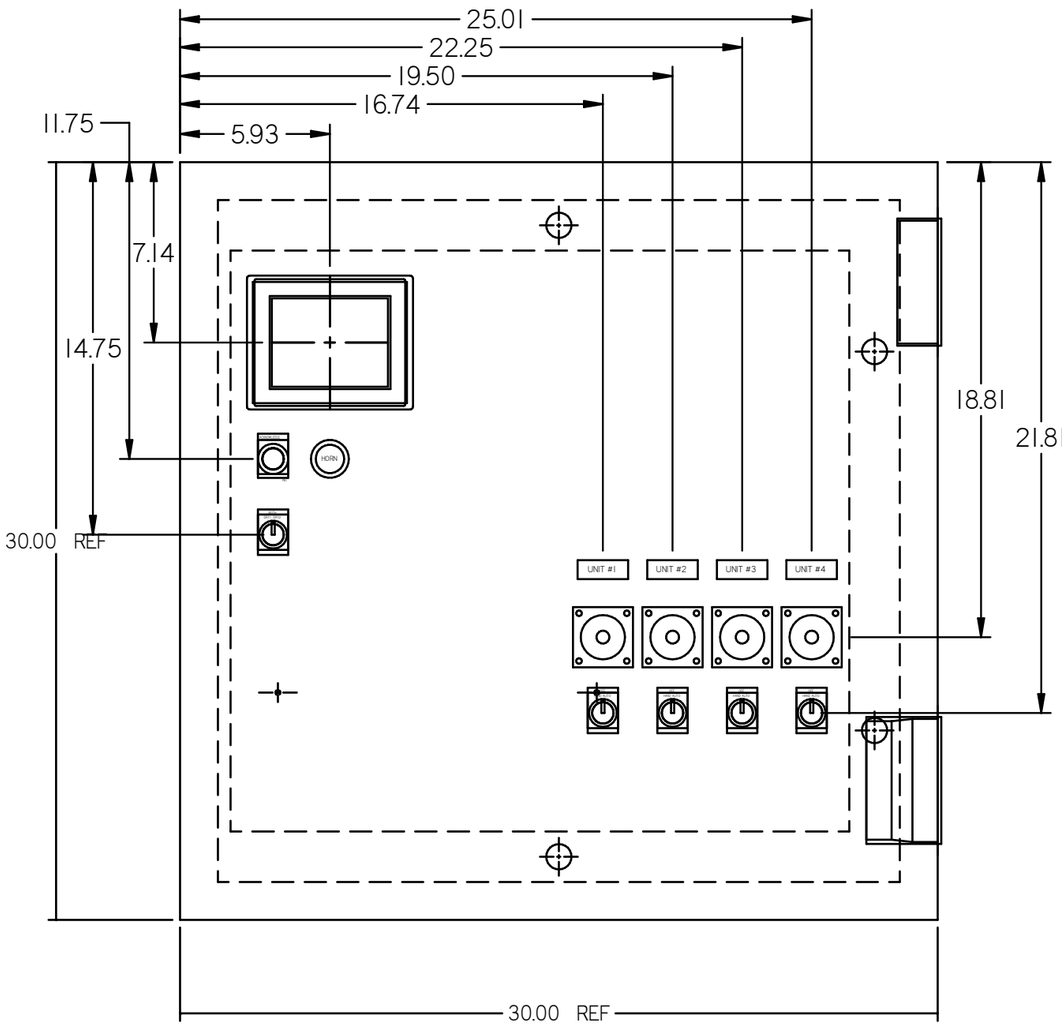
DWG. NO.

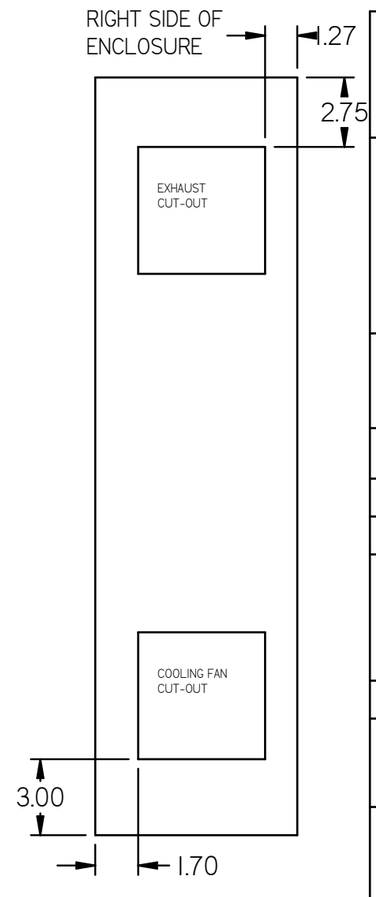
DATA TABLE

SHEET D-1

SIZE B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD





OPTIONAL:

- SINGLE CYLINDER AND SCROLLPUMPS ☒
- DOUBLE-CYLINDER PUMPS ☐
- TRIPLE-CYLINDER PUMPS ☐

BACNET, WEBSRVR,

POWEREX PURE AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE

QUAD LAB COMP
HMI

DWG. TYPE LAYOUT

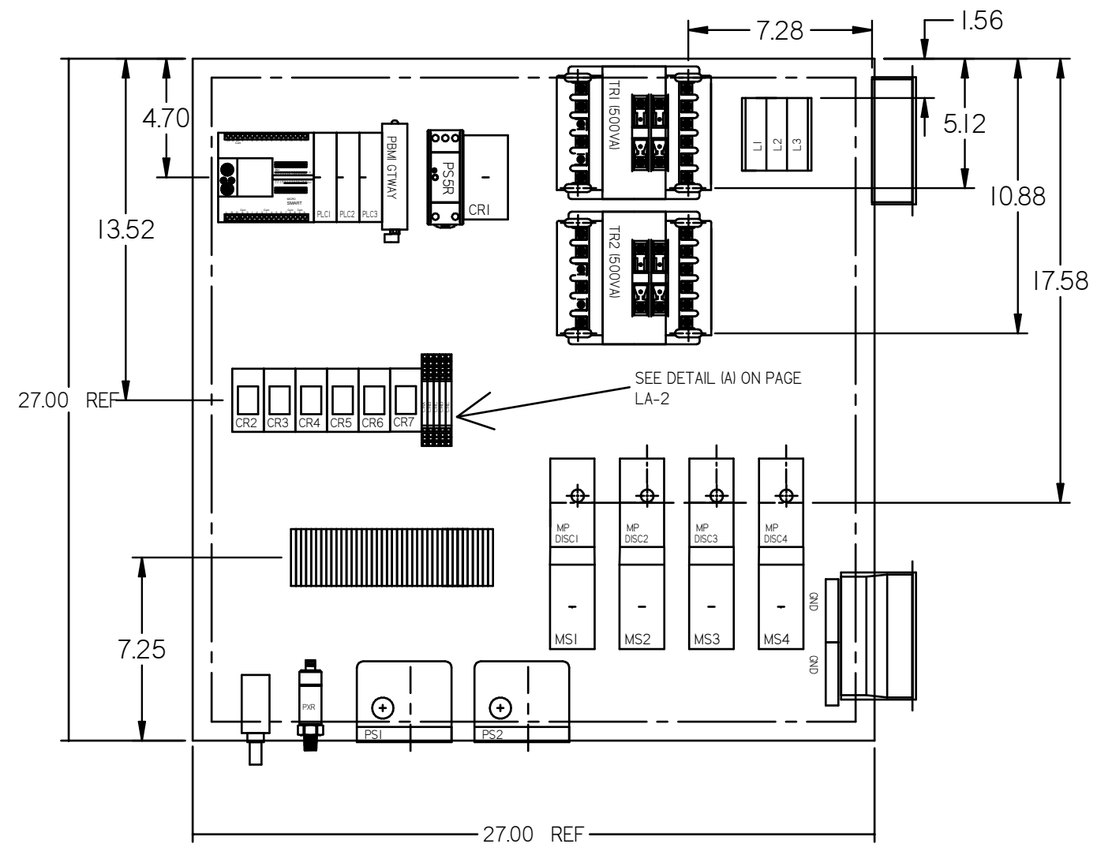
DWG. NO. PXMI-LA416 W

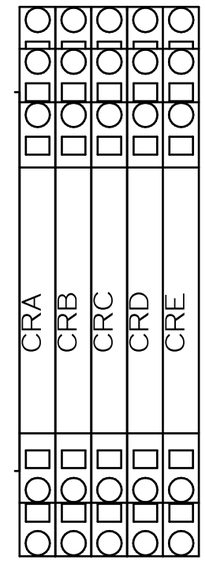
SHEET LA-1

SIZE B

PXMI-A416.B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC...33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD





OPTIONAL:

- SINGLE CYLINDER AND SCROLL PUMPS [X]
- DOUBLE-CYLINDER PUMPS [ ]
- TRIPLE-CYLINDER PUMPS [ ]

BACNET, WEBSRVR,

POWEREX
PURE AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE

QUAD LAB COMP
HMI

DWG. TYPE: LAYOUT

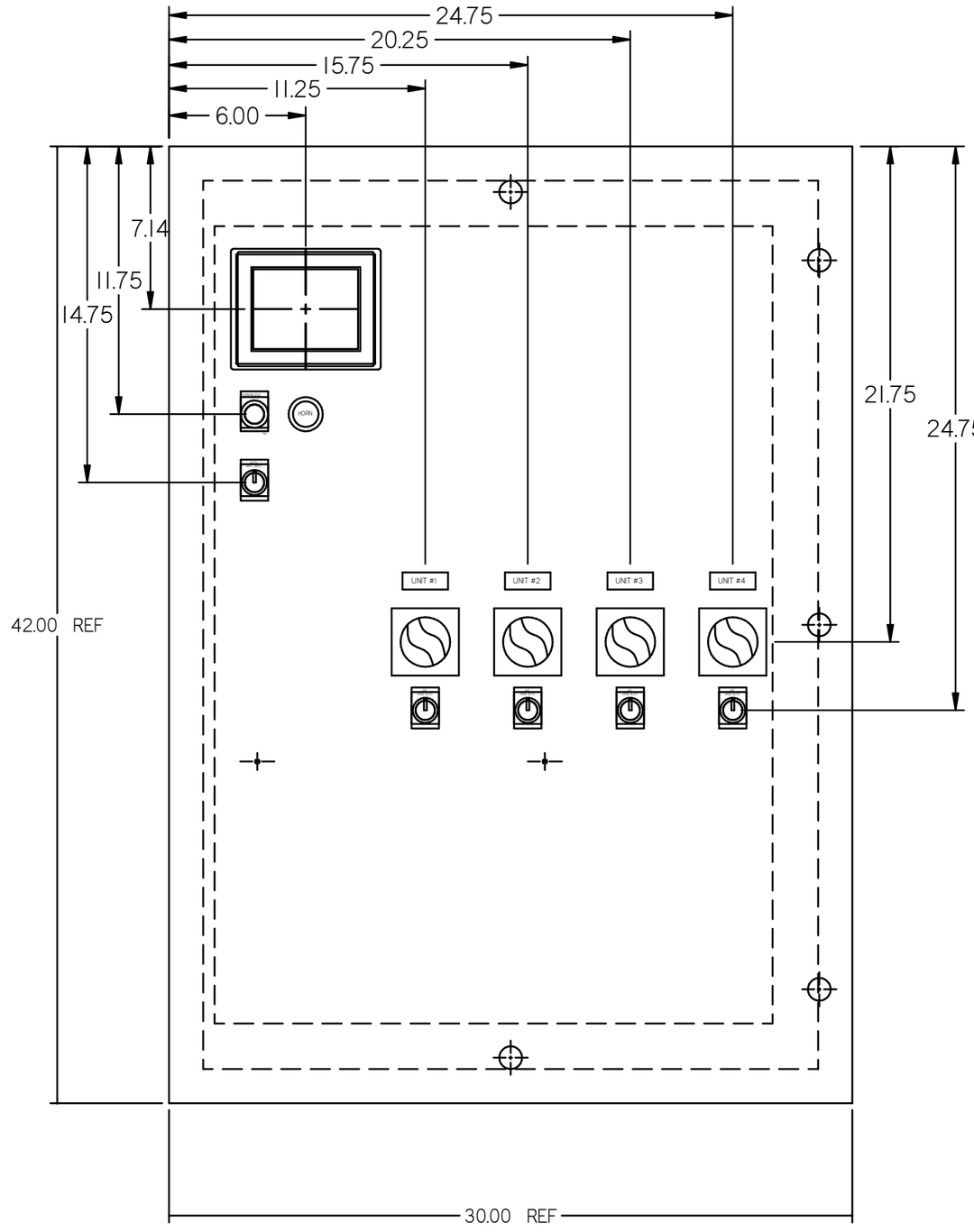
DWG. NO.: PXMI-LA416 W

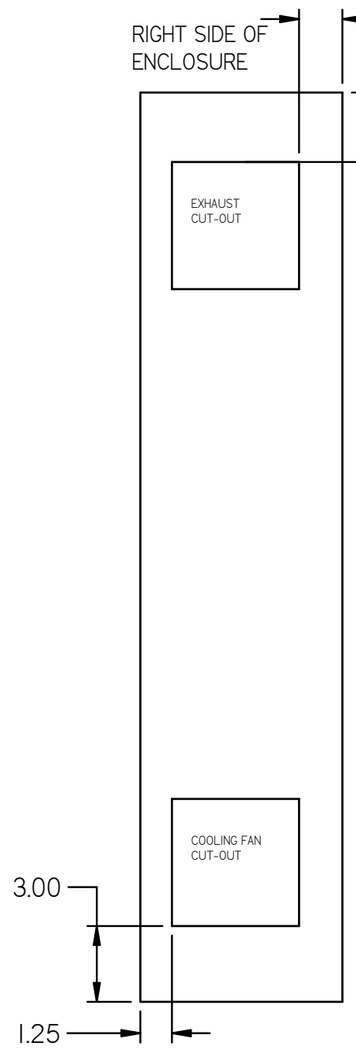
SHEET: LA-2

SIZE: B

PXMI-A416 B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD





OPTIONAL:

SINGLE CYLINDER AND SCROLL PUMPS ☒

DOUBLE-CYLINDER PUMPS ☐

TRIPLE-CYLINDER PUMPS ☐

BACNET, WEBSRVR,

POWEREX
PURE AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE

QUAD LAB COMP
HMI

DWG. TYPE LAYOUT

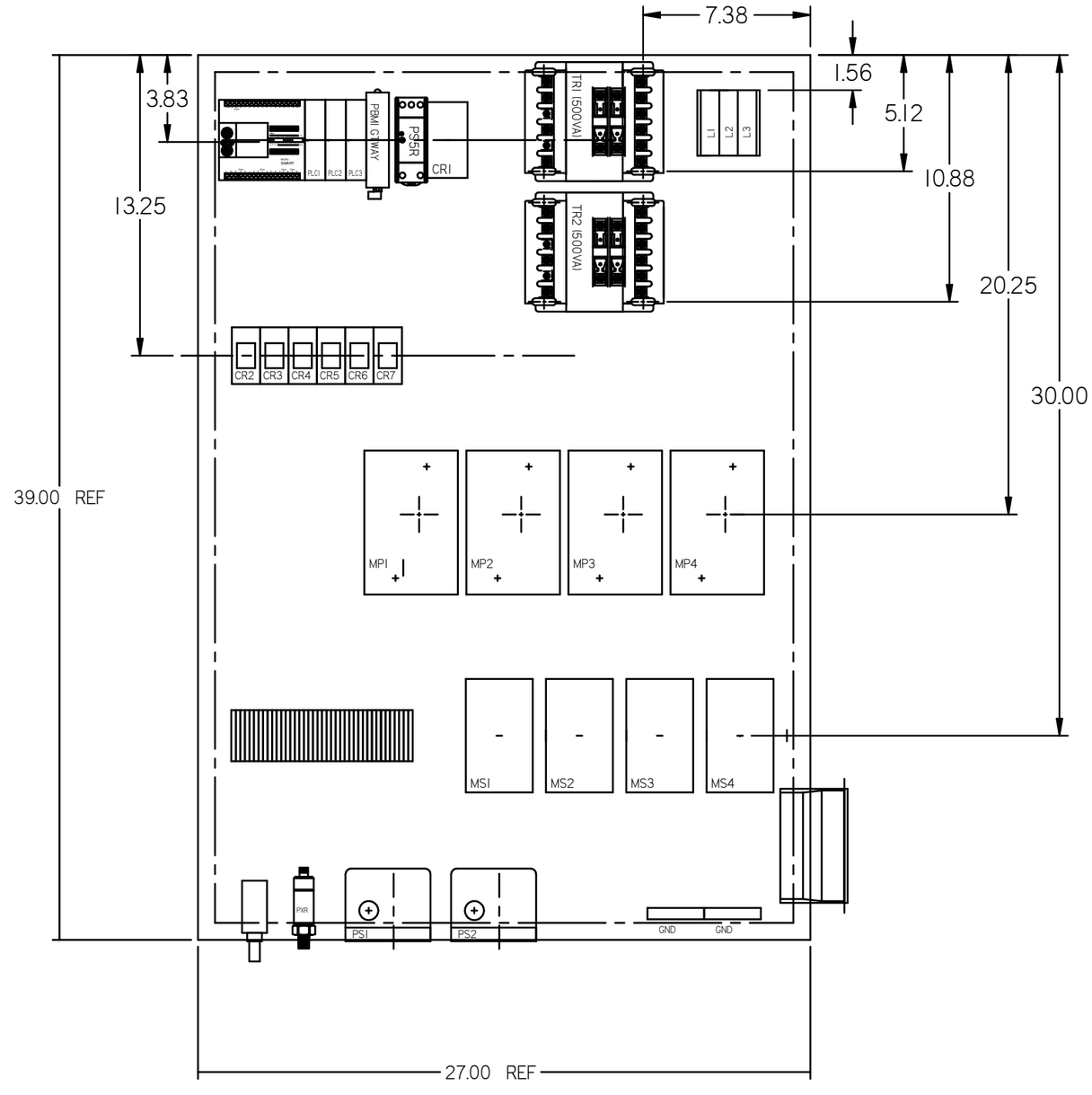
DWG. NO. PXMI-LA416 W

SHEET LB-1

SIZE B

PXMI-A416 B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	07/23/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC...33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	11/02/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/27/18	PXEC0163	AKH	KMD



OPTIONAL:

BACNET, WEBSRVR,

- [X] SINGLE CYLINDER AND SCROLL PUMPS
- [ ] DOUBLE-CYLINDER PUMPS
- [ ] TRIPLE-CYLINDER PUMPS

POWEREX
PURE AIR TECHNOLOGY

DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
07/23/12	07/23/12	07/23/12

PANEL TYPE

QUAD LAB COMP
HMI

DWG. TYPE LAYOUT

DWG. NO.

PXMI-LA416 W

SHEET LB-2

SIZE B

PXMI-A416 B1