

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	7/20/11	22545	CHR	CHR
C-I	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/28/18	PXEC0169	AKH	KMD

ΓΙΟΝΑL:	SINGLE CYLINDER AND SCROLLPUMPS
	DOUBLE-CYLINDER PUMPS
CNET WERCDVD	TRIPLE-CYLINDER PUMPS



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL		
CHR	BFH	DMS		
07/20/11	03/12/12	03/12/12		

PANEL TYPE

BACNET, WEBSRVR,

SCROLL TRIPLEX MEDICAL HMI, NFPA

DWG. TYPE WIRING

PXMI-A316 W

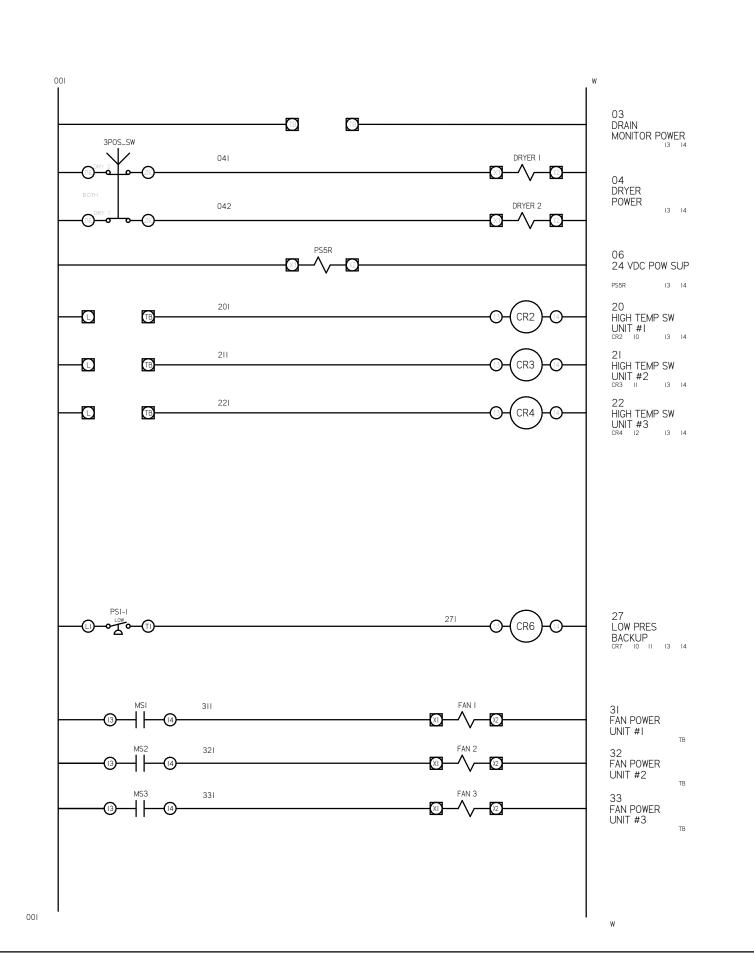
SHEET

W - 1

В

SIZE

 \boxtimes



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	7/20/11	22545	CHR	CHR
C-I	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	8/28/18	PXEC0169	AKH	KMD

OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	\boxtimes
	DOUBLE-CYLINDER PUMPS	
BACNET, WEBSRVR,	TRIPLE-CYLINDER PUMPS	

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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	BFH	DMS
07/20/11	03/12/12	03/12/12

PANEL TYPE

SCROLL TRIPLEX MEDICAL HMI, NFPA

DWG. TYPE WIRING

DWG. NO.

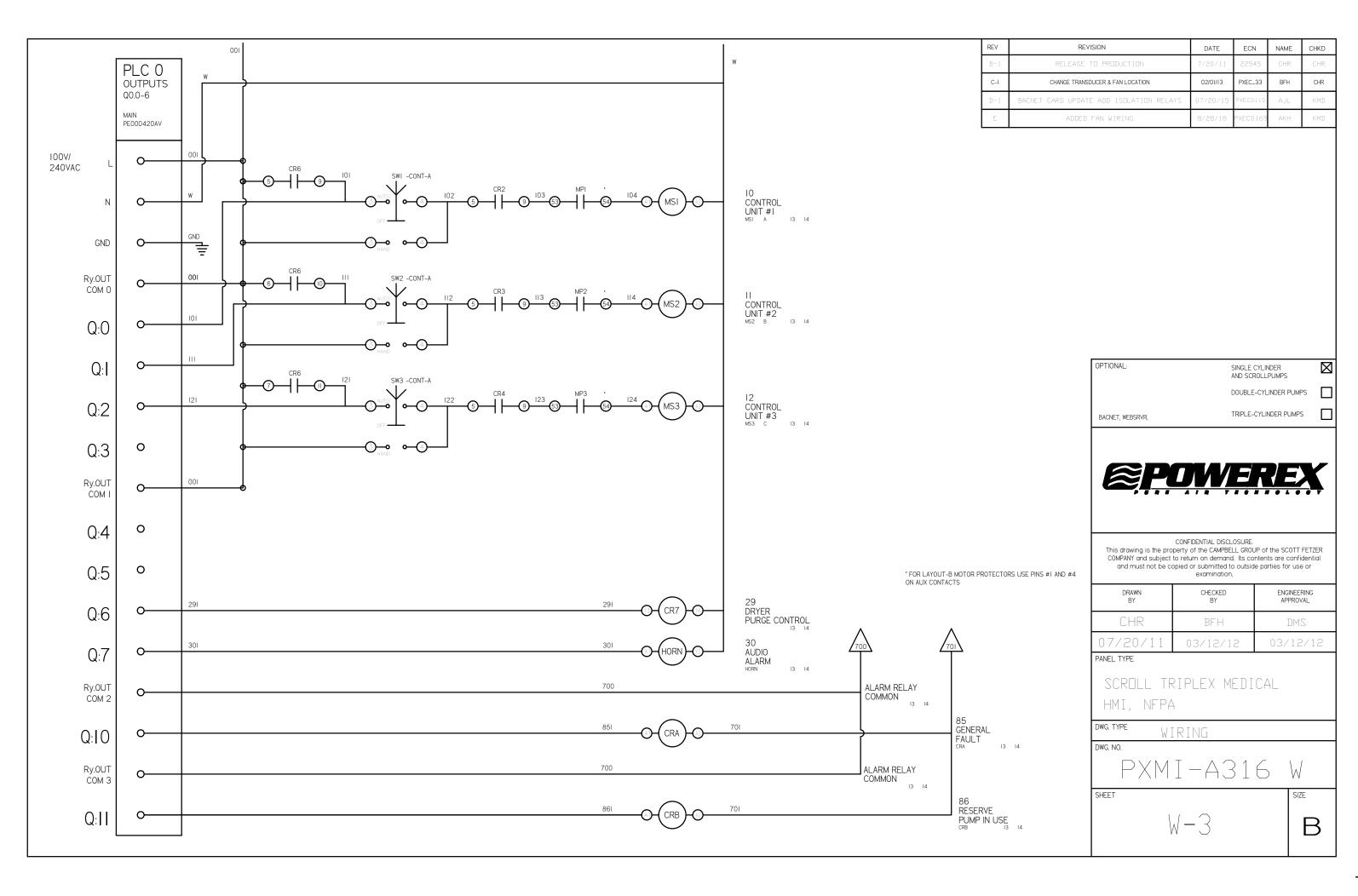
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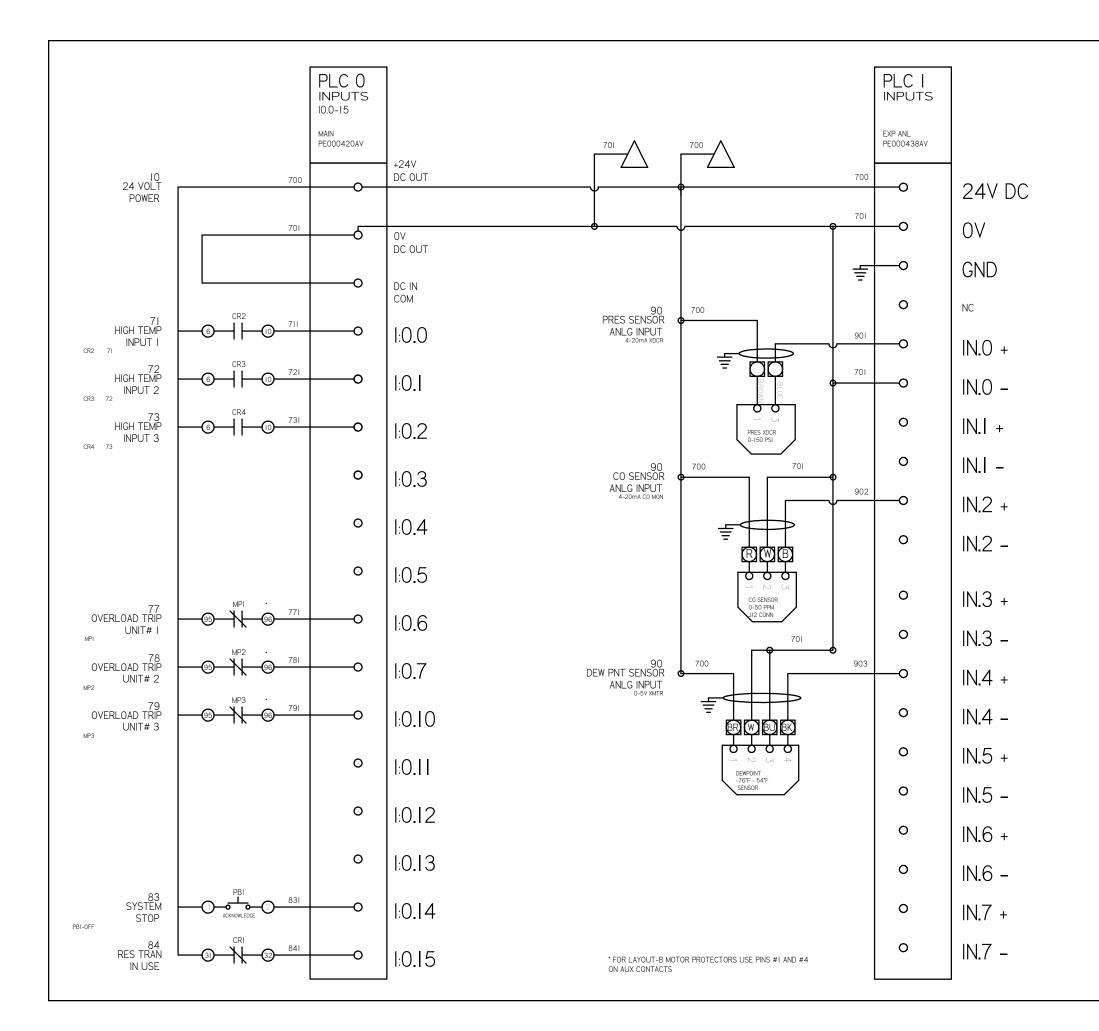
SHEET

SIZE

В

W-2





	REV REVISION		DATE	ECN	NAME	CHKD
B-1		RELEASE TO PRODUCTION	7/20/11	22545	CHR	CHR
	C-I	C-I CHANGE TRANSDUCER & FAN LOCATION		PXEC_33	BFH	CHR
D-1		BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
I	E	ADDED FAN WIRING	8/28/18	PXEC0169	AKH	KMD

		_
OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	\bowtie
	DOUBLE-CYLINDER PUMPS	
BACNET, WEBSRVR,	TRIPLE-CYLINDER PUMPS	
	MA/EDES	

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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL		
CHR	BFH	DMS		
07/20/11	03/12/12	03/12/12		

PANEL TYPE

SCROLL TRIPLEX MEDICAL HMI, NFPA

DWG. TYPE WIRING

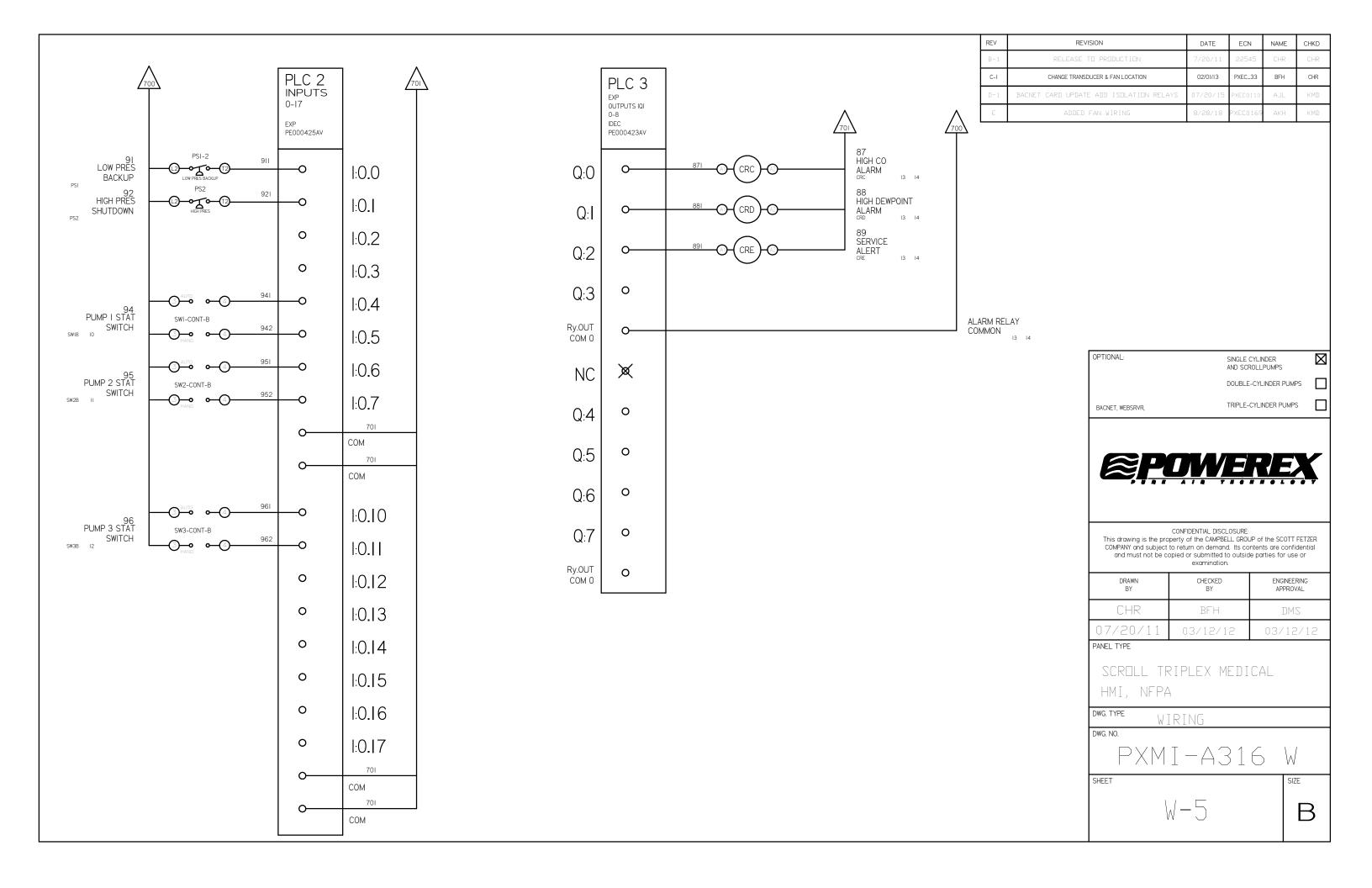
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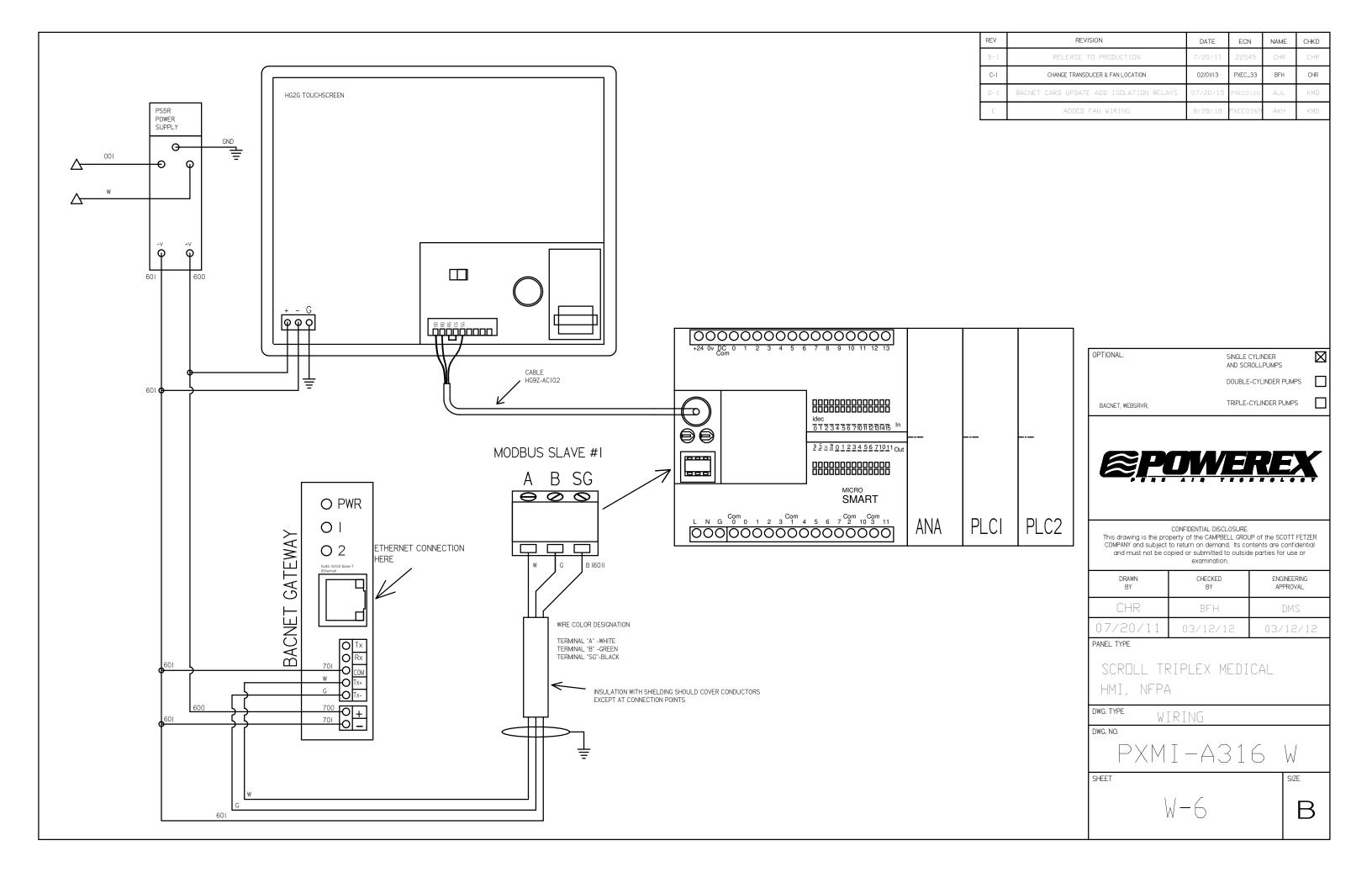
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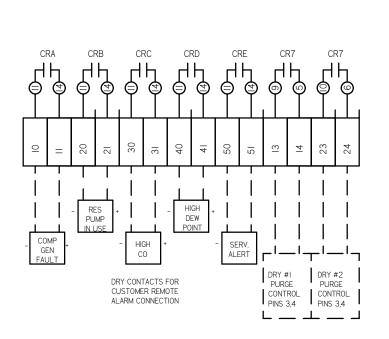
SHEET

W-4

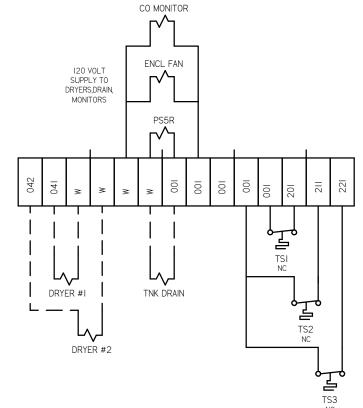
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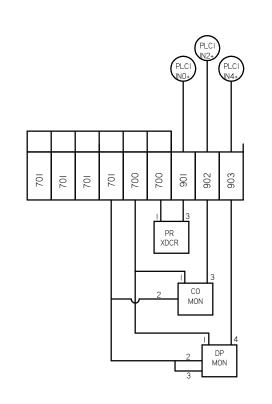






TERMINAL BLOCKS





	REV	REVISION	DATE	ECN	NAME	CHKD
	B-1	RELEASE TO PRODUCTION	7/20/11	22545	CHR	CHR
C-I CHANGE TRANSDUCER & FAN LOCA		CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
	D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
	E	ADDED FAN WIRING	8/28/18	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 IN PROXIMITY (2") OR ROUTED IN WIRE TRAY OF ANY 3-PHASE POWER CONDUCTORS.

OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	\boxtimes
	DOUBLE-CYLINDER PUMPS	
BACNET, WEBSRVR,	TRIPLE-CYLINDER PUMPS	



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	BFH	DMS
07/20/11	03/12/12	03/12/12

PANEL TYPE

SCROLL TRIPLEX MEDICAL HMI, NFPA

DWG. TYPE WIRING DWG. NO.

. INO.

PXMI-A316 W

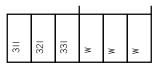
SHEET

W-7

316 W
SIZE
B

FIELD WIRING NOTES:

- I. 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



FAN WIRING SEE RUNGS 31-33 FOR DETAILS

TABLE 1	P/N	MOTOR FULL LOAD AMPS	TOTAL FULL LOAD AMPS	NON-TIME DELAY FUSE	TIME DELAY FUSE	INVERSE-TIME CIRCUIT BREAKER
208V (3Ø)	72AJ	19.2	59.6	100	80	90
208V (3Ø)	A2AJ	26.5	81.5	150	110	125
230V (3Ø)	73AJ	17.3	53.9	90	70	90
230V (3Ø)	A3AJ	24	74	125	100	125
4607 (36)	74AJ	8.67	28.01	50	35	45
460V (3Ø)	A4AJ	12	38	70	50	60
380V (3Ø)	78AJ	10.7	34.1	60	45	60
50HZ	A8AJ	14.5	45.5	80	60	70

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	7/20/11	22545	CHR	CHR
Ē	ADDED FAN WIRING	8/28/18	PXEC0169	AKH	KMD

NOTES:

- I. 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 TABLE I.
- 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. \triangle -INDICATES A DRAWING WIRE CONNECTION TO ANOTHER PAGE.

FIELD WIRING NOTES ON PAGE W-7.

	WIRE TYP	PE TABLE	
VOLTAGE	WIRE NUMBERS	GAUGE	COLOR
I20 VAC	01-699	16-18 AWG	RED/BLK
OVAC	W	16-18 AWG	WHT/BLK
24VDC	700-799	16-18 AWG	PURPLE
OVDC	701	16-18 AWG	PURPLE
GND	-	VARIES	GREEN
CUSTOME R SUPPLY	01-99	16 AWG	YELLOW

	TABLE 2 - CONTROL CIRCUIT PROTECTION						
FUSE TYPE		208 VOLT	230 VOLT	460 VOLT	575 VOLT		
FUI,2A FUI,2B	FNQR	6A	5A	5A	4A		
FU3A,B	FNM	7A	7A	7A	7A		

This draw

OPTIONAL:

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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	BFH	DMS
07/20/11	03/12/12	03/12/12

PANEL TYPE

SCROLL TRIPLEX MEDICAL HMI, NFPA

DWG. TYPE

DWG. NO.

PXMI-A316 W

SHEET

D-1

В

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.

* - USE LAYOUT B

P/N	MOTOR FULL LOAD AMPS	TOTAL FULL	NON-TIME DELAY FUSE	TIME DELAY FUSE	INVERSE-TIME CIRCUIT BREAKER
02AJ	4.1	14.3	25	20	25
12AJ	4.5	15.5	25	20	25
22AJ	6	20	35	25	30
32AJ	8.5	27.5	45	35	45
52AJ	14	44	80	60	70
72AJ	20.5	63.5	110	80	100
A2AJ *	27.4	84.2	150	125	150
F2AJ *	41.1	125.3	225	175	200
03AJ	3.6	12.8	20	20	20
13AJ	4.4	15.2	25	20	25
23AJ	5.8	19.4	35	25	30
33AJ	7.7	25.1	45	35	40
53AJ	12.7	40.1	70	50	60
73AJ	18.5	57.5	100	80	90
A3AJ	24.8	76.4	150	100	125
F3AJ *	37.2	113.6	200	150	175
04AJ	1.8	7.4	15	10	15
14AJ	2.2	8.6	15	10	15
24AJ	2.9	10.7	20	15	20
34AJ	3.9	13.7	25	20	25
54AJ	6.3	20.9	35	30	35
74AJ	9.3	29.9	50	40	45
A4AJ	12.4	39.2	70	50	60
F4AJ	18.6	57.8	100	80	90
08AJ					
18AJ					
28AJ	3.4	12.2	20	15	20
38AJ	4.6	15.8	25	20	25
58AJ	7.7	25.1	45	35	40
78AJ	11.1	35.3	60	45	60
A8AJ	14.9	46.7	80	60	70
F8AJ	22.1	68.3	125	90	125
07AJ	1.1	5.3	10	10	10
17AJ					
27AJ	2.3	8.9	15	15	15
37AJ	3.1	11.3	20	15	20
57AJ	5.1	17.3	30	25	30
77AJ	6.9	22.7	40	30	35
A7AJ	9.9	31.7	60	40	50
F7AJ	14.9	46.7	80	60	70

NOTES:

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- 6. \triangle -INDICATES A DRAWING WIRE CONNECTION TO ANOTHER PAGE.

FIELD WIRING NOTES ON PAGE W-7.

ΕV	REVISION	DATE	ECN	NAME	CHKD
-1	RELEASE TO PRODUCTION	7/20/11	22545	CHR	CHR
E	ADDED FAN WIRING	8/28/18	PXEC0169	AKH	KMD

	WIRE TYPE	PE TABLE	
VOLTAGE	WIRE NUMBERS	GAUGE	COLOR
I20 VAC	01-699	16-18 AWG	RED/BLK
OVAC	W	16-18 AWG	WHT/BLK
24VDC	700-799	16-18 AWG	PURPLE
0VDC	701	16-18 AWG	PURPLE
GND	-	VARIES	GREEN
CUSTOME R SUPPLY	01-99	16 AWG	YELLOW

	TABLE	2 - CON	ITROL CIRCUI	T PROTECTION	١
FUSE TYPE		208 VOLT	230 VOLT	460 VOLT	575 VOLT
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JГ	HONAL:	



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
CHR	BFH	DMS
07/20/11	03/12/12	03/12/12

PANEL TYPE

SCROLL TRIPLEX MEDICAL HMI, NFPA

DATA

JWG. I TPE

DWG NO

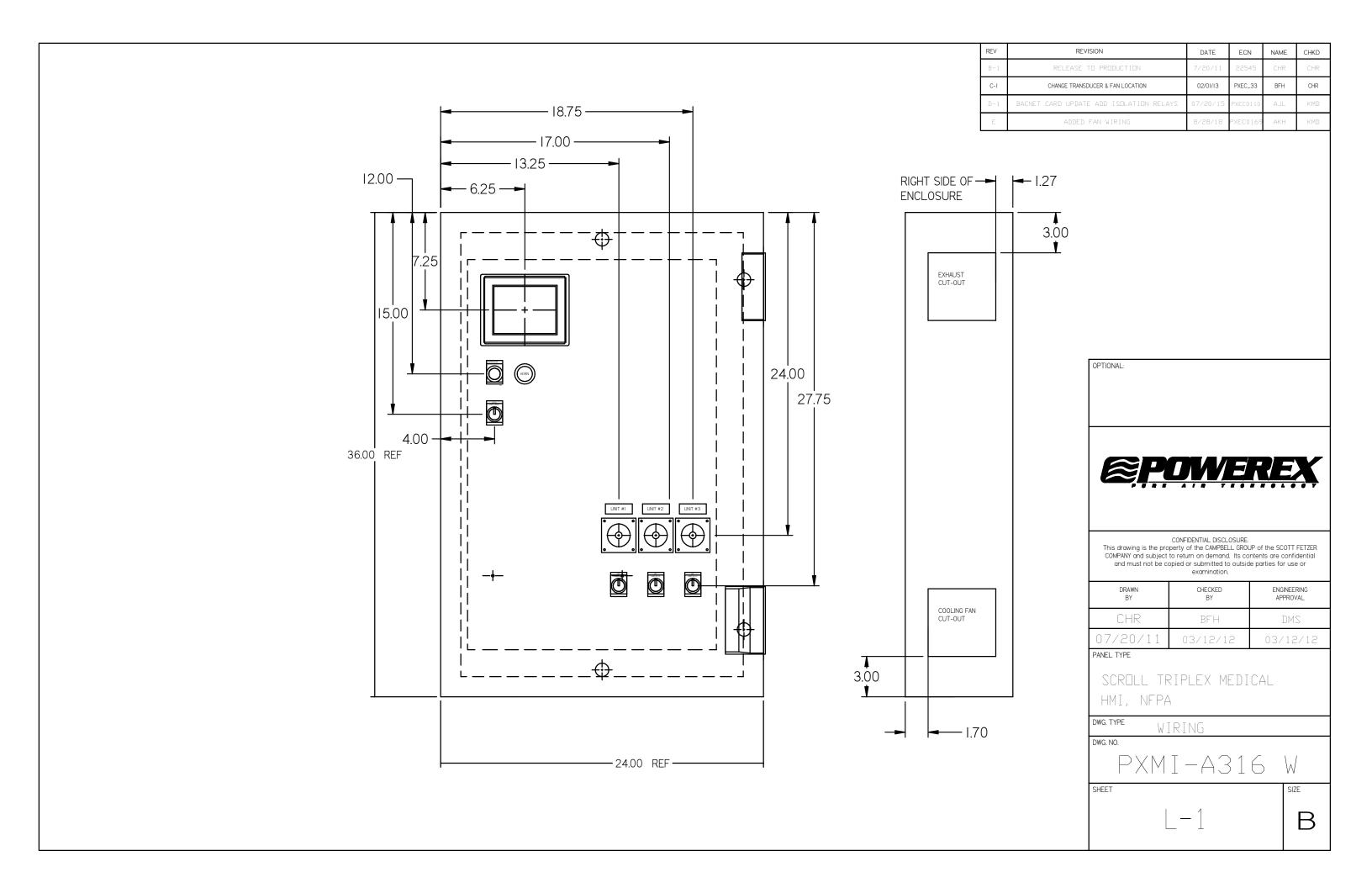
PXMI-A316

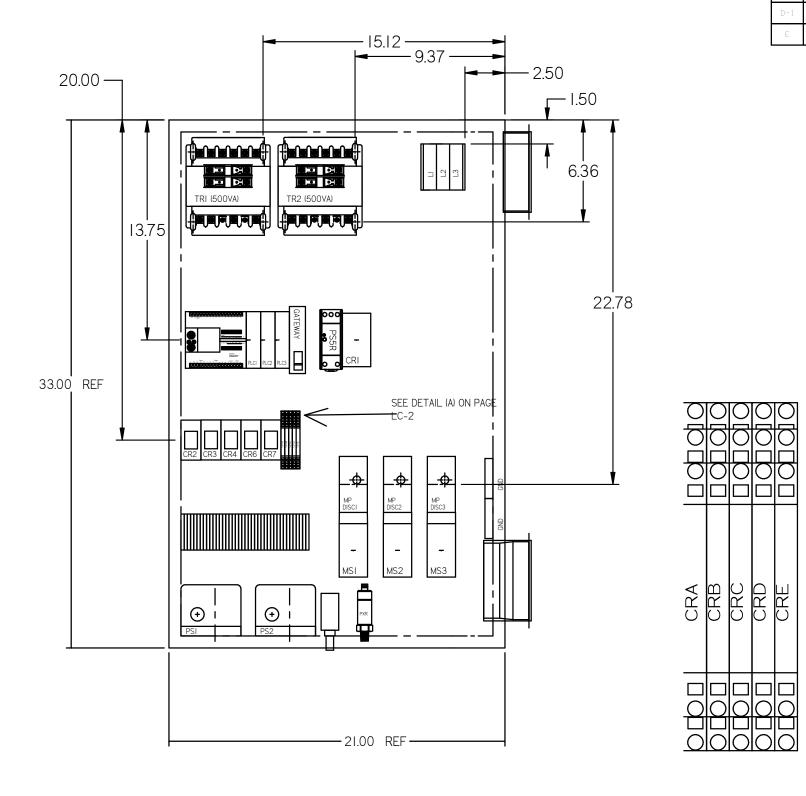
HEET

1

В

* - USE LAYOUT B





	REV	REVISION	DATE	ECN	NAME	CHKD
	B-1	RELEASE TO PRODUCTION	7/20/11	22545	CHR	CHR
	C-I	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
	D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
1	Е	ADDED FAN WIRING	8/28/18	PXEC0169	AKH	KMD



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 DRAWN BY
 CHECKED BY
 ENGINEERING APPROVAL

 CHR
 BFH
 DMS

 07/20/11
 03/12/12
 03/12/12

PANEL TYPE

OPTIONAL:

SCROLL TRIPLEX MEDICAL HMI, NFPA

DWG. TYPE

WIRING

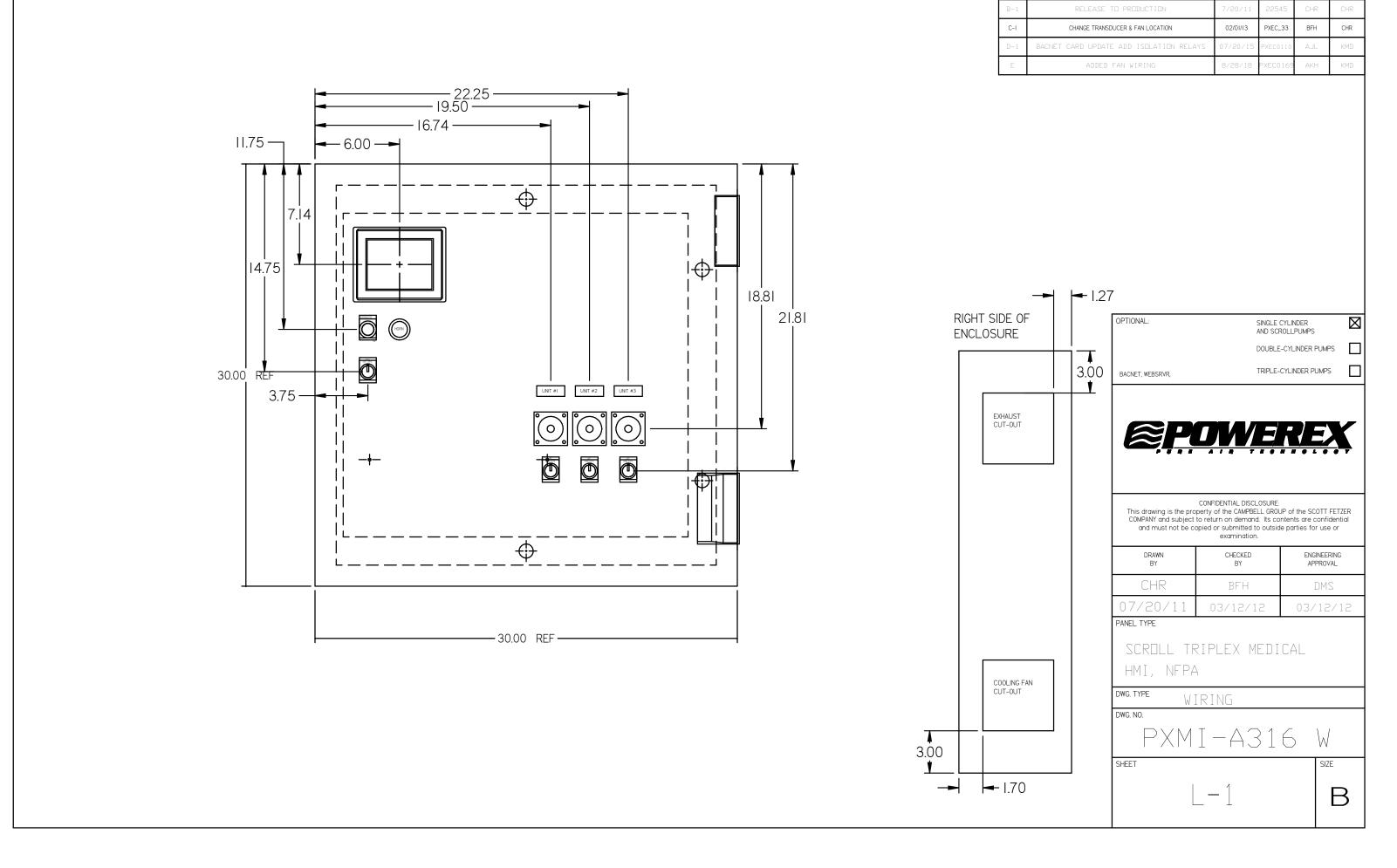
DWG. NO.

PXMI-A316 W

SHEET

В

SIZE



REV

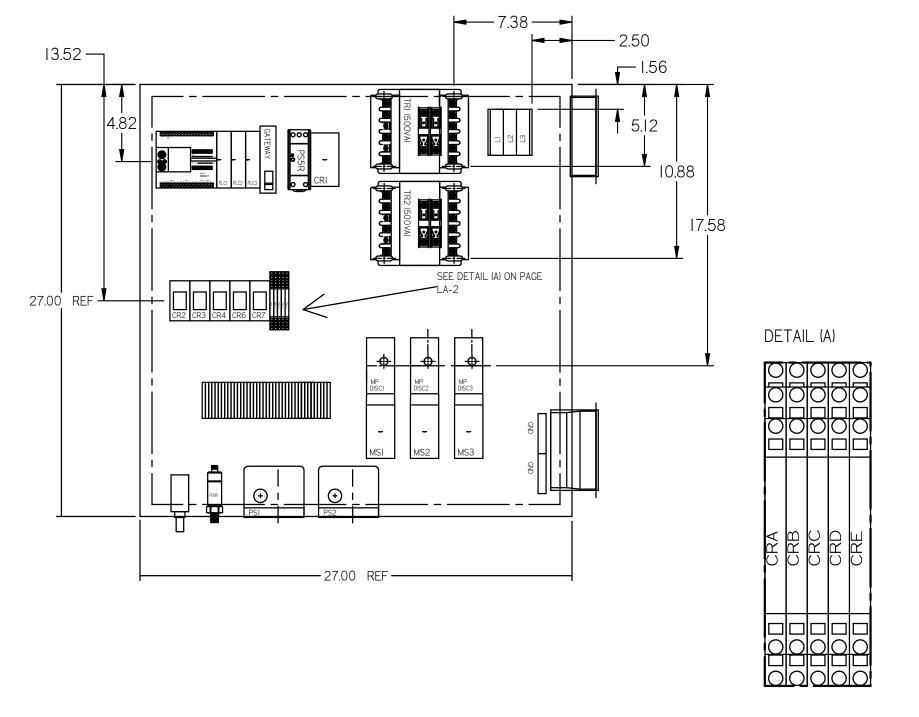
REVISION

DATE

ECN

NAME

	REV	REVISION	DATE	ECN	NAME	CHKD
	B-1	RELEASE TO PRODUCTION	7/20/11	22545	CHR	CHR
ſ	C-I	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
	D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
Ī	E	ADDED FAN WIRING	8/28/18	PXEC0169	AKH	KMD



OPTIONAL: SINGLE CYLINDER AND SCROLLPUMPS \boxtimes DOUBLE-CYLINDER PUMPS TRIPLE-CYLINDER PUMPS BACNET, WEBSRVR,



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PANEL TYPE

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DWG. TYPE WIRING

DWG. NO.

PXMI-A316

SHEET

В

