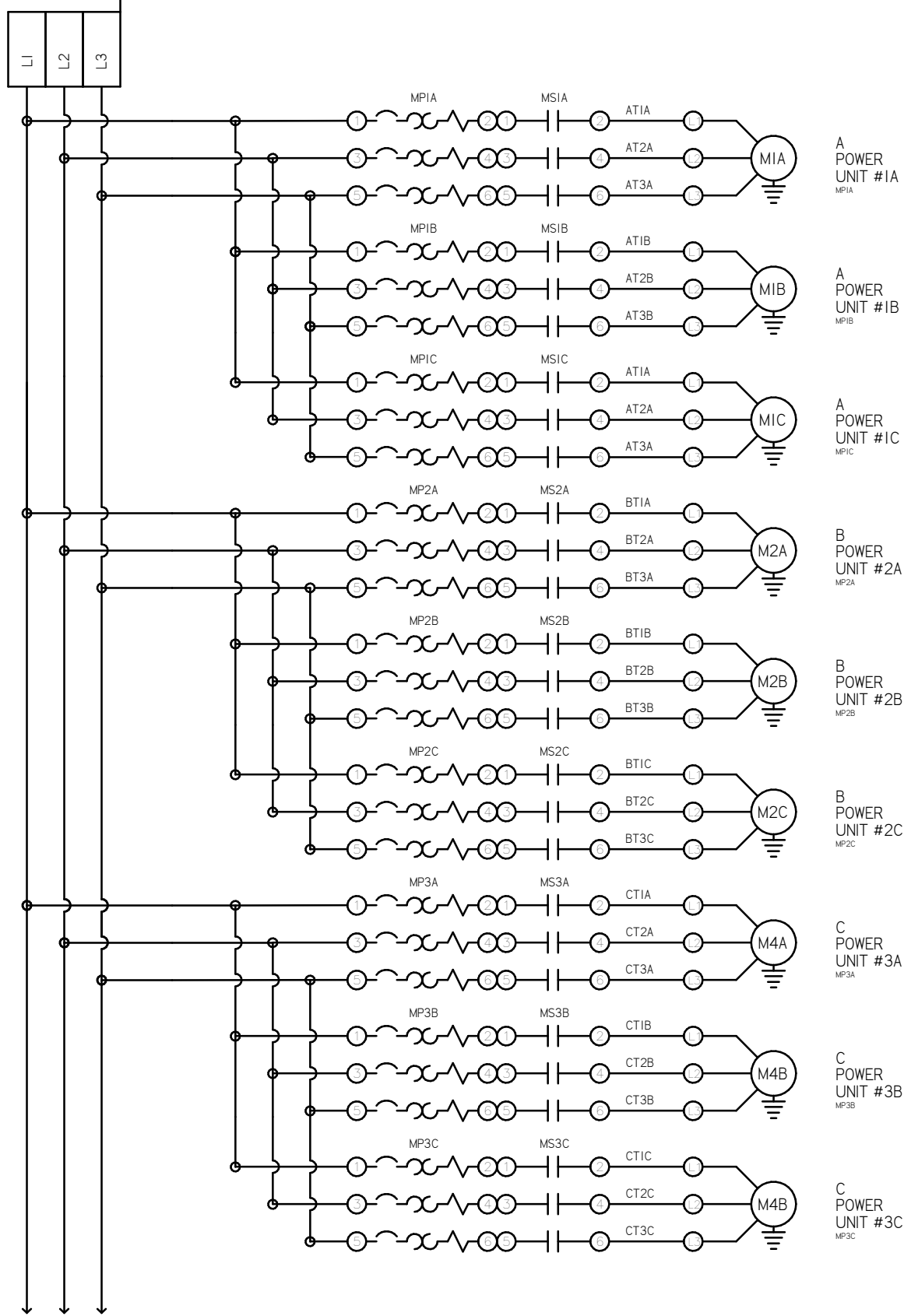


SEE TABLE I



SEE TABLE I FOR BRANCH CIRCUIT PROTECTION

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0165	AKH	KMD

OPTIONAL:

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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

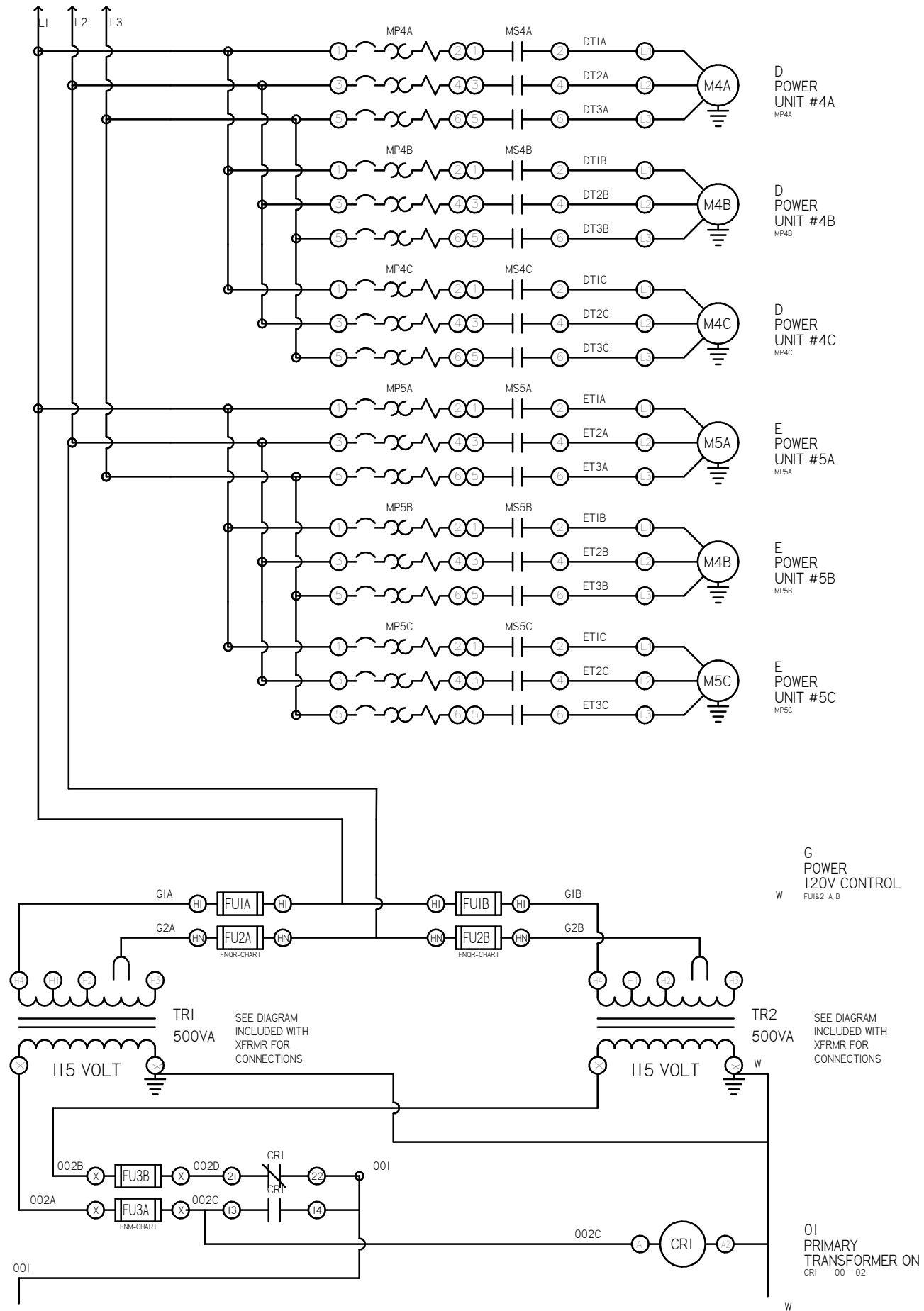
PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

SHEET	SIZE
W-1	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC.33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0165	AKH	KMD



OPTIONAL:

BACNET, WEBSVR, R



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

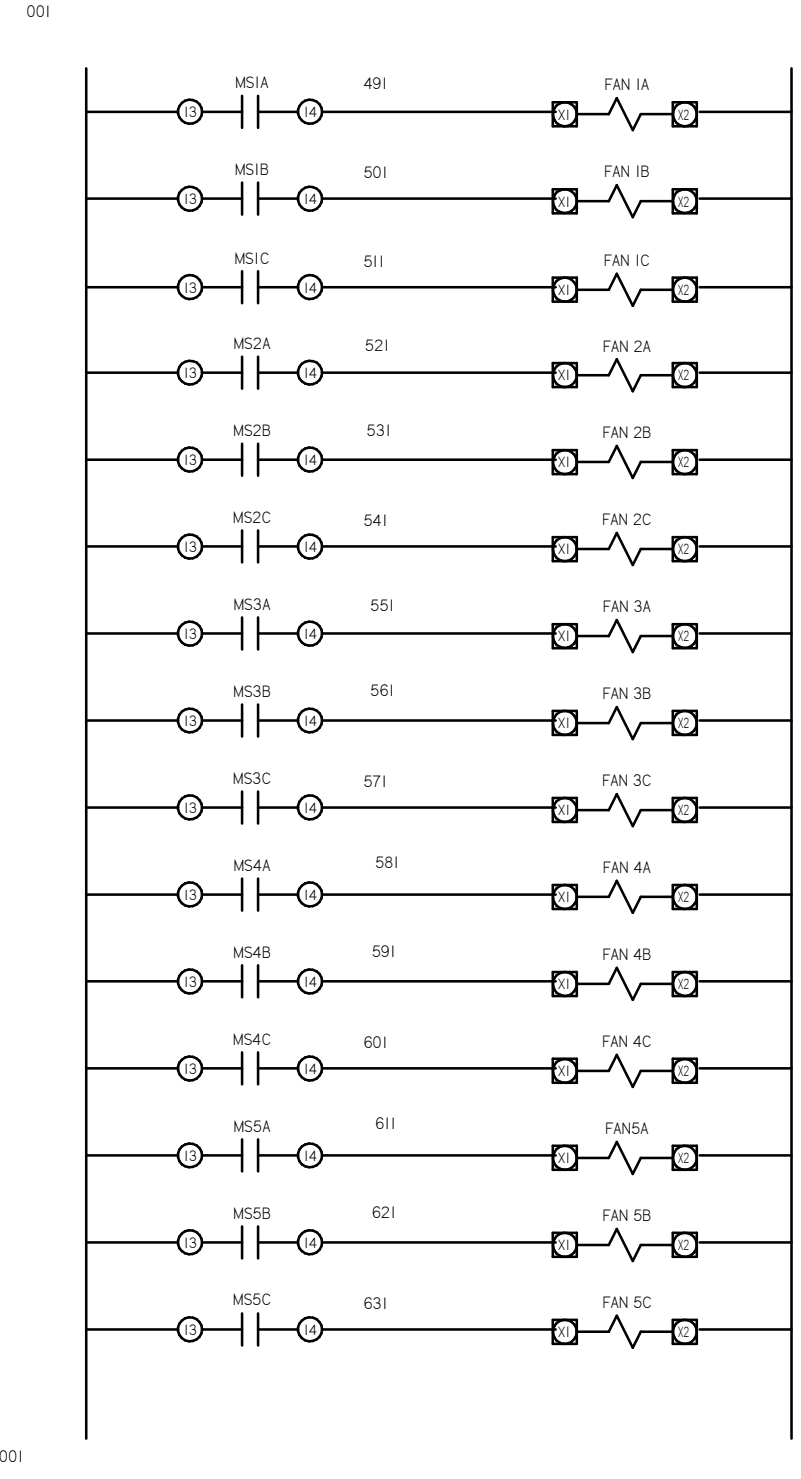
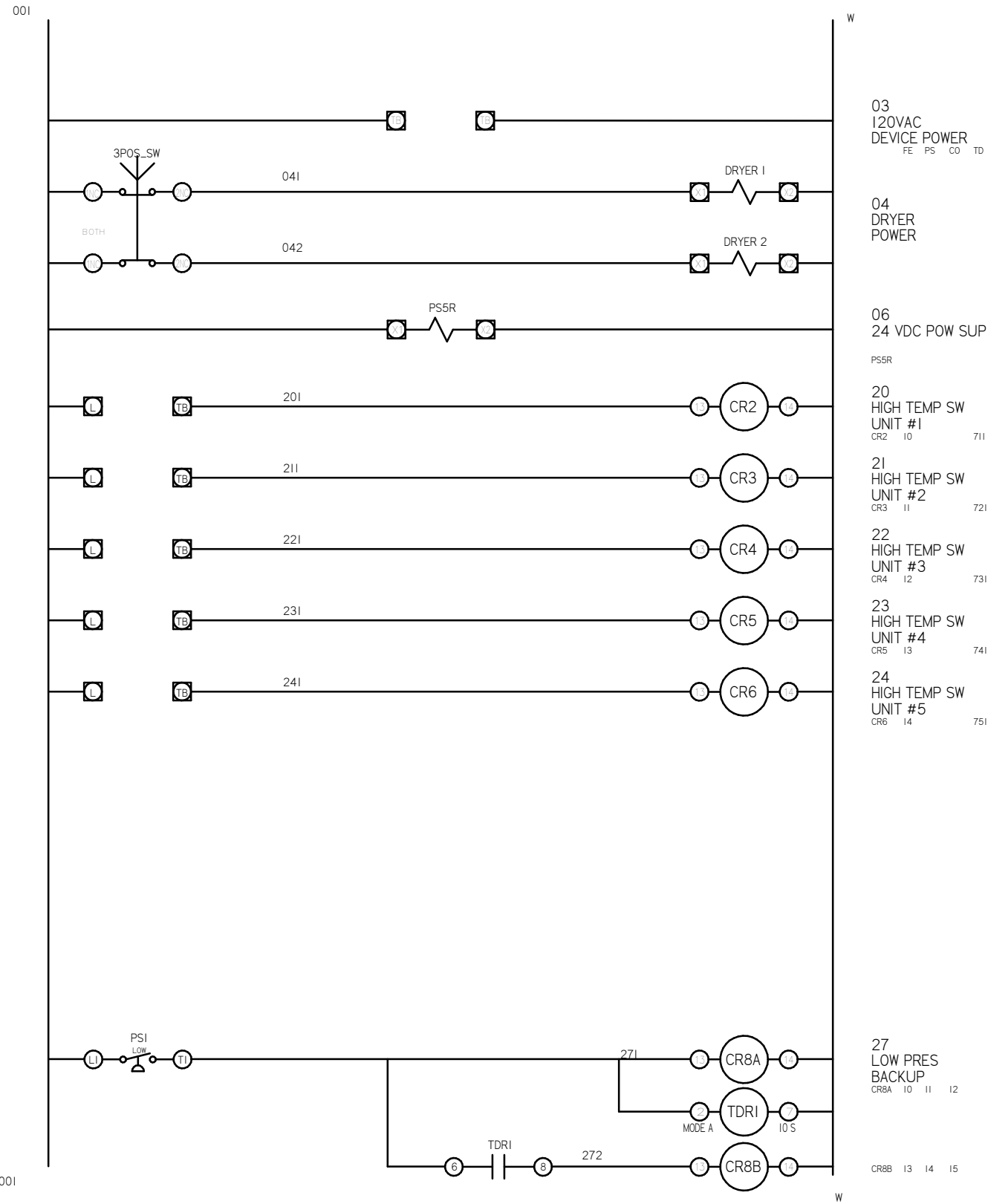
PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

SHEET W-2	SIZE B
--------------	-----------

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC.33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	A.JL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD



- 49 FAN POWER UNIT #1A TB
- 50 FAN POWER UNIT #1B TB
- 51 FAN POWER UNIT #1C TB
- 52 FAN POWER UNIT #2A TB
- 53 FAN POWER UNIT #2B TB
- 54 FAN POWER UNIT #2C TB
- 55 FAN POWER UNIT #3A TB
- 56 FAN POWER UNIT #3B TB
- 57 FAN POWER UNIT #3C TB
- 58 FAN POWER UNIT #4A TB
- 59 FAN POWER UNIT #4B TB
- 60 FAN POWER UNIT #4C TB
- 61 FAN POWER UNIT #5A TB
- 62 FAN POWER UNIT #5B TB
- 63 FAN POWER UNIT #5C TB

- 03 120VAC DEVICE POWER  
FE PS CO TD
- 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 #4  
CR5 13 741
- 24 HIGH TEMP SW UNIT #5  
CR6 14 751
- 27 LOW PRES BACKUP  
CR8A 10 11 12  
CR8B 13 14 15

OPTIONAL:

BACNET, WEBSVR,



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

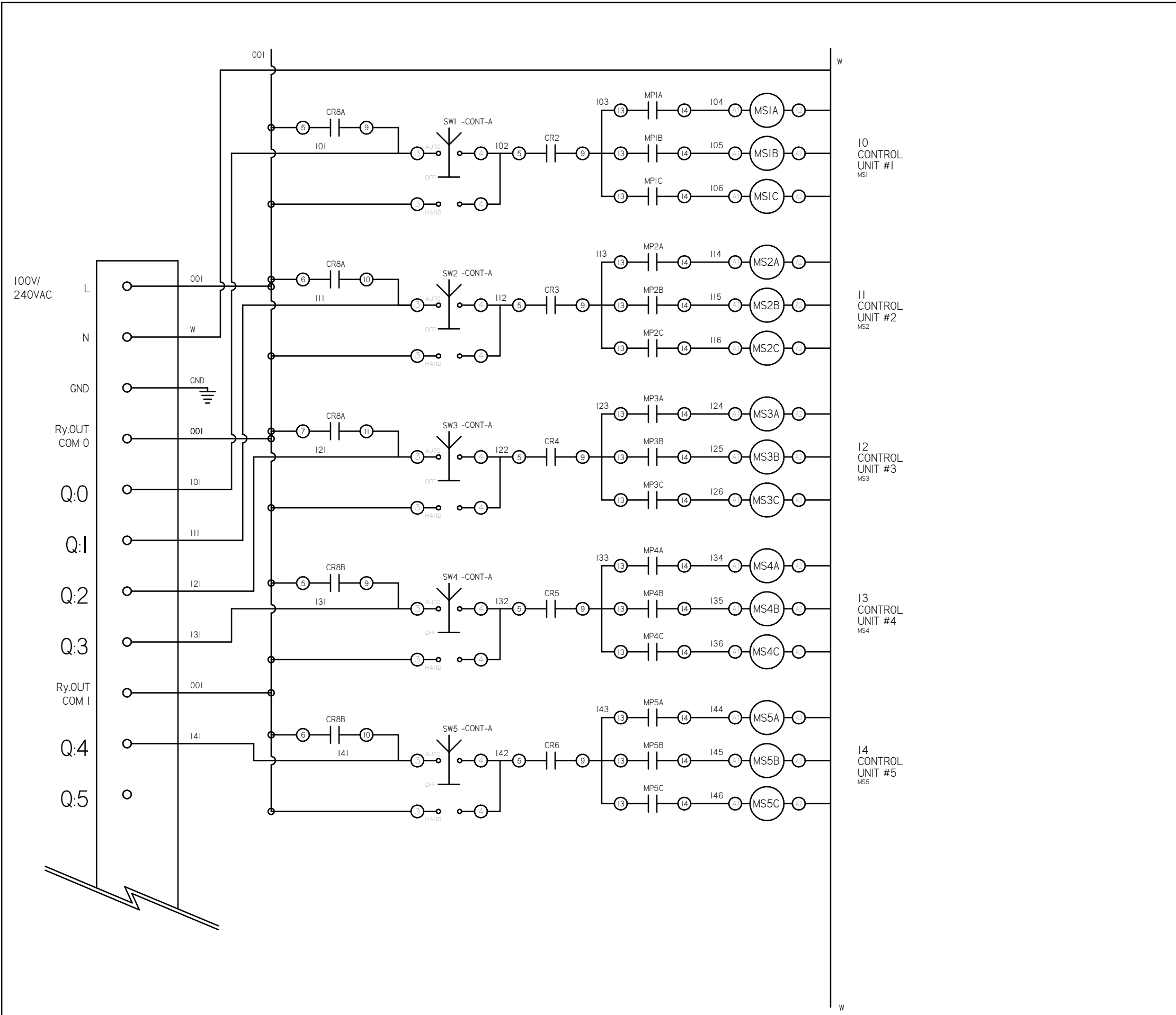
DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

SHEET  
W-3

SIZE  
B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0165	AKH	KMD



OPTIONAL:  
BACNET, WEBSVR,



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

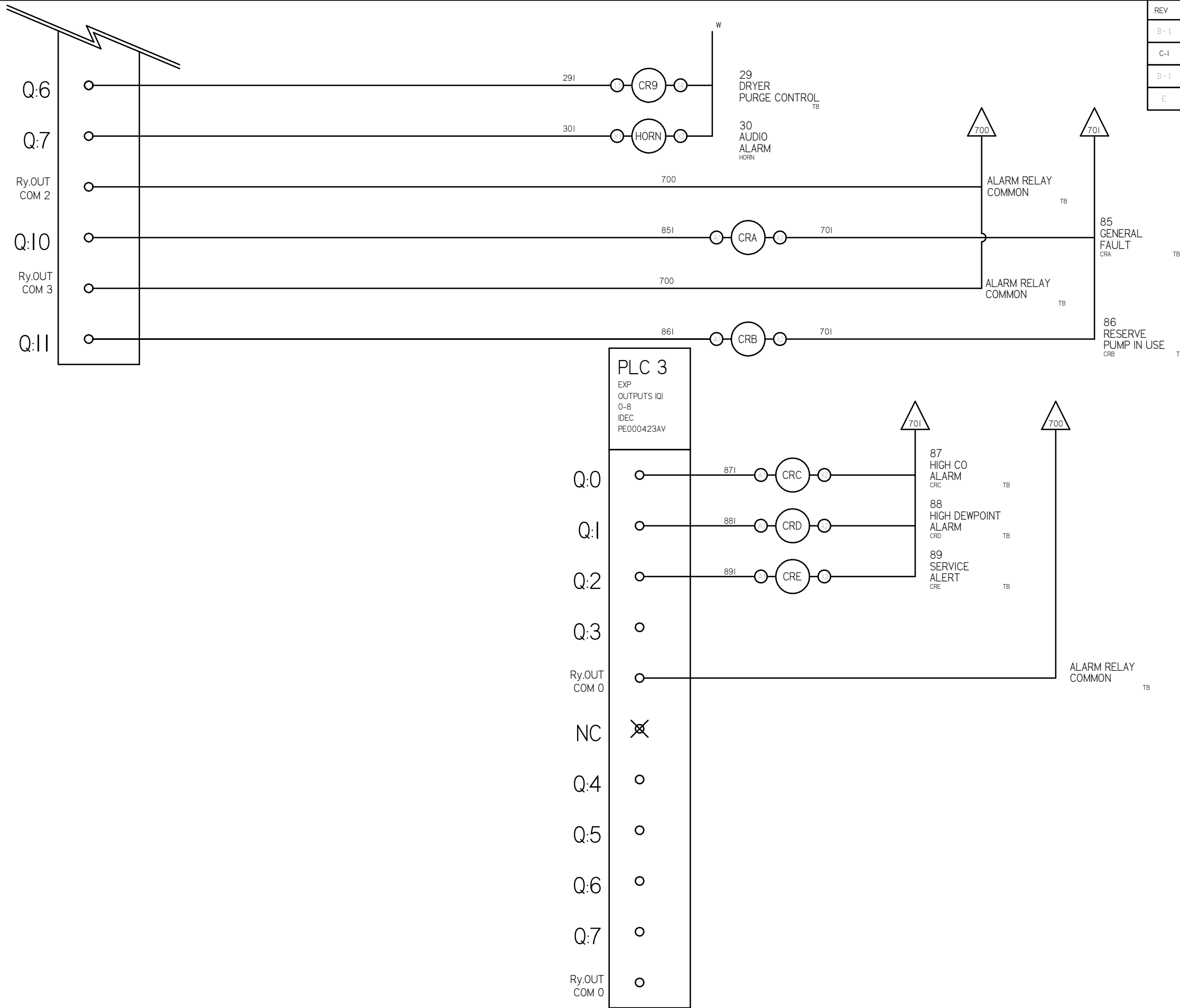
PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

SHEET	SIZE
W-4	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC.33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD



OPTIONAL:

BACNET, WEBSVR

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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

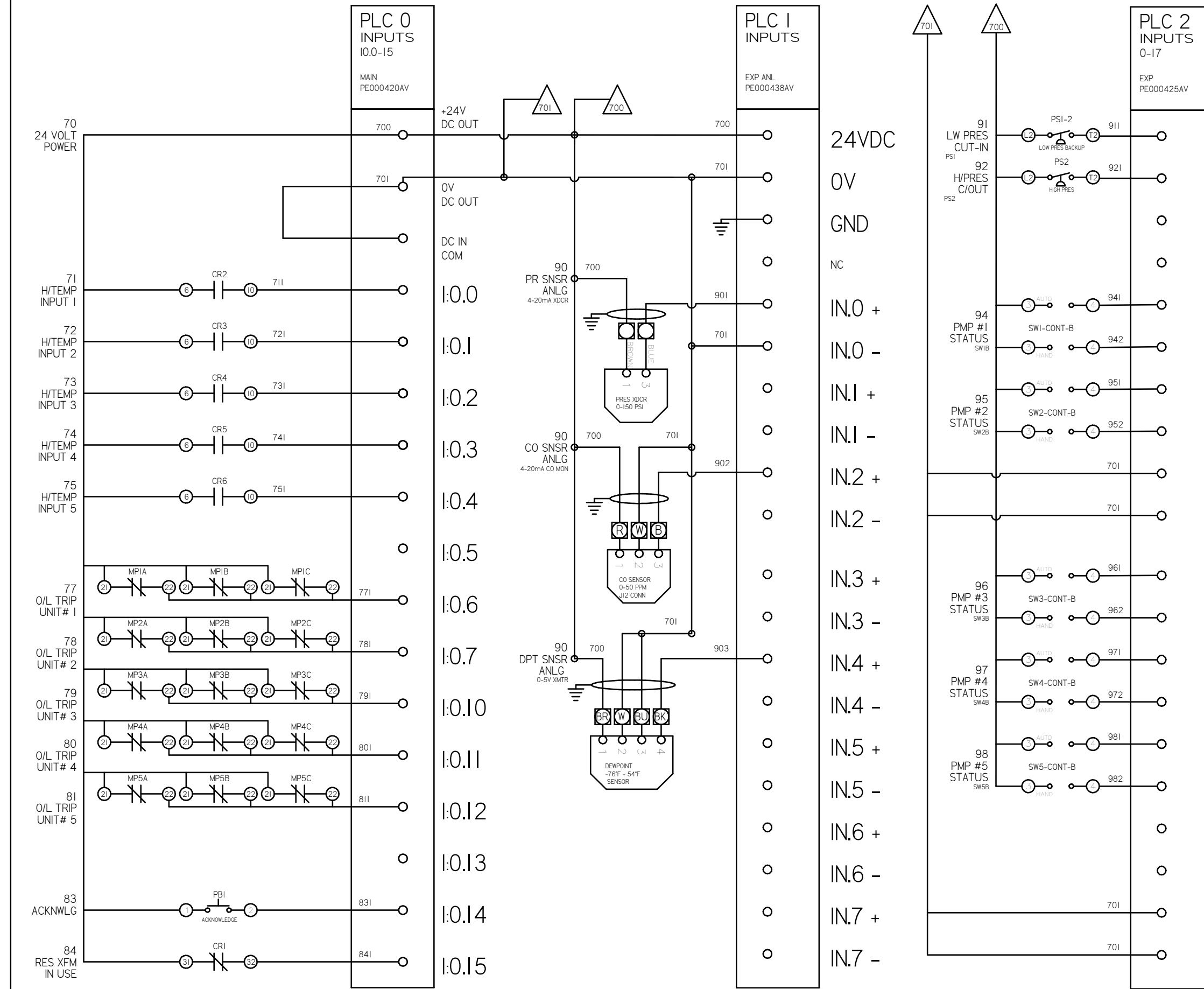
DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

SHEET	SIZE
W-5	B

PXMI-S516F B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC.33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0165	AKH	KMD



I:0.0	91 LW PRES CUT-IN	911
I:0.1	92 H/PRES C/O	921
I:0.2		
I:0.3		
I:0.4	94 PMP #1 STATUS	941
I:0.5		942
I:0.6	95 PMP #2 STATUS	951
I:0.7		952
COM		701
COM		701
I:0.10	96 PMP #3 STATUS	961
I:0.11		962
I:0.12	97 PMP #4 STATUS	971
I:0.13		972
I:0.14	98 PMP #5 STATUS	981
I:0.15		982
I:0.16		
I:0.17		
COM		701
COM		701

OPTIONAL:  
BACNET, WEBSVR,

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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR

04/18/12 04/19/12 04/19/12

PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

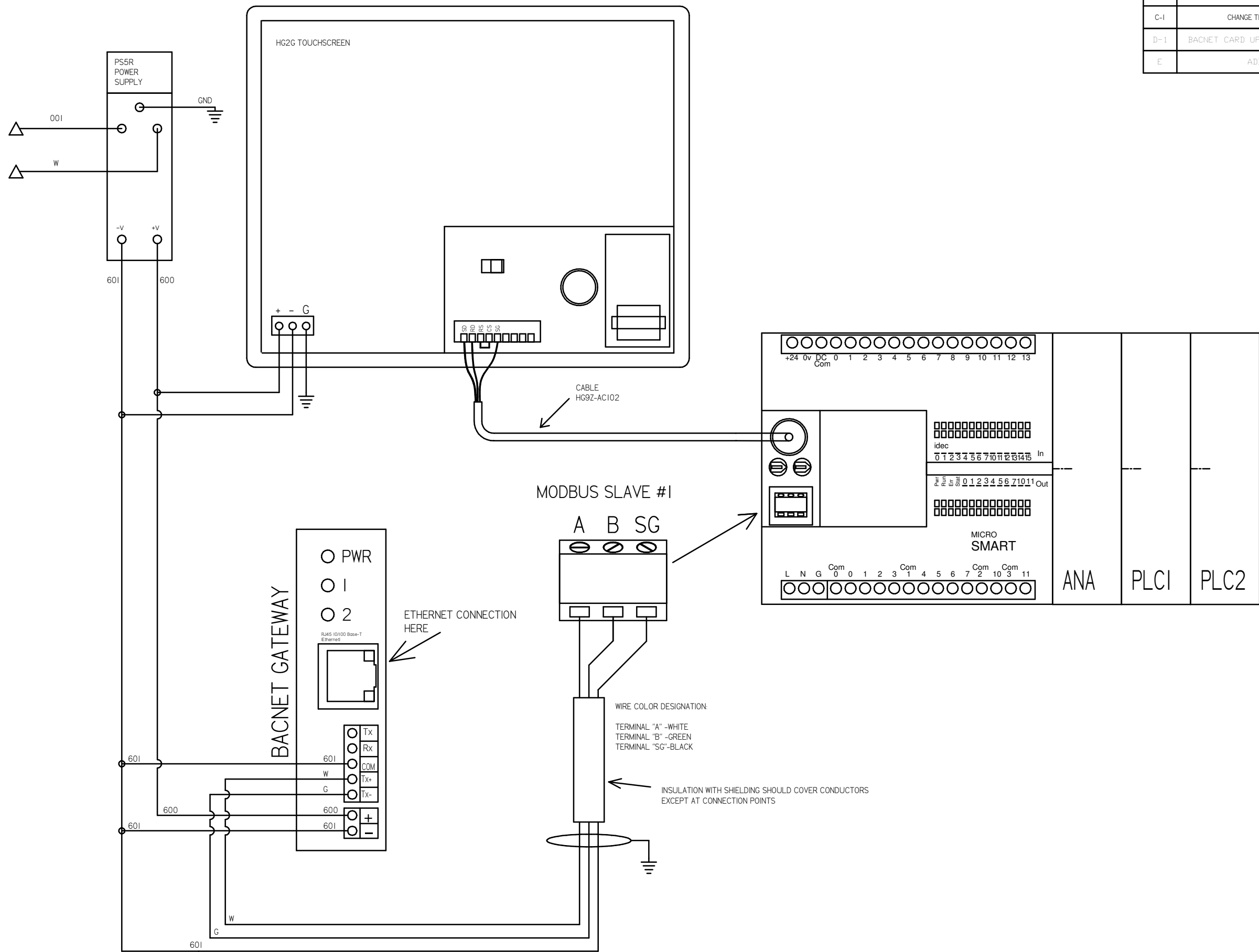
DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

SHEET	SIZE
W-6	B

PXMI-S516F B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD



OPTIONAL:  
BACNET, WEBSVR,



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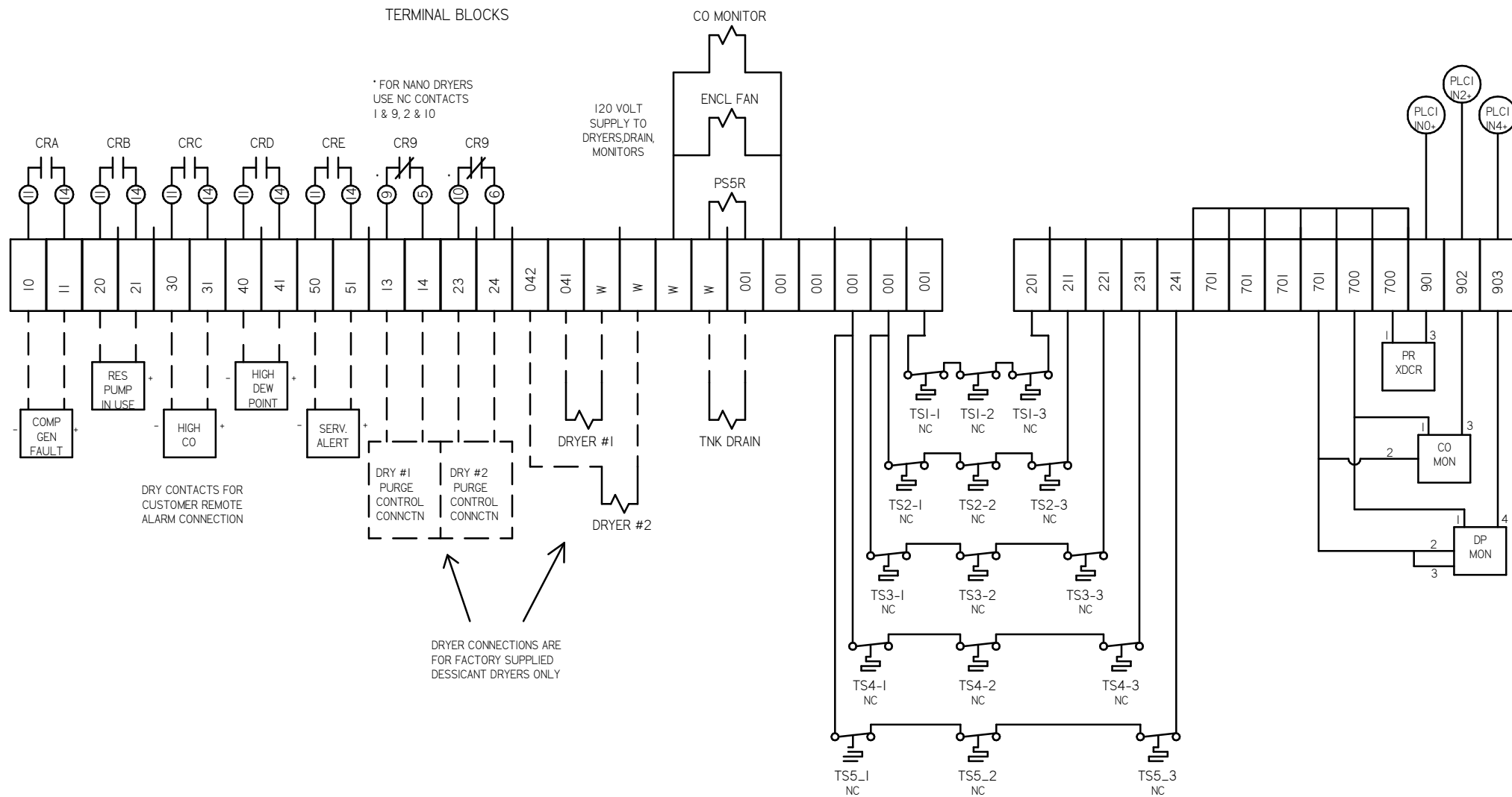
DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

SHEET	SIZE
W-7	B



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD

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



FAN WIRING  
SEE RUNGS 49-63 FOR DETAILS

OPTIONAL:

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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

SHEET  
W-8

SIZE  
B



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC.33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD

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	(A) POWER (V/PH)	(A) MOTOR LOAD EACH (FLA)	PANEL LOAD TOTAL (FLA)	NONTIME DELAY FUSE	TIME-DELAY FUSE	INVERSE-TIME CIRCUIT BREAKER
PXMIS516F2AJ	5(X3)	208V/3Ø	14.0	215	250A	225A	250A
PXMIS516F3AJ	5(X3)	230V/3Ø	12.7	195	225A	225A	225A
PXMIS516F4AJ	5(X3)	460V/3Ø	6.33	99	125A	110A	110A

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 I .
- 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-8.

### 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.

WIRE TYPE TABLE			
VOLTAGE	WIRE NUMBERS	GAUGE	COLOR
120 VAC	001-699	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	FNQR	6A	5A	5A	4A
FU1,2B					
FU3A,B	FNM	7A	7A	7A	7A

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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

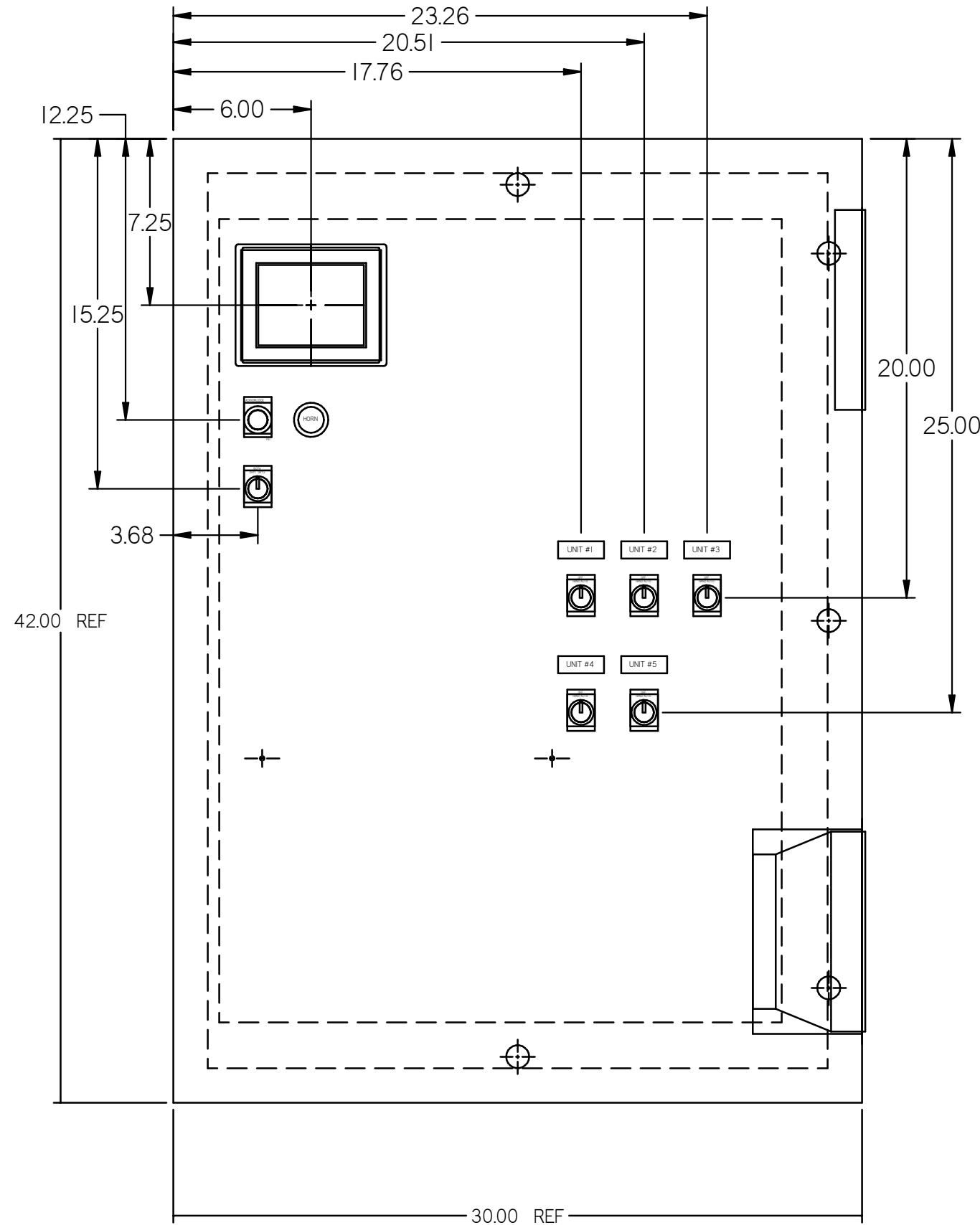
DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

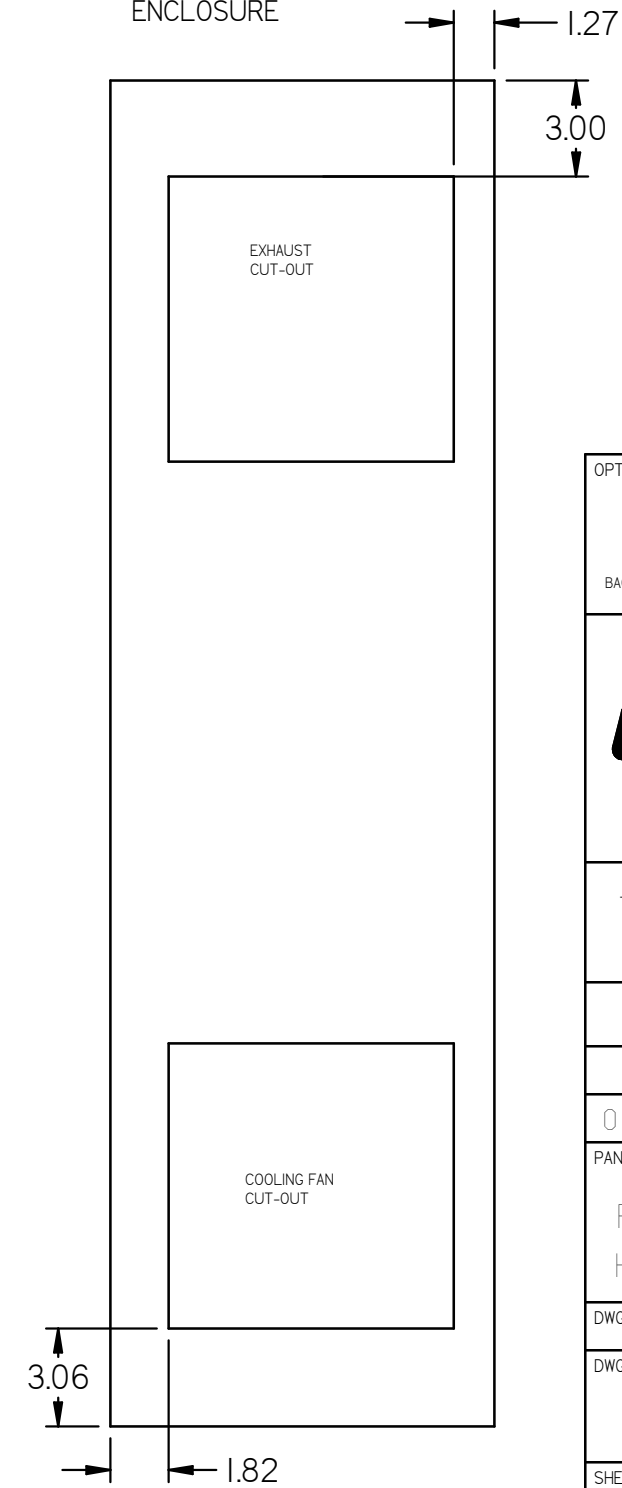
SHEET D-1	SIZE B
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PXMI-S516F B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC.33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0165	AKH	KMD



RIGHT SIDE OF ENCLOSURE



OPTIONAL:

BACNET, WEBSVR,



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

PANEL TYPE

PENTA MEDICAL COMP  
HMI, NFPA

DWG. TYPE WIRING

DWG. NO.

PXMI-S516F W

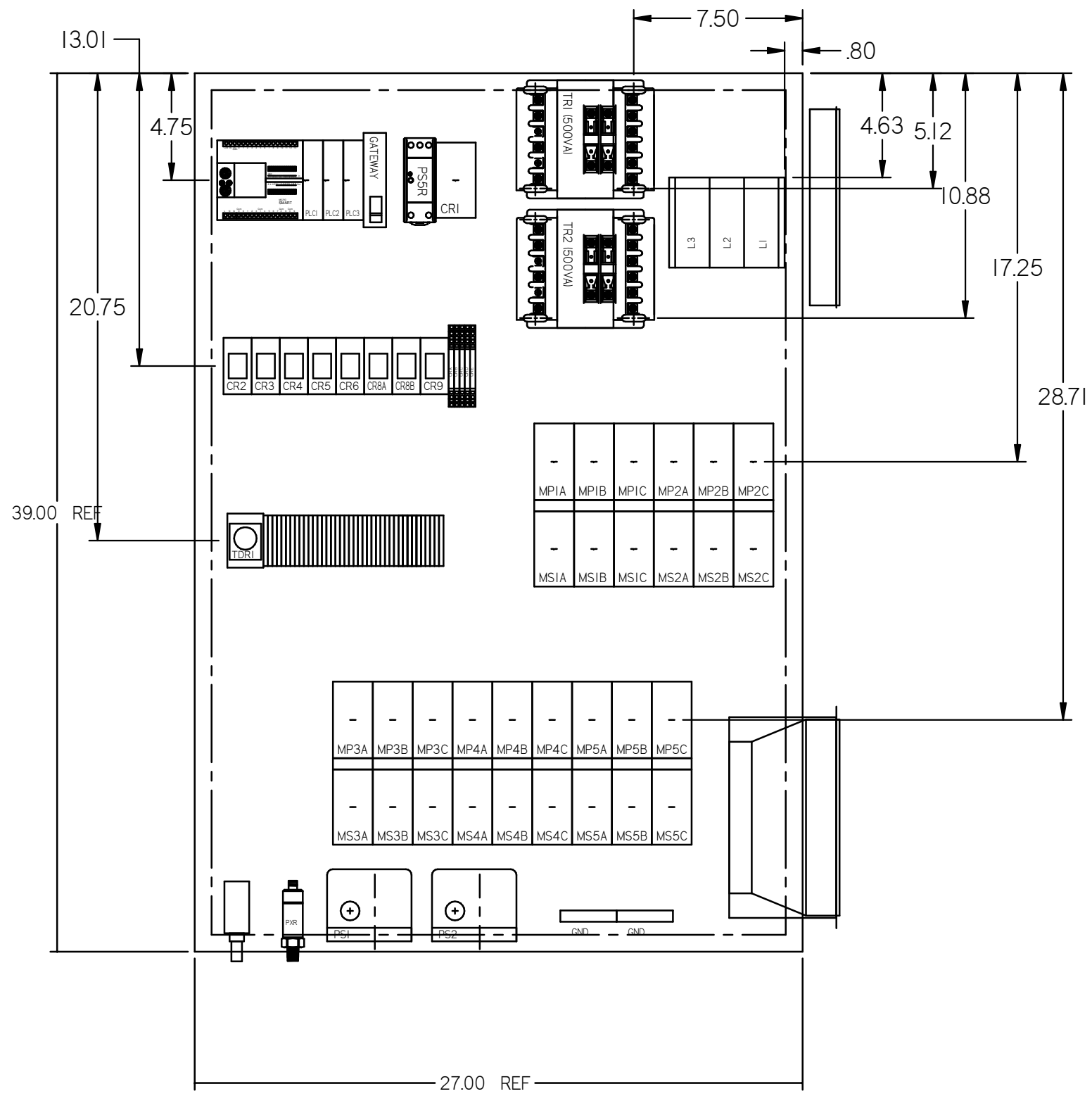
SHEET

L-1

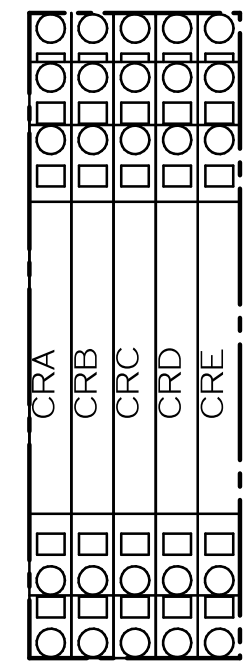
SIZE

B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
C-1	CHANGE TRANSDUCER & FAN LOCATION	02/01/13	PXEC_33	BFH	CHR
D-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
E	ADDED FAN WIRING	09/10/18	PXEC0169	AKH	KMD



DETAIL (A)



OPTIONAL:

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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

PANEL TYPE  
PENTA MEDICAL COMP  
HMI, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-S516F W

SHEET	SIZE
L-2	B

PXMI-S516F B1