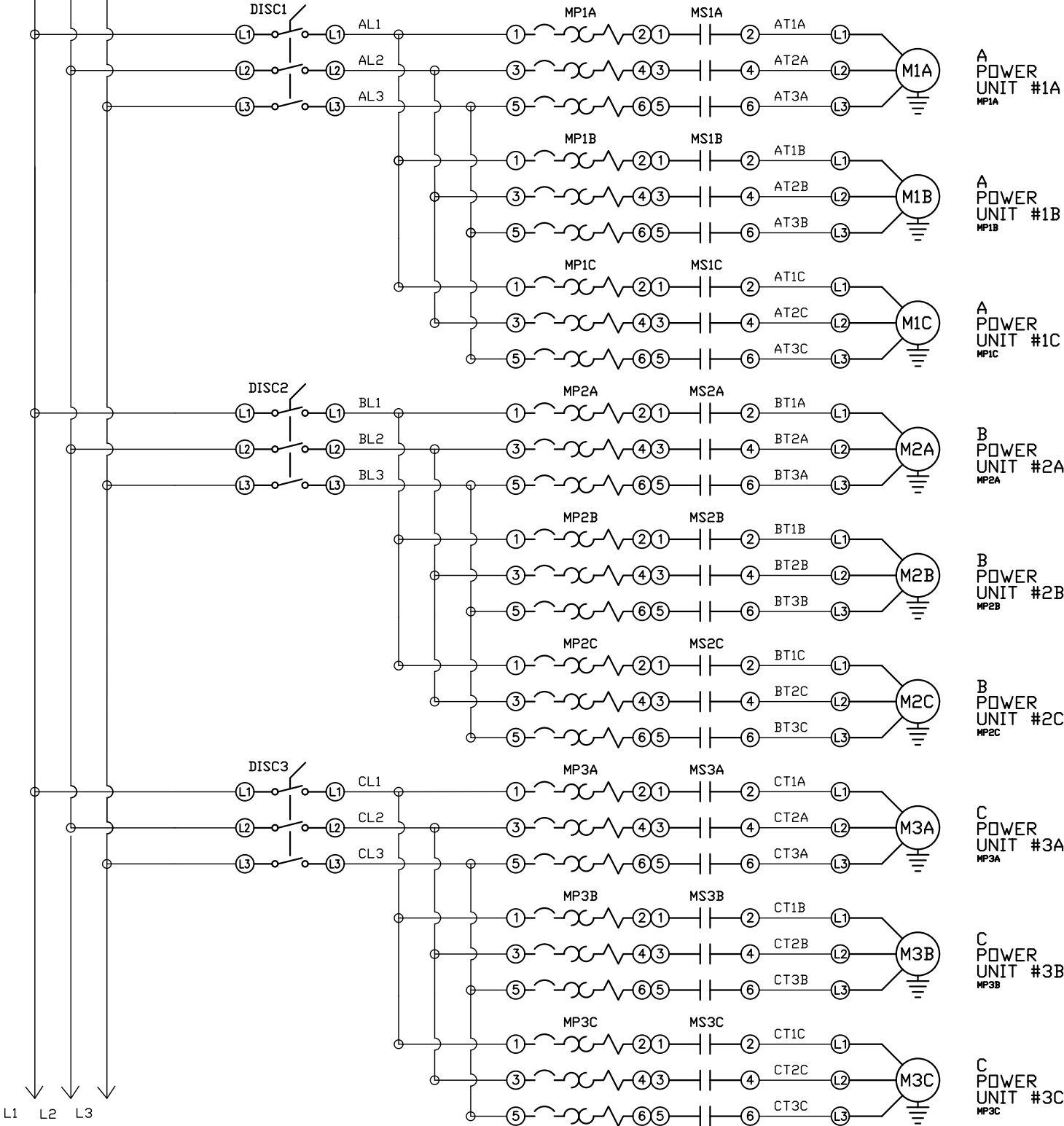


FIELD FURNISHED
DISCONNECT IS
REQUIRED

SEE NOTES ON
DATA TABLE PAGE



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM

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

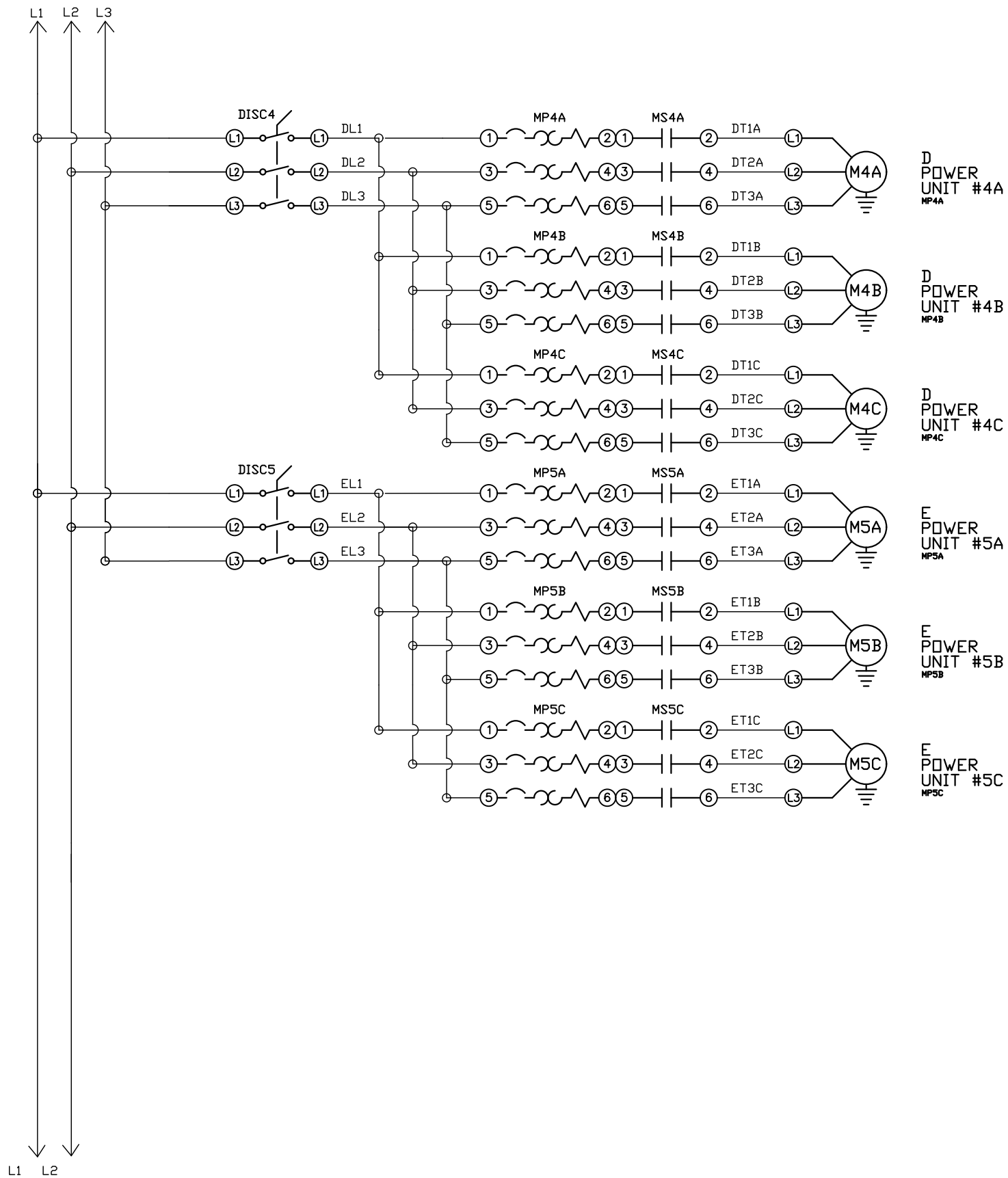
PENTA MEDICAL COMP
HMI, NFPA

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
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM

OPTIONAL:

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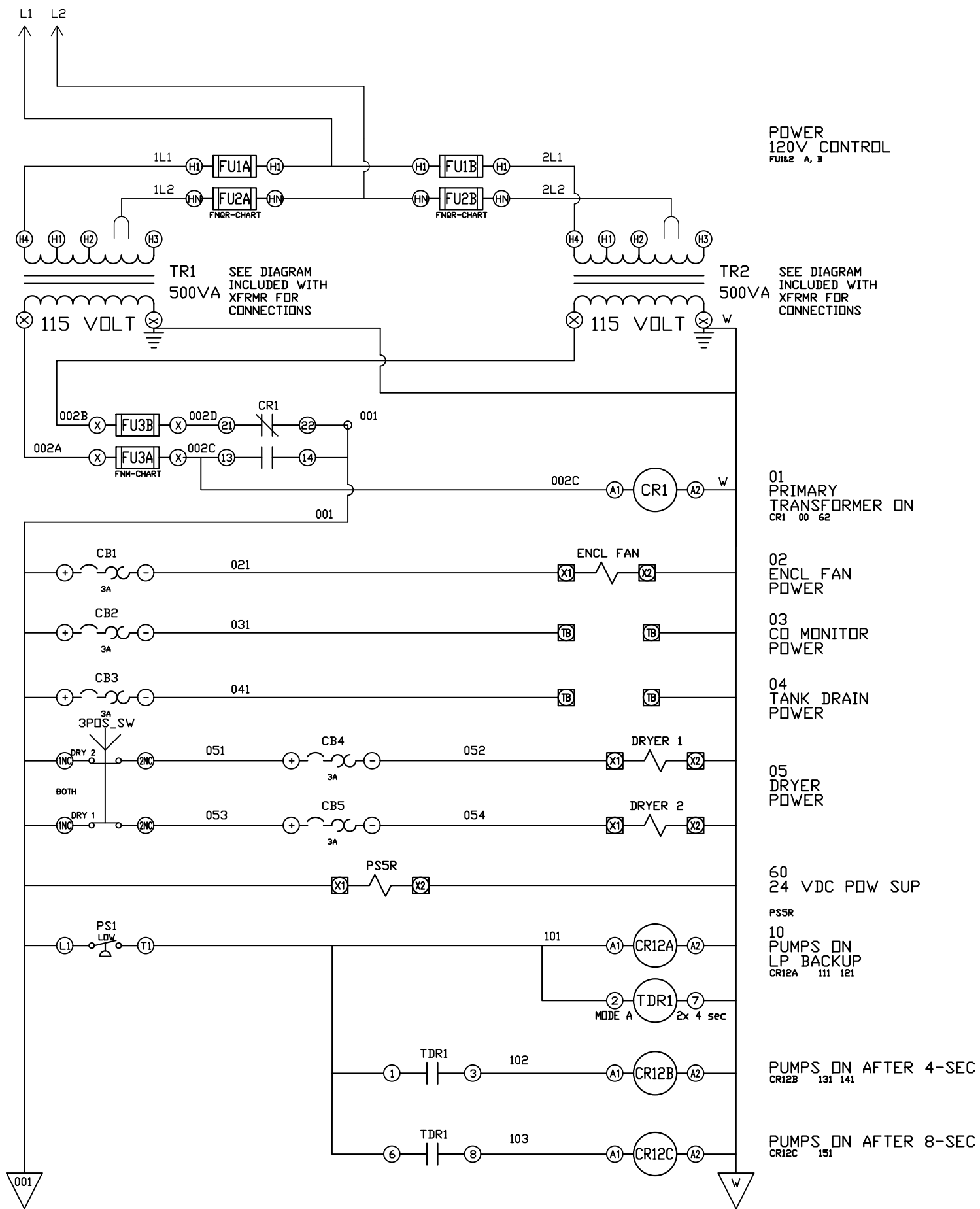
DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
04/18/12	04/19/12	04/19/12

PANEL TYPE
PENTA MEDICAL COMP
HMI, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-S516F W

SHEET	SIZE
W-2	B



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM

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

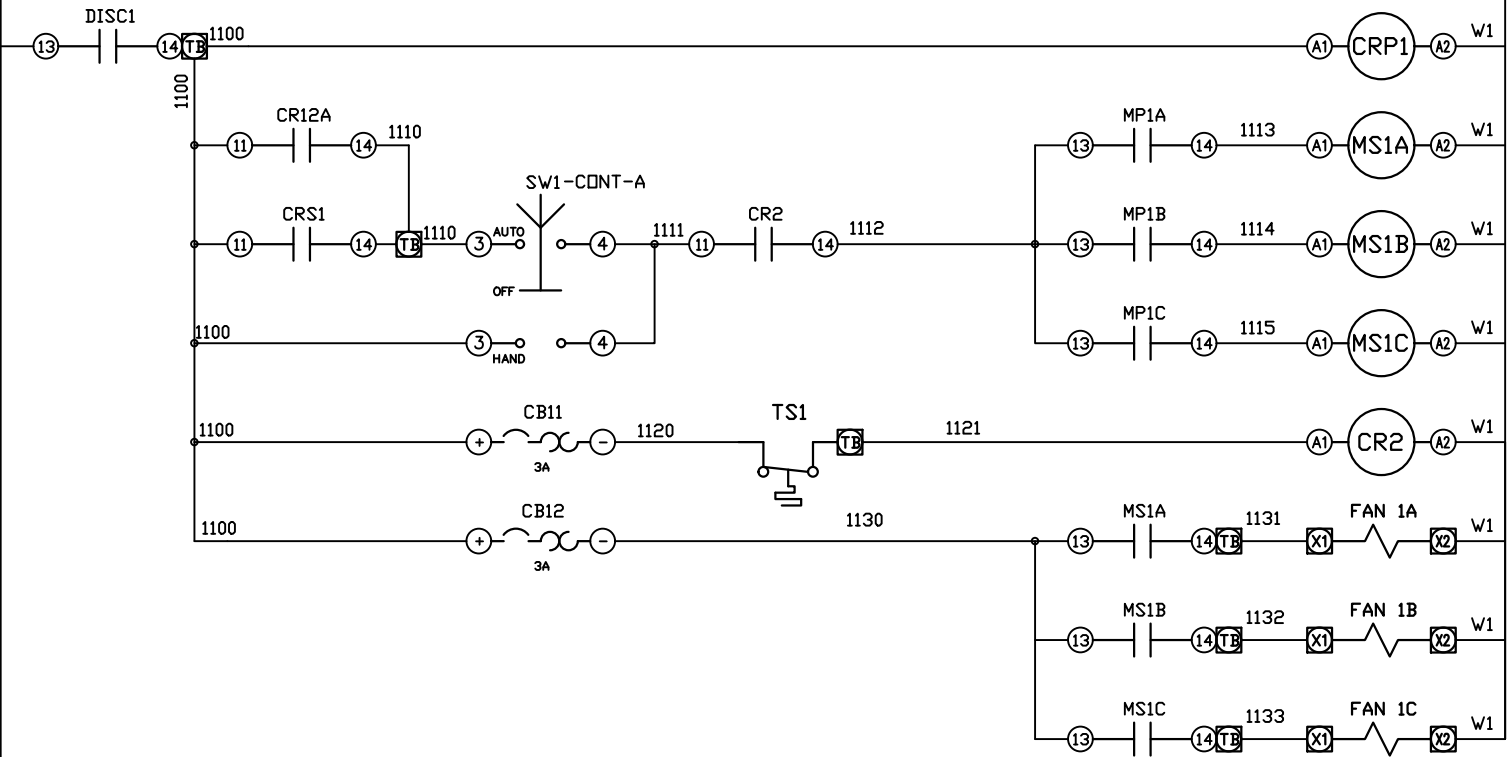
W-3

SIZE

B

001

001

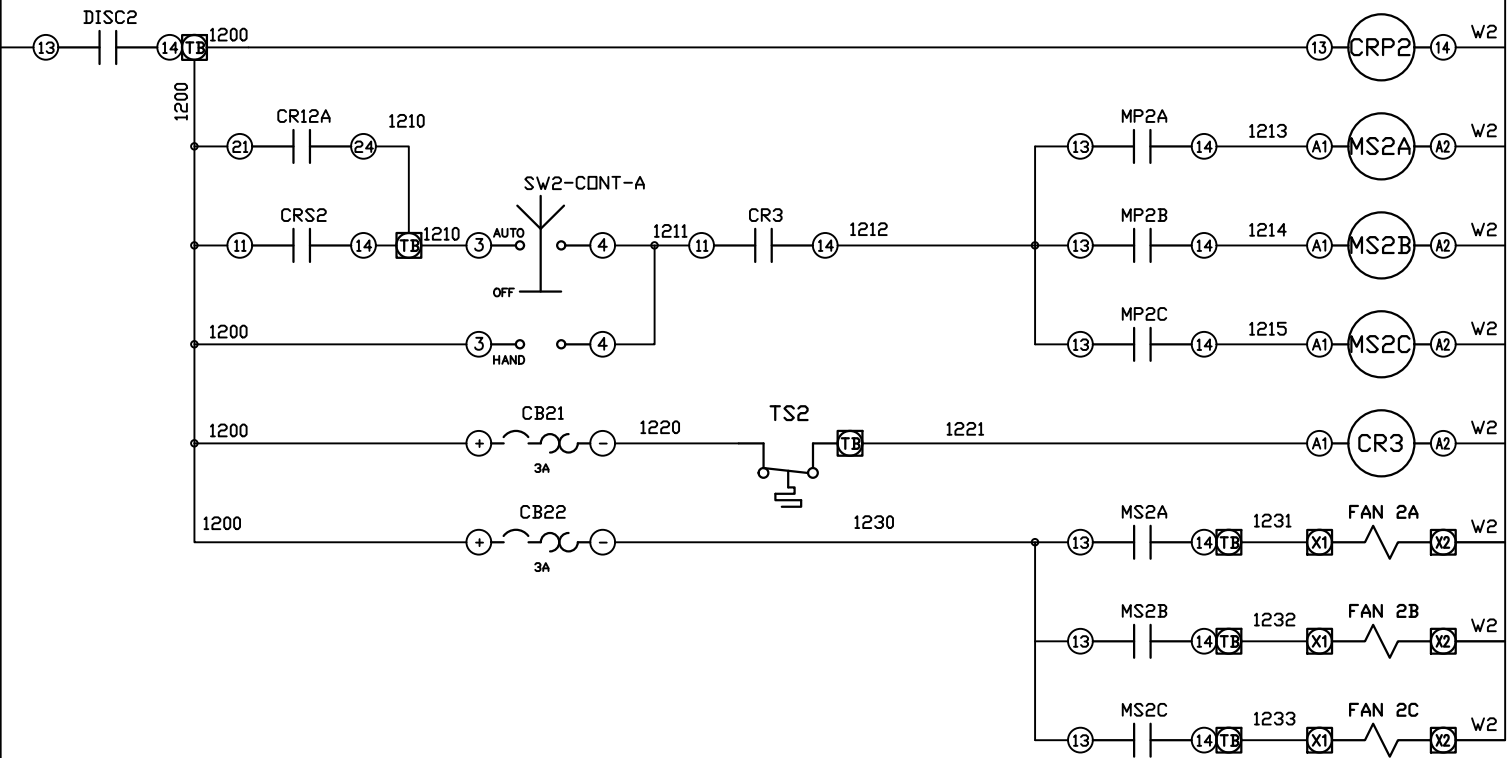


110
CONTROL POWER
PLEX #1
CRP1 81

111
MOTOR START
PLEX #1
MS1 A 81 113

112
HIGH TEMP SW
PLEX #1
CR2 81 111

113
AFTERCOOLER FAN
POWER
UNIT #1 TB



120
CONTROL POWER
PLEX #2
CRP2 82

121
MOTOR START
PLEX #2
MS2 B 82 123

122
HIGH TEMP SW
PLEX #2
CR3 82 121

123
AFTERCOOLER FAN
POWER
UNIT #2 TB

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM

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.

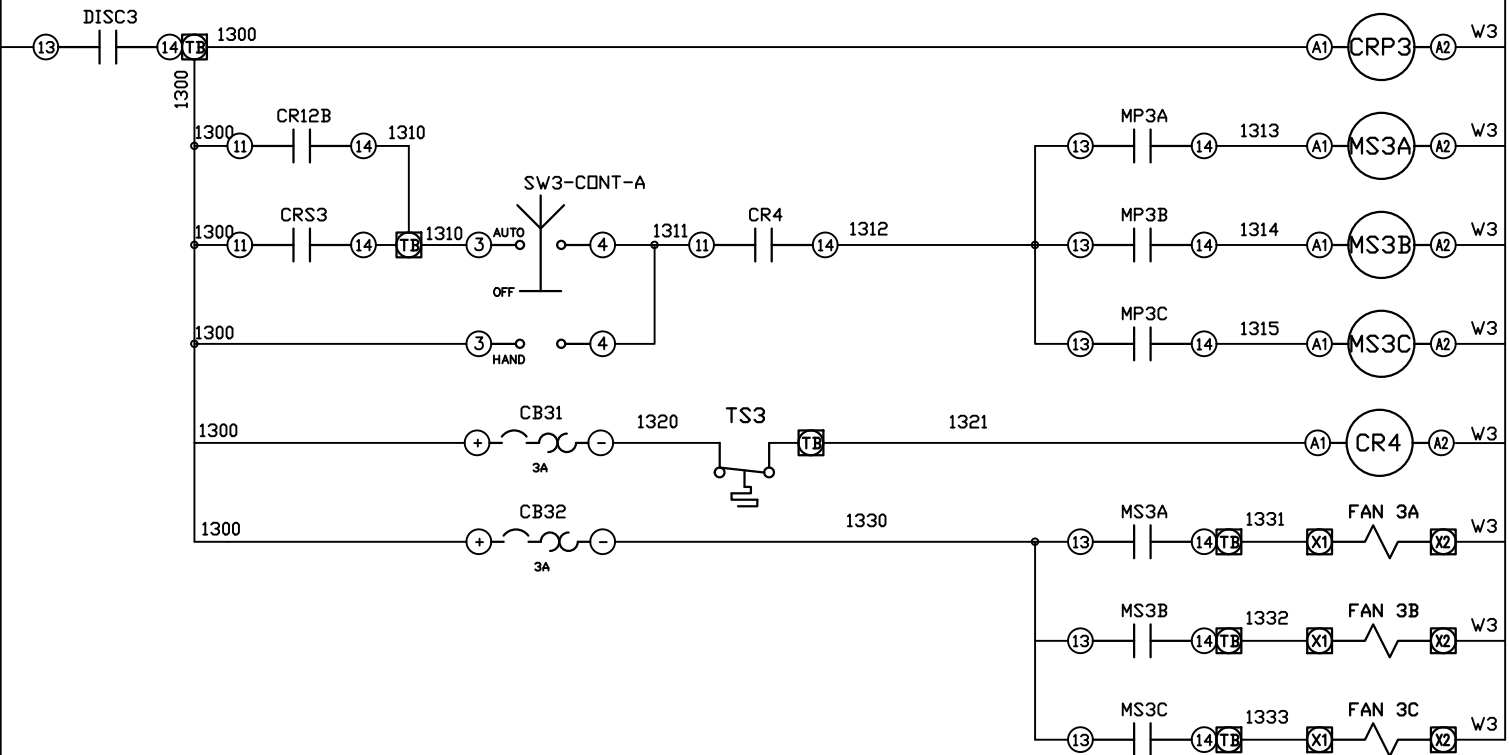
PXMI-S516F W

SHEET	SIZE
W-4	B

PXMI-S516F B1

001

001

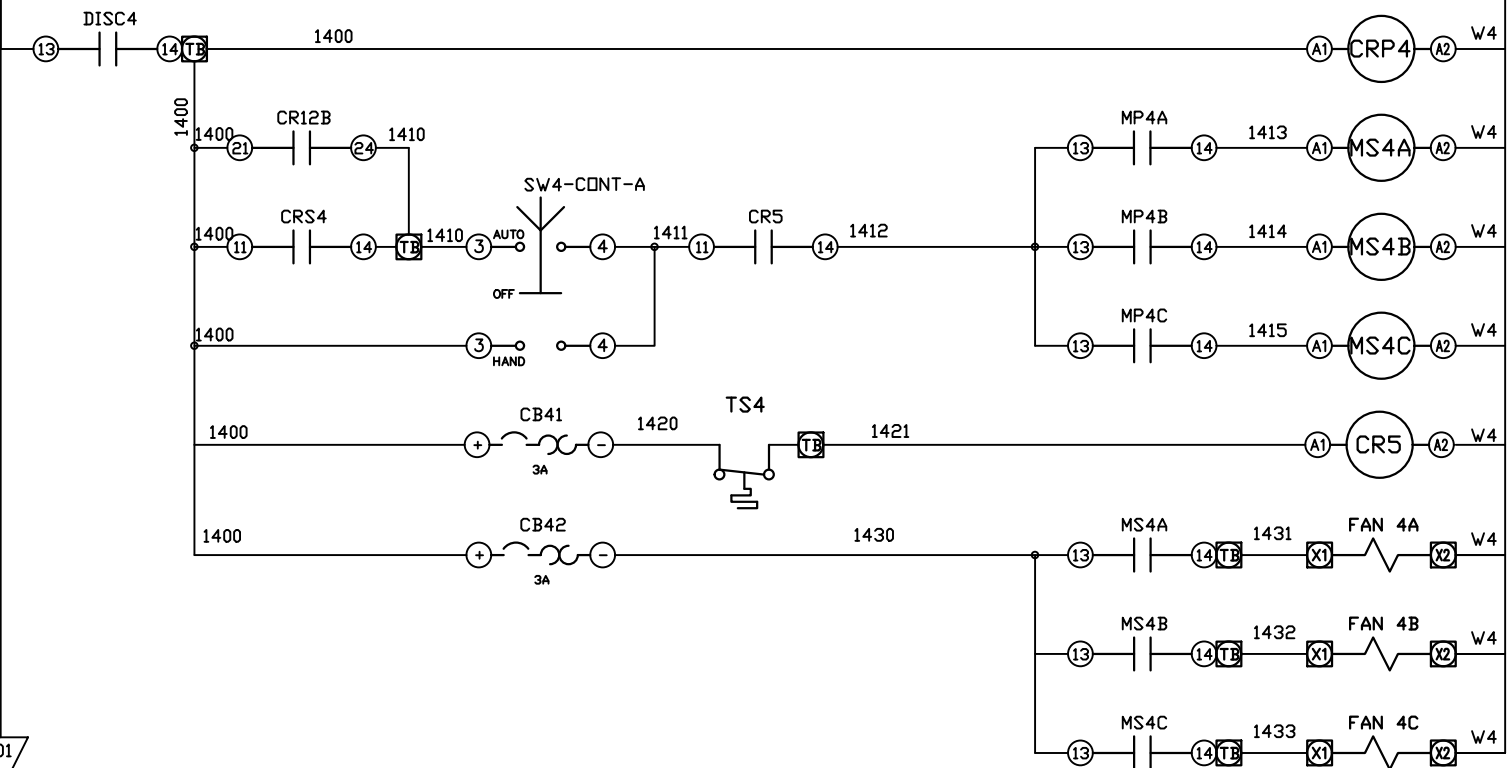


130
CONTROL POWER
PLEX #3
CRP3 83

131
MOTOR START
PLEX #3
MS3 C 83 133

132
HIGH TEMP SW
PLEX #3
CR4 83 131

133
AFTERCOOLER FAN
POWER
UNIT #3 TB



140
CONTROL POWER
PLEX #4
CRP4 84

141
MOTOR START
PLEX #4
MS4 D 84 143

142
HIGH TEMP SW
PLEX #4
CR5 84 141

143
AFTERCOOLER FAN
POWER
UNIT #4 TB

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM

OPTIONAL:

BACNET, WEBSRV, R,

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

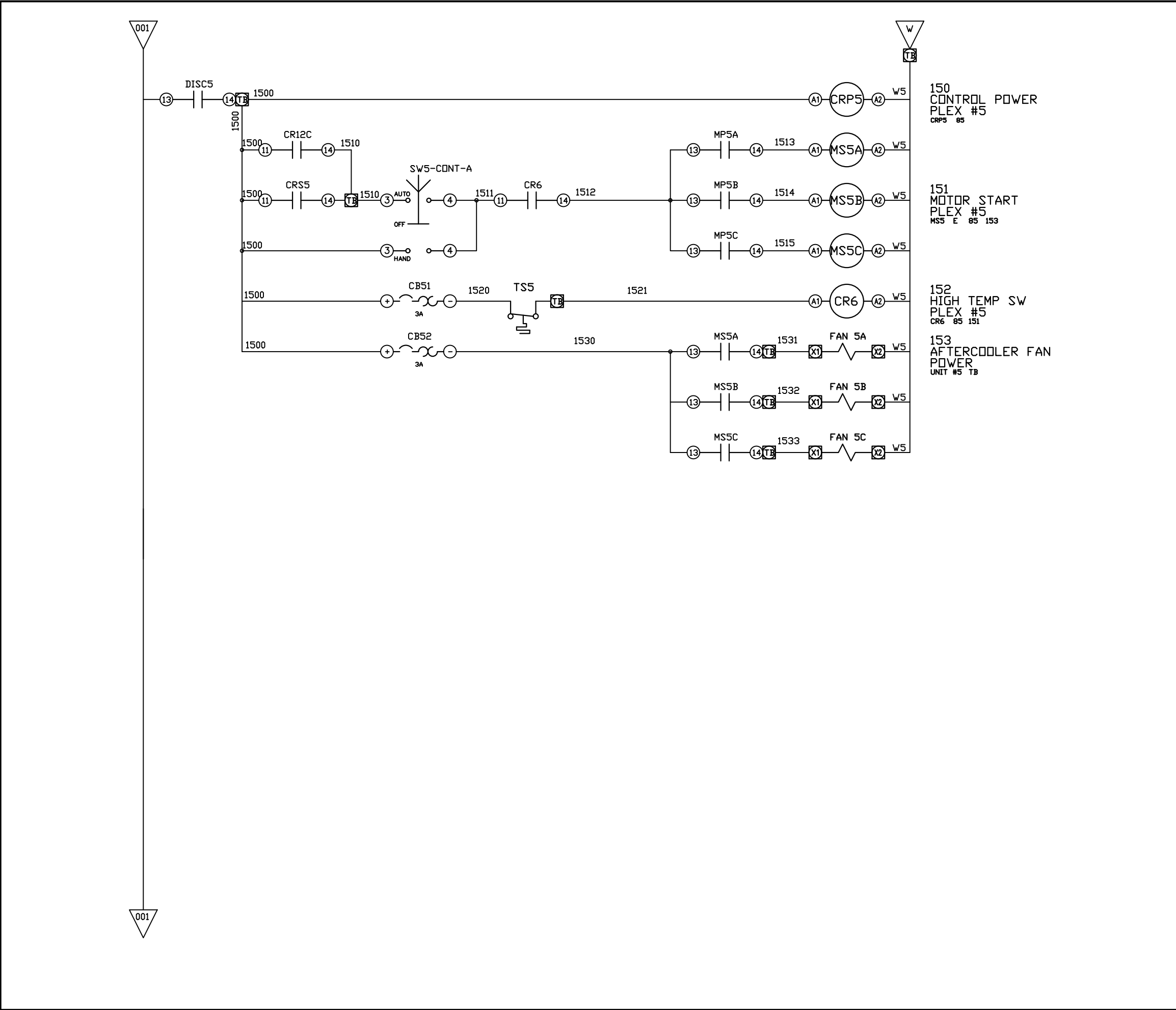
PANEL TYPE
PENTA MEDICAL COMP
HMI, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-S516F W

SHEET	SIZE
W-5	B

PXMI-S516F B1



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM

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

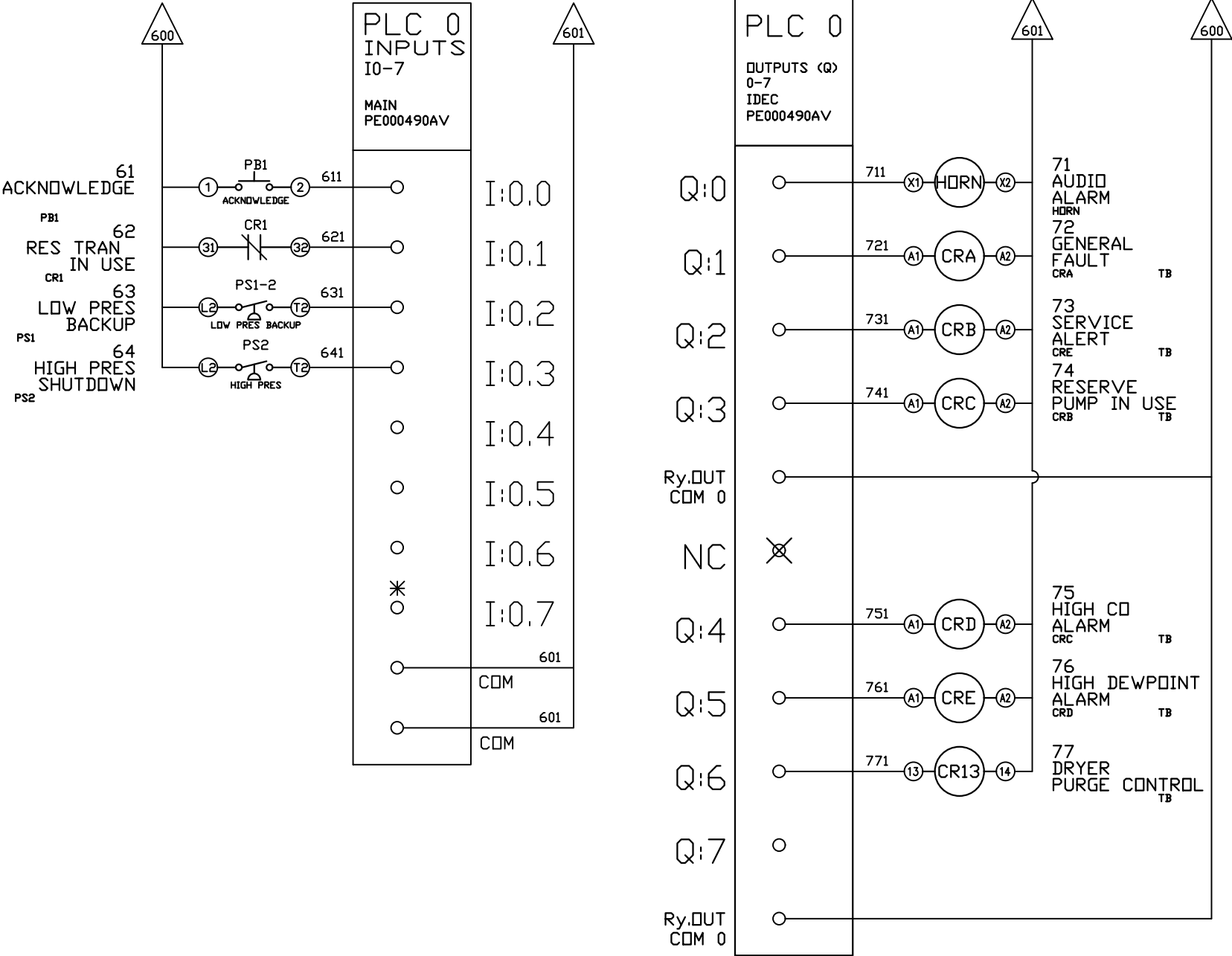
DWG. TYPE WIRING

DWG. NO.
PXMI-S516F W

SHEET	SIZE
W-6	B

PXMI-S516F B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM



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

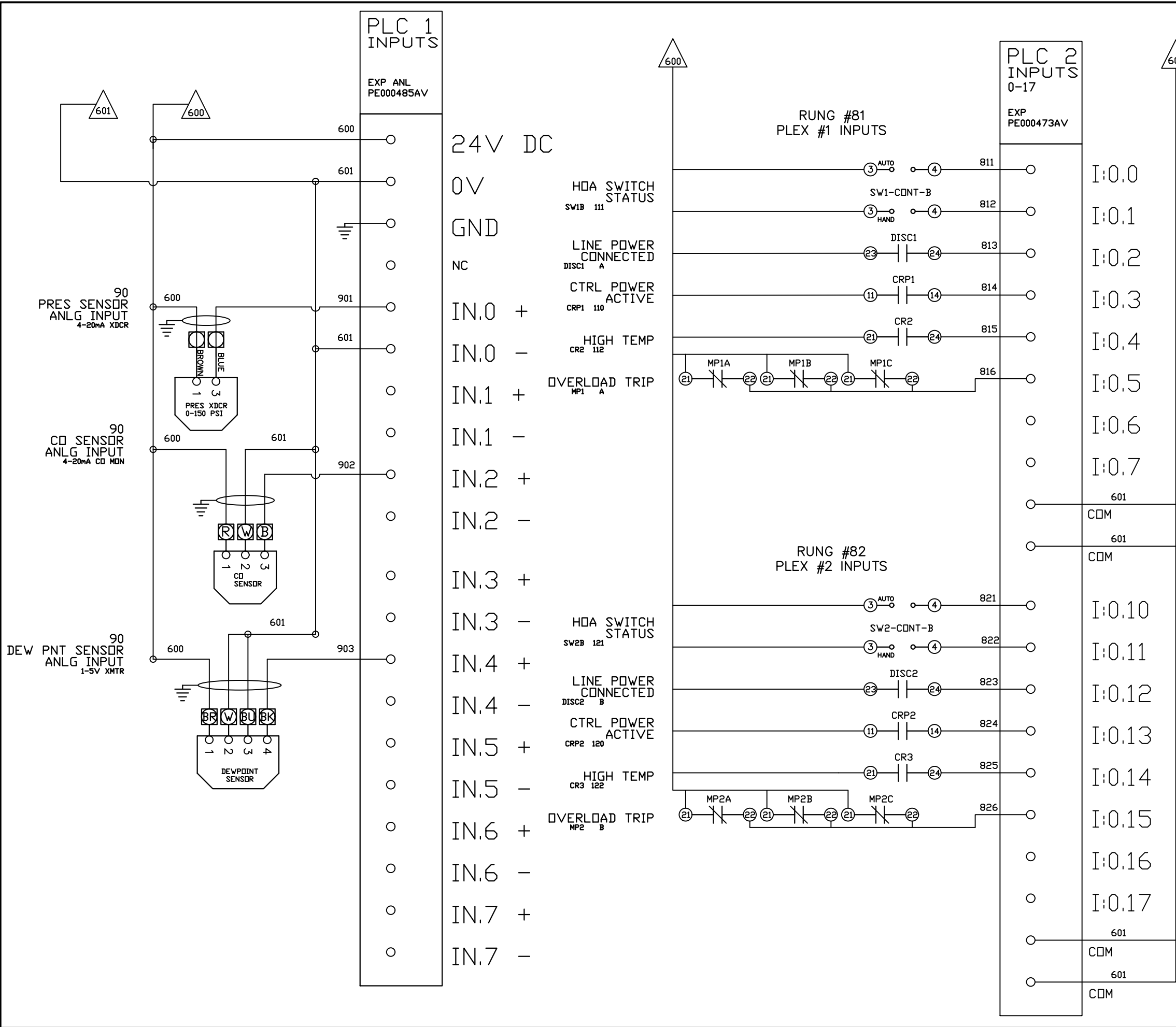
DWG. TYPE WIRING

DWG. NO. PXMI-S516F W

SHEET	SIZE
W-8	B

PXMI-S516F B1

*FACTORY TEST JUMPER LOCATION



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM

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

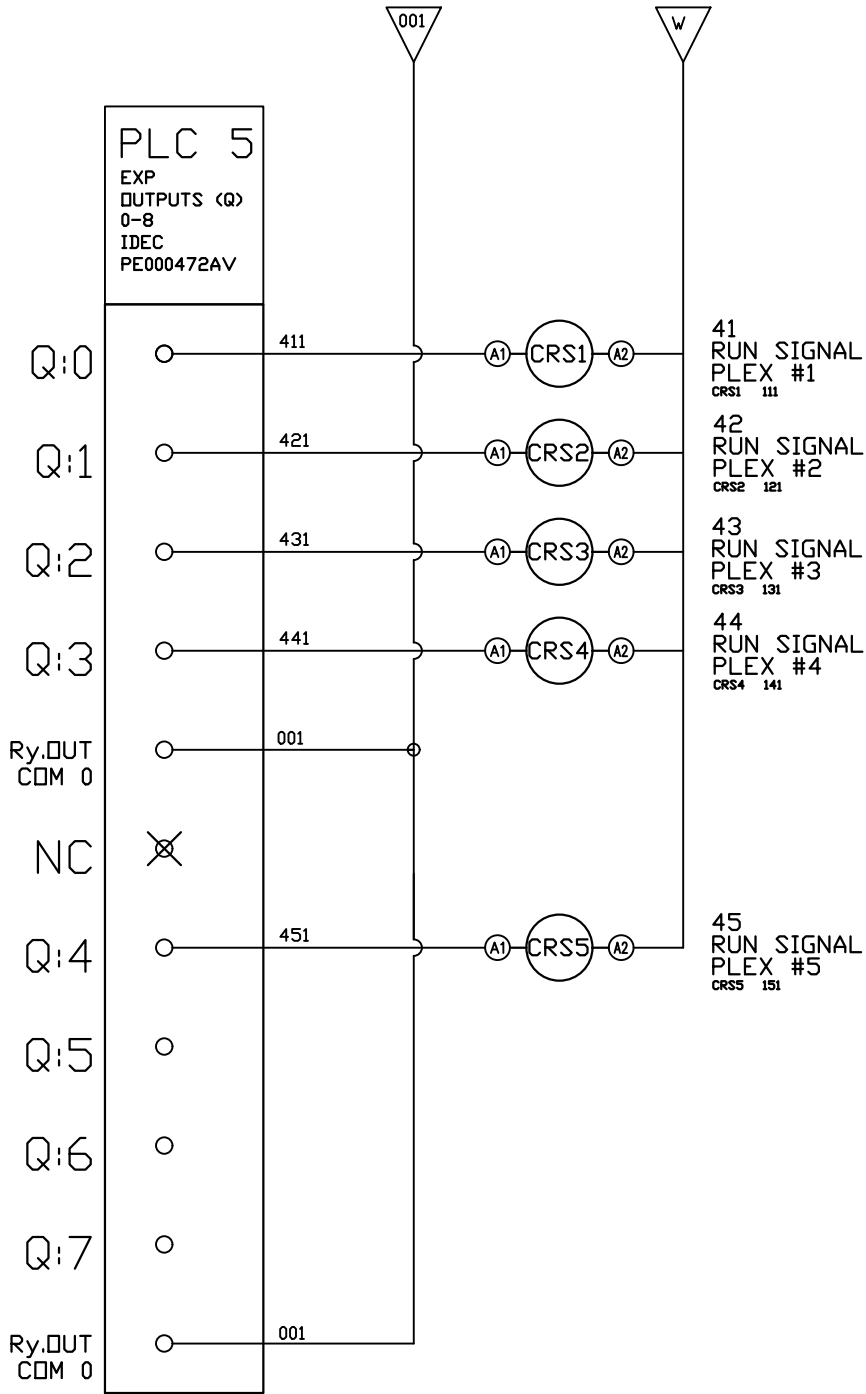
DWG. TYPE
WIRING

DWG. NO.
PXMI-S516F W

SHEET	SIZE
W-9	B

PXMI-S516F B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM



OPTIONAL:

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

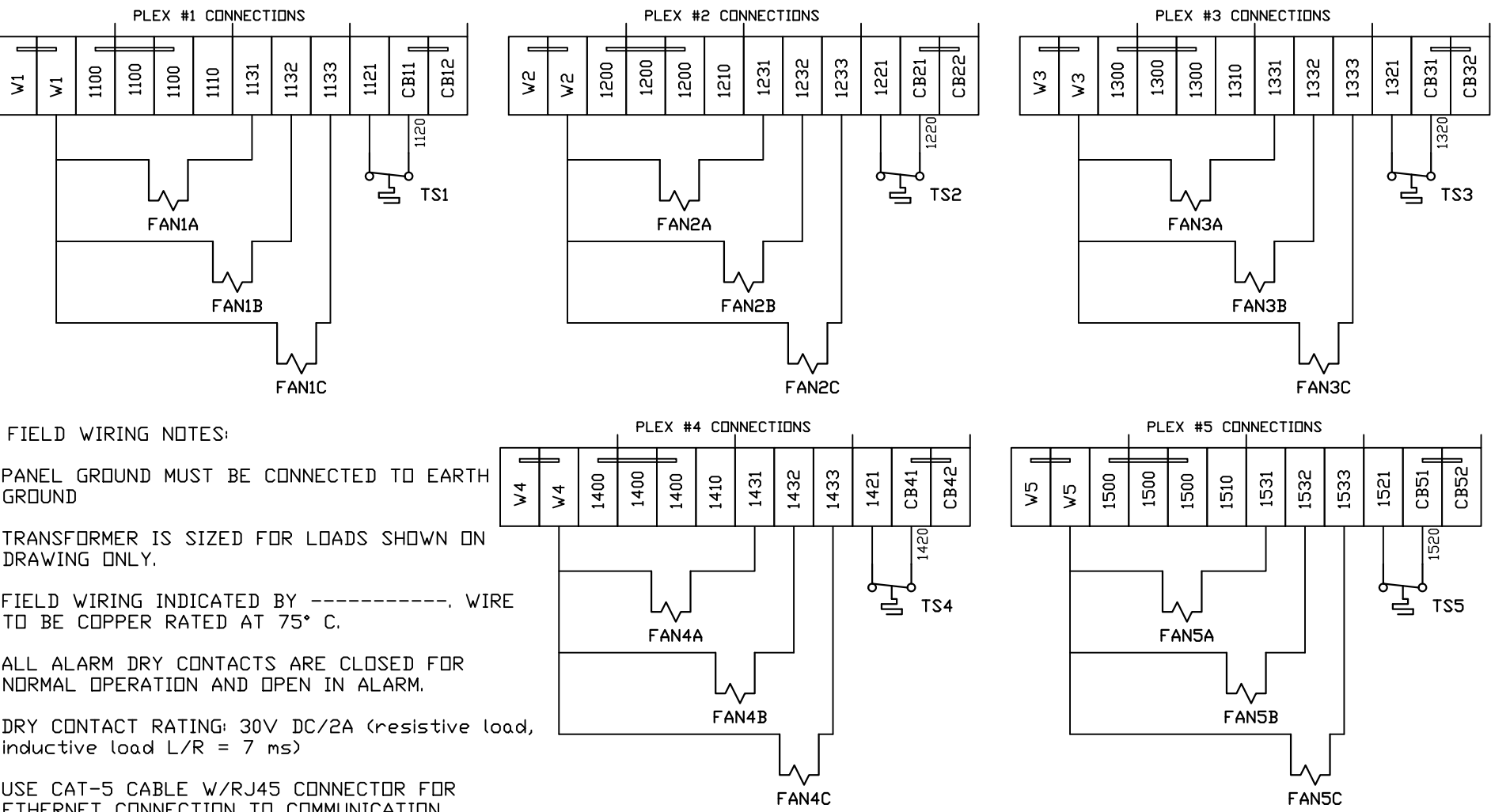
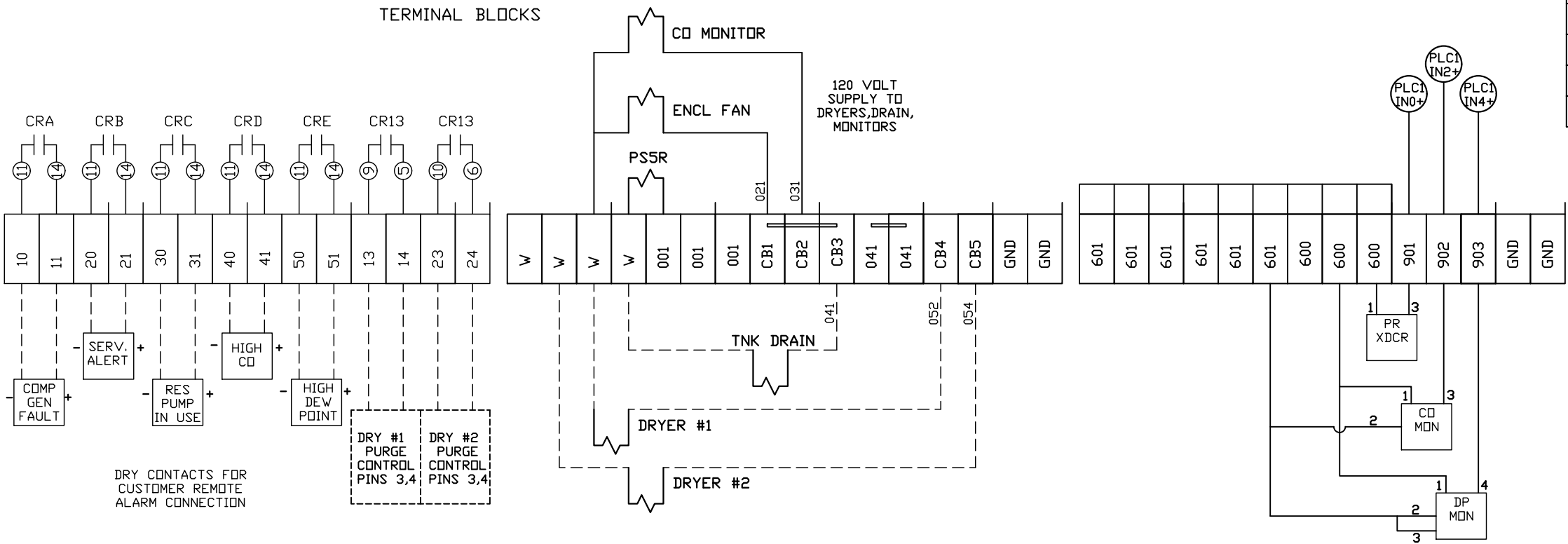
PANEL TYPE
PENTA MEDICAL COMP
HMI, NFPA

DWG. TYPE WIRING

DWG. NO.
PXMI-S516F W

SHEET W-11	SIZE B
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PXMI-S516F B1



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

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM

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

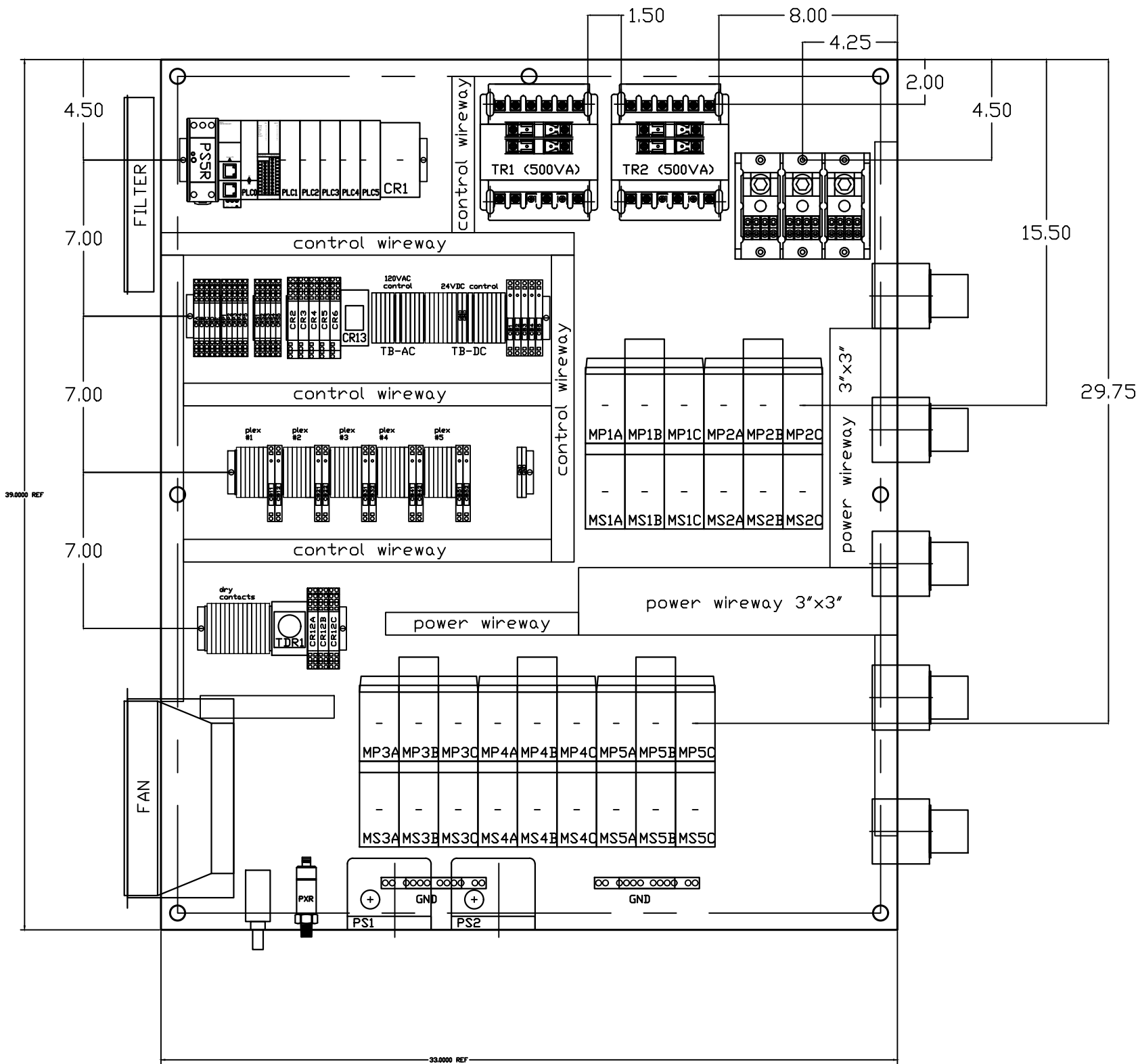
DWG. NO.

PXMI-S516F W

SHEET	SIZE
W-12	B

PXMI-S516F B1

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM



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

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
PBMIS516F2AJ	5(X3)	208V/3ø	14.0	215	250A	225A	250A
PBMIS516F3AJ	5(X3)	230V/3ø	12.7	195	225A	225A	225A
PBMIS516F4AJ	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 15 POUND INCHES
 - PANEL GROUND MUST BE CONNECTED TO EARTH GROUND
 - INSTALLER TO PROVIDE MAIN DISCONNECTING DEVICE FOR THIS ELECTRICAL ASSEMBLY. SHORT CIRCUIT PROTECTION IS RECOMMENDED. SEE TABLE 1. IF PROVIDING PANEL SHORT CIRCUIT PROTECTION USING TIME DELAY (CLASS J) FUSES, PANEL SCCR IS 65KA. OTHERWISE, PANEL SCCR IS 5KA.
 - 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.
 - SERVICE DISCONNECT USAGE - turn HOA switch to OFF position. Turn disconnect OF SAME UNIT to OFF position. Associated PLEX will be isolated for maintenance purposes. After completing maintenance, turn disconnect to ON position and return HOA switch to AUTO. This will return PLEX to normal operation.

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.

CONTROL TRANSFORMERS - 500VA								
REPLACEMENT		208	230	460	575			
FUSE TYPE		VOLT	VOLT	380 VOLT	VOLT	WIRE TYPE TABLE		
FU1,2A FU1,2B	FNQR	6A	5A	5A	4A	VOLTAGE	WIRE NUMBERS	GAUGE
FU3A,B		7A	7A	7A	7A	120VAC	001-599,1100+	16-18AWG
SEE XFRMR FOR CONNECTIONS						0VAC	W	16-18AWG
						24VDC	600-1099	16-18AWG
						0VDC	601	16-18AWG
						GND	-	VARIES
						CUSTOMER	01-99	16-18AWG
						SUPPLY		VARIES
								GREEN
								YELLOW

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	04/18/12	22722	BFH	CHR
F-1	ADD CB TO EXTERNAL DEVICES & DISCONNECT TO INPUT POWER	05/20/24	PXEC0628	SEK	JRD
F-2	ADDED MORE TERMINAL BLOCKS	03/19/25	PXEC0628	JRD	STK
G-1	ADDED PLEX ISOLATION	07/21/25	PXEC0639	SEK	WMM

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
D-1	B

PXMI-S516F B1