

Order No: _____ Customer: _____
 End User: _____
 Application: _____

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SECTION DESIGNATOR	NAME	DESCRIPTION
(IM)	▲ INDUCTION MOTOR	4160V 3φ 60Hz
		HP A RPM
(DISC)	▲ MAIN POWER DISCONNECT	2400V 3φ 60Hz
(CI)	▲ CONTROL INTERFACE	240V AC @ 2kVA
		120V AC @ 300VA
(XFMR)	TRANSFORMER CABINET	900kVA 2400V/1200V 60Hz
		2400V UNIT INPUT 60HZ
(CELL)	CELL CABINET	DRIVE: MV2UA6DA125E1ABB MV2UA6DA125E2ABB
		MODEL: MV2UA6DA125E1ABB MV2UA6DA125E2ABB
		1000HP 125A
		4160V UNIT OUTPUT 60HZ
(CTRL)	CONTROL CABINET	240V AC / 120V AC
(SWG)	SWITCH GEAR UNIT	DISC. SWITCH: 400A, 5kV E-RATED FUSE: 350A, 5.5kV CONTACTOR: 400A. 7.2kV

SUMMARY OF NOTES:

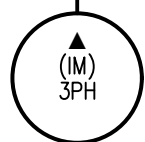
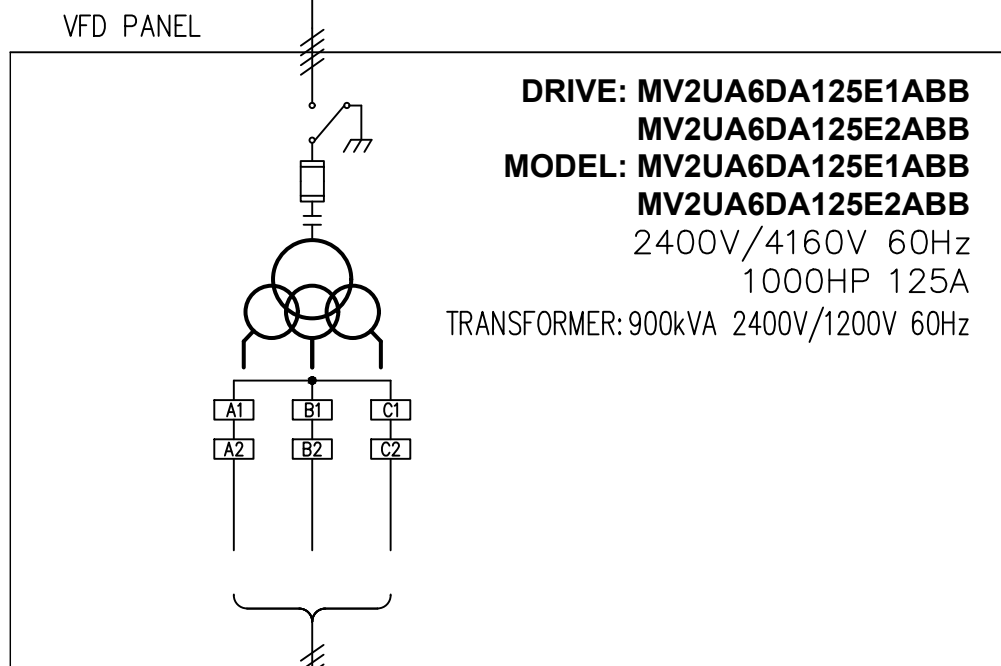
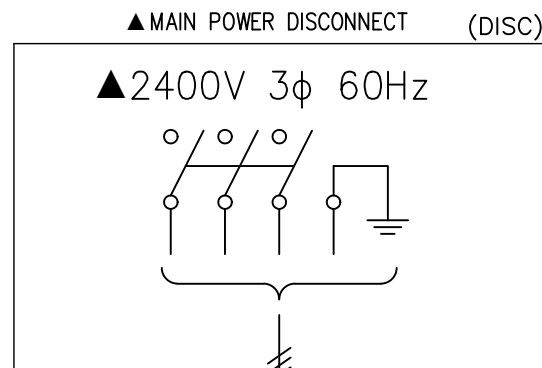
1. CLASS A GROUND RESISTANCE: BELOW 10 OHM \ll
2. CLASS D GROUND RESISTANCE: BELOW 100 OHM \pm
3. ▲ CUSTOMER TO PROVIDE/USE
4. SEE PAGE 48–54 FOR PARAMETER SETTING DETAILS
5. (#) ELECTRICAL COMPONENT LIST REFERENCE NUMBER

REV	DESCRIPTION	EC #	DRAWN BY	DATE
02	UPDATE FAN SD PART#, FIX PRG & PLS OPS, CORRECT FAN TO FAN FAULT PCB WIRING, DI-B DESCRIPTION, IN CONTACT REF LOCATION	8854	K.SCHMIDLING	08/01/18
01	NEW PS, CORRECTED CONTR. VOLTAGE TERM BLKS, WPD ALARM TEXT, WPD ALARM TEXT, SG GND, & SG DOUBLE N/O SW CORRECTION	8067	C.JETT	01/17/18
00	INITIAL RELEASE	-	E.WEISPFENNING	11/02/16

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DRAWN: E.WEISPFENNING	DATE: 11/02/16	TITLE: SCHEMATIC MV 1000HP 125A W/ SG 240/120V
CHECKED: M.SEVILLA	DATE: 11/02/16	MATERIAL # N/A
TECH: -	DATE: -	SIZE B
APPROVED: B.SCHOWANSON	DATE: 11/02/16	REVISION 02
ORIGINAL DESIGN: E.WEISPFENNING	DATE: 10/11/16	PAGE 1 OF 11
		DRAWING #: DS.MV1K.N1.AD.10A.04

ONE LINE DIAGRAM



INDUCTION MOTOR
4160V 3φ 60Hz
HP A RPM

NOTES:
3. ▲ CUSTOMER TO PROVIDE/USE

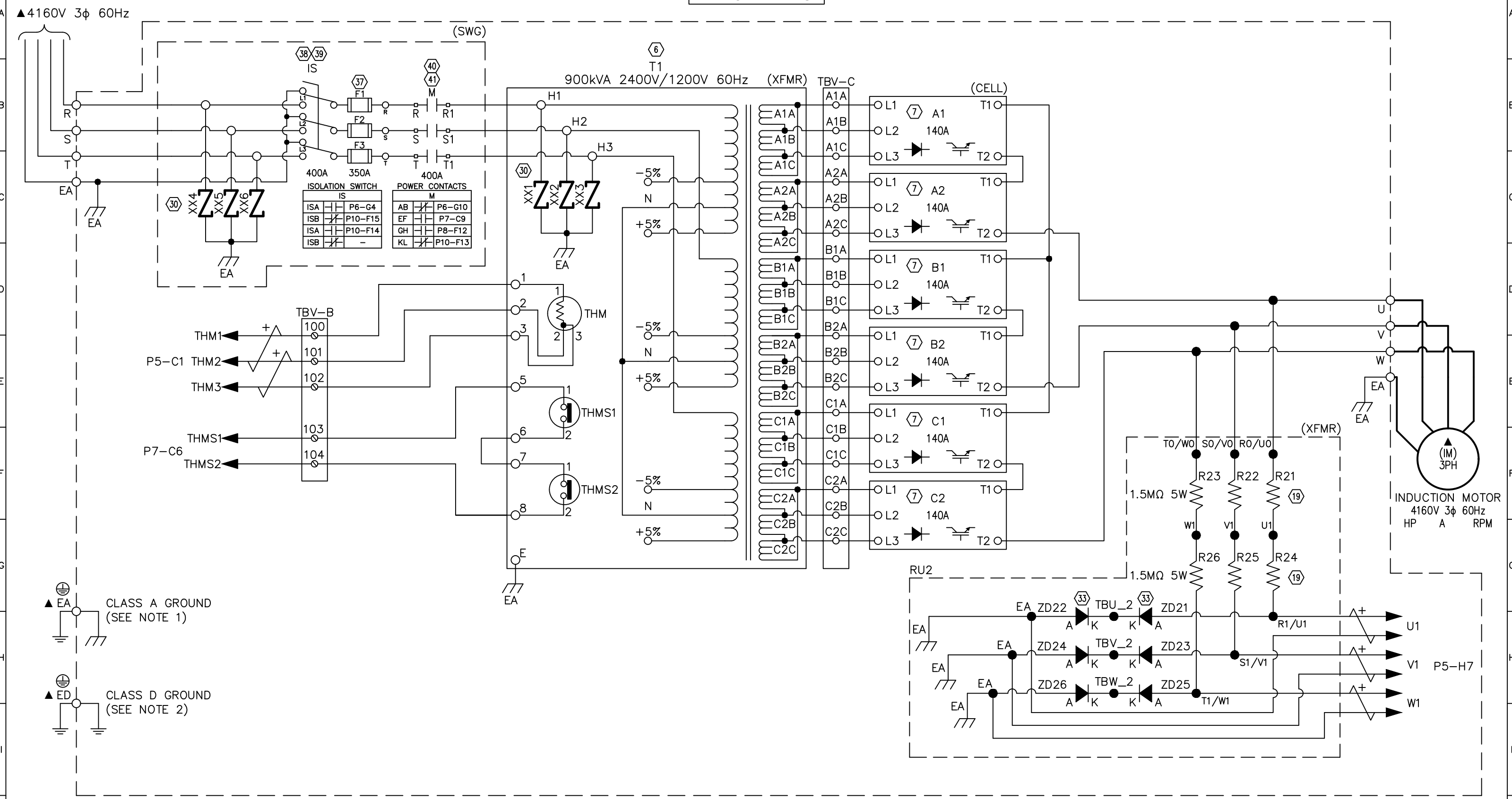
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TITLE: SCHEMATIC MV 1000HP 125A W/ SG 240/120V		
MATERIAL # N/A	SIZE B	REVISION 02
DRAWING #: DS.MV1K.N1.AD.10A.04		PAGE 2 OF 11

MAIN POWER CIRCUIT

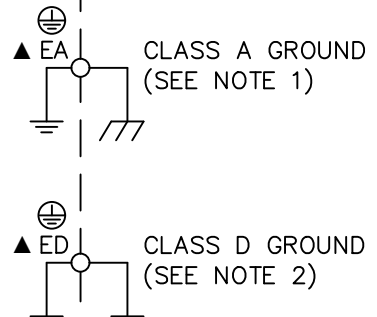


ISOLATION SWITCH IS

ISA	—	P6-G4
ISB	—	P10-F15
ISA	—	P10-F14
ISB	—	—

POWER CONTACTS M

AB	—	P6-G10
EF	—	P7-C9
GH	—	P8-F12
KL	—	P10-F13



- NOTES:
1. CLASS A GROUND RESISTANCE: BELOW 10 OHM ∇
 2. CLASS D GROUND RESISTANCE: BELOW 100 OHM ∇
 3. \blacktriangle CUSTOMER TO PROVIDE/USE
 5. $\#$ ELECTRICAL COMPONENT LIST REFERENCE NUMBER

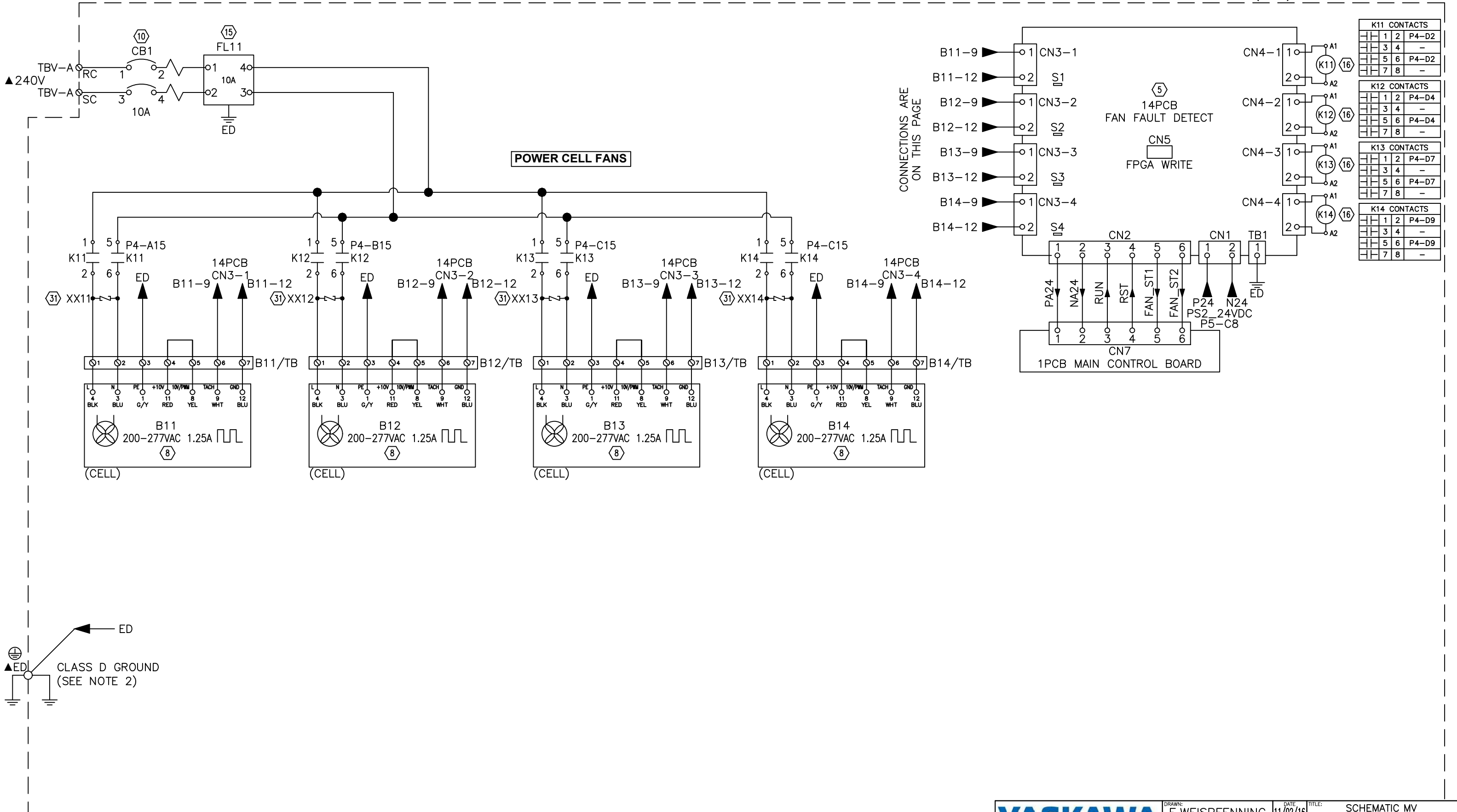
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CHECKED: M. SEVILLA	DATE: 11/02/16	1000HP 125A
TECH: —	DATE: —	W/ SG 240/120V
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ORIGINAL DESIGN: E. WEISPFENNING	DATE: 10/11/16	SIZE B
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		PAGE 3 OF 11
		DRAWING #: DS.MV1K.N1.AD.10A.04

TRANSFORMER & POWER CELL FANS

(CTRL) UNLESS OTHERWISE NOTED



CONNECTIONS ARE ON THIS PAGE

K11 CONTACTS			
1	2	P4-D2	
3	4	-	
5	6	P4-D2	
7	8	-	

K12 CONTACTS			
1	2	P4-D4	
3	4	-	
5	6	P4-D4	
7	8	-	

K13 CONTACTS			
1	2	P4-D7	
3	4	-	
5	6	P4-D7	
7	8	-	

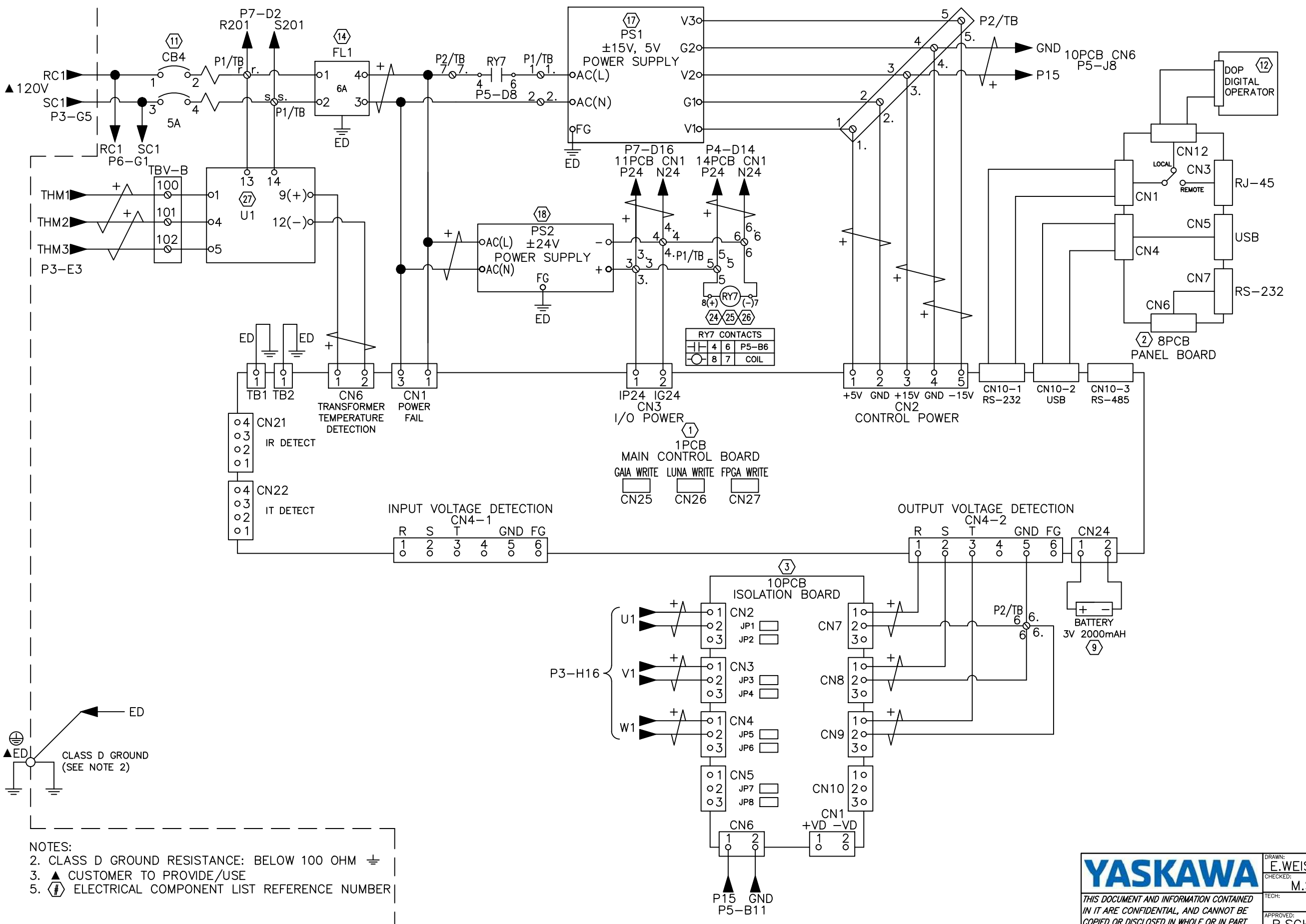
K14 CONTACTS			
1	2	P4-D9	
3	4	-	
5	6	P4-D9	
7	8	-	

- NOTES:
 2. CLASS D GROUND RESISTANCE: BELOW 100 OHM \equiv
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			PAGE 4 OF 11
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DC POWER DIST & MAIN CONTROL BOARD

(CTRL)

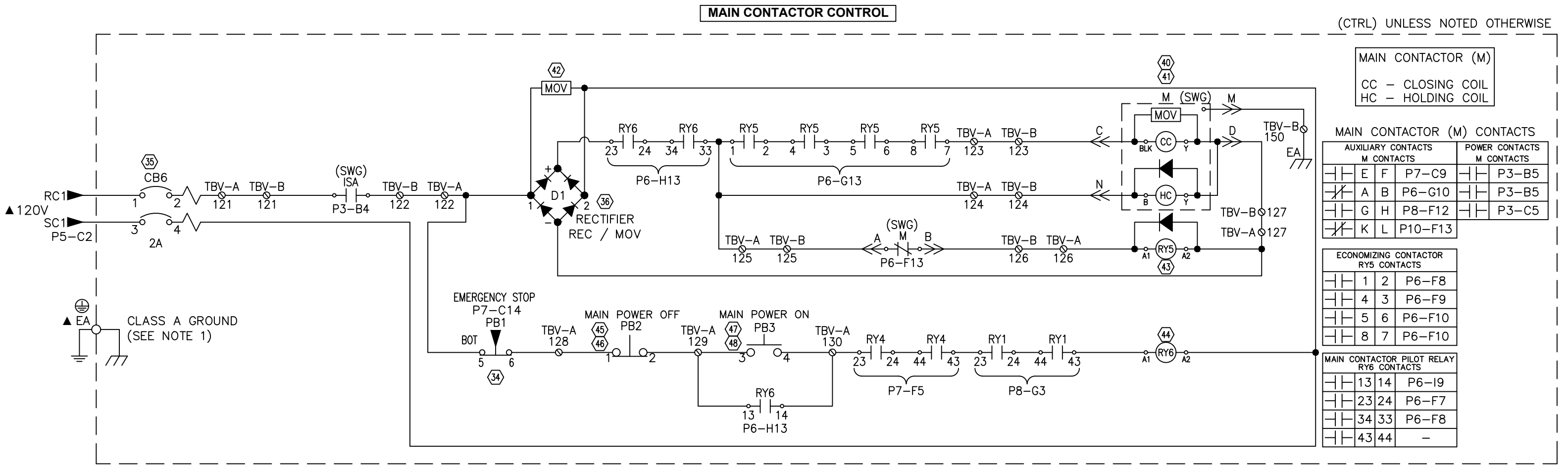
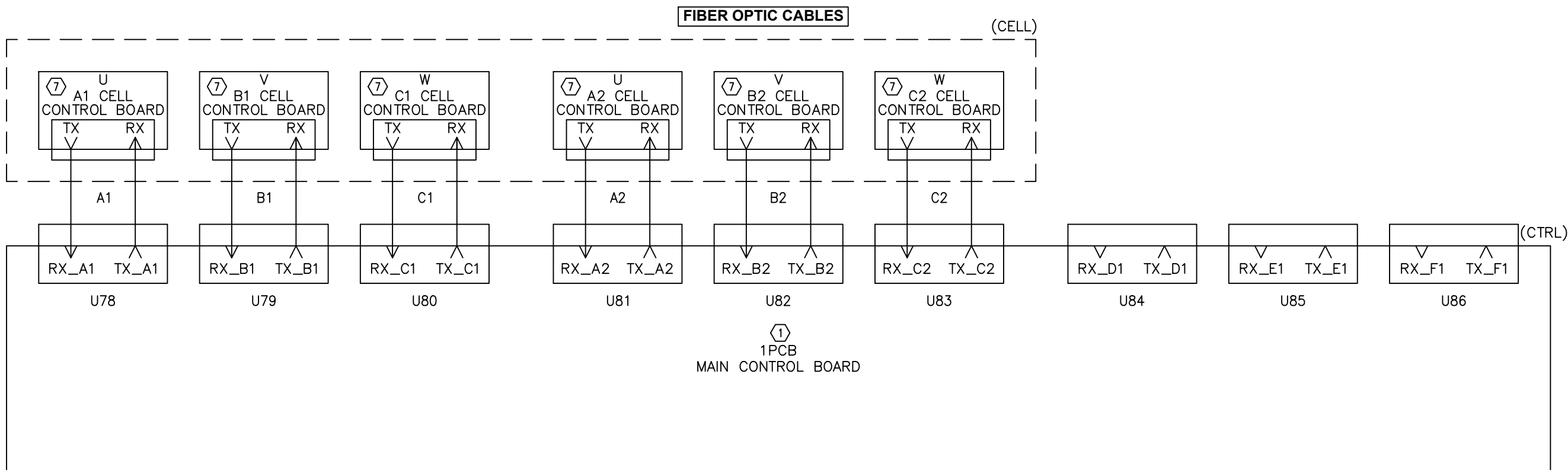


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- 2. CLASS D GROUND RESISTANCE: BELOW 100 OHM \perp
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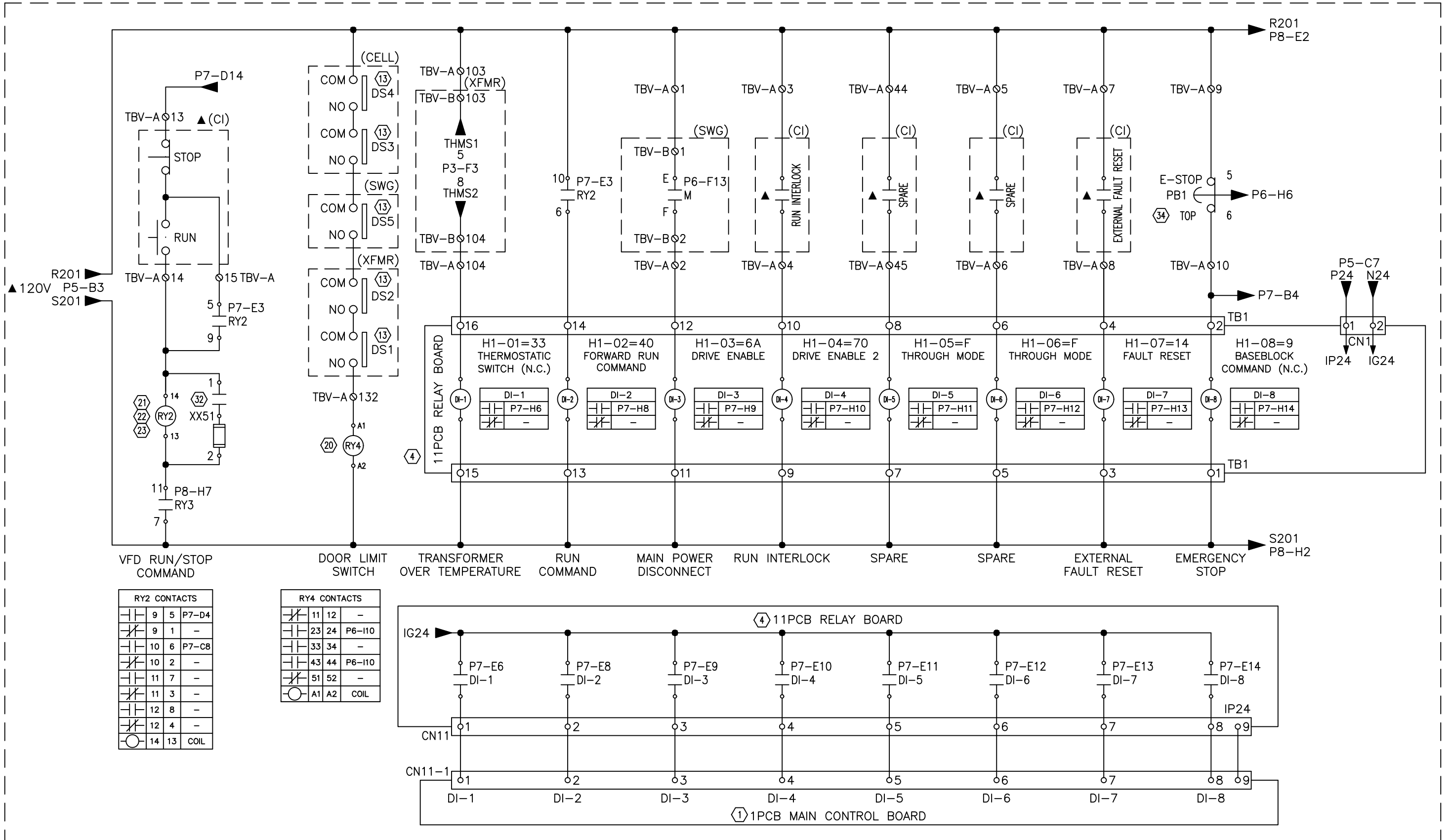
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DIGITAL INPUTS

(CTRL) UNLESS NOTED OTHERWISE



RY2 CONTACTS

9	5	P7-D4
9	1	-
10	6	P7-C8
10	2	-
11	7	-
11	3	-
12	8	-
12	4	-
14	13	COIL

RY4 CONTACTS

11	12	-
23	24	P6-110
33	34	-
43	44	P6-110
51	52	-
A1	A2	COIL

- NOTES:
- ▲ CUSTOMER TO PROVIDE/USE
 - SEE PAGE 48-54 FOR PARAMETER SETTING DETAILS
 - Ⓢ ELECTRICAL COMPONENT LIST REFERENCE NUMBER

YASKAWA

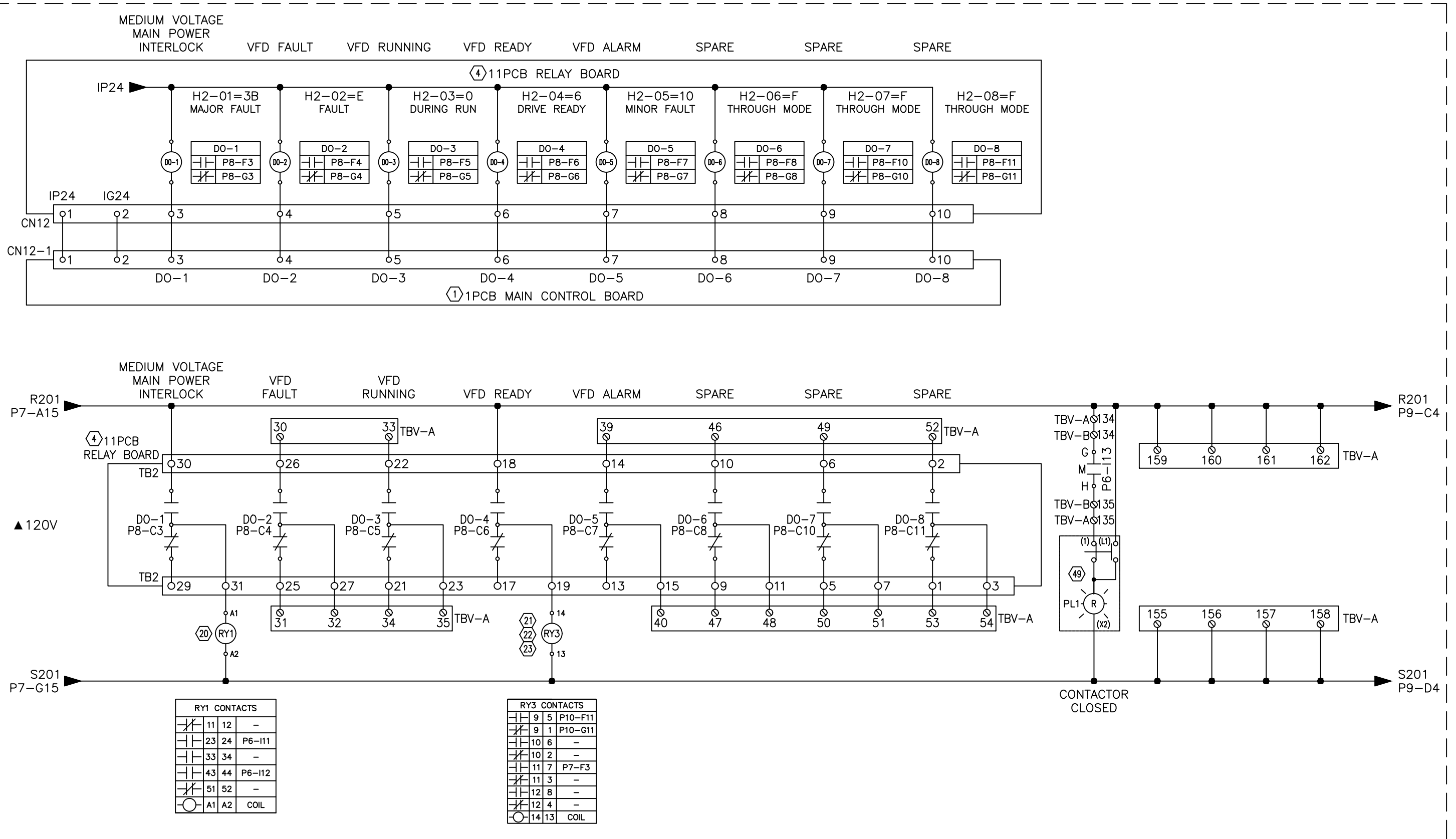
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ORIGINAL DESIGN: E. WEISPFENNING	DATE: 10/11/16	PAGE 7 OF 11

DRAWING #: DS.MV1K.N1.AD.10A.04

DIGITAL OUTPUTS

(CTRL)



RY1 CONTACTS

11	12	-
23	24	P6-I11
33	34	-
43	44	P6-I12
51	52	-
A1	A2	COIL

RY3 CONTACTS

9	5	P10-F11
9	1	P10-G11
10	6	-
10	2	-
11	7	P7-F3
11	3	-
12	8	-
12	4	-
14	13	COIL

- NOTES:
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 - Ⓢ ELECTRICAL COMPONENT LIST REFERENCE NUMBER



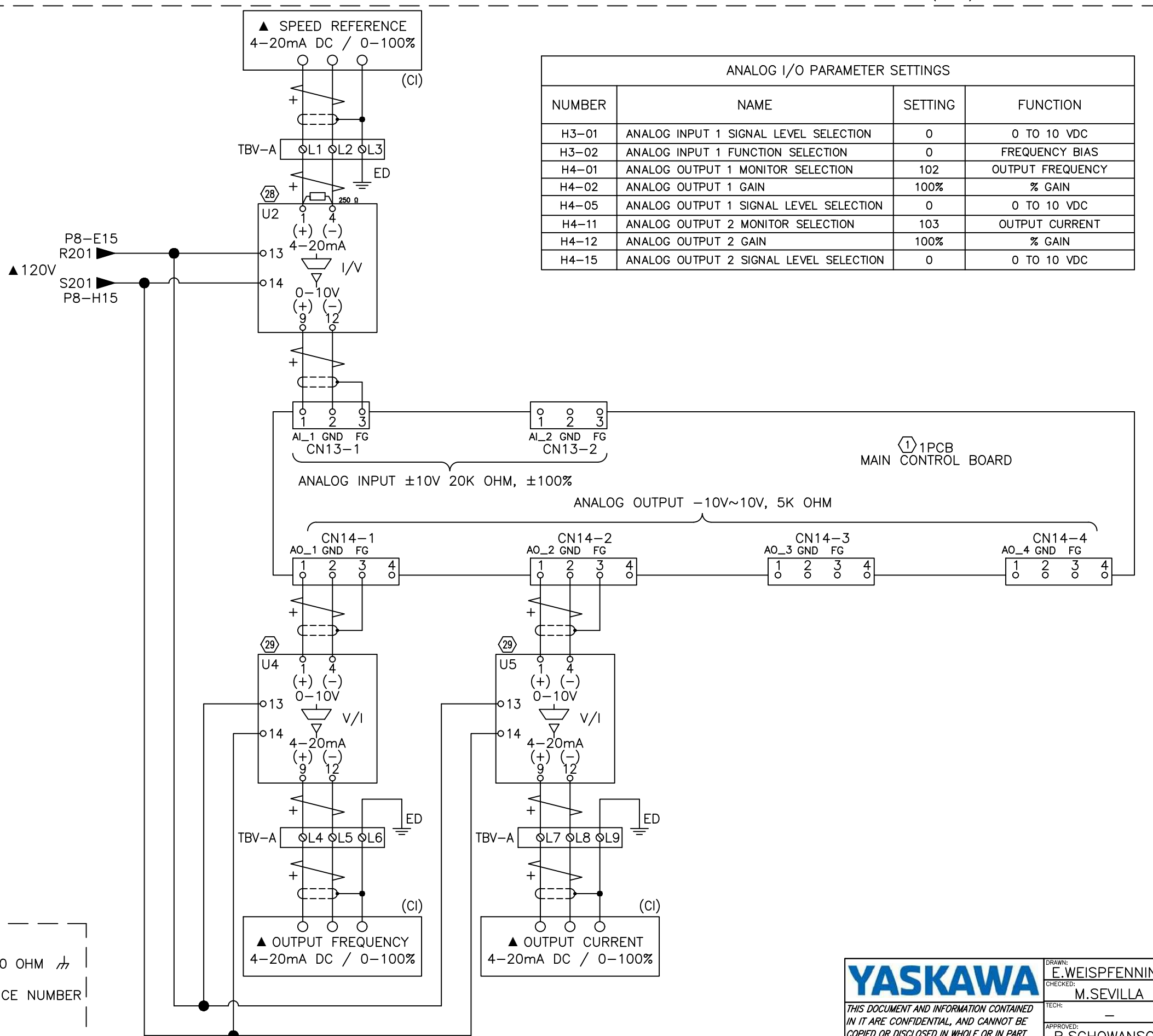
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DRAWING #: DS.MV1K.N1.AD.10A.04		

ANALOG INPUTS & OUTPUTS

(CTRL) UNLESS OTHERWISE NOTED

ANALOG I/O PARAMETER SETTINGS			
NUMBER	NAME	SETTING	FUNCTION
H3-01	ANALOG INPUT 1 SIGNAL LEVEL SELECTION	0	0 TO 10 VDC
H3-02	ANALOG INPUT 1 FUNCTION SELECTION	0	FREQUENCY BIAS
H4-01	ANALOG OUTPUT 1 MONITOR SELECTION	102	OUTPUT FREQUENCY
H4-02	ANALOG OUTPUT 1 GAIN	100%	% GAIN
H4-05	ANALOG OUTPUT 1 SIGNAL LEVEL SELECTION	0	0 TO 10 VDC
H4-11	ANALOG OUTPUT 2 MONITOR SELECTION	103	OUTPUT CURRENT
H4-12	ANALOG OUTPUT 2 GAIN	100%	% GAIN
H4-15	ANALOG OUTPUT 2 SIGNAL LEVEL SELECTION	0	0 TO 10 VDC



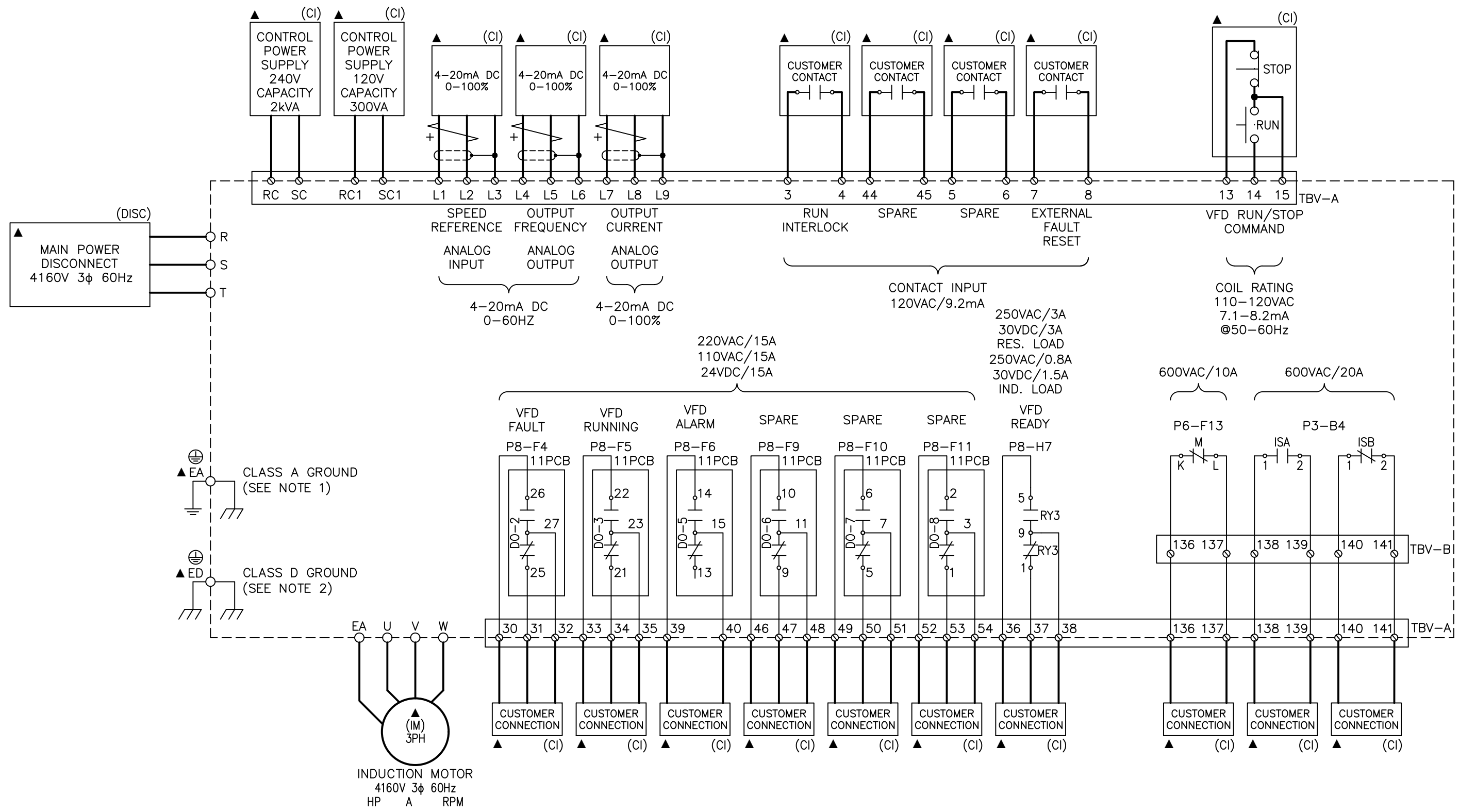
- NOTES:
- CLASS D GROUND RESISTANCE: BELOW 100 OHM
 - CUSTOMER TO PROVIDE/USE
 - ELECTRICAL COMPONENT LIST REFERENCE NUMBER

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CHECKED: M.SEVILLA	DATE: 11/02/16	1000HP 125A
TECH: -	DATE: -	W/ SG 240/120V
APPROVED: B.SCHOWANSON	DATE: 11/02/16	MATERIAL # N/A
ORIGINAL DESIGN: E.WEISPFENNING	DATE: 10/11/16	SIZE B
		REVISION 02
		PAGE 9 OF 11
		DRAWING #: DS.MV1K.N1.AD.10A.04

CUSTOMER INPUTS AND OUTPUTS




- NOTES:
 1. CLASS A GROUND RESISTANCE: BELOW 10 OHM \llcorner
 2. CLASS D GROUND RESISTANCE: BELOW 100 OHM \llcorner
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ELECTRICAL COMPONENT LIST

#	REFERENCE DESIGNATOR(S)	YASKAWA PART #	DESCRIPTION	MANUFACTURER	MANUFACTURER PART #
1	1PCB	100-064-008	MAIN CONTROL BOARD	YASKAWA	100-064-008
2	8PCB	100-064-011	PANEL BOARD-DIGITAL OP	YASKAWA	100-064-011
3	10PCB	100-064-429	VOLTAGE ISOLATION BOARD	YASKAWA	100-064-429
4	11PCB	100-088-860	RELAY BOARD (120V)	YASKAWA	100-088-860
5	14PCB	100-243-858	FAN CONTROL BOARD	YASKAWA	100-243-858
6	TI	UPT000403	TRANSFORMER, MV, 900KVA, 2400V/1200V	HITRAN	ZI0527-00
7	A1-C2	100-203-905	POWER CELL 140A	YASKAWA	100-203-905
8	B11-B14	UFN000227	FAN 200-277VAC 1PH 1.25A	EBM PABST	S3G250-BC54-12
9	BATTERY	UBA000110	BATTERY 3V 2000MAH	PANASONIC	CR6L-CN014S
10	CB1	300-034-598	CIRCUIT BREAKER 480V 2P 10A	EATON	FAZ-D10/2-RT
11	CB4	300-034-597	CIRCUIT BREAKER 480V 2P 5A	EATON	FAZ-D5/2-RT
12	DOP	100-142-915	DIGITAL OPERATOR	YASKAWA	100-142-915
13	DS1-DS5	USW000540	SWITCH DOOR LIMIT 10A SPDT	YAMATAKE	BZ-2RQ1-T4-J
14	FL1	UFI000322	FILTER 250VAC/DC 6A	TDK	RSEN-2006
15	FL11	UFI000323	FILTER 250VAC/DC 10A	TDK	RSEN-2010
16	K11-K14	100-107-264KD	RELAY 3PST 6A 24VDC 4NO	FUJI ELECTRONICS	SK06L-E10
17	PS1	UPS000242	POWER SUPPLY 200V +5/+15VDC	COSEL	LDC30F-2-SNC
18	PS2	300-034-595	POWER SUPPLY 200V 24V	COSEL	PBA50F-24-C
19	R21-R26	300-034-607	RESISTOR 15KV 5W 1.5MΩ 5%	CADDOCK	MG745-1.5M-0.5
20	RY1, RY4	UMC000239	CONTACTOR 3NO 2NC	MITSUBISHI	SR-T5SA AC100V 3A2B
21	RY2, RY3	URY000353	RELAY 110-120VAC 3A 4PDT	IDEC	RU42S-CR-A110
22	RY2, RY3	URY000330	RELAY BASE 250V 6A	IDEC	SY4S-05DN
23	RY2, RY3	URY000331	RELAY HOLD DOWN CLIP	IDEC	SFA-502
24	RY7	URY000329	RELAY, SPST-NO, 24VDC COIL	OMRON	G3H-203SLN-VD
25	RY7	URY000164	SOCKET, RELAY, 2P, OMRON	OMRON	PTF08A-E
26	RY7	999ZZZ-0611	PYC-A1 OMRON RELAY CLIP	OMRON	PYC-A1

#	REFERENCE DESIGNATOR(S)	YASKAWA PART #	DESCRIPTION	MANUFACTURER	MANUFACTURER PART #
27	U1	300-034-591	TRANSMITTER RTD-200 TO+650C/0-10VDC	M SYSTEMS CO LTD	M2RS-44-M2/UL
28	U2	300-034-592	TRANSMITTER SIGNAL 4-20MA/0-10VDC	M SYSTEMS CO LTD	M2VS-A4-M2/UL
29	U4, U5	300-034-593	TRANSMITTER SIGNAL 0-10VDC/4-20MA	M SYSTEMS CO LTD	M2VS-4A-M2/UL
30	XX1-XX6	UXX000024	SURGE ARRESTORS 3KV	COOPER POWER SYSTEMS	URT03040D1C1A1A
31	XX11-XX14	C--003634	SUPPRESSOR COIL 500VAC	NIPPON CHEMI-CON	RFM2H104KD
32	XX51	TXX302	SURGE ABSORBER	NIPPON CHEMI-CON	DCR2-10A25C
33	ZD21-ZD26	300-032-291	ZENER DIODE 12V 31.2MA 3W	ON SEMICONDUCTOR	1N5927BRLG
34	PB1	USW000791	PUSHBUTTON,MUSH,TWIST RELEASE	AB-ROCKWELL	800T-FXT6A5
35	CB6	UCB001172	CIRCUIT BREAKER 480V 2P 2A	EATON	FAZ-D2/2-RT
36	D1	USD000165	DIODE BRIDGE 25A	VISHAY	26MB80A
37	F1-F3	UFU000302	FUSE MV ERATED 350A CLIP	MERSEN	A055F1D0R0-350E
38	IS	USW000547	DISCONNECT SW 5KV 400A CLIP FUSE	AB-ROCKWELL	1503S-4C
39	IS	USW000551	DISCONNECT HANDLE 5KV 400A	AB-ROCKWELL	1503-HM1
40	M	UMC000236	CONTACTOR 7.2KV 400A 110VDC	AB-ROCKWELL	1502-V4DBDA-1
41	M	UWH-0018	HARNESS 400A 120V VACUUM CNTR	ROCKWELL AUTOMATION	1503-WHE4D
42	MOV	UXX000017	MOV 150VAC 20MM	AB-ROCKWELL	LTFV150LA20BP
43	RY5	UMC000232	CONTACTOR 12A 110VDC W/DIODE	AB-ROCKWELL	100-C12ED400
44	RY6	URY000355	RELAY 10A 110VAC 4NO	AB-ROCKWELL	700-CF400D
45	PB2	05P00013-0044	RED STANDARD OPERATOR	EATON	10250T102
46	PB2	05P00013-0110	CONTACT BLOCK,C-H,1N.C.	EATON	10250T51
47	PB3	05P00013-0078	PUSH BUTTON, GREEN	EATON	10250T103
48	PB3	05P00013-0109	CONTACT BLOCK,C-H,1N.O.	EATON	10250T53
49	PL1	USD000144	PILOT LIGHT,LED,PTT,RED,221LRP06	EATON	10250T221LRP06

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