

CUST. NAME:

PROJECT NO.:

P.O. NUMBER:

DESCRIPTION: G3+B INVERTER STANDARD

932~1200KVA, SINEWAVE

1200KVA, NON-SINEWAVE

1400~1500KVA, SINEWAVE, 40°C

1400~1500KVA, NON-SINEWAVE, 40°C

FINAL

PRELIMINARY

FOR APPROVAL

Note: Final Engineering and Manufacturing will proceed upon receipt of final approval

NOT APPROVED AS NOTED - RESUBMIT DRAWINGS FOR APPROVAL. DO NOT PROCEED WITH FINAL ENGINEERING OR MANUFACTURING.

APPROVED AS NOTED - PROCEED WITH FINAL ENGINEERING AND MANUFACTURING.

APPROVED AS SUBMITTED - PROCEED WITH FINAL ENGINEERING AND MANUFACTURING.

APPROVAL BY: _____

Initial _____

Date _____

NO	DRAWING NO	REV	DRAWING DESCRIPTION
00	1808HR00	5	DRAWING LIST 1
01	1808HR01	3	DRAWING LIST 2
02	1808HR02	0	DRAWING LEGEND
03	1808HR03	0	MODEL NUMBER CONFIGURATION
04	----	--	-----
05	1808HR05	3	EQUIPMENT RATINGS
06	1808HR06	3	EQUIPMENT RATINGS
07	----	--	-----
08	1808HR08	1	THREE-LINE DIAGRAM
09	1808HR09	0	MAIN CIRCUIT - AC IN/DC BUS
10	1808HR10	0	MAIN CIRCUIT - DC BUS/AC OUT
11	----	--	-----
12	1808HR12	0	MAIN CIRCUIT DETAIL - INVERTER
13	----	--	-----
14	----	--	-----
15	----	--	-----

NO	DRAWING NO	REV	DRAWING DESCRIPTION
16	----	--	-----
17	----	--	-----
18	1808HR18	0	LOGIC INTERFACE CIRCUIT
19	----	--	-----
20	1808HR20	0	CONTROL CIRCUIT
21	1808HR21	1	CONTROL CIRCUIT - TEMPERATURE CONTROL
22	----	--	-----
23	----	--	-----
24	----	--	-----
25	----	--	-----
26	----	--	-----
27	----	--	-----
28	----	--	-----
29	1808HR29	0	PCB INTERCONNECTIONS
30	----	--	-----
31	----	--	-----

REV	DATE	DESCRIPTION	BY	CHK	APPR
5	11/21/08	REV SHTS 00, 01	JT		
4	04/30/08	REV SHTS 00, 05, 06, 08	JT	JT	JBA
3	12/06/07	REV SHTS 00, 05, 06, 21	JMP	JT	JBA
2	11/02/07	ADD REVISION LEVELS	JT	JT	JBA
1	10/08/07	DELETE REVISION LEVELS	JT	JT	JBA

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TITLE: DRAWING LIST 1
 CUSTOMER: 3 POWER MODULES G3+B 480VAC
 PROJECT NUMBER: _____

REVISION: 5
 SCALE: _____
 DRAWING NUMBER: 1808HR00

CUST. NAME:

PROJECT NO.:

P.O. NUMBER:

DESCRIPTION: G3+B INVERTER STANDARD
 932~1200KVA, SINEWAVE
 1200KVA, NON-SINEWAVE
 1400~1500KVA, SINEWAVE, 40°C
 1400~1500KVA, NON-SINEWAVE, 40°C

FINAL

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APPROVED AS SUBMITTED - PROCEED WITH FINAL ENGINEERING AND MANUFACTURING.

APPROVAL BY: _____

Initial _____

Date _____

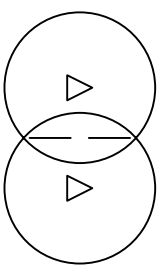
NO	DRAWING NO	REV	DRAWING DESCRIPTION
32	1808HR32	1	ENCLOSURE OUTLINE - N1, SINEWAVE, 6 PULSE
33	1808HR33	1	ENCLOSURE OUTLINE - N1, SINEWAVE, 12 PULSE
34	1808HR34	1	ENCLOSURE OUTLINE - N1, NON-SINEWAVE, 6 PULSE
35	1808HR35	1	ENCLOSURE OUTLINE - N1, NON-SINEWAVE, 12 PULSE
36	1808HR36	1	ENCLOSURE OUTLINE - N3R, SINEWAVE, 6 PULSE
37	1808HR37	1	ENCLOSURE OUTLINE - N3R, SINEWAVE, 12 PULSE
38	1808HR38	1	ENCLOSURE OUTLINE - N3R, NON-SINEWAVE, 6 PULSE
39	1808HR39	1	ENCLOSURE OUTLINE - N3R, NON-SINEWAVE, 12 PULSE
40	----	--	-----
41	----	--	-----
42	----	--	-----
43	----	--	-----
44	----	--	-----
45	----	--	-----
46	----	--	-----
47	----	--	-----

NO	DRAWING NO	REV	DRAWING DESCRIPTION
48	----	--	-----
49	----	--	-----
50	----	--	-----
51	----	--	-----
52	----	--	-----
53	----	--	-----
54	----	--	-----
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63	----	--	-----

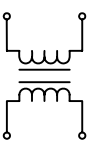
REV	DATE	DESCRIPTION	BY	CHK	APPR
4					
3	11/21/08	REV SHTS 32~39	JT		
2	11/02/07	DEL MECH ASSEMBLIES; ADD REV LEVELS	JT	JT	JBA
1	10/08/07	ADD MECH ASSEMBLIES; DELETE REV LEVELS	JT	JT	JBA
0	10/17/05	FIRST ISSUE	HHP	JT	JBA

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TITLE: DRAWING LIST 2
 CUSTOMER: 3 POWER MODULES G3+B 480VAC
 PROJECT NUMBER: _____
 REVISION: 3
 SCALE: _____
 DRAWING NUMBER: 1808HR01



POWER TRANSFORMER



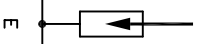
CONTROL POWER OR POTENTIAL TRANSFORMER



CURRENT TRANSFORMER



REACTOR



LIGHTNING ARRESTOR



CIRCUIT BREAKER



FUSED VACUUM DRAWOUT CONTACTOR



AIR CONTACTOR



FUSE



CAPACITOR



RESISTOR



DIODE



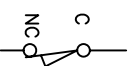
THYRISTOR



SURGE ABSORBER

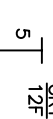


INSULATED GATE BIPOLAR TRANSISTOR (IGBT)



LIMIT SWITCH

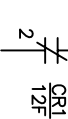
DENOTES ACTUAL CONTACT USED



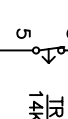
DEVICE NAME

N.O. CONTACT

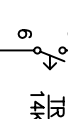
DENOTES RELAY CAN BE FOUND ON PAGE 12, COLUMN F



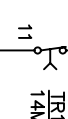
N.C. CONTACT



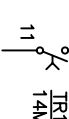
OFF-TIME DELAY CONTACT N.C.



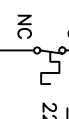
OFF-TIME DELAY CONTACT N.O.



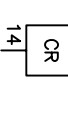
ON-TIME DELAY CONTACT N.C.



ON-TIME DELAY CONTACT N.O.



THERMAL SWITCH N.C.



RELAY COIL

NAME
d b 11B
d b b
d b b
d b b
MODEL #

--- DENOTES b - CONTACT, USED ON PAGE 11, COLUMN B

--- DENOTES CONTACTS UNAVAILABLE

a - DENOTES NORMALLY OPEN
b - DENOTES NORMALLY CLOSED

DEVICE LEGEND



POTENTIOMETER



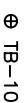
SELECTOR SWITCH



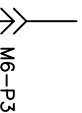
N.C. PUSH BUTTON



N.O. PUSH BUTTON



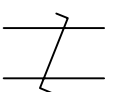
CONTROL TERMINAL BLOCK



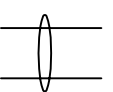
PLUG/CONNECTOR ASSEMBLY



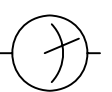
GROUND



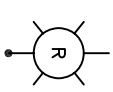
TWISTED WIRE



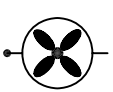
SHIELDED WIRE



METER



ILLUMINATED PUSH BUTTON OR INDICATING LIGHT (LETTER = COLOR)



COOLING FAN

LEGEND

- ACL AC LINE REACTOR
- A/C AIR CONDITIONER
- AM AMMETER
- AS AMMETER SWITCH
- CL CURRENT LIMITER
- CPT CURRENT POWER TRANSFORMER
- CT CURRENT TRANSFORMER
- DBR DYNAMIC BRAKING RESISTOR
- M AIR CONTACTOR
- MCCB MOLDED CASE CIRCUIT BREAKER
- MCP MOTOR CIRCUIT PROTECTOR
- MOT MOTOR
- OL THERMAL OVERLOAD
- RFV RADIO FREQUENCY FILTER
- VFD VARIABLE FREQUENCY DRIVE
- VM VOLTMETER
- VS VOLTMETER SWITCH
- XFMR TRANSFORMER
- ZCT GROUND FAULT CT

SYMBOL LEGEND

- ① JUMPER
- Ⓜ MECHANICAL INTERLOCK

REV	DATE	DESCRIPTION	BY	CHK	APPR
4					
3					
2					
1					
0	10/17/05	FIRST ISSUE	HHP		

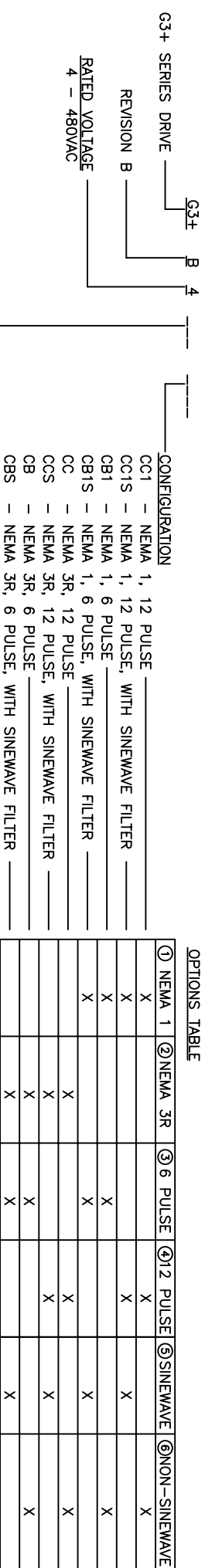
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TITLE: DRAWING LEGEND	CUSTOMER:
PROJECT NUMBER:	

REVISION: 0	SCALE:
DRAWING NUMBER: 1808HR02	

G3+B DRIVE MODEL NUMBER DEVELOPMENT



AMBIENT TEMPERATURE

DRIVE RATINGS	WITH SINEWAVE FILTER		WITHOUT SINEWAVE FILTER	
	40°C	50°C	40°C	50°C
93K - 932kVA		X		
10L - 1000kVA		X		
12L - 1200kVA		X		X
14L40 - 1400kVA		X		X
15L40 - 1500kVA		X		X

OPTIONS TABLE

① NEMA 1	② NEMA 3R	③ 6 PULSE	④ 12 PULSE	⑤ SINEWAVE	⑥ NON-SINEWAVE
X			X		X
X			X	X	
X		X			X
X		X		X	
	X		X		X
	X	X			
	X	X		X	

4				
3				
2				
1				
0	10/17/05	FIRST ISSUE	HHP	
REV	DATE	DESCRIPTION	BY	CHK
			APPR	

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TITLE: MODEL NUMBER CONFIGURATION
 3 POWER MODULES G3+B 480VAC
 CUSTOMER: PROJECT NUMBER:

REVISION: 0 SCALE:
 DRAWING NUMBER: 1808HR03

PAGE No.	DEVICE	DESCRIPTION	TYPE FORM	RATING	PART NUMBER	TYPE FORM	RATING	PART NUMBER	TYPE FORM	RATING	PART NUMBER	TYPE FORM	RATING	PART NUMBER
8	MCCB1 MCCB1, 2 MCCB3 BFU3	CIRCUIT BREAKER MOLDED CASE SWITCH CPT1 PRIMARY CIRCUIT BRKR CPT1 SECONDARY FUSE	SQD PUL36000S12-RE10 SQD PUL36000S60-RE10 SMS ED62B015 GLD TRM 20	600V, 1200A, 3P, 65KAIC@480V 600V, 600A, 3P, 65KAIC@480V 600V, 15A, 2P, 25KAIC@480V 20A, 250V, TD, 10KAIC	PC11001P014 PC11001P011 PC11321P015 PC26130P034	SQD PUL36000S12-RE10 SQD PUL36000S60-RE10 SMS ED62B015 GLD TRM 20	600V, 1600A, 3P, 50KAIC@480V 600V, 800A, 3P, 65KAIC@480V 600V, 15A, 2P, 25KAIC@480V 20A, 250V, TD, 10KAIC	PC11536P120 PC1536P120 PC1536P001 PC33130P331	TCI KLR480BCE TCI KLR5A00XA SHZ M-N0044-D SMS SIB NH00 CRF F210156C LEM HAX-1500-S/SP11	480V, 480A, 1.5% 600V, 588A, 0.077mH, 2.2KHZ 250UF, 3PH, 460VAC, 75A 125A, 690VAC 250V, 10A 1450A, 4V	PC34092P400 PC34097P501 PC14150P020 PC1536P010 PC1536P011	SMS RDS3F200 SQD PUL36000S80-RE10 SMS ED62B015 GLD TRM 20	600V, 1600A, 3P, 50KAIC@480V 600V, 800A, 3P, 65KAIC@480V 600V, 15A, 2P, 25KAIC@480V 20A, 250V, TD, 10KAIC	PC11536P200 PC11001P012 PC11321P015 PC26130P034
9	FRA,B~FLA,B FRA,B~FLA,B BFI CPT1 AQL1~3 ACL1~3 CAP1~6 8FJ4~15 BFI HCTB, HCTC MS1 MS2 OH1T~OH3T OH1B~OH3B THR1 R1 R2 REC1A, M, B~6 SA1~SA3 SA4~SA6 IGBT7 D7A, B C7A, B R7 PCB6 HCTA CA FA RA FUP, FUN BFI IGBT PCB20~20B RP, RN RS1, 1A G3 KPD DS1 MST MSX FAN1~3 C1~3 FAN1~13 (QFAN7) NK1~3 (QNK7) FAN21~26 NK4, 5 HEX1, 2 TCC PCB1 PCB2~2B PCB3 PCB4~4E PCB5 PCB7	SEMICONDUCTOR FUSE SEMICONDUCTOR FUSE BLOWN FUSE INDICATOR CNTL. PWR. TRANSFORMER OUTPUT LINE REACTOR OUTPUT LINE REACTOR FILTER CAPACITOR FILTER CAPACITOR FUSE BLOWN FUSE INDICATOR HALL GT SOFT START CONTACTOR CAP DISCHARGE CONTACTOR T-STAT 75C FIXED N.C. T-STAT 90C FIXED N.C. HEATSINK THERMISTOR SOFT START RESISTOR CAP DISCHARGE RESISTOR DIODE PACK SURGE SUPPRESSOR DYNAMIC BRAKE IGBT DYNAMIC BRAKE DIODE SNUBBER CAPACITOR SNUBBER CAPACITOR SNUBBER RESISTOR DYNAMIC BRAKE G-E PROT HALL GT CAPACITOR SEMICONDUCTOR FUSE CAP BALANCING RESISTOR SEMICONDUCTOR FUSE BLOWN FUSE INDICATOR IGBT SNUBBER CIRCUIT PCB RESISTOR RESISTOR G3 OPERATOR KEYPAD DOOR SWITCH TIMER, ON DELAY CONTROL RELAY HEAT SINK FAN INTERNAL FAN SURGE SUPPRESSOR ENCLOSURE FAN SURGE SUPPRESSOR HEAT EXCHANGER CONTACTOR CONTROL BOARD GATE DRIVE BOARD INTERFACE BOARD G-E PROTECT CIRCUIT BOARD TERMINAL BOARD OPTION ROM	CRF A060URD32TT11250 CRF A060URD32TT1250 CRF MS3V1-5BS G11 GT-F852 --- TCI KTR5W4A00XA SHZ M-N3015-A CRF 6,99GR SIB NH00 CRF F210156C LEM HAX-1000-S/SP11 TMQ LC1F400U47 CLK 7001-5150-21 TKN OHD3-75B TKN OHD3-90B TKN OHD3-90C FEN 590-32BP01-203 PWO WR33 PWO SXR2-500 EUP DD260N16K SMS B40K550 SMS B40K550 EUP FZ600R12KE3 SMK SKN60F15 EG SMP-13086K SGU 564R30GAD47 UPE RBN50/8-25R NNE HEC-05A(AM0) HIT HCGF5AS2G123YQ CRF 6,9URB000BS88 DLR RS-10 CRF MS3V1-5BS CRF FZ600R12KE3 EUP FZ600R12KE3 ITK IRR100N EBG HPP/4-10R --- IDE TABD311N-R IDE G15Y-2SN1A200 IDE RR2P-U-AC240V ZA RH31M-4/130823 CDE SFA3754K219B-F ETR 148VK0281030 MCN RFM25M224KD ETR 148VK0281030 MCN RFM25M224KD DAN PS060100B-P2 --- TMQ LC1D09U7 VF5C-1271D 42755P4F PC61910P109A PC61910P109A 38383C 41578A 58270 VER 7008	600V, 1250A (X6) 600V, 1250A (X6) 250V, 3A 380/400/415/460, 230V, 3.3kVA --- 600V, 441A, 0.120mH, 2.2KHZ 200UF, 3PH, 460VAC, 50A 125A, 690VAC 250V, 10A 1125A, 4V 400A, 600V, 4P 40A, 500VDC, 1P 75C 90C 2KHOM @ 25 DEG C 0.67 OHM, 300W, 2S 500 OHM, 300W, 3S 1600V, 260A (X18) 500V, 3000U 500V, 3000U 1200V, 600A (X2) 75A, 1500V 5.0UF, 1000VDC 4700PF, 3000V UPE RBN50/8-25R NNE HEC-07A(AM0) HIT HCGF5AS2G123YQ CRF 6,9URB000BS88 DLR RS-10 CRF MS3V1-5BS EUP FZ600R12KE3 EUP FZ600R12KE3 ITK IRR100N EBG HPP/4-10R --- IDE TABD311N-R IDE G15Y-2SN1A200 IDE RR2P-U-AC240V ZA RH31M-4/130823 CDE SFA3754K219B-F ETR 148VK0281030 MCN RFM25M224KD ETR 148VK0281030 MCN RFM25M224KD DAN PS060100B-P2 --- TMQ LC1D09U7 VF5C-1271D 42755P4F PC61910P109A PC61910P109A 38383C 41578A 58270 VER 7008	PC34097P502 PC14150P021 PC1536P010 PC1536P011 PC30013P050 PC18701P026 PC18720P013 45811 37619 41935 PC41490P052 PC41490P052 PC40316P260 PC47000P003 PC47000P003 PC40200P600 PC40300P075 PC42200P003 PC41490P035 PC30013P066 44348A 44348A HIT HCGF5AS2G123YQ CRF 6,9URB000BS88 DLR RS-10 CRF MS3V1-5BS EUP FZ600R12KE3 EUP FZ600R12KE3 ITK IRR100N EBG HPP/4-10R --- IDE TABD311N-R IDE G15Y-2SN1A200 IDE RR2P-U-AC240V ZA RH31M-4/130823 CDE SFA3754K219B-F ETR 148VK0281030 MCN RFM25M224KD ETR 148VK0281030 MCN RFM25M224KD DAN PS060100B-P2 --- TMQ LC1D09U7 VF5C-1271D 42755P4F PC61910P109A PC61910P109A 38383C 41578A 58270 VER 7008	PC34092P400 PC34097P501 PC14150P020 PC1536P010 PC1536P011 PC30013P064 PC18701P026 PC18720P013 45811 37619 41935 PC41490P052 PC41490P052 PC40316P260 PC47000P003 PC47000P003 PC40200P600 PC40300P075 PC42200P003 PC41490P035 PC30013P066 44348A 44348A HIT HCGF5AS2G123YQ CRF 6,9URB000BS88 DLR RS-10 CRF MS3V1-5BS EUP FZ600R12KE3 EUP FZ600R12KE3 ITK IRR100N EBG HPP/4-10R --- IDE TABD311N-R IDE G15Y-2SN1A200 IDE RR2P-U-AC240V ZA RH31M-4/130823 CDE SFA3754K219B-F ETR 148VK0281030 MCN RFM25M224KD ETR 148VK0281030 MCN RFM25M224KD DAN PS060100B-P2 --- TMQ LC1D09U7 VF5C-1271D 42755P4F PC61910P109A PC61910P109A 38383C 41578A 58270 VER 7008	PC11536P120 PC1536P120 PC1536P001 PC33130P331 --- TCI KTR5W4A00XA SHZ M-N3015-A CRF 6,99GR SIB NH00 CRF F210156C LEM HAX-1200-S TMQ LC1F400U47 CLK 7001-5150-21 TKN OHD3-75B TKN OHD3-90B TKN OHD3-90C FEN 590-32BP01-203 PWO WR33 PWO SXR2-500 EUP DD260N16K SMS B40K550 SMS B40K550 EUP FZ600R12KE3 SMK SKN60F15 EG SMP-13086K SGU 564R30GAD47 UPE RBN50/8-25R NNE HEC-07A(AM0) HIT HCGF5AS2G123YQ CRF 6,9URB000BS88 DLR RS-10 CRF MS3V1-5BS EUP FZ600R12KE3 EUP FZ600R12KE3 ITK IRR100N EBG HPP/4-10R --- IDE TABD311N-R IDE G15Y-2SN1A200 IDE RR2P-U-AC240V ZA RH31M-4/130823 CDE SFA3754K219B-F ETR 148VK0281030 MCN RFM25M224KD ETR 148VK0281030 MCN RFM25M224KD DAN PS060100B-P2 --- TMQ LC1D09U7 VF5C-1271D 42755P4F PC61910P109A PC61910P109A 38383C 41578A 58270 VER 7008	PC11001P014 PC11001P011 PC11321P015 PC26130P034 --- TCI KTR5W4A00XA SHZ M-N3015-A CRF 6,99GR SIB NH00 CRF F210156C LEM HAX-1200-S TMQ LC1F400U47 CLK 7001-5150-21 TKN OHD3-75B TKN OHD3-90B TKN OHD3-90C FEN 590-32BP01-203 PWO WR33 PWO SXR2-500 EUP DD260N16K SMS B40K550 SMS B40K550 EUP FZ600R12KE3 SMK SKN60F15 EG SMP-13086K SGU 564R30GAD47 UPE RBN50/8-25R NNE HEC-07A(AM0) HIT HCGF5AS2G123YQ CRF 6,9URB000BS88 DLR RS-10 CRF MS3V1-5BS EUP FZ600R12KE3 EUP FZ600R12KE3 ITK IRR100N EBG HPP/4-10R --- IDE TABD311N-R IDE G15Y-2SN1A200 IDE RR2P-U-AC240V ZA RH31M-4/130823 CDE SFA3754K219B-F ETR 148VK0281030 MCN RFM25M224KD ETR 148VK0281030 MCN RFM25M224KD DAN PS060100B-P2 --- TMQ LC1D09U7 VF5C-1271D 42755P4F PC61910P109A PC61910P109A 38383C 41578A 58270 VER 7008	PC11536P120 PC1536P120 PC1536P001 PC33130P331 --- TCI KTR5W4A00XA SHZ M-N3015-A CRF 6,99GR SIB NH00 CRF F210156C LEM HAX-1500-S/SP11 TMQ LC1F500U7 CLK 7001-5150-21 TKN OHD3-75B TKN OHD3-90B TKN OHD3-90C FEN 590-32BP01-203 PWO WR33 PWO SXR2-500 EUP DD260N16K SMS B40K550 SMS B40K550 EUP FZ600R12KE3 SMK SKN60F15 EG SMP-13086K SGU 564R30GAD47 UPE RBN50/8-25R NNE HEC-07A(AM0) HIT HCGF5AS2G123YQ CRF 6,9URB000BS88 DLR RS-10 CRF MS3V1-5BS EUP FZ600R12KE3 EUP FZ600R12KE3 ITK IRR100N EBG HPP/4-10R --- IDE TABD311N-R IDE G15Y-2SN1A200 IDE RR2P-U-AC240V ZA RH31M-4/130823 CDE SFA3754K219B-F ETR 148VK0281030 MCN RFM25M224KD ETR 148VK0281030 MCN RFM25M224KD DAN PS060100B-P2 --- TMQ LC1D09U7 VF5C-1271D 42755P4F PC61910P109A PC61910P109A 38383C 41578A 58270 VER 7008	PC11536P200 PC11001P012 PC11321P015 PC26130P034 --- TCI KLR480BCE TCI KLR5A00XA SHZ M-N0044-D SMS SIB NH00 CRF F210156C LEM HAX-1500-S/SP11 TMQ LC1F500U7 CLK 7001-5150-21 TKN OHD3-75B TKN OHD3-90B TKN OHD3-90C FEN 590-32BP01-203 PWO WR33 PWO SXR2-500 EUP DD260N16K SMS B40K550 SMS B40K550 EUP FZ600R12KE3 SMK SKN60F15 EG SMP-13086K SGU 564R30GAD47 UPE RBN50/8-25R NNE HEC-07A(AM0) HIT HCGF5AS2G123YQ CRF 6,9URB000BS88 DLR RS-10 CRF MS3V1-5BS EUP FZ600R12KE3 EUP FZ600R12KE3 ITK IRR100N EBG HPP/4-10R --- IDE TABD311N-R IDE G15Y-2SN1A200 IDE RR2P-U-AC240V ZA RH31M-4/130823 CDE SFA3754K219B-F ETR 148VK0281030 MCN RFM25M224KD ETR 148VK0281030 MCN RFM25M224KD DAN PS060100B-P2 --- TMQ LC1D09U7 VF5C-1271D 42755P4F PC61910P109A PC61910P109A 38383C 41578A 58270 VER 7008				
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TITLE:
EQUIPMENT RATINGS
3 POWER MODULES G3+B 480VAC

PROJECT NUMBER:

DRAWING NUMBER:
1808HR05

REVISION: 3
SCALE:

NOTES:
 ① NEMA 1 OPTION
 ② NEMA 3R OPTION
 ③ 6 PULSE OPTION
 ④ 12 PULSE OPTION
 ⑤ SINEWAVE FILTER OPTION
 ⑥ NON-SINEWAVE FILTER
 ⑦ IGBT OPTION

REV 0 05/03/06 DATE FIRST ISSUE

PAGE No.	DEVICE	DESCRIPTION	1400kVA, 480V, 1684A		1500kVA, 480V, 1804A			
			TYPE FORM	RATING	PART NUMBER	TYPE FORM	RATING	PART NUMBER
8	MCCB1 MCCB1, 2 MCCB3 8FU3	CIRCUIT BREAKER MOLDED CASE SWITCH CPT1 PRIMARY CIRCUIT BRKR CPT1 SECONDARY FUSE	SMS RD63F200	600V, 1800A, 3P, 50KAIC@480V	PC11356P200	SMS RD63F200	600V, 1800A, 3P, 50KAIC@480V	PC11356P200
			SQD P1J36000S10-RE10	600V, 1000A, 3P, 65KAIC@480V	PC11001P013	SQD P1J36000S10-RE10	600V, 1000A, 3P, 65KAIC@480V	PC11001P013
			SMS ED62B015	600V, 15A, 2P, 25KAIC@480V	PC11321P015	SMS ED62B015	600V, 15A, 2P, 25KAIC@480V	PC11321P015
			GLD TRM 20	20A, 250V, TD, 10KAIC	PC26130P034	GLD TRM 20	20A, 250V, TD, 10KAIC	PC26130P034
9	FRA,B~FTA,B FRA,B~FTA,B BFI CPT1	SEMICONDUCTOR FUSE SEMICONDUCTOR FUSE BLOWN FUSE INDICATOR CNTL. PWR. TRANSFORMER	CRF A060URD32T111250	600V, 1250A (X6)	PC15360P120	CRF A060URD32T111250	600V, 1250A (X6)	PC15360P120
			CRF A060URD32T11250	600V, 1250A (X6)	PC15360P120	CRF A060URD32T11250	600V, 1250A (X6)	PC15360P120
			CRF MS3V1-5BS	250V, 3A	PC15360P001	CRF MS3V1-5BS	250V, 3A	PC15360P001
			GTI GT-F852	380/400/415/460-230V, 3.3kVA	PC33130P331	GTI GT-F852	380/400/415/460-230V, 3.3kVA	PC33130P331
10, 12	ACL1~3 ACL1~3 CAP1~6 8FU4~15 BFI HCTB, HCTC	OUTPUT LINE REACTOR OUTPUT LINE REACTOR FILTER CAPACITOR FILTER CAPACITOR FUSE BLOWN FUSE INDICATOR HALL CT	KLR600BCB	480V, 600A, 1.5%	PC34092P600	TCl KLR600BCB	480V, 600A, 1.5%	PC34092P600
			TCl KTRSWA500YA	600V, 588A, 0.077mH, 2.2kHz	PC34097P501	TCl KTRSWA500YA	600V, 588A, 0.077mH, 2.2kHz	PC34097P501
			SHZ M-N0044-D	250UF, 3PH, 460VAC, 75A	PC14150P020	SHZ M-N0044-D	250UF, 3PH, 460VAC, 75A	PC14150P020
			CRF 6.9gGR SIB NH00	125A, 690VAC	PC15360P010	CRF 6.9gGR SIB NH00	125A, 690VAC	PC15360P010
			CRF F210156C	250V, 10A	PC15360P011	CRF F210156C	250V, 10A	PC15360P011
			LEM HAX-1800-S/SP11	1800A, 4V	PC30013P059	LEM HAX-1800-S/SP11	1800A, 4V	PC30013P060
			TMQ LC1F500U7	500A, 600V, 3P	PC18701P025	TMQ LC1F500U7	500A, 600V, 3P	PC18701P025
			CLK 7001-5150-21	40A, 500VDC, 1P	PC18720P013	CLK 7001-5150-21	40A, 500VDC, 1P	PC18720P013
			TKN OHD3-75B	75C	45811	TKN OHD3-75B	75C	45811
			TKN OHD3-90B	90C	37619	TKN OHD3-90B	90C	37619
MS1 MS2 OH1T~OH3T OH1B~OH3B THR1 R1 R2 REC1A, M, B~6 S1~S3 S4~S6 IGBT7 D7A, B C7 C7A, B R7 PCB6	SOFT START CONTACTOR CAP DISCHARGE CONTACTOR T-STAT 75C FIXED N.C. T-STAT 90C FIXED N.C. HEATSINK THERMISTOR SOFT START RESISTOR CAP DISCHARGE RESISTOR DIODE PACK SURGE SUPPRESSOR SURGE SUPPRESSOR SURGE SUPPRESSOR DYNAMIC BRAKE IGBT DYNAMIC BRAKE DIODE SNUBBER CAPACITOR SGU 564R30GAD47 UPE RBN50/8-25R	FEN 590-32BP01-203 PWO WR33 PWO SXR2-500 EUP D0260N16K SMS B40K550 SMS B40K550 EUP FZ600R12KE3 SMK SKN60F15 EC 5MP-13086K SGU 564R30GAD47 UPE RBN50/8-25R	44348A	677A, 4V	PC30013P066	NNE HEC-07A(AMO)	677A, 4V	PC30013P066
			HIT HCGF5AS2G123YQ	12kUF, 400VDC (4P/2S)	37568	HIT HCGF5AS2G123YQ	12kUF, 400VDC (4P/2S)	37568
			CRF 6.9URB000BS88	690V, 250A (X4)	52751	CRF 6.9URB000BS88	690V, 250A (X4)	52751
			DLR RS-10	50 KOHM, 10W (X8)	PC41470P052	DLR RS-10	50 KOHM, 10W (X8)	PC41470P052
			CRF 6.9URD32T1F1000	690V, 1000A (X6)	47244	CRF 6.9URD32T1F1000	690V, 1000A (X6)	47244
			CRF MS3V1-5BS	250V, 3A	PC15360P001	CRF MS3V1-5BS	250V, 3A	PC15360P001
			EUP FZ600R12KE3	1200V, 600A (X18)	PC40200P600	EUP FZ600R12KE3	1200V, 600A (X18)	PC40200P600
			PC61910P117A	25 OHM, 100W	PC41490P038	PC61910P117A	25 OHM, 100W	PC41490P038
			ITK IRH100N	10 OHM, 60W	53706	ITK IRH100N	10 OHM, 60W	53706
			EBG HPP/4-10R			EBG HPP/4-10R		
18 20 21	G3 KPD DS1 MST MSX FAN1~3 C1~3 FAN1~13 (7FAN7) NK1~3 (7NK7) FAN21~26 NK4, 5 HEX1, 2	G3 OPERATOR KEYPAD DOOR SWITCH TIMER, ON DELAY CONTROL RELAY HEAT SINK FAN FAN RUN CAPACITOR INTERNAL FAN SURGE SUPPRESSOR ENCLOSURE FAN SURGE SUPPRESSOR HEAT EXCHANGER	48723	10A, 600V	PC21230P162	IDE TABD311N-R	10A, 600V	PC21230P162
			IDE TABD311N-R	10A, 600V	PC21230P162	IDE TABD311N-R	10A, 600V	PC21230P162
			IDE G15Y-25N1A200	240VAC COIL, 0.1S-10M DELAY	PC20111P180	IDE G15Y-25N1A200	240VAC COIL, 0.1S-10M DELAY	PC20111P180
			IDE R2P-U-AC240V	240VAC COIL, 7A	PC20229P326	IDE R2P-U-AC240V	240VAC COIL, 7A	PC20229P326
			ZA RH31M-4/130823	230VAC, 1200CFM, 50/60HZ	PC50050P310	ZA RH31M-4/130823	230VAC, 1200CFM, 50/60HZ	PC50050P310
			CDE SFA37S4K219B-F	370V, 4UF	PC42000P412	CDE SFA37S4K219B-F	370V, 4UF	PC42000P412
			ETR 148WK0281030	240VAC, 33W, 50/60HZ, 255CFM	00226	ETR 148WK0281030	240VAC, 33W, 50/60HZ, 255CFM	00226
			MCN RFM25M224KD	250VAC, 0.22uF, 220 OHM	00427	MCN RFM25M224KD	250VAC, 0.22uF, 220 OHM	00427
			ETR 148WK0281030	240VAC, 33W, 50/60HZ, 255CFM	00226	ETR 148WK0281030	240VAC, 33W, 50/60HZ, 255CFM	00226
			MCN RFM25M224KD	250VAC, 0.22uF, 220 OHM	00427	MCN RFM25M224KD	250VAC, 0.22uF, 220 OHM	00427
DAN PS060100B-P2	230VAC, 1.0A, 100W/F	PC67808P153	DAN PS060100B-P2	230VAC, 1.0A, 100W/F	PC67808P153			
29	TCC PCB1 PCB2~2B PCB3 PCB4~4E PCB5 PCB7	CONTACTOR CONTROL BOARD GATE DRIVE BOARD INTERFACE BOARD G-E PROTECT CIRCUIT BOARD TERMINAL BOARD OPTION ROM	TMQ LC1D09U7	240V COIL, 9A, 600V	PC18701P060	TMQ LC1D09U7	240V COIL, 9A, 600V	PC18701P060
			V5C-1271D	---	03828	V5C-1271D	---	03828
			42755P4F	---	42755P4F	---	42755P4F	
			PC61910P109A	---	PC61910P109A	---	PC61910P109A	
			38383C	---	38383C	---	38383C	
41578A	---	41578A	---	41578A				
58270	VER 7008	58270	VER 7008	58270				



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TITLE:
EQUIPMENT RATINGS
3 POWER MODULES G3+B 480VAC

CUSTOMER:
PROJECT NUMBER:

REVISION:
3

DRAWING NUMBER:
1808HR06

SCALE:

NOTES:
① NEMA 1 OPTION
② NEMA 3R OPTION
③ 6 PULSE OPTION
④ 12 PULSE OPTION
⑤ SINEWAVE FILTER OPTION
⑥ NON-SINEWAVE FILTER
⑦ IGBT7 OPTION

REV DATE DESCRIPTION BY CHK APPR

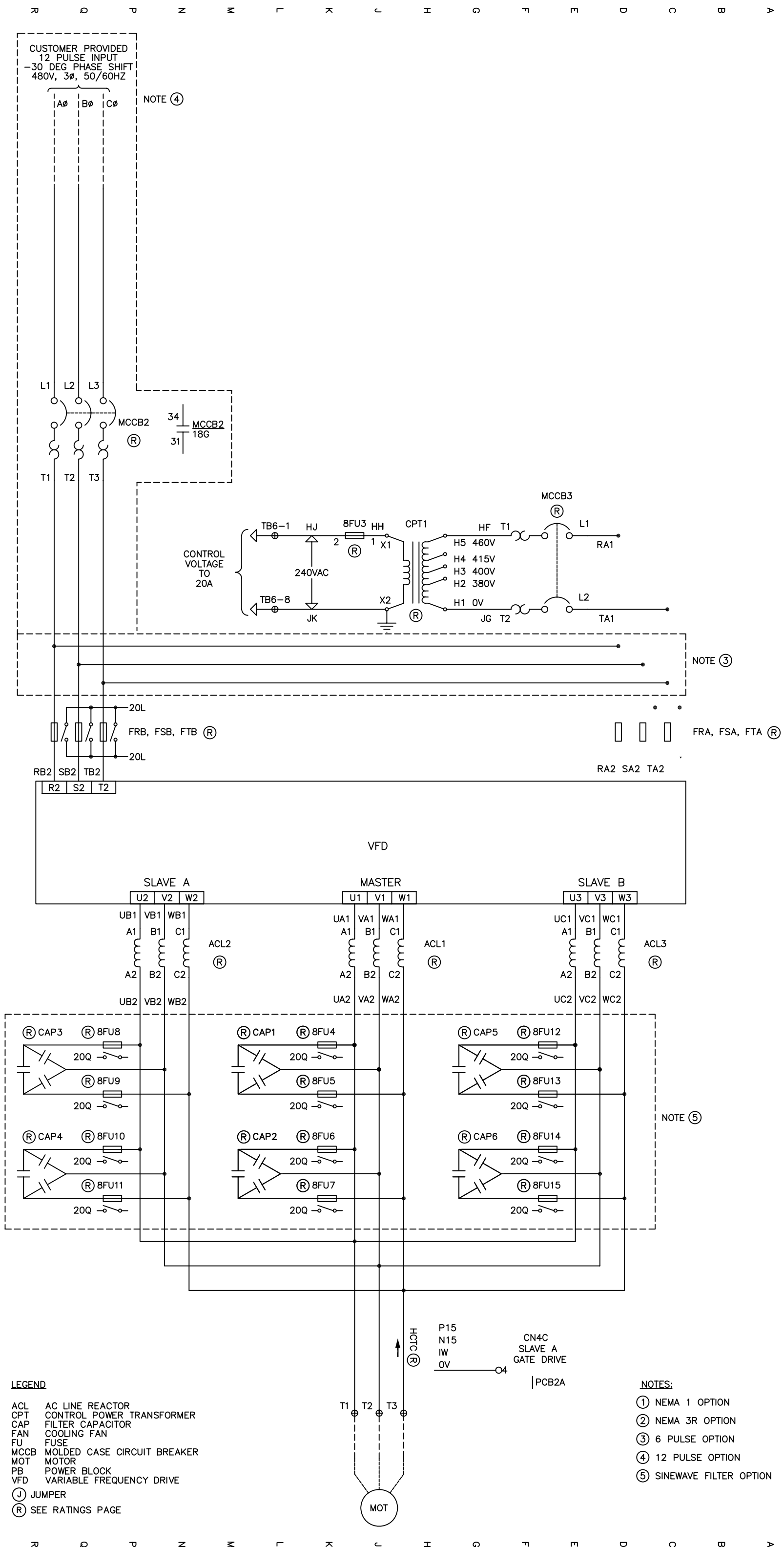
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3 12/06/07 REMOVED "NEMA 1 ONLY" FROM NOTE 7. JMP JT JBA
2 10/08/07 ECO 74352 JT JT JBA
1 05/03/06 FIRST ISSUE HHP JT JBA
0 DESCRIPTION BY CHK APPR

REV	DATE	DESCRIPTION	BY	CHK	APPR
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4					

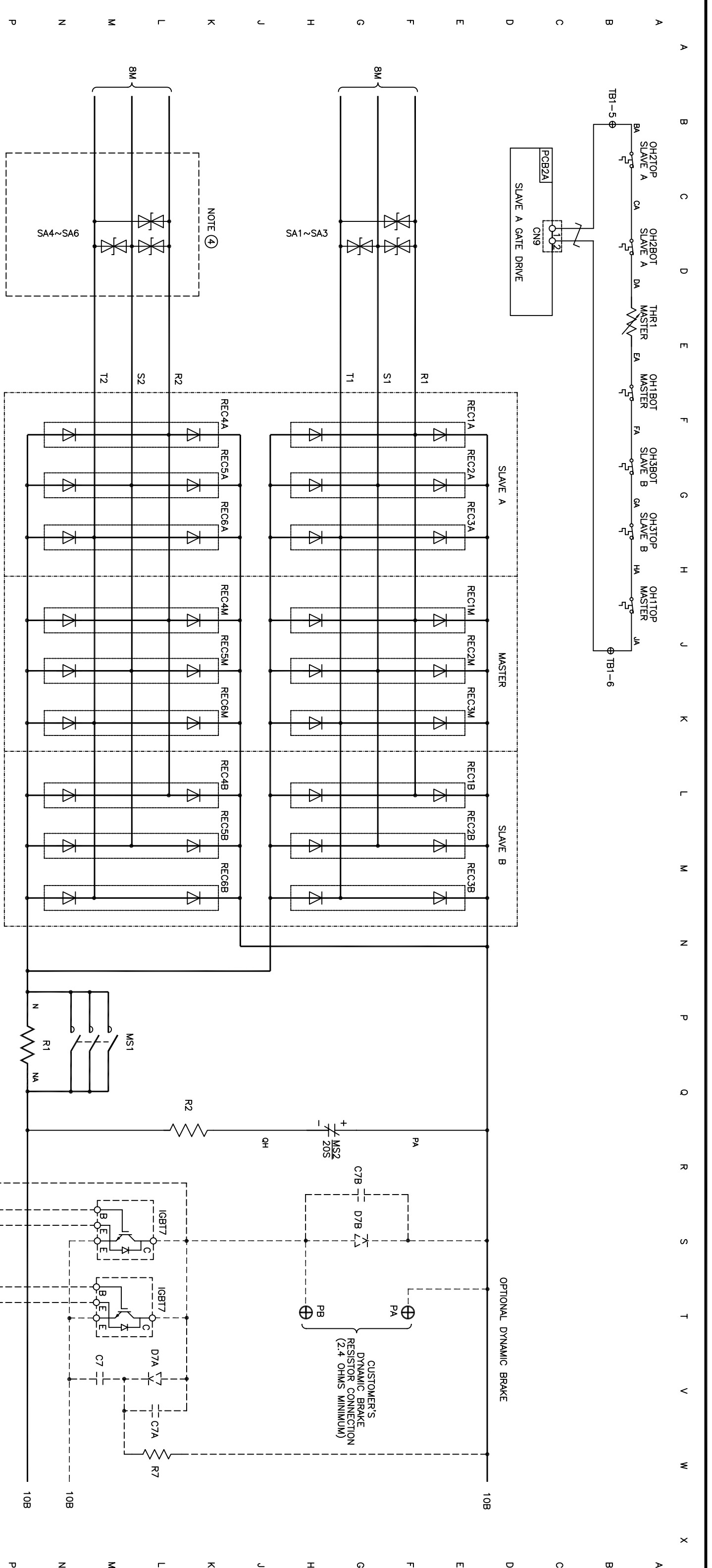
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TITLE:
 CUSTOMER:
 PROJECT NUMBER:
LES G3+B 480VAC

REVISION: 1
 SCALE:
 DRAWING NUMBER:



A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



- NOTES:
- ① NEMA 1 OPTION
 - ② NEMA 3R OPTION
 - ③ 6 PULSE OPTION
 - ④ 12 PULSE OPTION
 - ⑤ SINEWAVE FILTER OPTION

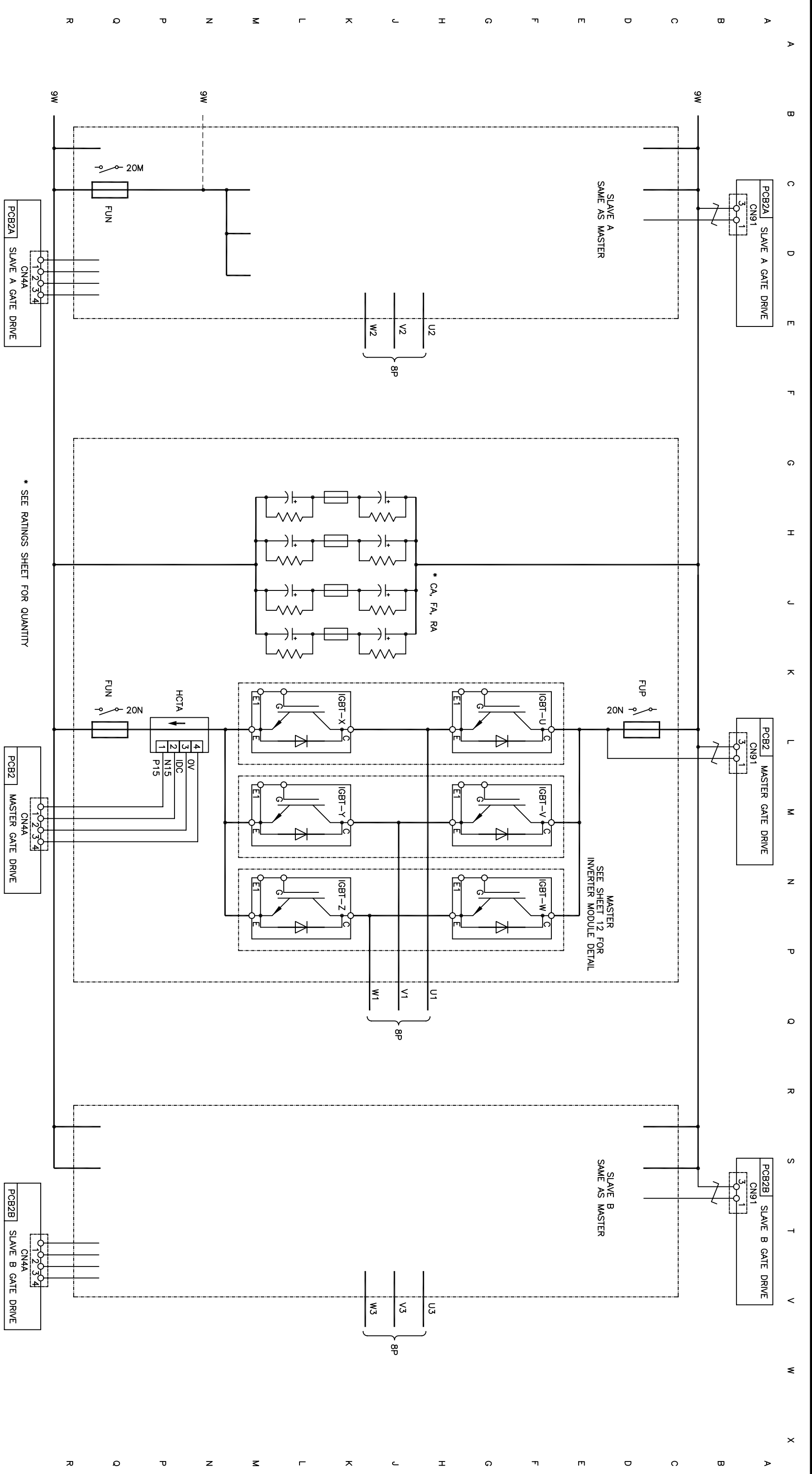
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0	10/17/05	FIRST ISSUE	HHP		
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3					
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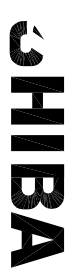
TITLE:
MAIN CIRCUIT - AC IN/DC BUS
3 POWER MODULES G3+B 480VAC
 CUSTOMER:

PROJECT NUMBER:
 DRAWING NUMBER:
1808HR09

REVISION: 0
 SCALE:



* SEE RATINGS SHEET FOR QUANTITY

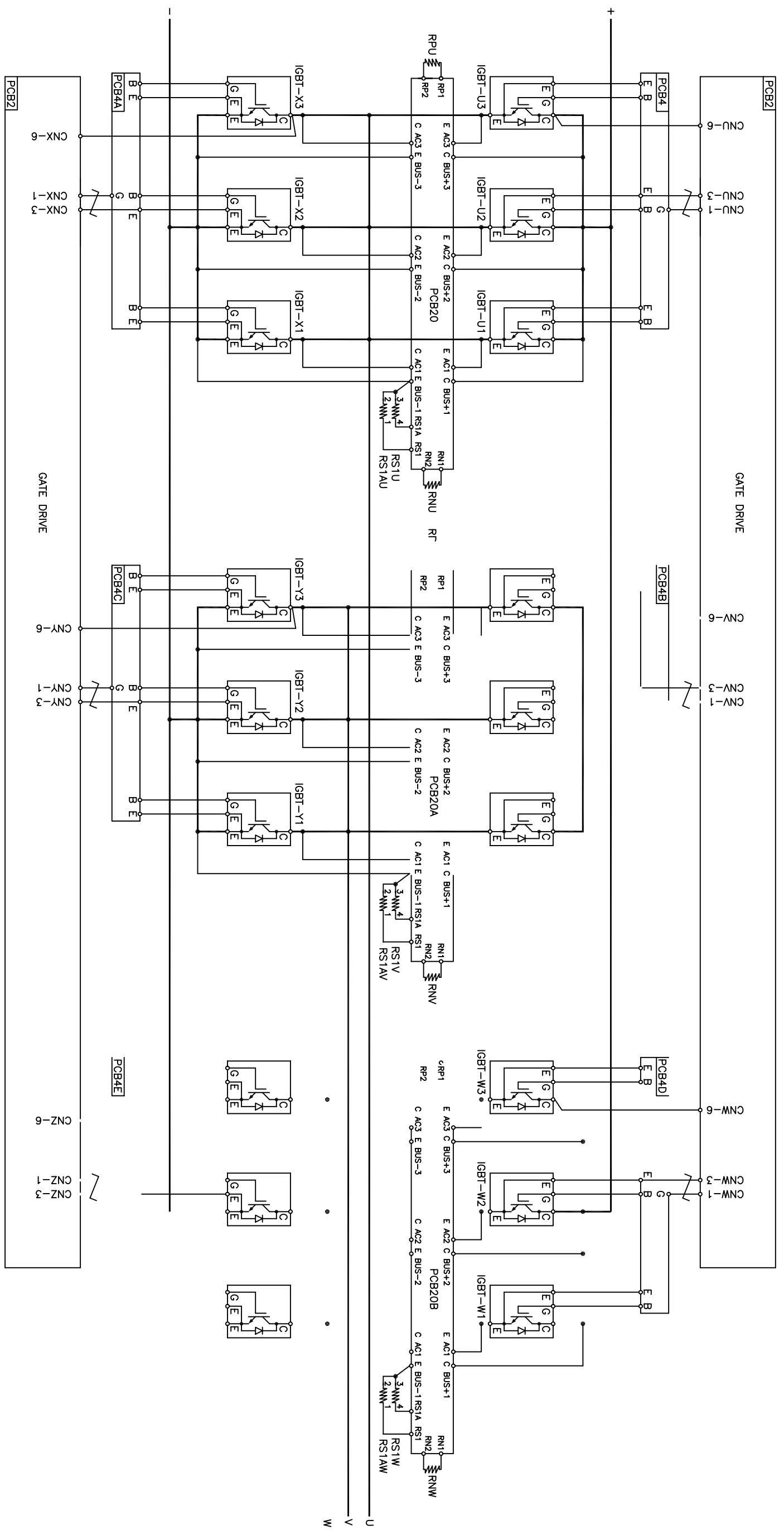


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REV	DATE	DESCRIPTION	BY	CHK	APPR
0	10/17/05	FIRST ISSUE	HHP		
1					
2					
3					
4					

TITLE:
MAIN CIRCUIT - DC BUS/AC OUT
3 POWER MODULES G3+B 480VAC
CUSTOMER:
PROJECT NUMBER:

REVISION: 0
SCALE:
DRAWING NUMBER:
1808HR10



SEE RATINGS SHEET FOR IGBT QUANTITY

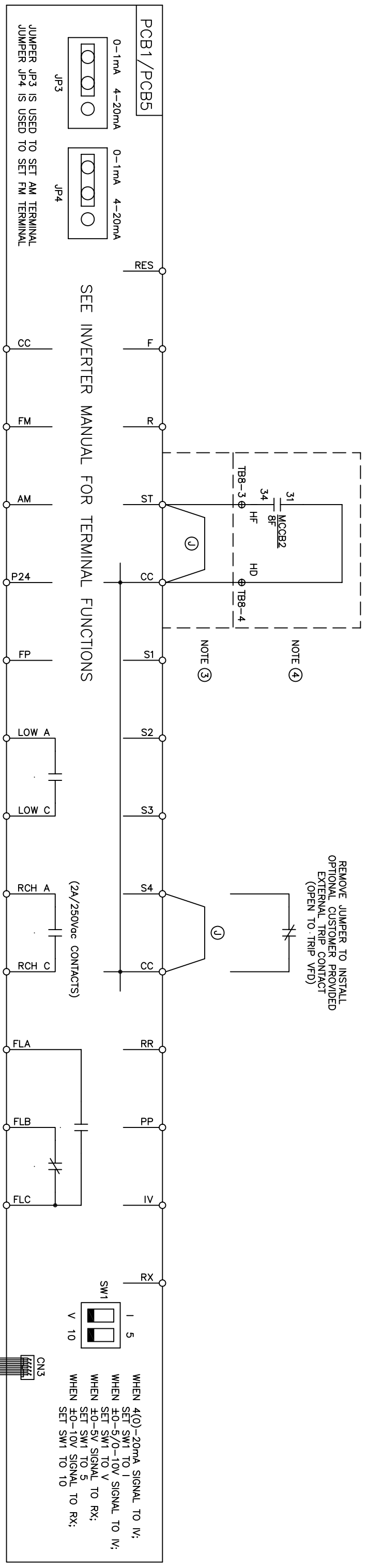
REV	DATE	DESCRIPTION	BY	CHK	APPR
0	10/17/05	FIRST ISSUE	HHP		
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2					
3					
4					

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TITLE:
MAIN CIRCUIT DETAIL - INVERTER
3 POWER MODULES G3+B 480VAC
 CUSTOMER:
 PROJECT NUMBER:

REVISION: 0
 SCALE:
 DRAWING NUMBER:
1808HR12

A B C D E F G H J K L M N P Q R S T V W X Y Z



- NOTES:
- ① NEMA 1 OPTION
 - ② NEMA 3R OPTION
 - ③ 6 PULSE OPTION
 - ④ 12 PULSE OPTION
 - ⑤ SINEWAVE FILTER OPTION

REV	DATE	DESCRIPTION	BY	CHK	APPR
0	10/17/05	FIRST ISSUE	HHP		
1					
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TITLE:
LOGIC INTERFACE CIRCUIT

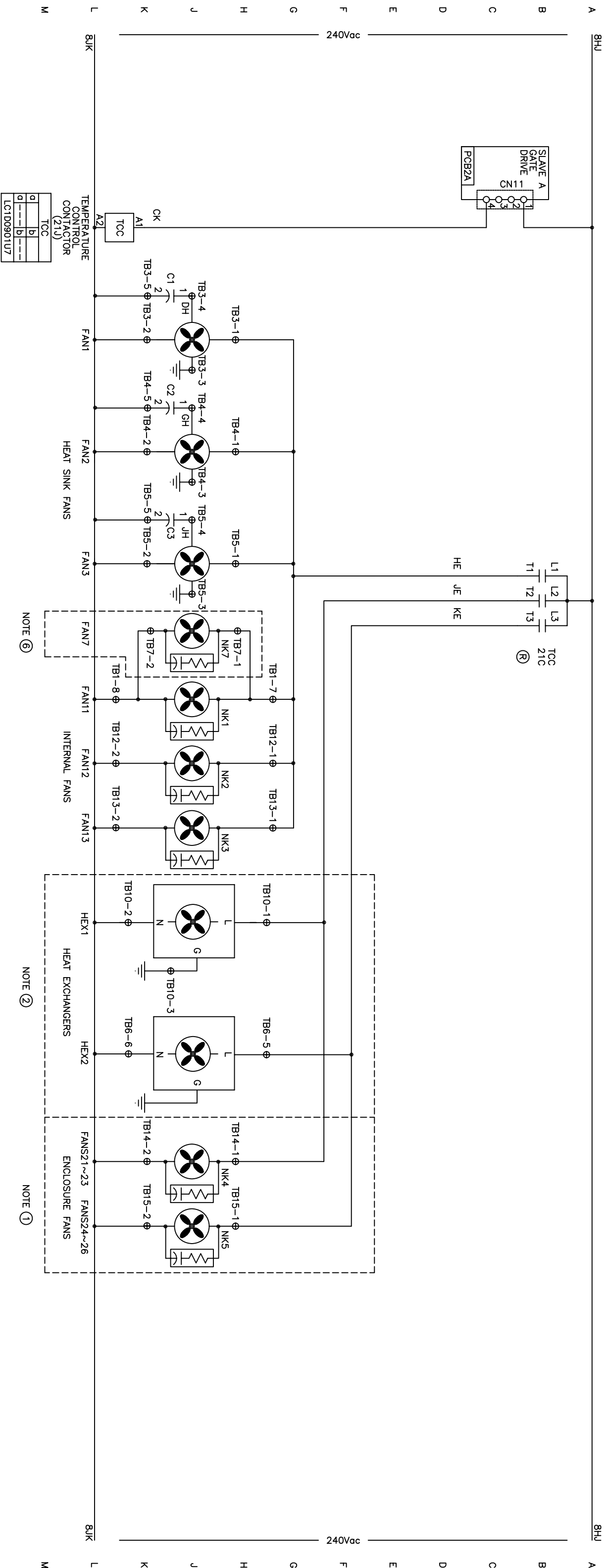
CUSTOMER:
3 POWER MODULES G3+B 480VAC

PROJECT NUMBER:

REVISION: 0

SCALE:

DRAWING NUMBER:
1808HR18



TCC	a
TCC	b
TCC	c
TCC	d

LC1D0901U7

NOTE ⑥

NOTE ②

NOTE ①

- NOTES:
- ① NEMA 1 OPTION
 - ② NEMA 3R OPTION
 - ③ 6 PULSE OPTION
 - ④ 12 PULSE OPTION
 - ⑤ SINEWAVE FILTER OPTION
 - ⑥ IGBT7 OPTION

REV	DATE	DESCRIPTION	BY	CHK	APPR
0	10/17/05	FIRST ISSUE	HHP	JT	JBA
1	12/06/07	REMOVED "NEMA 1 ONLY" FROM NOTE 6.	JMP		
2					
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TITLE:
CONTROL CIRCUIT-TEMPERATURE CONTROL
3 POWER MODULES G3+B 480VAC
 CUSTOMER:
 PROJECT NUMBER:

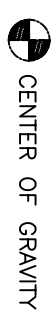
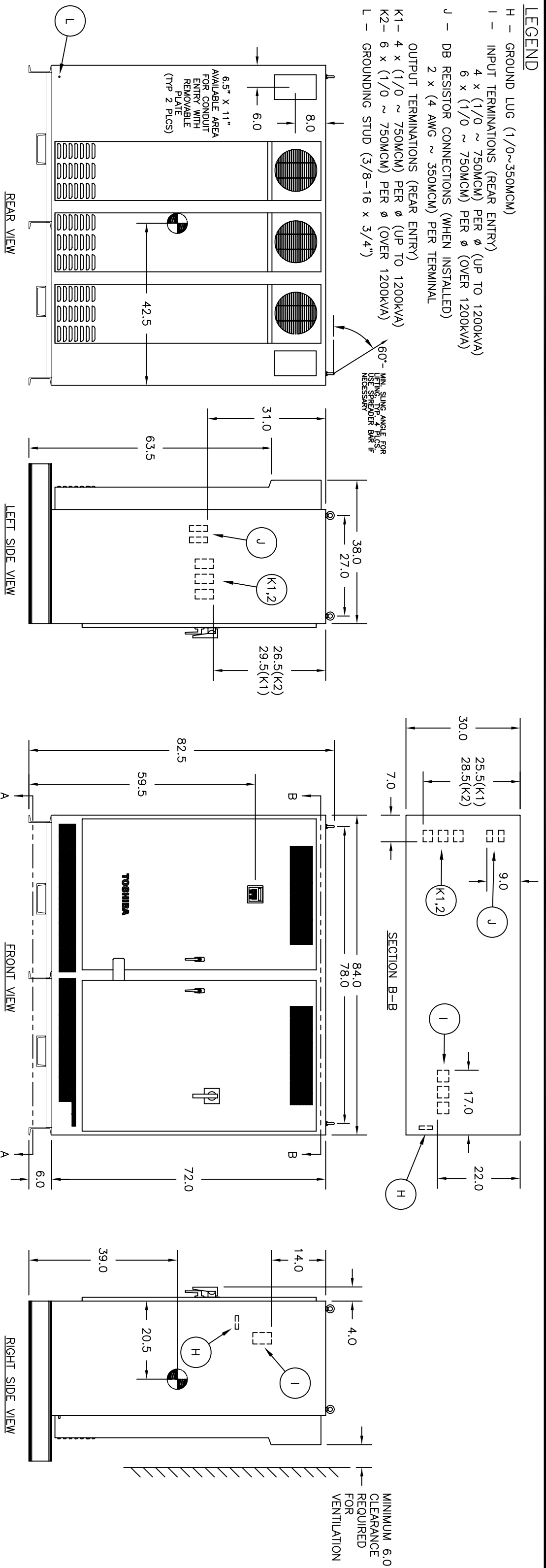
REVISION: 1 SCALE:
 DRAWING NUMBER:
1808HR21

LEGEND

- H - GROUND LUG (1/0~350MCM)
- I - INPUT TERMINATIONS (REAR ENTRY)
 - 4 x (1/0 ~ 750MCM) PER Ø (UP TO 1200KVA)
 - 6 x (1/0 ~ 750MCM) PER Ø (OVER 1200KVA)
- J - DB RESISTOR CONNECTIONS (WHEN INSTALLED)
 - 2 x (4 AWG ~ 350MCM) PER TERMINAL

OUTPUT TERMINATIONS (REAR ENTRY)

- K1 - 4 x (1/0 ~ 750MCM) PER Ø (UP TO 1200KVA)
- K2 - 6 x (1/0 ~ 750MCM) PER Ø (OVER 1200KVA)
- L - GROUNDING STUD (3/8-16 x 3/4")



CENTER OF GRAVITY

NOTES

- DIMENSIONS ARE IN INCHES.
- DIMENSIONS FOR REFERENCE ONLY.
- WEIGHT: APPROX. 3500lbs (1600kg)
- COLOR: GRAY
- INPUT/OUTPUT TERMINATION BENDING
- SPACE IN ACCORDANCE WITH NEC TABLE 312-6(b)

REV	DATE	DESCRIPTION	BY	CHK	APPR
4					
3					
2					
1	11/21/08	KPD WAS 57.5; ADD GRD STUD; REV BASE	JT		
0	10/17/05	FIRST ISSUE	HHP	JT	JBA

TOSHIBA

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TITLE:
ENCLOSURE OUTLINE-N1 NON SINEWAVE

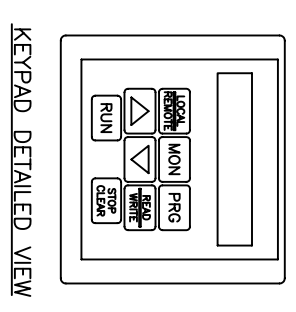
CUSTOMER:
1200~1500KVA G3+B 480VAC 6 PULSE

PROJECT NUMBER:

REVISION: 1

SCALE: 1.0=26.0

DRAWING NUMBER:
1808HR34



SECTION A-A

KEYPAD DETAILED VIEW