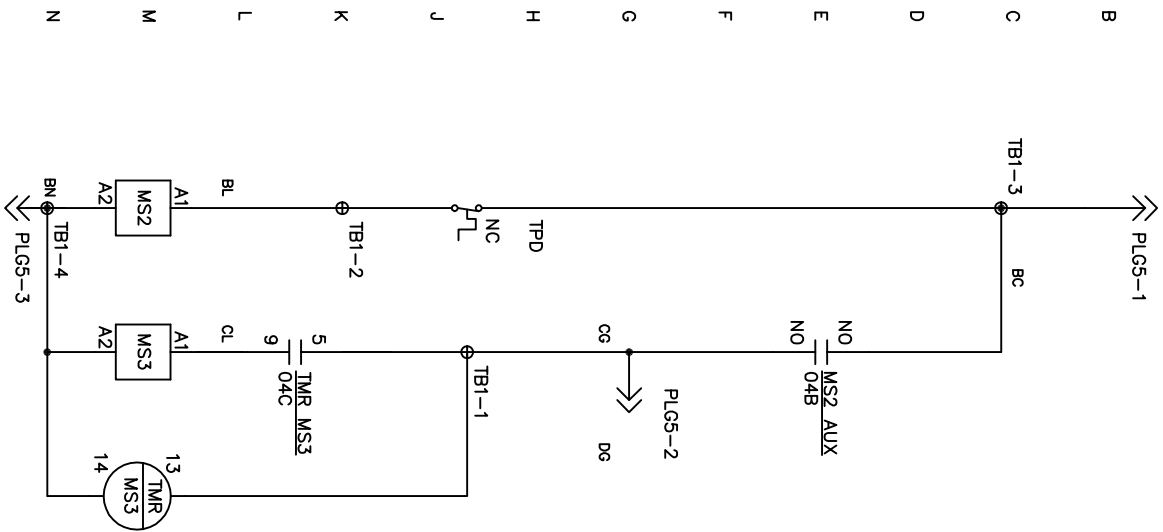




PAGE No.	DEVICE	QTY	DESCRIPTION	6400P0022 DC PRECHARGE/DC DISCHARGE		
				TYPE FORM	RATING	PART NUMBER
4,5	FUA,FUB	2	PROTECTION FUSES	CRF DCT30-2	FUSE 30A 750VAC 1000VDC	66754
	MS2	1	DISCHARGE CONTACTOR	CLK 7001-5150-21 (CTL)	CTL/DC, 11C/40A,208/240VAC	PC18720P013
	MS3	1	PRECHARGE CONTACTOR	TMQ LC1DT60AU7	TMQ CTT 40A, 4P, 240V	66759
	MS2 AUX	1	AUX CONTACTS	CLK 5M65	AUX CONTACT,1A1B	PC18720P012
	R1	2	RESISTOR	PWO WR2500	RES WIREWOUND 25-OHM 342W	69570
	TPD	1	THERMAL SWITCH PD PANEL	CANT F20A090050ACFA06E	T-SW1,F20,90C,FLX,NC	64064
	PLG5	1	POWER PLUG	MLX 19419-0011	CONN 6CIR. PLUG 16-14AWG 600V	69736
	TMR-MS3	1	TIMER	IDE G15Y-ZSNI14200	TMR,ON DLY,0-10M,120/240VAC,8P	PC20111P180

4					
3					
2					
1	09/15/14	ECO 89090 ADD TMR-MS3	AMAST		
0	7/23/13	FIRST ISSUE	AMAST	UPARHAM	AM
REV	DATE	DESCRIPTION	BY	CHK	APPR

TOSHIBA TOSHIBA INTERNATIONAL CORPORATION MADE IN HOUSTON, TEXAS U.S.A.		
TITLE: PRECHARGE/DISCHARGE PANEL CONTROL POWER AND RATINGS		
CUSTOMER:	PROJECT NUMBER: STANDARD	
DRAWING NUMBER: 64000P0022-04		

CUST. NAME:

PROJECT NO.: 900684

P.O. NUMBER:

DESCRIPTION: WX9 WX9450KAXAADW~WX9480KAXAADW

460VAC, 3ø, 60Hz, 500kVA~800kVA

MODULAR INVERTER

WITH 18-PULSE AUTOTRANSFORMER

TYPE 1 ENCLOSURE, UL LISTED

NO	DRAWING NO	REV	DRAWING DESCRIPTION
00	I808PE00	3	DRAWING LIST – INVERTER
01	----	--	-----
02	I808PE02	0	DRAWING LEGEND
03	I808PE03	0	EXAMPLE SCHEMATIC
04	----	--	-----
05	I808PE05	1	MODEL NUMBER DEVELOPMENT
06	I808PE06	3	EQUIPMENT RATINGS – INVERTER/RECTIFIER/18P CABINET
07	I808PE07	1	EQUIPMENT RATING –18 PULSE TRANSFORMER CABINET
08	I808PE08	1	THREE-LINE DIAGRAM – INV/REC/18 PULSE AUTOTRANSFORMER
09	I808PE09	1	RECTIFIER CABINET WITH PRECHARGE
10	I808PE10	1	SINGLE INVERTER MODULE
11	----	--	-----
12	I808PE12	1	MAIN CIRCUIT DETAIL – INVERTER
13	----	--	-----
14	----	--	-----
15	I808PE15	1	DOOR PANEL/COOLING FAN CONTROL

☒ 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
16	I808PE16	1	12 PULSE RECTIFIER MODULE
17	----	--	-----
18	I808PE18	1	LOGIC INTERFACE CIRCUIT
19	----	--	-----
20	I808PE20	0	POWER PANEL
21	I808PE21	1	CONTROL CIRCUIT – TEMPERATURE CONTROL
22	----	--	-----
23	I808PE23	1	PRECHARGE/DISCHARGE CIRCUIT – CONTROL POWER
24	----	--	-----
25	----	--	-----
26	----	--	-----
27	----	--	-----
28	----	--	-----
29	I808PE29	1	PCB INTERCONNECTIONS
30	64000P0022	0	DC PRECHARGE/DC DISCHARGE ASSEMBLY SCHEMATIC
31	I808PE31	1	ENCLOSURE OUTLINE

4

2/7/14

ECO 88666 REV

AMAST

3

10/24/13

ECO 87991 REV 00,06

AMAST

NM

AM

2

8/28/13

ECO 87262 REV 00,06

1

04/25/12

FIRST ISSUE

XN

HP

TF

0

DATE

DESCRIPTION

BY

CHK

APPR

TOSHIBA

INTERNATIONAL CORPORATION

MADE IN HOUSTON, TEXAS U.S.A.

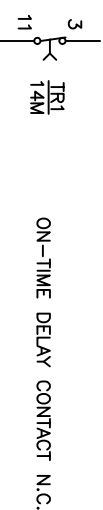
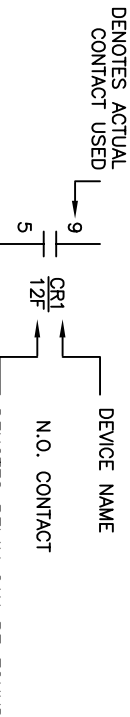
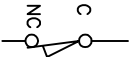
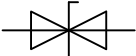
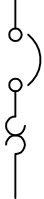
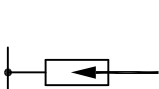
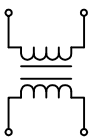
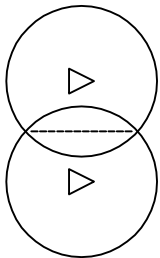
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TITLE: DRAWING LIST WX9
460V 500kVA~800kVA

CUSTOMER:

PROJECT NUMBER:
STANDARD

DRAWING NUMBER:
I808PE00



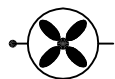
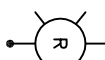
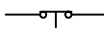
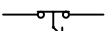
NAME	
Q	b 11B
Q	b
Q	b
Q	b
Q	b
MODEL #	

ES b - CONTACT, USED ON
11, COLUMN B

- DENOTES CONTACTS UNAVAILABLE

a - DENOTES NORMALLY OPEN

b - DENOTES NORMALLY CLOSED



LEGEND

ACL	AC LINE REACTOR
A/C	AIR CONDITIONER
AM	AMMETER
AS	AMMETER SWITCH
AMVM	AMMETER OR VOLTMETER
CL	CURRENT LIMITER
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
DBR	DYNAMIC BRAKING RESISTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFR	GROUND FAULT RECEPTACLE
M	AIR CONTACTOR
MCCB	MOLDED CASE CIRCUIT BREAKER
MCP	MOTOR CIRCUIT PROTECTOR
MOT	MOTOR
OL	THERMAL OVERLOAD
PCB	PRINTED CIRCUIT BOARD
RFF	RADIO FREQUENCY FILTER
VFD	VARIABLE FREQUENCY DRIVE
VM	VOLTMETER
VS	VOLTMETER SWITCH
XFMR	TRANSFORMER
ZCT	GROUND FAULT CT

SYMBOL LEGEND

- ① JUMPER
- ② MECHANICAL INTERLOCK

DU -	CONTRACTOR DRIVE UNIT	CLOSED	IN EITHER
LS1 -	DRAWOUT UNIT INTERLOCK, "TEST" OR "RUN" POSITION		
LS2 -	PACKING HANDLE INTERLOCK, NORMALLY CLOSED OPENS DURING RACKING OPERATION		
TOC -	TRUCK OPERATED CONTACT, NORMALLY OPEN, CLOSED IN CONTACTOR RUN POSITION		

4				
3				
2				
1				
0	04/25/12	FIRST ISSUE	XN	HP
REV	DATE	DESCRIPTION	BY	CHK
				TF

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MADE IN HOUSTON, TEXAS U.S.A.

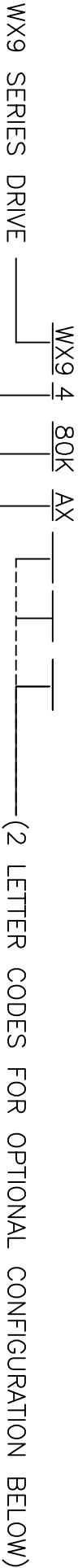
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TITLE:	DRAWING LEGEND
CUSTOMER:	

PROJECT NUMBER:

REVISION:	0	SCALE:
DRAWING NUMBER:		
1808PE02		

WX9 DRIVE MODEL NUMBER DEVELOPMENT



RATED VOLTAGE	
4 –	460VAC
6 –	690VAC
2 –	230VAC

DRIVE RATING

(TBD)	
600 –	60kVA, 77A
750 –	75kVA, 96A
10K –	100kVA, 124A
12K –	125kVA, 156A
15K –	150kVA, 190A
20K –	200kVA, 240A
25K –	250kVA, 302A
30K –	300kVA, 370A
35K –	350kVA, 450A
40K –	400kVA, 480A

(AVAILABLE)	
50K –	500kVA, 628A
60K –	600kVA, 740A
70K –	700kVA, 900A
80K –	800kVA, 960A

- 1 REFERENCE SALES TEXT
- BLANK: N1 FVNR
- NC NEMA 12 (UL TYPE 12)
- N4 NEMA 4 (UL TYPE 4)
- N3 NEMA 3 (UL TYPE 3) WITH FAN AND FILTER ENCLOSURE SUITABLE FOR OUT DOOR
- AA TH-MAG CIRCUIT BREAKER, ASD ONLY
- AC TH-MAG CIRCUIT BREAKER, BYPASS
- AE TH-MAG CIRCUIT BREAKER, ISOLATED BYPASS
- AS TH-MAG CIRCUIT BREAKER, ISOLATED BYPASS WITH SOLID STATE STARTER BYPASS
- AG SOLID STATE STARTER BYPASS
- BS INSTALLED OUTPUT LONG LEAD FILTER BY TOSHIBA
- FO INSTALLED OUTPUT LONG LEAD FILTER BY TIC
- FM SPACE HEATER
- HS OVERLOAD MISC.
- LX ENCLOSURE – MISC. EXTENSION CABINET
- NX ISOLATED BYPASS
- AH INPUT CONTACTOR (NO CIRCUIT BREAKER DISCONNECT)
- AI OUTPUT CONTACTOR (NO CIRCUIT BREAHER DISCONNECT)
- AO ASD ONLY, TERMINAL BLOCK TERMINATION (NO TH-MAG CIRCUIT BREAKER OR DISCONNECT SWITCH)
- AW ASD ONLY, DISCONNECT SWITCH (NO TH-MAG CIRCUIT BREAKER)
- AN BREAKER UPGRADE MISC.
- DX 18 PULSE INPUT PHASE SHIFTING ISOLATION TRANSFORMER
- DC 18 PULSE INPUT PHASE SHIFTING AUTO TRANSFORMER
- DW 3% INPUT REACTOR
- R3 5% INPUT REACTOR
- R5 INSTALLED RF/EMI FILTER
- RE OTHERS CONFIGURATIONS ARE REFER TO ASD SMART PART MATRIX.
-

AX UNIVERSAL MODULAR INVERTER WITH COMMON DC CONNECTION

4					TOSHIBA TOSHIBA INTERNATIONAL CORPORATION MADE IN HOUSTON, TEXAS U.S.A. THIS MATERIAL IS THE EXCLUSIVE PROPERTY OF TOSHIBA. INTERNATIONAL CORPORATION AND SHALL NOT BE REPRODUCED, USED, OR DISCLOSED TO OTHERS UNLESS PRIOR WRITTEN AUTHORIZATION IS OBTAINED.	TITLE: MODEL NUMBER DEVELOPMENT		REVISION:		SCALE:
3								1		
2										
1	2/7/14	ECO 88666 REV TITLE	AM							
0	04/20/12	FIRST ISSUE	XN	HP				TF		
REV	DATE	DESCRIPTION	BY	CHK	APPR	CUSTOMER:		PROJECT NUMBER:	DRAWING NUMBER:	
								STANDARD	1808PE05	

WX9 460V 800HP 960A (INCLUDED 500HP/62BA, 600HP/7740A, 700HP/900A)

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	WX9,INV,CAB	1	INV. CAB,800HP,460V	64K01480K111	800HP, 460V, 960A	64K01480K111
	WX9,REC,CAB	1	REC. CAB,700HP~800HP,460V	64K01460KRR	700HP~800HP, RECTIFIER ONLY	64K01460KDRR
	WX9,REC,CAB	1	REC. CAB,500HP~600HP,460V	64K01460KRR	500HP~600HP, RECTIFIER ONLY	64K01460KDRR
	WX9,18PULSE,CAB	1	X'FORMER, CAB,460V	SEE 1808PE07	500HP~800HP, 18P TRANSFORMER	SEE 1808PE07
	64000CW9~480K	1	CONTROL PCBs AND HCT	64000CW9~480K	-	64000CW9~480K
	64000D0102	1	DOOR PANEL ASSY	64000D0102	-	64000D0102

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	MODULE U,V,W	3	TOP DRIVE,INV,800HP,460V	64000MS~480K	800HP, 460V, 960A	64000MS~480K
	64000F0101	1	FAN,BOX,ASSY,GX7M,750HP	64000F0101	-	64000F0101
	FU+,FU- (2P)**	4	INVERTER DC BUS FUSES	CRF A130URD73JT10800	1300V, 800A	66352
	64000S0101	1	ASSY,CONTROL,INV,AX	64000S0101	-	64000S0101
	D51	1	DOOR SWITCH	IDE TABD322NR 30MM	PB,RED,1A1B,MUSHRM-HD	PC21230P262
	AUX(ASY#64000S0601)	1	TMQ FRONT AUXCTT	TMQ LADN10	10A F/D40-D95	PC18701P073
	MS1*(ASY#64000S0601)	1	SOFTSTART CONTACTOR	TMQ LC1F400U7	400A, 240V COIL	PC18701P005
	NK1	1	SURGE SUPPRESSOR	MCN RFM25M224KD	RC 250V	00427
	PDM	1	PRE/DISCHARGE PANEL	64000P0022	-	64000P0022

*AC-1 RATING 500A (40 DEGREE C AMBIENT MAX.)

** FUSE +/- ATTACHED TO ASSY# 64000B0103/64000S0601(COMMON BUS ASSY AND MS1 ASSY)

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	FU2~FU2A	2	MAIN CAP FUSES	BUS 225FM	690V, 225A	62567
	IGBTX~2*	3	IGBT (3 PARALLEL)	INF FT1400R12IP4	1400A, 1200V	62591
	THR1 (ASY#74935)	1	HEATSINK THERMISTOR	FEN 590-32BP01-203	20KOHM @ 25 DEG C	41935
	THRM1 (HEATSINK)	1	T-STAT,F20,90C,FI,X,NC	CANT F20A09005ACFA06E	T-STAT,F20,90C,FI,X,NC	64064
	THRM2 (CAP BODY)	1	T-STAT,F20,90C,FI,X,NC	CANT F20A09005ACFA06E	T-STAT,F20,90C,FI,X,NC	64064
	C9~C9E	6	SNUBBER CAPACITOR	ASC TOS39-.5,0-10-1600	CAP ASY 5 MFD 1600V M8/M8	66358
	C3~C5A	6	CAPACITOR	HIT FXR3G23JF234TH	CAP ELE 22000MFD 400VDC 1-bkt	60853
	R2~R4A	6	BALANCING RESISTOR	DLR RS-10 50K	RES,ASY,50K,10W,X2	66836
	HCTDC	1	DC HALL CT	LEM HAC 300-S/SP24	CT HALL 300A/4VDC AMO CORE	66881
	PCB2	1	GATE DRIVE BOARD	65000P4A	----	65000P4A
	PCB4	1	GATE-EMITTER BOARD	65001A	----	65001A

CONTROL PCBs AND HCTs - INVERTER CABINET

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	PCB1	1	CONTROL BOARD	W7	----	56000E2
	PCB5	1	TERMINAL BLOCK BOARD	48570A	----	48570A
	PCB5A	1	JUMPER BOARD	50611A	----	50611A
	HCTU,V,W	3	OUTPUT HCTs	LEM HAT 1200-S	HCT 1200A/4VDC	59399

DOOR PANEL ASSEMBLY - INVERTER CABINET

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	PB1	1	E-STOP BUTTON	IDE 1AVD311NR	PB,RED,1A1B,M,D,P-L/TRN-R	PC21321P065
	PL1	1	POWER LIGHT (WHITE)	IDE APD1126DNW	LIGHT,LED,WHITE,120VAC	PC21101P073
	PL2	1	RUN LIGHT (RED)	IDE APD1126DNR	LIGHT,LED,RED,120VAC	PC21101P070
	PL3	1	FAULT LIGHT (AMBER)	IDE APD1126DNA	LIGHT,LED,AMB,120VAC	PC21101P069
	SS1	1	SWITCH AUTO/OFF/HAND	IDE 1ASD340NB 30MM	SW,SS,2A2B,3 POS,BLK	PC21444P218
	RJ45 INTERFACE	1	CONNECTOR RJ45	TYC 1546413-3	CONN LF RJ45F BLKHEAD MT	63464
	RJ45 CAP	1	CAP RJ45	TYC 1-1546407-1	CONN RJ45 CAP F/PANEL MOUNT	68147
	EOI	1	OPERATOR INTERFACE	58333-W-CC	----	58333-W-CC

4

3/25/14

ECO 88666 REV PRECHARGE, LAYOUT, PP ASSY

ALM

2

10/24/13

ECO 87991 REV FU2,FU2A

AMAST

NM

AM

1

8/28/13

ECO 87262 REV C3~C5A

0

04/24/12

FIRST ISSUE

XN

HP

TF

REV

DATE

DESCRIPTION

BY

CHK

APPR

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RECTIFIER CABINET

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	6 PULSE REC MODULE	1	TOP DRIVE,REC,800HP,460V	64000MD~480KJP	1000KVA, 11A W/O MS1	64000MD~480KJP
	12 PULSE REC MODULE	1	12P DRIVE,REC,800HP,460V	64000MD~480KDRJP	800HP, 460V	64000MD~480KDRJP
	64000F0101	1	FAN,BOX,ASSY,GX7M,750HP	64000F0101	-	64000F0101
	DS2(ASY#64000E0101)	1	DOOR SWITCH	IDE TABD322NR 30MM	PB,RED,1A1B,MUSHRM-HD	PC21230P262
	DCL1~14(ASY#64000S1301)	2	DC REACTOR	NLT 4624A	DCL, 112uH, 680A	PC34180P400

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	RECT~REG3A	6	6 PULSE INPUT RECTIFIER	EUP DD540N22K	DIODE, PK, 540A, 2200V	PC40322P540
	FSW1~FSW3	3	INPUT FUSE SWITCH	CRF MS3Y1-5BS	FU SCR IND PSC S2 30-33	PC15360P001
	SA1~SA3	3	SURGE ARRESTOR	SMS B40K550	SURGE SUPP,1PH,550V,B40	PC47000P003
	C1, C2(ASY#42401)	2	FILTER CAPACITOR	UCC HACD3E104J	CAP ASY 0.1 MFD 2.5KV M5/M5	02806
	TSR(ASY#77163)	1	T-STAT 90°C FIXED N.C.	CANTRM F20A09005ACA06E	T-STT,F20,90°C,FI,X,NC	64064
	FUR,S,T 700-800HP*	3	INPUT FUSE	BUS 170M6466	690V, 1250A	67712
	FUR,S,T 500-600HP	3	INPUT FUSE	BUS 170M6464	690V, 1000A	69108
	FU1	2	DC BUS FUSE	CRF A130URD73JT10800	1300V, 800A	66352

12 PULSE RECTIFIER MODULE - RECTIFIER CABINET (500HP~800HP)

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	REGA~REG6A	6	12 PULSE INPUT RECTIFIER	EUP DD540N22K	DIODE, PK, 540A, 2200V	PC40322P540
	SAA~SAG6	6	SURGE ARRESTOR	SMS B40K550	SURGE SUPP,1PH,550V,B40	PC47000P003
	C1A, C2A(ASY#42401)	2	FILTER CAPACITOR	UCC HACD3E104J	CAP ASY 0.1 MFD 2.5KV M5/M5	02806
	TSR12(ASY#77163)	1	T-STAT 90°C FIXED N.C.	CANTRM F20A09005ACA06E	T-STT,F20,90°C,FI,X,NC	64064

PRECHARGE/DISCHARGE

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	FUA,FUB	2	PROTECTION FUSES	CRF DCT30-2	FUSE 30A 750VAC 1000VDC	66754
	MS2	1	DISCHARGE CONTACTOR	CLK 7001-5150-21 (CTL)	CTT,DC,1NC/40A,208/240VAC	PC18720P013
	MS3	1	PRECHARGE CONTACTOR	TMQ LC1D160AU7	TMQ CTT 40A, 4P, 240V	66759
	MS2 AUX	1	AUX CONTACTS	CLK 5M65	AUX CONTACT,1A1B	PC18720P012
	R1	2	RESISTOR	PWO WR2500	RES WIREWOUND 25-OHM 342W	69570
	TPD	1	THERMAL SWITCH PD PANEL	CANT F20A09005ACFA06E	T-STAT,F20,90C,FI,X,NC	64064
	PLG5	1	POWER PLUG	MLX 19419-0011	CONN 6CIR PLUG 16-14AWG 600V	69736

FAN BOX ASSEMBLY - QUANTITY 1 PER CABINET

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	FAN	1	HEATSINK FAN	EKHR 400-45W,123,5HA	FAN,IMPLR,230V,2660CFM,16"	67047
	TGR	1	TEMPERATURE CONTROL RELAY	TMQ CA2KN31U7	RLY,CTRL,3A1B,230VAC	PC20240P200
	NK10	1	SURGE SUPPRESSOR	MCN RFM25M224KD	SURGE SUPPRESSOR RC 250V	00427
	CS	1	FAN START-CAPACITOR	ROSENBERG 19224-0	CAPS,14uF,FAN START,16" FAN	67049

POWER PANEL ASSEMBLY - INVERTER CABINET

PAGE No.	DEVICE	QTY	DESCRIPTION	TYPE FORM	RATING	PART NUMBER
	8FU1,8FU2	2	PRIMARY FUSES CPT1, CPT2	CRF A10R 1	FU CCTD 1.0A 600V	PC26143P100
	8FU3	1	CTRL PWR FUSE PRECHARGE	CRF A10R 5	FU CCTD 5.0A 600V	PC26143P500
	8FU4	1	SECONDARY FUSE CPT1	GLD TRM 1 1/8	FU TD/1.13A 250VAC ULCSA	PC26130P010
	8FU5	1	SECONDARY FUSE CPT2	CRF DCT1-2	FUSE 1A 750VAC 1000VDC	67457
	CPT1, CPT2	2	POWER & ISOLATION XFMR	SQD 9070T75D31	CPT 75 VA 240/480-120/240	61644
	SK5	1	CONN 2 WAY RCPT	MLX 19418-0021	CONN RCPT 16-14AWG 600V	68881

TITLE:

EQUIPMENT RATINGS WX9480KAXAADW

INVERTER/RECTIFIER/18P CABINET

CUSTOMER:

PROJECT NUMBER:

DRAWING NUMBER:

1808PE06

SCALE:

3

18 PULSE TRANSFORMER CABINET

PAGE No.	DEVICE	QTY	DESCRIPTION	64K01480KBW, 500KVA~800KVA 18P CABINET					
				TYPE FORM		RATING		PART NUMBER	
				GRN GT-F403	XFMR,AUTO,18P.W7480K	56258		500KVA	600KVA
	T1*	1	XFMR,AUTO,18P.W7480K	GRN GT-F403	XFMR,AUTO,18P.W7470K	56264			700KVA
	T1	1	XFMR,AUTO,18P.W7470K	GRN GT-F404	XFMR,AUTO,18P.W7470K	56264			X
	T1	1	XFMR,AUTO,18P.W7460K	GRN GT-F405	XFMR,AUTO,18P.W7460K	56263		X	
	T1	1	XFMR,AUTO,18P.W7450K	V&F 149P3P10	XFMR,AUTO,18P.W7450K	56259		X	
	MCCB(ASY#64000BR201)	1	INPUT CIRCUIT BREAKER	SQD PUL36120RE10	BKR,600V,1200A,PJ.E-TRIP,W/HDL	56278			X
	MCCB(ASY#64000BR202)	1	INPUT CIRCUIT BREAKER	SQD PUL36100RE10	BKR,600V,1000A,PJ.E-TRIP,W/HDL	PC11709P193		X	
	MCCB(ASY#64000BR203)	1	INPUT CIRCUIT BREAKER	SQD PUL36080RE10	BKR,600V,800A,PJ.E-TRIP,W/HDL	PC11001P024			
	SHUNT (500~800HP)	1	SHUNT TRIP, MCCB	SQD S53661	SHUNT TRIP,120VAC/DC,P/R CB	PC11001P019		X	X
	P.S. PANEL ASSY	1	CONTROL P.S. PANEL ASSY	64000X0201	-	64000X0201		X	X
	FUR1,S1,T1(ASY#64000S1001)	3	T1 INPUT FUSES	CRR 6,9URD31TTF0500	FUSE AC/DC 690V 500A	43862		X	X
	FSW4~FSW6(ASY#64000S1001)	3	T1 INPUT FUSES SWITCH	CRF MS3V1-5BS	FU SCR IND PSC SZ 30-33	PC15360P001		X	X
	DS3	1	DOOR SWITCH	IDE TABD322NR 30MM	PB,RED,1A1B,MUSHRM-HD	PC21230P262		X	X
	ACL1(ASY#64000S1201)**	1	ACL INPUT FILTER	TCI KLR950ACB-B	ACL,950A,N1,460V 3%,575V 3%	101057		X	X
	FAN(ASY#64000S1201)**	1	ACL COOLING FAN	ETR 148KV-0281	FAN,6.78",220VAC,225CFM	00226		X	X
	FAN(ASY#64000F1001)	1	ENCLOSURE FAN	EBM W2D250-HH14-09	FAN,10",AXIAL,460VAC,1000 CFM	PC50050P050		X	X

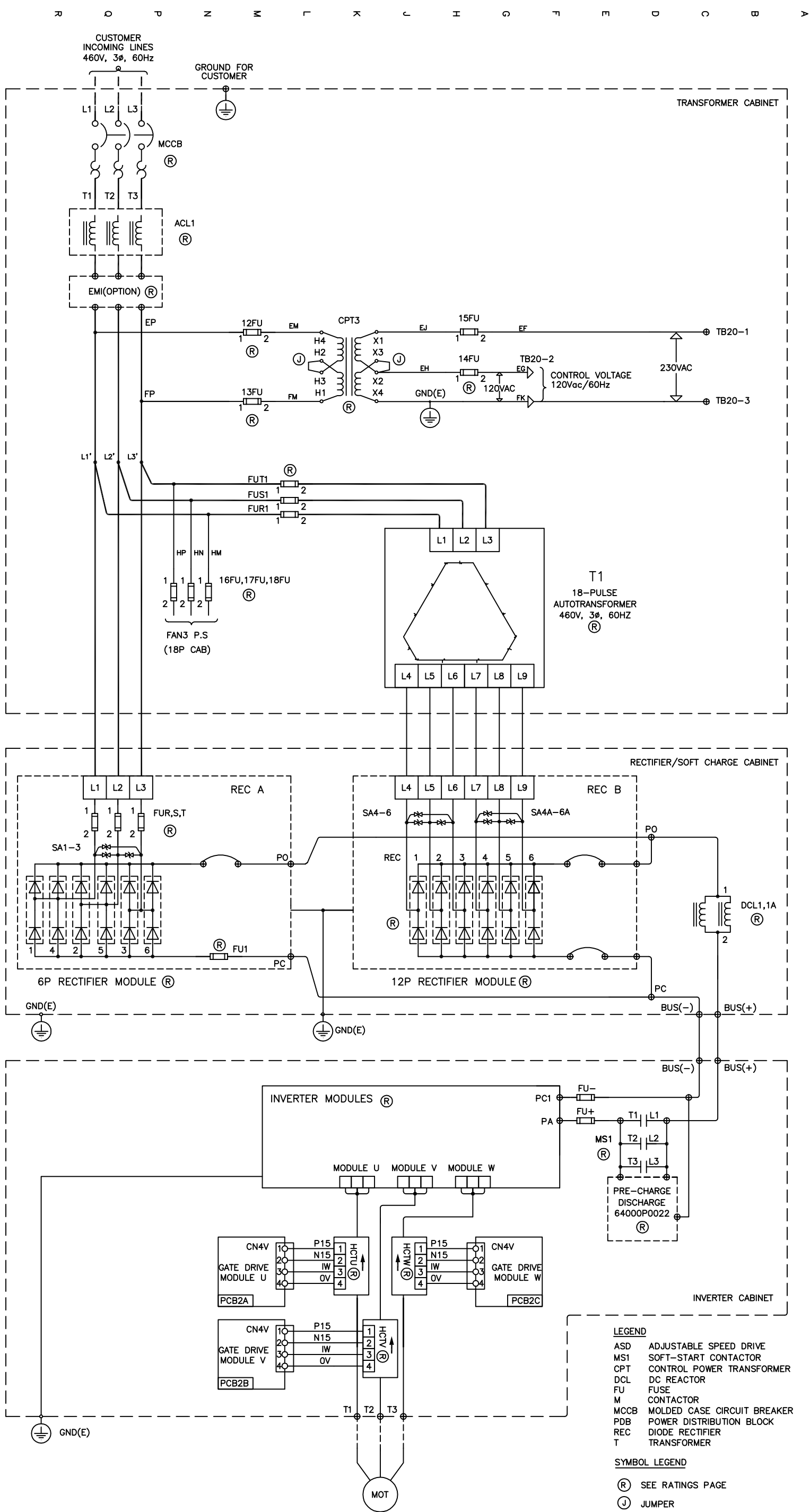
*V&F 149P3P22 TIC#56258 TO BE USED AS 2ND SOURCE.

**OPTIONAL PARTS

CONTROL P.S. FOR 18P/ASD CABINET

PAGE No.	DEVICE	QTY	DESCRIPTION	64000X0201, 500KVA~800KVA 18P CABINET		
				TYPE FORM	RATING	PART NUMBER
	CPT1	1	CONTROL POWER XFMR	SQD 9070T2000D31	CPT,2KVA,240/480:120/240VAC	62927
	12FU,13FU	2	PRIMARY FUSES CPT1	CRF ATQR 8	FU CCTD 8A 600V	PC26143P800
	14FU	1	SECONDARY FUSE CPT1	GLD TRM 8	FU TD/8.0A 250VAC UL,CSA	PC26130P029
	15FU	1	SECONDARY FUSE CPT1	GLD TRM 5	FU TD/5.0A 250VAC UL,CSA	PC26130P024
	16FU,17FU,18FU	3	FUSES, FAN3	GLD ATQR 1-8/10	FU CCTD 1.8A 600VAC	PC26143P180
	TCR	1	TEMPERATURE CONTROL RELAY	TMQ CA2KN31U7	RLY,CTRL,3A1B,230VAC	PC20240P200
	OL	1	THERMAL OVERLOAD RELAY	TMQ LRDO5	OL RLY .63-1A CLS-10	PC24201P005
	OL-MOUNTING BKT	1	OL RELAY MOUNTING BKT	TMQ LAD7B106	OL RLY MOUNT,BKT CLS-10 37A	PC24201P032

4					TOSHIBA TOSHIBA INTERNATIONAL CORPORATION MADE IN HOUSTON, TEXAS U.S.A. THIS MATERIAL IS THE EXCLUSIVE PROPERTY OF TOSHIBA INTERNATIONAL CORPORATION AND SHALL NOT BE REPRODUCED, USED, OR DISCLOSED TO OTHERS UNLESS PRIOR WRITTEN AUTHORIZATION IS OBTAINED.	TITLE: EQUIPMENT RATINGS WX9480KAXAADW 18PULSE TRANSFORMER CABINET CUSTOMER: PROJECT NUMBER:		REVISION: 0 SCALE:	
3									
2									
1	03/25/14	ECO 88666 REV BREAKER ASSY's	AJM						
0	04/24/12	FIRST ISSUE	XN	HP				TF	
REV	DATE	DESCRIPTION	BY	CHK	APPR			DRAWING NUMBER: 1808PE07	



4				
3				
2				
1	2/7/14	ECO 88666 REV TITLE, WIRE NAMES	AM	
0	04/09/12	FIRST ISSIE	HP	TF
REV	DATE	DESCRIPTION	BY	CHK APPR

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TITLE:

THREE-LINE DIAGRAM WX9 500KVA~800KVA

CUSTOMER:

PROJECT NUMBER:
STANDARD

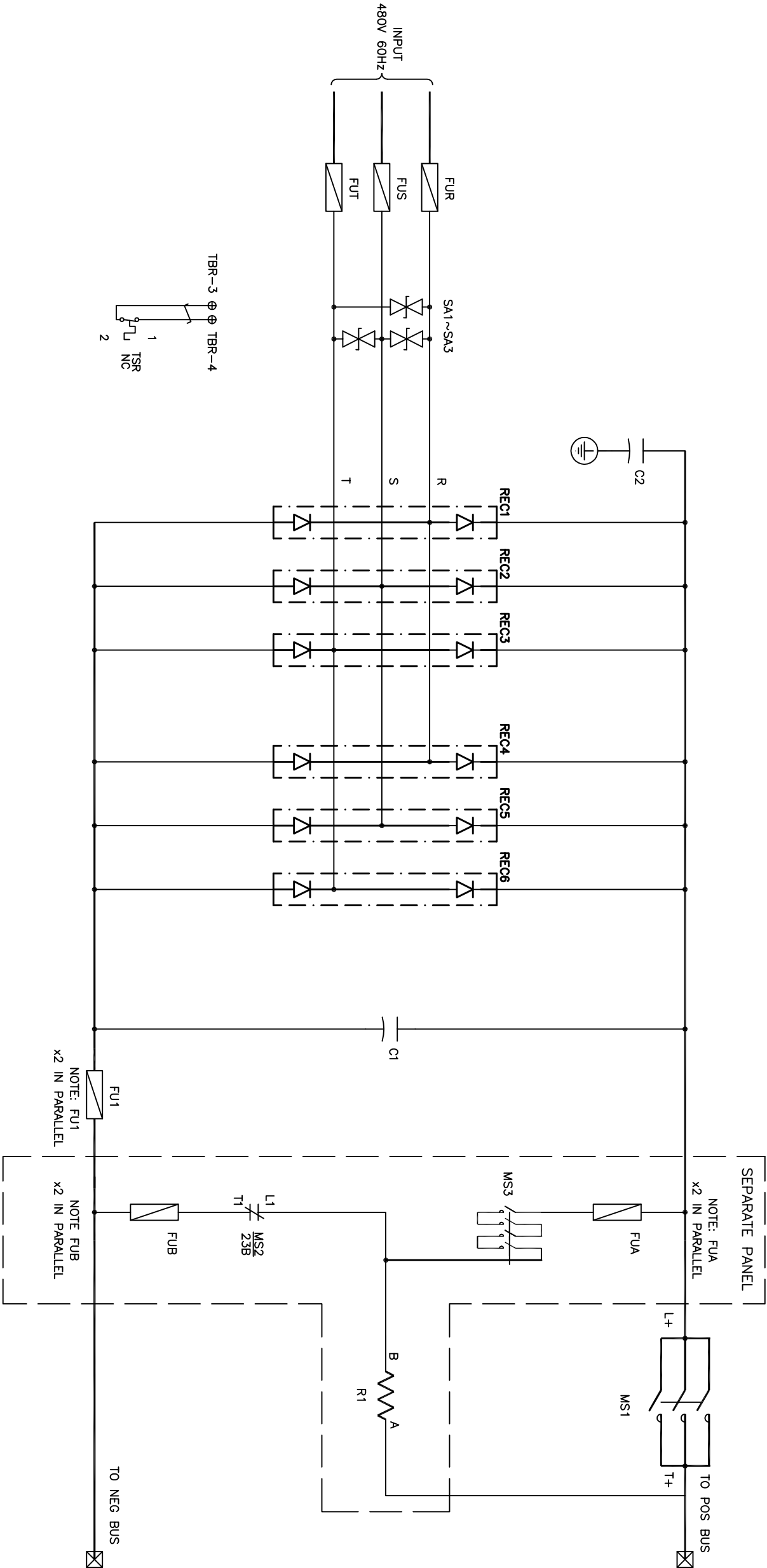
REVISION:

SCALE:

DRAWING NUMBER:

1808 PEO8

PRE-CHARGE/DISCHARGE CIRCUIT
SEE SCHEMATIC 64000P0022



Q
P
N
M
L
K
J
H
G
F
E
D
C
B
A

Q
P
N
M
L
K
J
H
G
F
E
D
C
B
A

4					
3					
2					
1	2/7/14	ECO 88666 REV MS2 NOTE, WIRE NAMES	AM		
0	04/05/12	FIRST ISSUE	XN	HP	TF
REV	DATE	DESCRIPTION	BY	CHK	APPR

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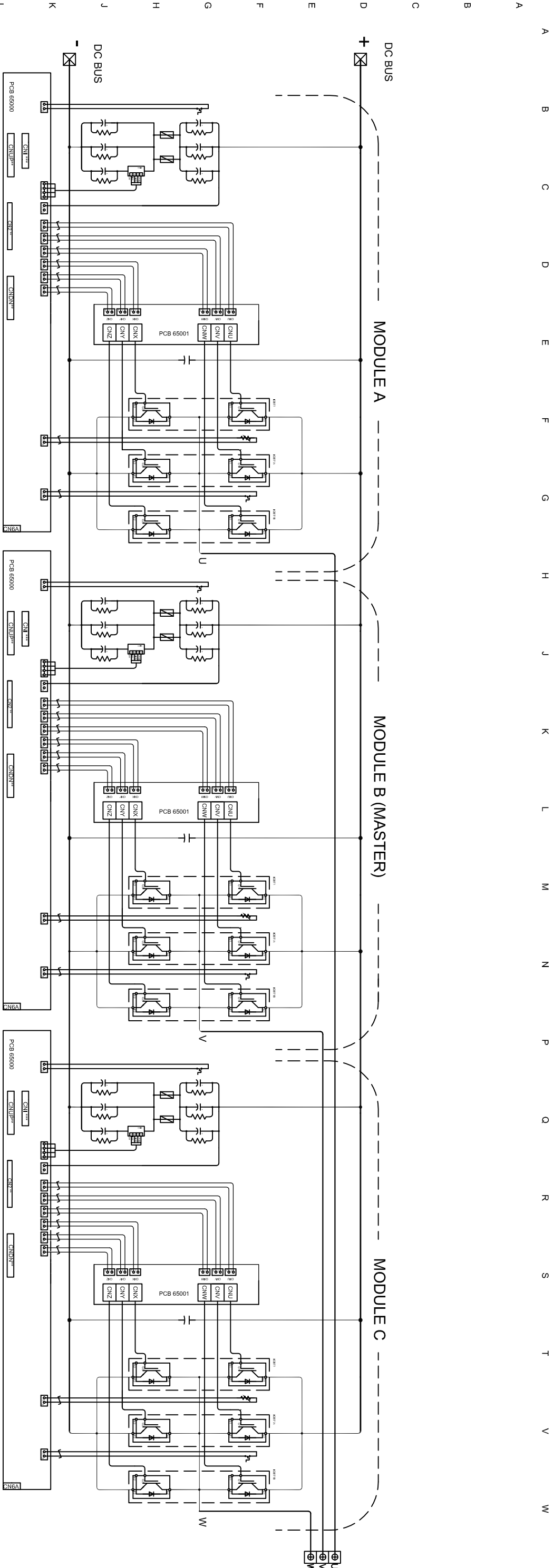
TITLE:
RECTIFIER CABINET WITH PRECHARGE
64K01675KR00

CUSTOMER:
PROJECT NUMBER:
STANDARD

REVISION:
1

SCALE:

DRAWING NUMBER:
1808PE09



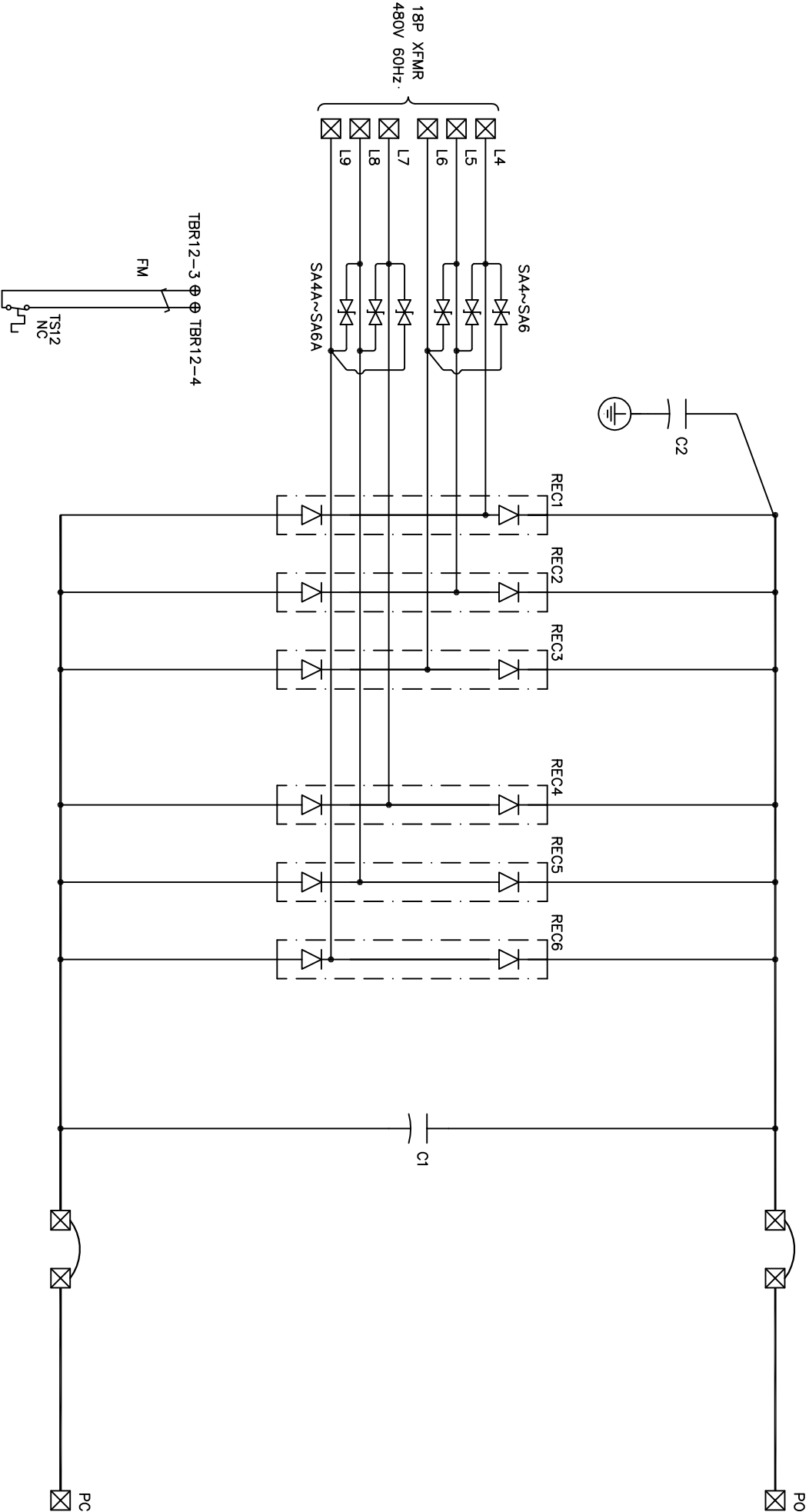
NOTE: NEGATIVE BUS ON LEFT WALL
IN FRONT OF POSITIVE BUS

***NOTE: CNI ONLY USED ON V &W PHASE
MODULES

**NOTE: CN2, CNUP, CNDN, AND CND USED
ONLY ON CENTER MODULE(PCB 65000)

*NOTE: HGT & CONTROL PCB INCLUDED
WITH 64000CWX9

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3							
2							
1	3/24/14	ECO 88666 REV CNU, CNV, CNW LABELS	AJM				
0	5/14/12	FIRST ISSUE	XN	HP	TF		
REV	DATE	DESCRIPTION	BY	CHK	APPR	TITLE: MAIN CIRCUIT DETAIL - INVERTER	
						CUSTOMER:	PROJECT NUMBER: STANDARD
						DRAWING NUMBER: 1808PE12	
			REVISION:	1	SCALE:		



4									
3									
2									
1	2/7/14	ECO 88666 REV 480V		ALM					
0	04/05/12	FIRST ISSUE		XN	HP	TF			
REV	DATE	DESCRIPTION		BY	CHK	APPR			

TOSHIBA

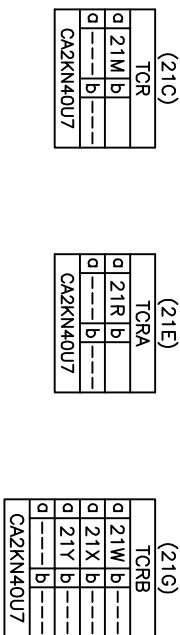
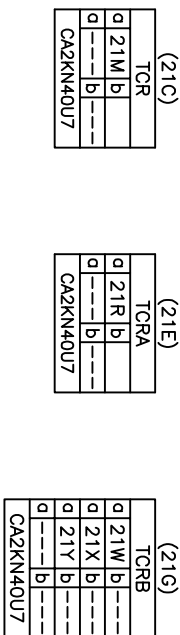
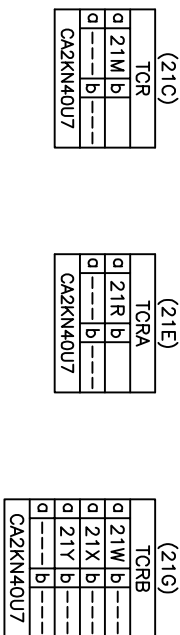
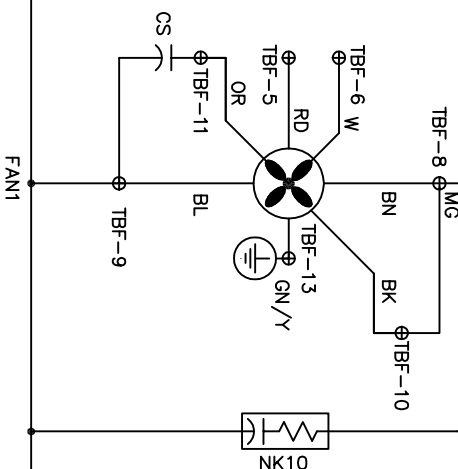
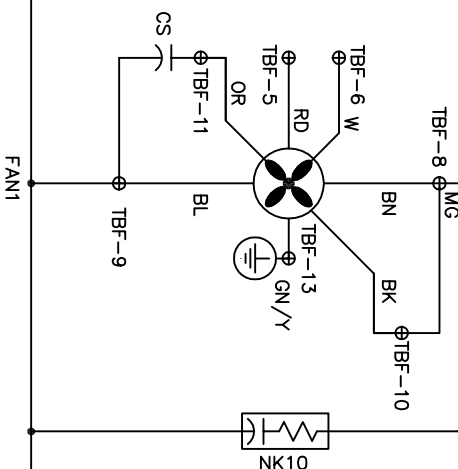
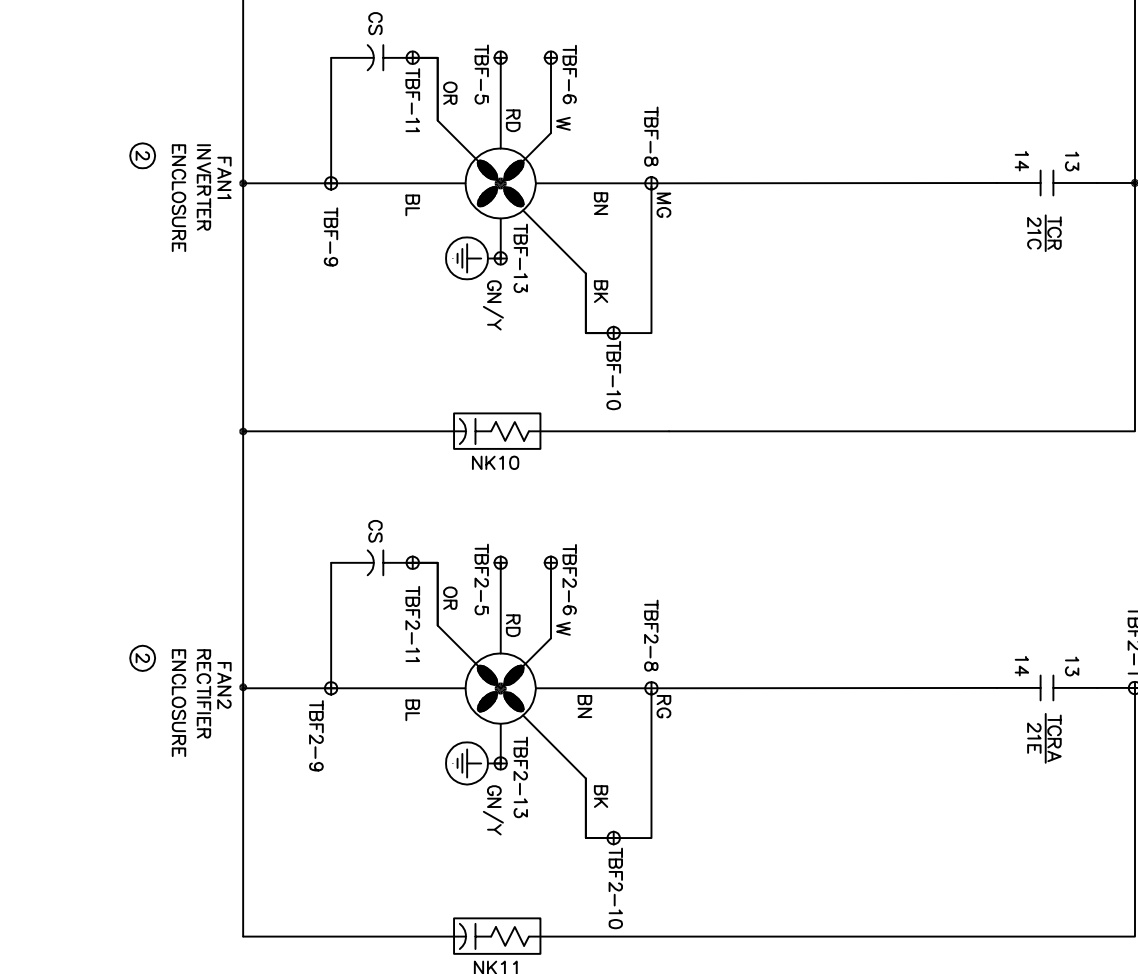
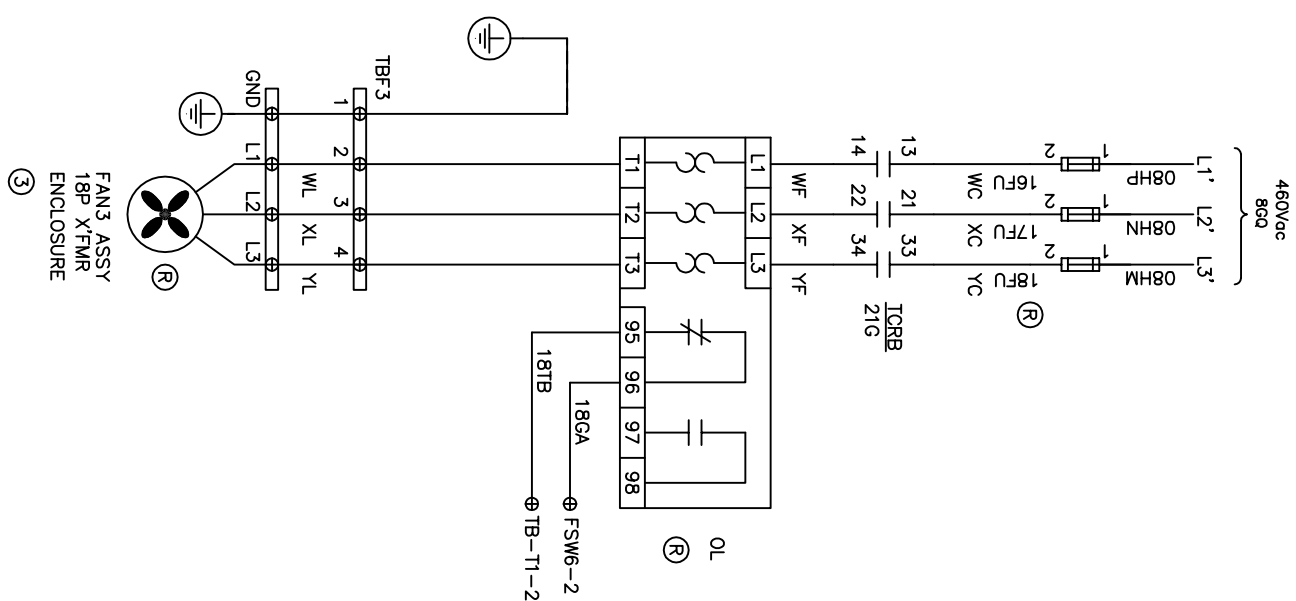
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TITLE: 12 PULSE RECTIFIER MODULE	
CUSTOMER: 64K01480KR00	
PROJECT NUMBER: STANDARD	

REVISION: 1	SCALE:
DRAWING NUMBER: 1808PE16	



- ① CONNECTED TO SUB-ASSEMBLY IN 18P CABINET
- ② HEATSINK FAN
- ③ EXHAUST TOP FAN

4				
3				
2				
1	2/7/14	ECO 88666 REV WIRE NAMES, WIRE COLORS	AJM	
0	04/25/12	FIRST ISSUE	XN	HP TF
REV	DATE	DESCRIPTION	BY	CHK APPR

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TITLE:

CONTROL CIRCUIT-TEMPERATURE CONTROL

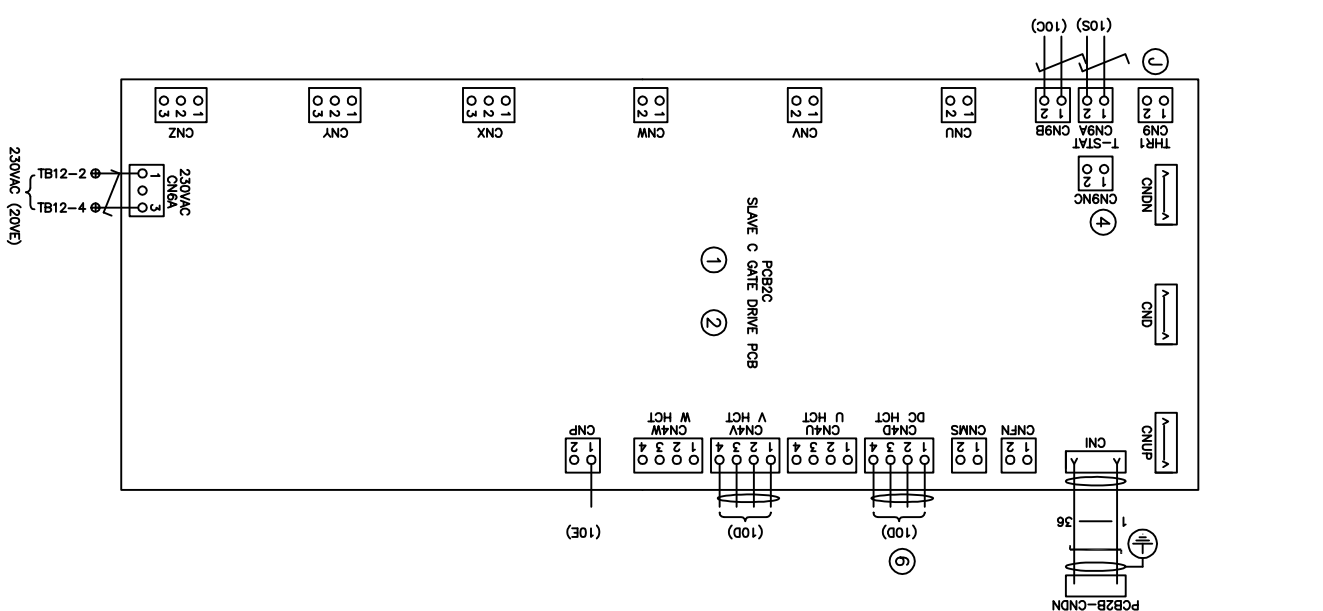
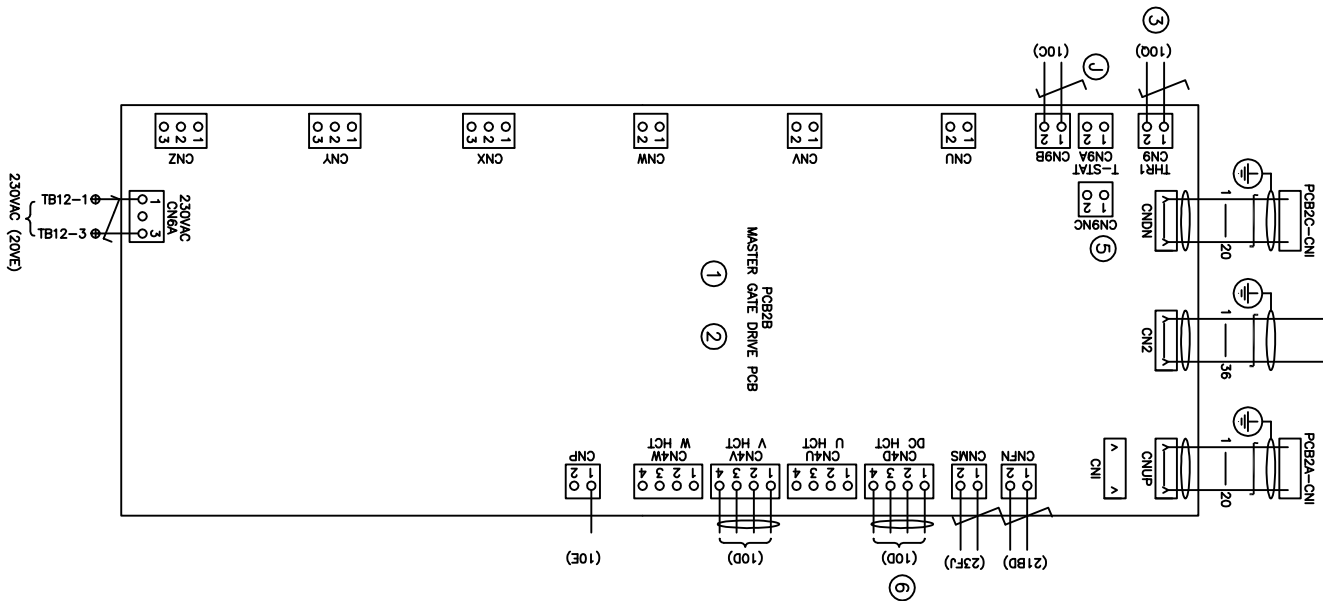
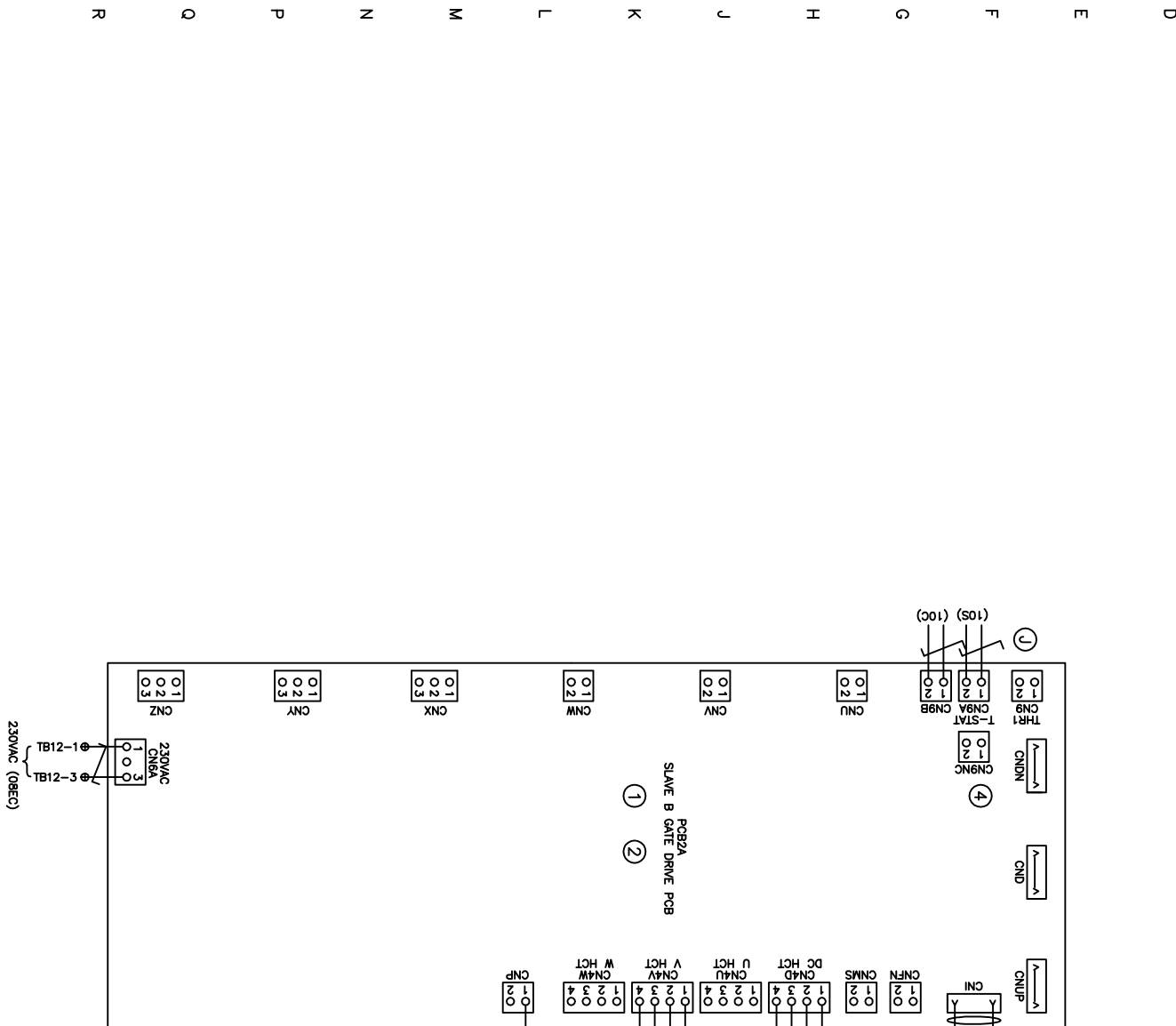
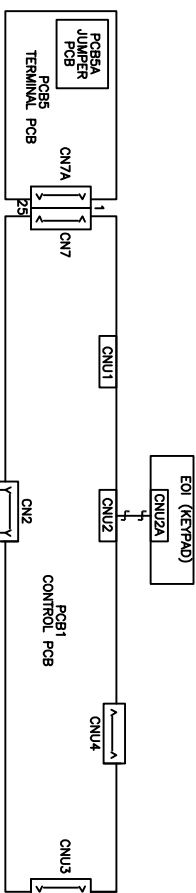
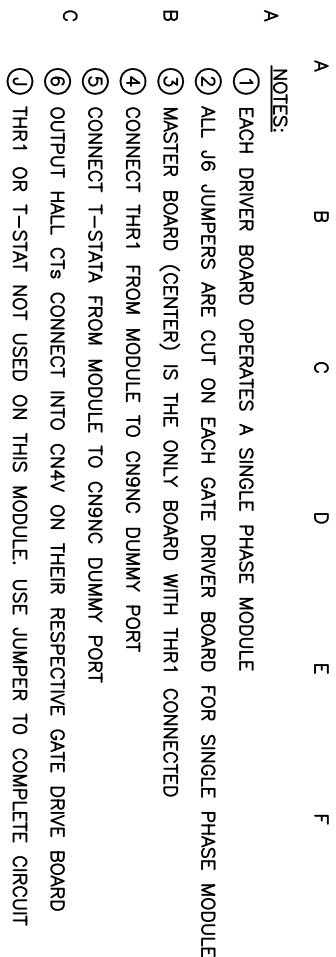
CUSTOMER:

PROJECT NUMBER:

DRAWING NUMBER:

REVISION:

SCALE:



4				
3				
2				
1	3/24/14	ECO 88666 REMOVE GATE-EMITTER LEADS	ALM	
0	04/23/12	FIRST ISSUE	XN	HP TF
REV	DATE	DESCRIPTION	BY	CHK APPR

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TITLE:

PCB INTERCONNECTIONS

WX9M480AX

CUSTOMER:

PROJECT NUMBER:

STANDARD

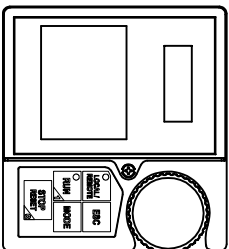
DRAWING NUMBER:

1808PE29

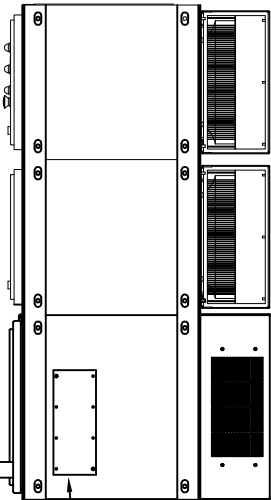
REVISION:	SCALE:
1	

LEGEND

- H – GROUND BUS BAR
- I – INPUT TERMINATION LUGS (1200A CB)
750KVA 4 x (3/0~500MCM)
- K – OUTPUT TERMINATION LUGS
750KVA 4 x (1/0~750MCM)



KEYPAD DETAILED VIEW ①

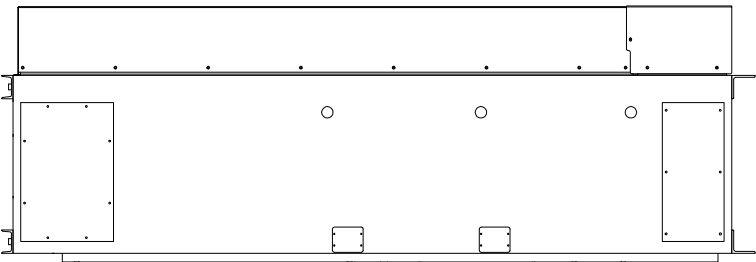


TOP VIEW

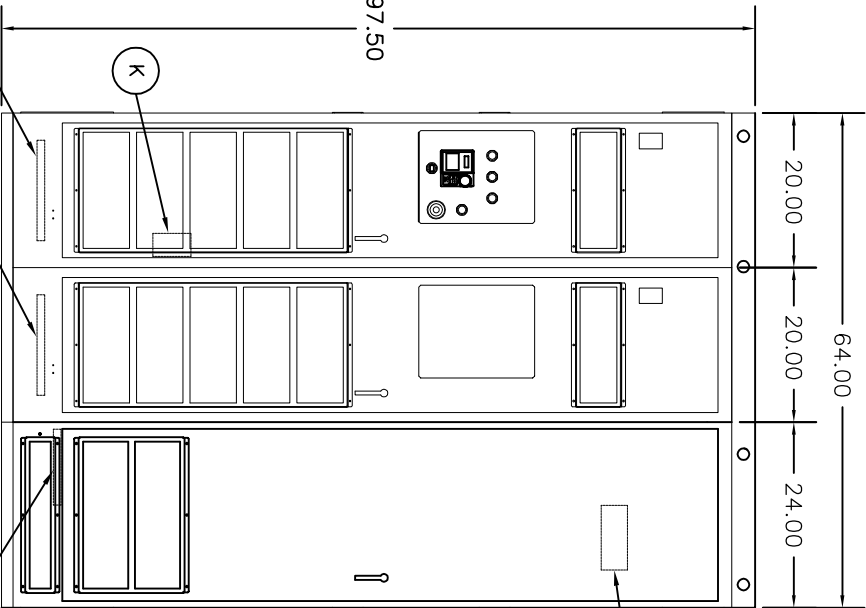
4 x 12 [102 x 305]
AVAILABLE AREA FOR
TOP ENTRY WITH
REMOVABLE PLATE



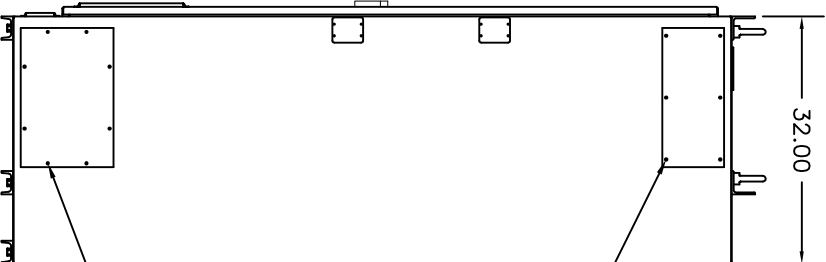
REAR VIEW



LEFT SIDE VIEW



FRONT VIEW



RIGHT SIDE VIEW

6 x 16 [152 x 406]
AVAILABLE AREA FOR
ACCESS TO XFMR WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

6 x 16 [152 x 406]
AVAILABLE AREA FOR
DC BUS ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

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REMOVABLE PLATE

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REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
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REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

10 x 16 [254 x 406]
AVAILABLE AREA FOR
CONDUCTOR ENTRY WITH
REMOVABLE PLATE

NOTES

- DIMENSIONS ARE IN INCHES [IN].
- DIMENSIONS FOR REFERENCE ONLY.
- WEIGHT: APPROX. 4476lbs [2031kg]
- COLOR: GRAY
- 18 PULSE
- INPUT/OUTPUT TERMINATION BENDING
- SPACE IN ACCORDANCE WITH NEC TABLE 312-6(b).
- LUGS LISTED DO NOT NECESSARILY INDICATE PROPER CABLE SIZING, INPUT, OUTPUT, AND GROUND CABLES MUST BE SIZED ACCORDING TO NEC OR APPLICABLE LOCAL STANDARDS.

① STANDARD KEYPAD

4					
3					
2					
1					
0	04/01/13	FIRST ISSUE	MM	XN	TF
REV	DATE	DESCRIPTION	BY	CHK	APPR

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TITLE:	ENCLOSURE OUTLINE
CUSTOMER:	WX9480KAXAADW
PROJECT NUMBER:	

REVISION:	1	SCALE:	1.0=24.0
DRAWING NUMBER:	1808PE31		