

CUST. NAME: ???

PROJECT NO.: ???

P.O. NUMBER: ???

DESCRIPTION: TOSVERT-300MTX, 4160V, 447KVA~1340KVA  
MTXA44(050S-150S)AA

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	SKT42100	0	DRAWING LIST
01	---	--	----
02	SKT42102	0	EQUIPMENT SPECIFICATION
03	SKT42103	0	GROUNDING PROCEDURE
04	SKT42104	0	EXAMPLE SCHEMATIC
05	SKT42105	0	RATING SHEET
06	---	--	----
07	SKT42107	0	ONE-LINE DIAGRAM
08	---	--	----
09	---	--	----
10	SKT42110	0	THREE-LINE DIAGRAM
11	SKT42111	0	MAIN CIRCUIT
12	SKT42112	0	POWER MODULE - RECTIFIER
13	SKT42113	0	POWER MODULE - INVERTER
14	SKT42114	0	POWER MODULE - OPTICAL INTERFACE
15	SKT42115	0	CONTROL POWER AND FAN CIRCUITS

NO	DRAWING NO	REV	DRAWING DESCRIPTION
16	SKT42116	0	PCB INTERCONNECTION (1)
17	SKT42117	0	PCB INTERCONNECTION (2)
18	SKT42118	0	EXTERNAL I/O (1)
19	SKT42119	0	EXTERNAL I/O (2)
20	SKT42120	0	CONTROL CIRCUIT
21	---	--	----
22	---	--	----
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25	---	--	----
26	---	--	----
27	---	--	----
28	SKT42128	0	INTERCONNECTIONS
29	---	--	----
30	SKT42130	0	ENCLOSURE OUTLINE
31	SKT42131	0	INSTRUCTIONS FOR JOINING SHIPPING SECTIONS

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TITLE: DRAWING LIST  
 TOSVERT-300MTX  
 CUSTOMER: PROJECT NUMBER:

REVISION: 0 SCALE: NTS  
 FOR REFERENCE ONLY  
 DRAWING NUMBER: SKT42100

TOSVERT-300MTX SPECIFICATION LIST

CUSTOMER : ???  
 APPLICATION : ???  
 : ???  
 EQUIPMENT : TOSVERT-300MTX  
 TYPE FORM : MTXA44(050S-150S)AA  
 AC MAIN POWER :  2400V, 60HZ  
 4160V, 60HZ  
 OTHER:  
 CONTROL POWER :  INTERNAL 120V, 60HZ  
 INTERNAL 230V, 60HZ  
 EXTERNAL 230V, 60HZ  
 AC OUTPUT VOLTAGE :  2000V  
 4000V  
 AC OUTPUT CURRENT : 62 - 186 AMPS  
 CAPACITY : 447 - 1340 KVA  
 : 389 - 1166 KW  
 OVERLOAD :  STANDARD  
 100% - CONTINUOUS  
 115% - 60 SECONDS  
 OPTION  
 100% - CONTINUOUS  
 200% - 60 SECONDS  
 OPTIONAL EQUIP : -----

CONTROL SPECIFICATION

SOFTWARE VERSION :  A3TF08A (VOLT/HZ - STANDARD)  
 A3DV04A (VECTOR CONTROL W/OUT AUTOTUNE)  
 CONTROL :  ASPR (SENSOR SPEED CONTROL)  
 1X TYPE RESOLVER  
 4X TYPE RESOLVER  
 PG \_\_\_\_\_ PPR  
 ASPR (SENSORLESS SPEED CONTROL)  
 WITH AFWR  
 TORQUE CONTROL  
 OTHER:  
 SPEED REFERENCE (INPUT) :  KEYPAD  
 ± 10V  
 4~20mA  
 OTHER:  
 DIGITAL - ANALOG (OUTPUT) :  STANDARD  
 SPECIAL  
 D/A01: SP\_F  
 D/A02: I1\_F  
 D/A03: VI\_POWER/F064  
 OTHER:

MOTOR SPECIFICATION (APPLICATION RATING)

TYPE FORM : -----  
 RATING : ??? HP  
 : ??? V  
 : ??? A  
 : ??? SF  
 SPEED (BASE/TOP) : \_\_\_\_/\_\_\_\_RPM  
 ROTATION :  CW (FACING NON-DRIVE END)  
 CCW

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TITLE:  
 EQUIPMENT SPECIFICATION  
 TOSVERT-300MTX  
 CUSTOMER: \_\_\_\_\_ PROJECT NUMBER: \_\_\_\_\_

REVISION: 0 SCALE:  
 FOR REFERENCE ONLY  
 DRAWING NUMBER:  
 SKT42102

STANDARD PANEL GROUNDING PROCEDURES  
TO BE FOLLOWED AT INSTALLATION

SCOPE

THIS DRAWING WILL DOCUMENT PROCEDURES WHICH ARE TO BE FOLLOWED BY CUSTOMER'S CONTRACTOR WHEN INSTALLING INDUSTRIAL DRIVE AND MOTOR SYSTEMS

IN ORDER TO UNDERSTAND THE REASONS FOR MANY OF THE PRACTICES THAT ARE RECOMMENDED. IT IS HELPFUL TO SEGREGATE THESE PRACTICES INTO TWO CATEGORIES AS FOLLOWS:

1) THOSE GENERALLY REFERRED TO AS EQUIPMENT GROUNDING PRACTICES WHOSE PURPOSES ARE:

- TO PROTECT AGAINST THE RISK OF ELECTRICAL SHOCK OR BURN.
- TO PROTECT THE EQUIPMENT FROM FIRE OR OTHER DAMAGE DUE TO GROUND FAULTS OR LIGHTNING STRIKES.

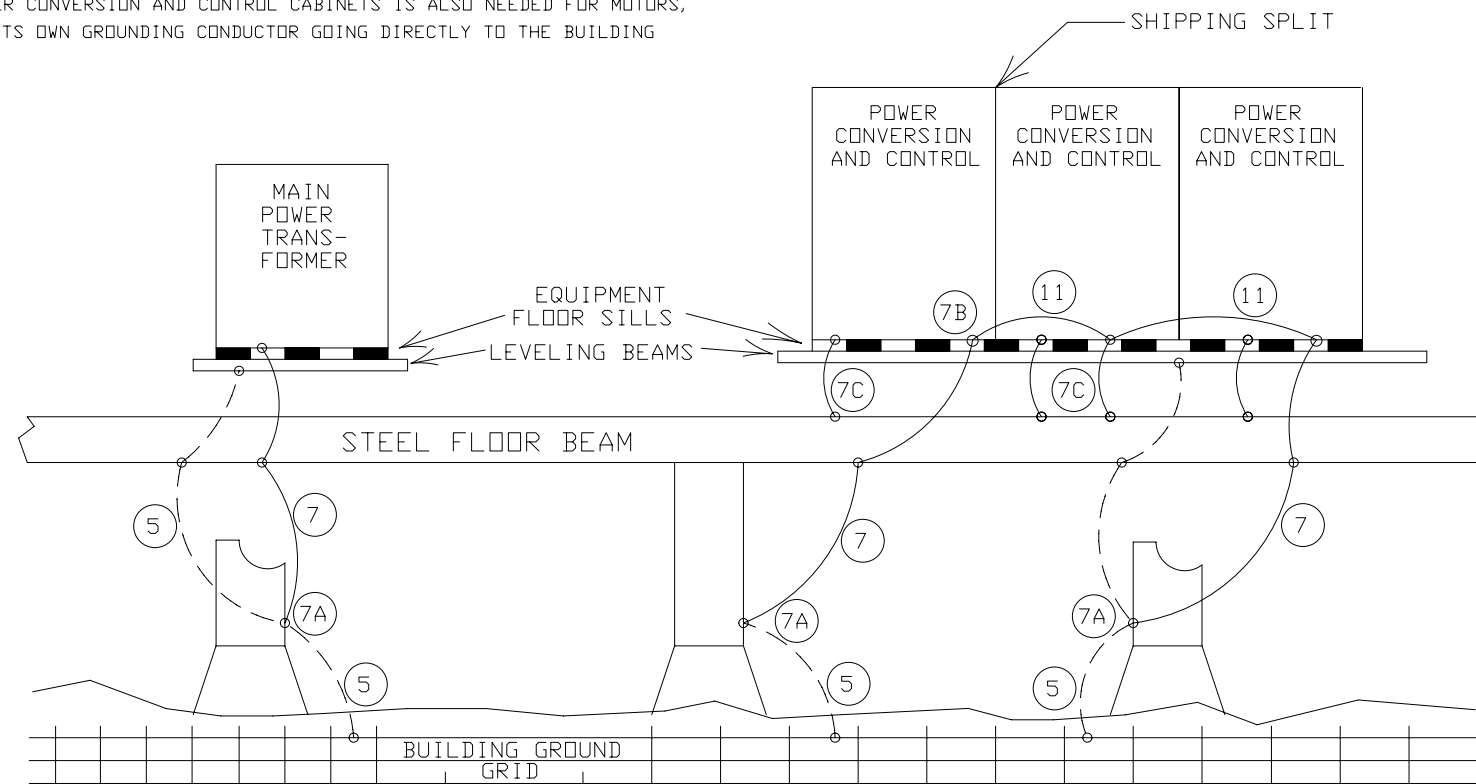
THESE PRACTICES WOULD TYPICALLY BE FOLLOWED BY THE CONTRACTOR IN COMPLIANCE WITH NEC OR OTHER CODE REQUIREMENTS.  
2) THOSE PRACTICES WHICH MAKE THE EQUIPMENT IMMUNE TO ELECTRICAL NOISE ORIGINATING WITHIN OR OUTSIDE THE EQUIPMENT. THESE COMPLEMENT THE EQUIPMENT GROUNDING AND LEVEL WIRING PRACTICES IN PROVIDING NOISE IMMUNITY.

EQUIPMENT GROUNDING

- 1) ALL METAL BUILDING STRUCTURES SUCH AS COLUMNS, FLOOR BEAMS, ETC. SHOULD BE GROUNDED BY AN INTERCONNECTING HEAVY GROUND CABLE (5) IN ACCORDANCE WITH RECOMMENDED BUILDING PRACTICES AND LOCAL CODES.
- 2) ALL ELECTRICAL JOINTS AND CONNECTIONS TO THE BUILDING STRUCTURES SHOULD BE BRAZED OR EXOTHERMIC WELDED TO ASSURE THAT THE REQUIRED GOOD ELECTRICAL AND MECHANICAL PROPERTIES DO NOT DETERIORATE WITH THE PASSAGE OF TIME.
- 3) ALL PANELS SHOULD BE GROUNDED AT LEAST ONE POINT USING A HEAVY SAFETY CABLE (7). PANELS GREATER THAN 15 FT LONG SHOULD BE GROUNDED AT BOTH ENDS. THE GROUND CABLE NEEDS TO BE AT LEAST 1/0 AWG FOR MECHANICAL REASONS AND NEED NOT BE GREATER THAN 500 MCM. THIS CABLE IS USUALLY NON-INSULATED.
- 4) THE SAFETY GROUND CABLE (7) SHOULD BE BRAZED OR EXOTHERMIC WELDED (7A) TO A BUILDING STEEL STRUCTURE THAT IS CLOSEST TO THE PANEL, PREFERABLY WITHIN 25 FT.
- 5) THE EQUIPMENT END (7B) SHOULD BE BOLTED OR BRAZED TO A GROUND TERMINATION POINT ON THE PANEL.
- 6) THE EQUIPMENT GROUNDING TERMINAL IS A COPPER GROUND BUS OR STUB BUS BONDED TO THE PANEL ENCLOSURE USING BRAZING OR BOLTING IN SUCH MANNER THAT THE CONDUCTING PATH HAS A RESISTANCE OF 0.1 OHMS OR LESS.
- 7) THE GROUNDING CONDUCTORS MUST BE CAPABLE OF HANDLING ANTICIPATED GROUND FAULT CURRENTS.
- 8) THERE SHOULD BE A JUMPER CABLE (11) ACROSS THE GROUND BUS FLOOR SILL BETWEEN ANY SHIPPING SPLITS AND SIZED THE SAME AS THE SAFETY GROUND UNLESS OTHERWISE SPECIFIED.
- 9) THE PROTECTIVE GROUNDING DESCRIBED ABOVE FOR POWER CONVERSION AND CONTROL CABINETS IS ALSO NEEDED FOR MOTORS, TRANSFORMERS AND REACTORS. EACH OF THESE SHOULD HAVE ITS OWN GROUNDING CONDUCTOR GOING DIRECTLY TO THE BUILDING GROUND GRID.

GROUNDING PROCEDURES NEEDED TO ENSURE ELECTRICAL NOISE IMMUNITY

- 1) LEVELING BEAMS, STEEL MESH, GALVANIZED FLOOR, DECKING, ETC. SHOULD BE INSTALLED PRIOR TO PLACING THE EQUIPMENT. THESE SHOULD BE CONNECTED TO THE BUILDING GROUND SYSTEM USING A BRAZING OR EXOTHERMIC WELDING PROCESS.
- 2) GROUNDING LEVELING BEAMS ARE NOT AN ABSOLUTE NECESSITY FOR SATISFACTORY OPERATION. ON NEW CONSTRUCTION SUCH BEAMS CAN BE PROVIDED WITH LITTLE DIFFICULTY. FOR EXISTING CONSTRUCTION IT USUALLY WILL BE MORE DIFFICULT, IN WHICH CASE THE LEVELING BEAMS MAY BE DISPENSED WITH, PROVIDED OTHER GROUNDED STRUCTURES SUCH AS COLUMNS AND FLOOR BEAMS ARE WITHIN 10 FEET OF THE EQUIPMENT.
- 3) AFTER SETTING THE CONTROL PANELS IN PLACE, THE PERIPHERY OF THE CONTROL PANELS SHOULD BE SPOT WELDED TO THE STEEL CHANNELS APPROXIMATELY EVERY 18 INCHES. THIS CREATES A VERY GOOD HIGH FREQUENCY GROUND PLANE. CARE SHOULD BE TAKEN TO AVOID ELECTRONIC COMPONENT DAMAGE DURING THE WELDING PROCESS BY KEEPING THE WELDED RETURN PATH AS CLOSE AS POSSIBLE TO THE WORK POSITION. THAT IS, THE RETURN PATH SHOULD ALWAYS BE WITHIN 3 FEET OF THE ELECTRODE.
- 4) IF LEVELING BEAMS ARE NOT INSTALLED, A NUMBER OF GROUNDING CABLES (7C) SHOULD BE RUN FROM THE GROUND LUGS PROVIDED ON THE PANEL TO THE NEAREST GROUNDED COLUMN OR FLOOR BEAM, OR WIRE FLOOR MESH, ETC. THIS WILL PROVIDE THE NECESSARY HIGH FREQUENCY GROUND PLANE.



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TITLE:  
GROUNDING PROCEDURE  
TOSVERT-300MTX

CUSTOMER:

PROJECT NUMBER:

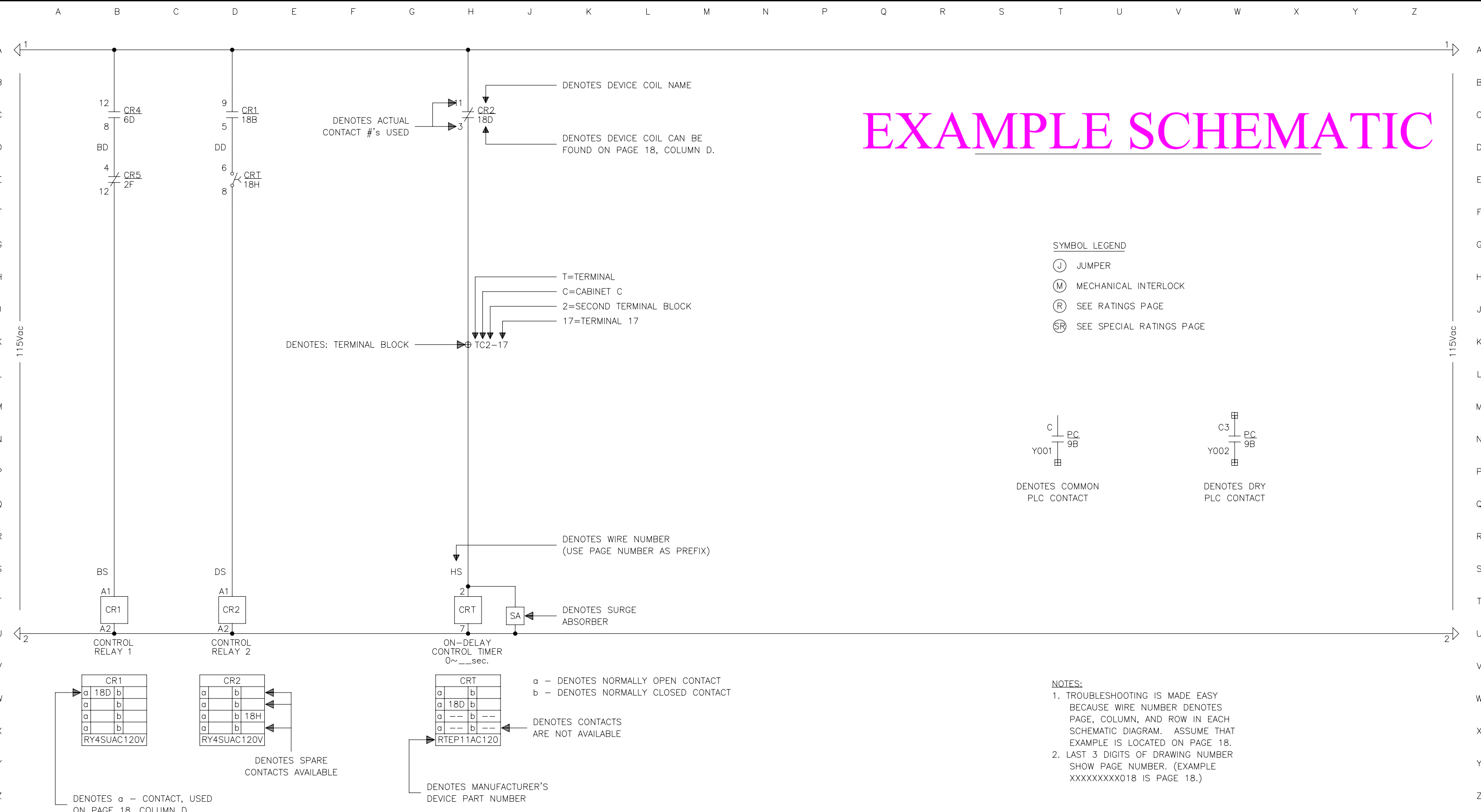
REVISION:  
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SCALE:

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DRAWING NUMBER:  
SKT42103

# EXAMPLE SCHEMATIC



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TITLE:  
EXAMPLE SCHEMATIC  
TOSVERT-300MTX

CUSTOMER:

PROJECT NUMBER:

REVISION:  
0

SCALE:

FOR REFERENCE ONLY

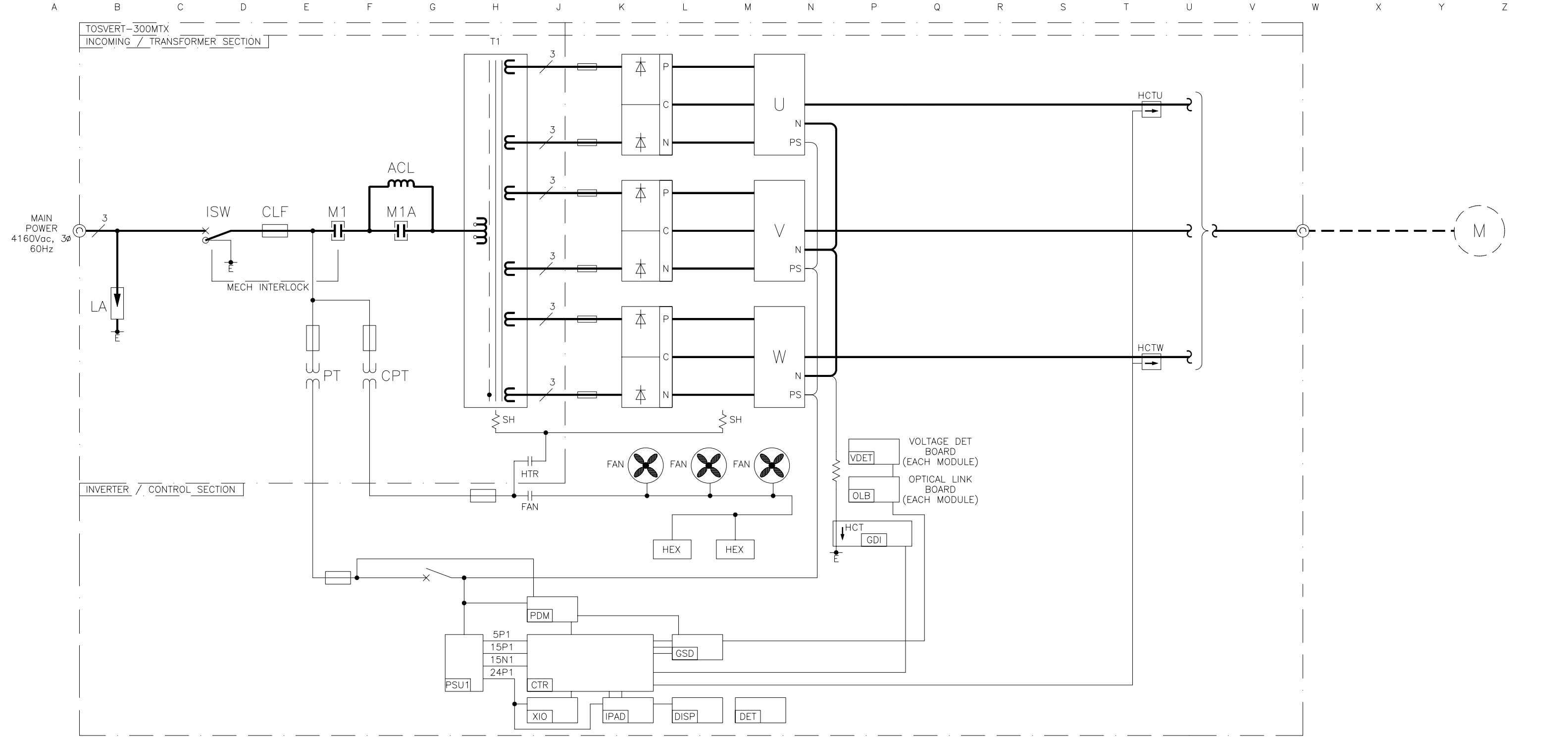
DRAWING NUMBER:  
SKT42104

DEVICE RATING			
PAGE No.	DEVICE	MTXA44(050S-150S)AA MAX. ??? kVA, 4160V, ???A, 3ø	
		TYPE FORM	RATING
10	10LA	9L23AXX406AHS	6KV
	10ISW1	LCV5010G01G01	360A, 6.6kV
	10FU1~10FU3	SEE TABLE A	SEE TABLE A
	10M1	HCV-5HA	360A, 6.6kV
	10M1A	HCV-5HA	360A, 6.6kV
	10ACL	SEE TABLE A	SEE TABLE A
	10F4~7	A480T2E	2E, 4.8kV
	10PT1, 2	CPT3-60-0.5-422	500VA, 4200:120V
	10CPT1	CPT3-60-2-4161FF	2kVA, 4160:240/120
	10F8, 9	A480T2E	2E, 4.8kV
11	HCTU, HCTW	SEE TABLE A	SEE TABLE A
	11T1	SEE TABLE A	SEE TABLE A
	11R11	FST200	100k OHM, 225W
	GDI	ARND-8216A	----
12	FR, S, T (X18)	15URF91TTF0160	1500V, 160A
	DIODE	DD200S665K1	6500V, 200A, 2 IN 1
	CP1, CN1		2X 1400uF, 2000VDC
	RP11~14/RN11~14	IRH100	50k OHM, 100W, 4KV
	CHD	PC61910P110A	----
13	IGBT	CM400HG-66H	3300V, 400A
	DIODE	RM1200DG-66S	3300V, 1200A, 2 IN 1
	RGM	PC61910P106A	----
	VDET	ARND-3127B	----
	IGD-A2, B2	PC61910P075G	----
	IGD-A1, B1	PC61910P075H	----
	PS1	ZWQ80-5224/A	120V:+5,+/-15, 24V 80W
	T1	167805	120:120, 100VA
	FU1, 2	A480T1E	1E, 4.8kV
14	OLB	ARND-8205C	----
	TH1, 2	CA-175-QC	175°F

DEVICE RATING			
PAGE No.	DEVICE	MTXA44(050S-150S)AA MAX. ??? kVA, 4160V, ???A, 3ø	
		TYPE FORM	RATING
15	15MCB2	24525 (C60N)	240VAC, 20A, 2P
	15V1	CA2KN22U7	240V, 2ø2b
	15F1, 2	ATMR-5	5A, 600VAC
	PDM	PC61910P107A	----
	15DS1, 2	TABD	10A, 600V
	15F3	ATMR-10	10A, 600VAC
	15FN1~3	RH31M-4/130823	230V, 1PH, 160W, 1200CFM
	15C1~3	SFA37S4K219B	370V, 4uF
	15HEX1, 2	PS060100B-P2	230V, 1.0A, 1PH, 100W/*F
	15PS1	ZWQ80-5224/A	120/240:+5,+/-15,24V,80W
	15REC1	100JB6C	600V, 10A
	15D1	1N5406	600V, 3A
	15C1	HCGF5A2G102I	1000uF, 400VDC
	15R1	RBN50/8	25 OHM, 50W
15SH1~6	OT-1807 129840	240V, 750W	
15SH7~8	SGA1J6AP3	240V, 150W	
16	CTR	ARND-3110K	----
	GSD	ARND-3126B	----
	16R1,3	SEE TABLE A	SEE TABLE A
	16R2,4	SEE TABLE A	SEE TABLE A
17	IPAD	PC61910P114A	----
	DISP	PC61910P116	G7A
	XIO	ARND-3120C	----
18	BLR	CA4KN40BW3	24VDC, 4ø0b
20	MCR	CA2KN40F7	115V, 4ø0b
	20SS	ZB5-AD2/AZ105	----
		ZBE-101/102	300V, 10A
	20PB	ZB5-AS54/AZ105	PUSH-LOCK/TURN-RESET
		ZBE-101/102	300V, 10A
	20L1, 2	ZB5-AV04/AV03	----
		ZB5-AV3	115V
	HTR,FAN	CA2KN22F7	115V, 2ø2b

TABLE A															
MOTOR HP	DRIVE FLA	10FU1~10FU3		10ACL		HCTU,HCTW		11T1		FUSE		16R1,3		16R2,4	
		TYPE FORM	RATING	TYPE FORM	RATING	TYPE FORM	RATING	TYPE FORM	RATING	TYPE FORM	RATING	TYPE FORM	RATING	TYPE FORM	RATING
500	62	A055F1DORO-80E	80E, 5.5KV	PC34740P000	40mH	LA205-S	200A:100mA	PC32746P050	424kVA,4160V:1270V(6)	A70QS100-4IL	700V, 100A	RS2B	50 ohm, 3W, 1%	RS2B	40 ohm, 3W, 1%
1000	124	A055F1DORO-200E	200E, 5.5KV	PC34740P000	40mH	LA205-S	200A:100mA	PC32746P100	848kVA,4160V:1270V(6)	A70QS150-4IL	700V, 150A	RS2B	25 ohm, 3W, 1%	RS2B	20 ohm, 3W, 1%
1500	186	A055F2DTR0-250E	250E, 5.5KV	PC32740P150	17.1mH	LA305-S	300A:120mA	PC32746P150	1271kVA,4160V:1270V(6)	A70QS200-4IL	700V, 200A	RS2B	35 ohm, 3W, 1%	RS2B	3 ohm, 3W, 1%

4						<p style="text-align: center;"><b>TOSHIBA</b> TOSHIBA INTERNATIONAL CORPORATION MADE IN HOUSTON, TEXAS U.S.A.</p> <p>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.</p>	TITLE: RATING SHEET TOSVERT-300MTX				REVISION: 0	SCALE: NTS
3							CUSTOMER:				FOR REFERENCE ONLY	
2							PROJECT NUMBER:				DRAWING NUMBER:	
1											SKT42105	
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REV	DATE	DESCRIPTION	BY	CHK	APPR							



- PRINTED CIRCUIT BOARD LEGEND**
- CTR - MAIN CONTROLLER
  - DISP - DISPLAY BOARD
  - GDI - GROUND DETECT INTERFACE BOARD
  - GSD - GATE SIGNAL DISTRIBUTOR
  - IPAD - DISPLAY INTERFACE BOARD
  - OLB - OPTICAL LINK BOARD
  - PDM - PHASE DETECTION MODULE
  - PSU1 - POWER SUPPLY 1
  - VDET - DC VOLTAGE DETECTION MODULE
  - XIO - EXTERNAL I/O INTERFACE BOARD

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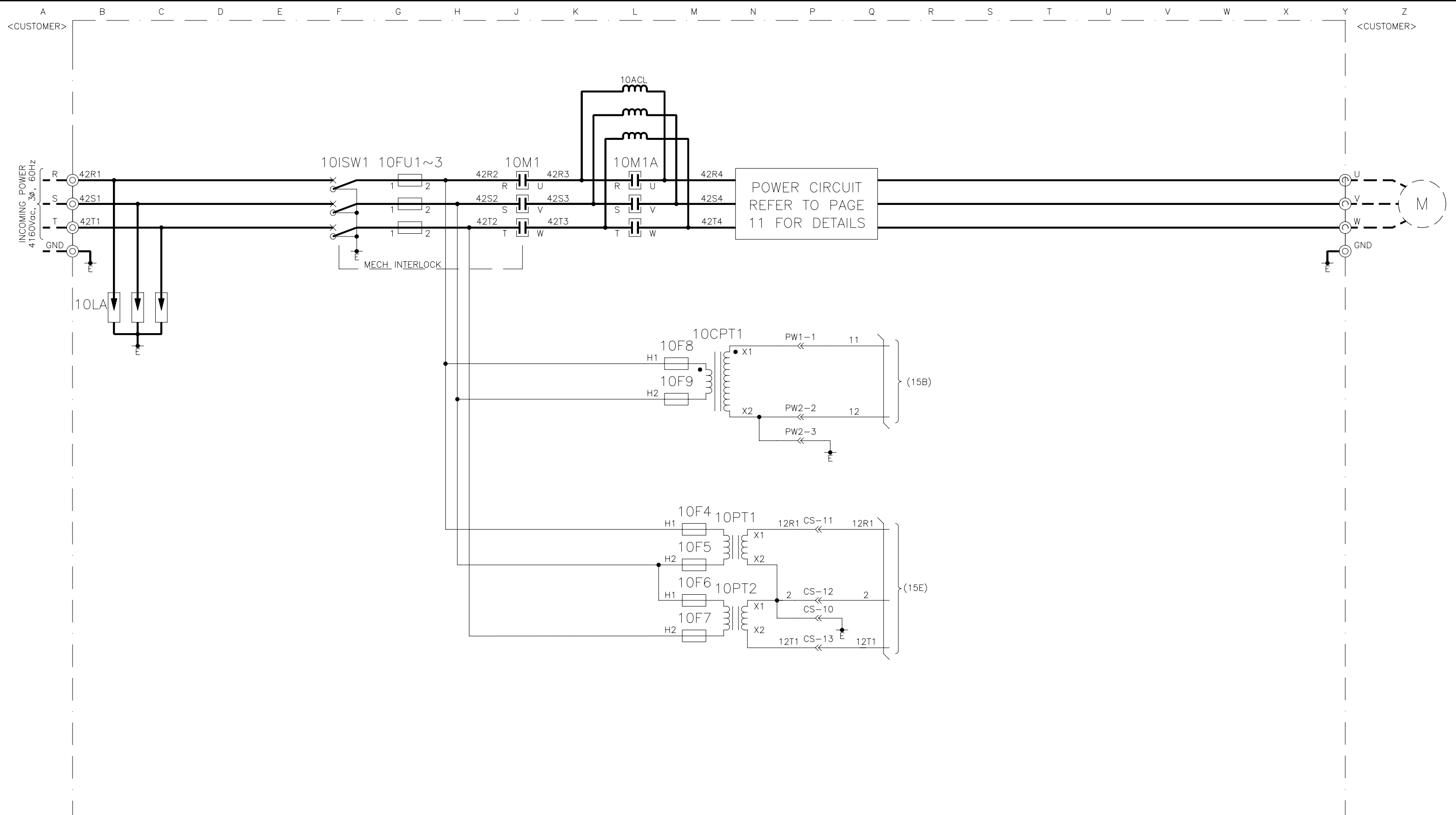
TITLE: ONE-LINE DIAGRAM  
 TOSVERT-300MTX

CUSTOMER: PROJECT NUMBER:

REVISION: 0 SCALE: NTS

FOR REFERENCE ONLY

DRAWING NUMBER: SKT42107



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TITLE:  
 THREE-LINE DIAGRAM  
 TOSVERT-300MTX

CUSTOMER:

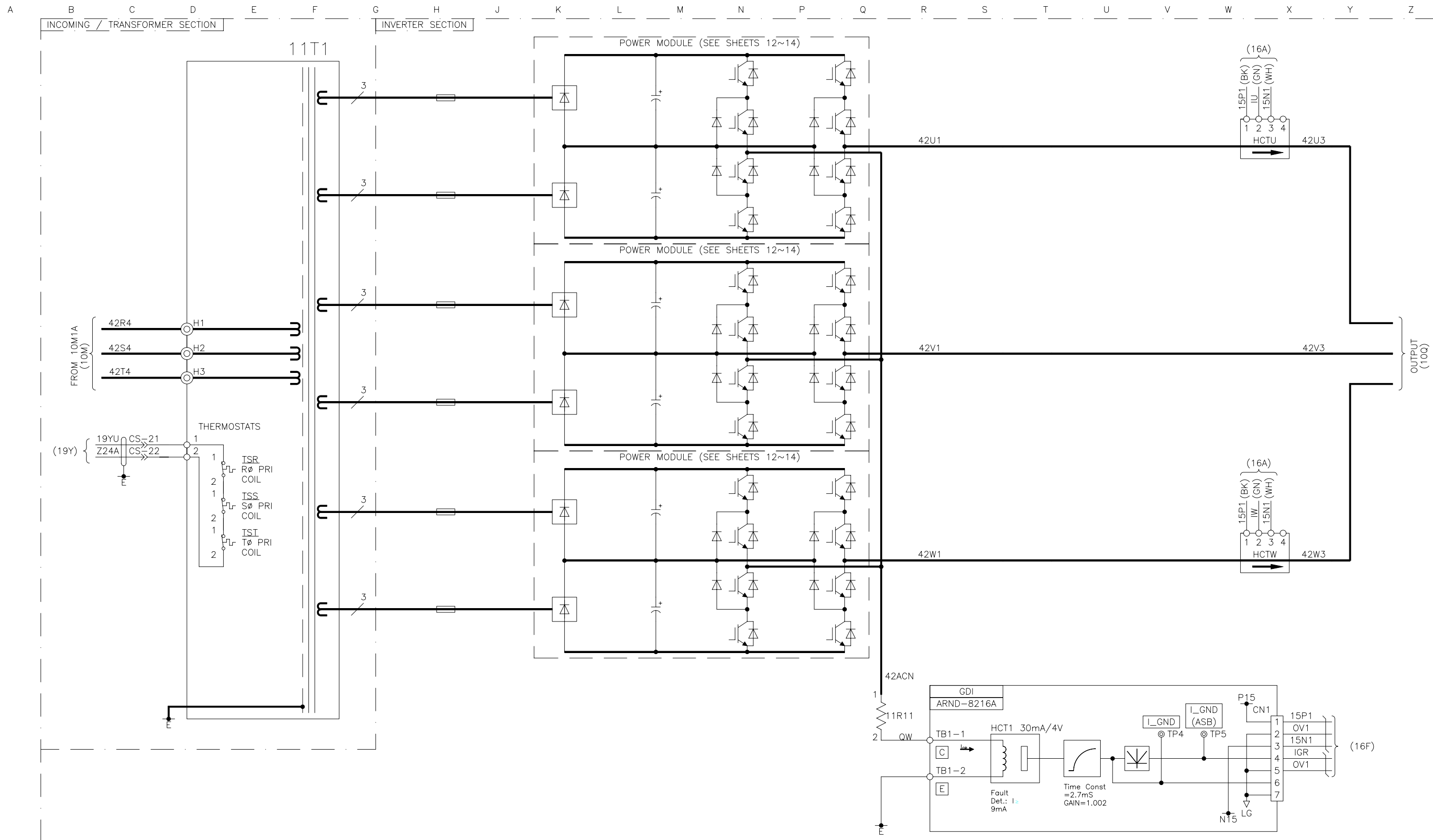
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 SKT42110



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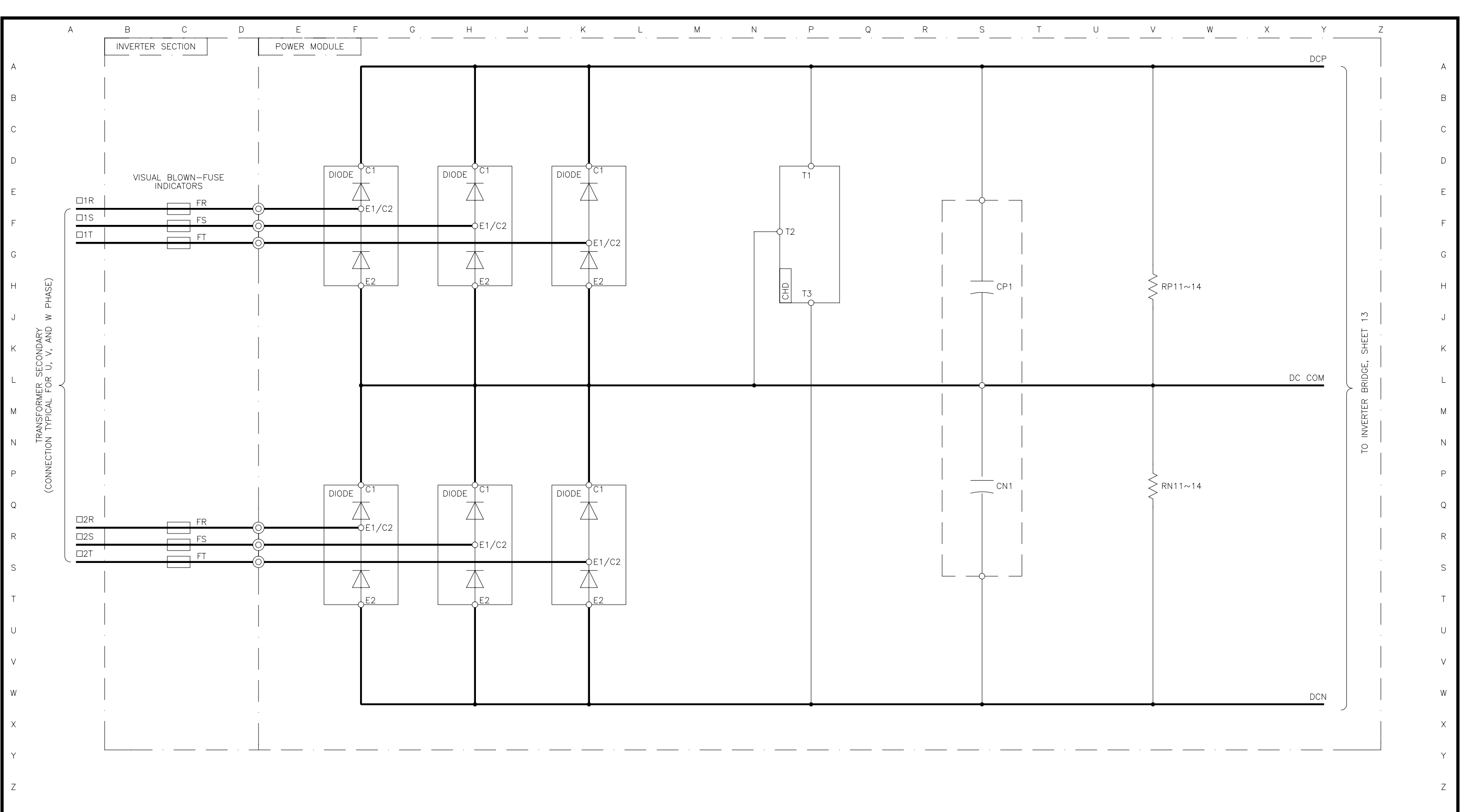
TITLE: MAIN CIRCUIT  
 TOSVERT-300MTX

CUSTOMER: PROJECT NUMBER:

REVISION: 0 SCALE: NTS

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DRAWING NUMBER: SKT42111



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TITLE:  
 POWER MODULE - RECTIFIER  
 TOSVERT-300MTX

CUSTOMER:

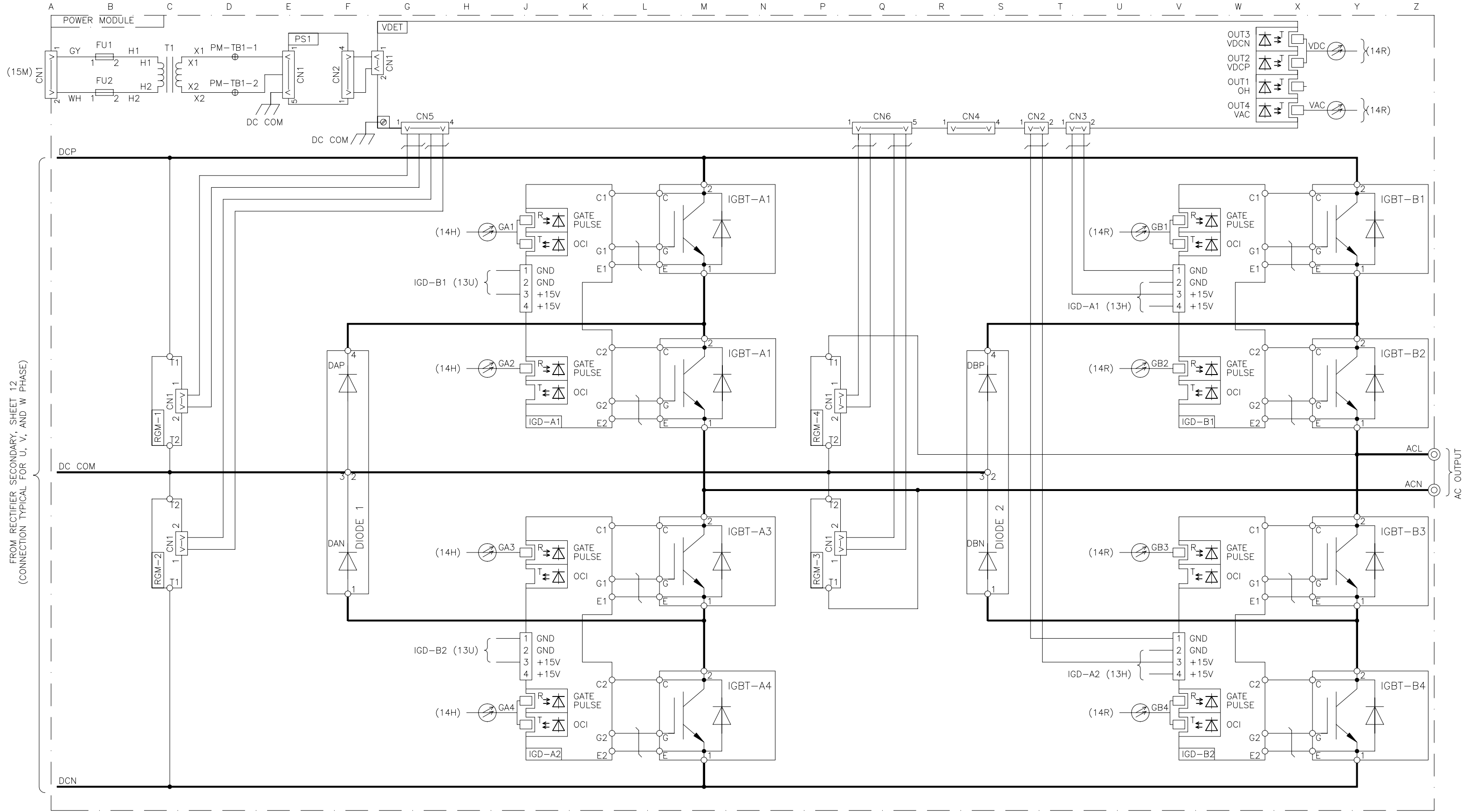
PROJECT NUMBER:

REVISION:  
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SCALE:  
 NTS

FOR REFERENCE ONLY

DRAWING NUMBER:  
 SKT42112



FROM RECTIFIER SECONDARY, SHEET 12  
(CONNECTION TYPICAL FOR U, V, AND W PHASE)

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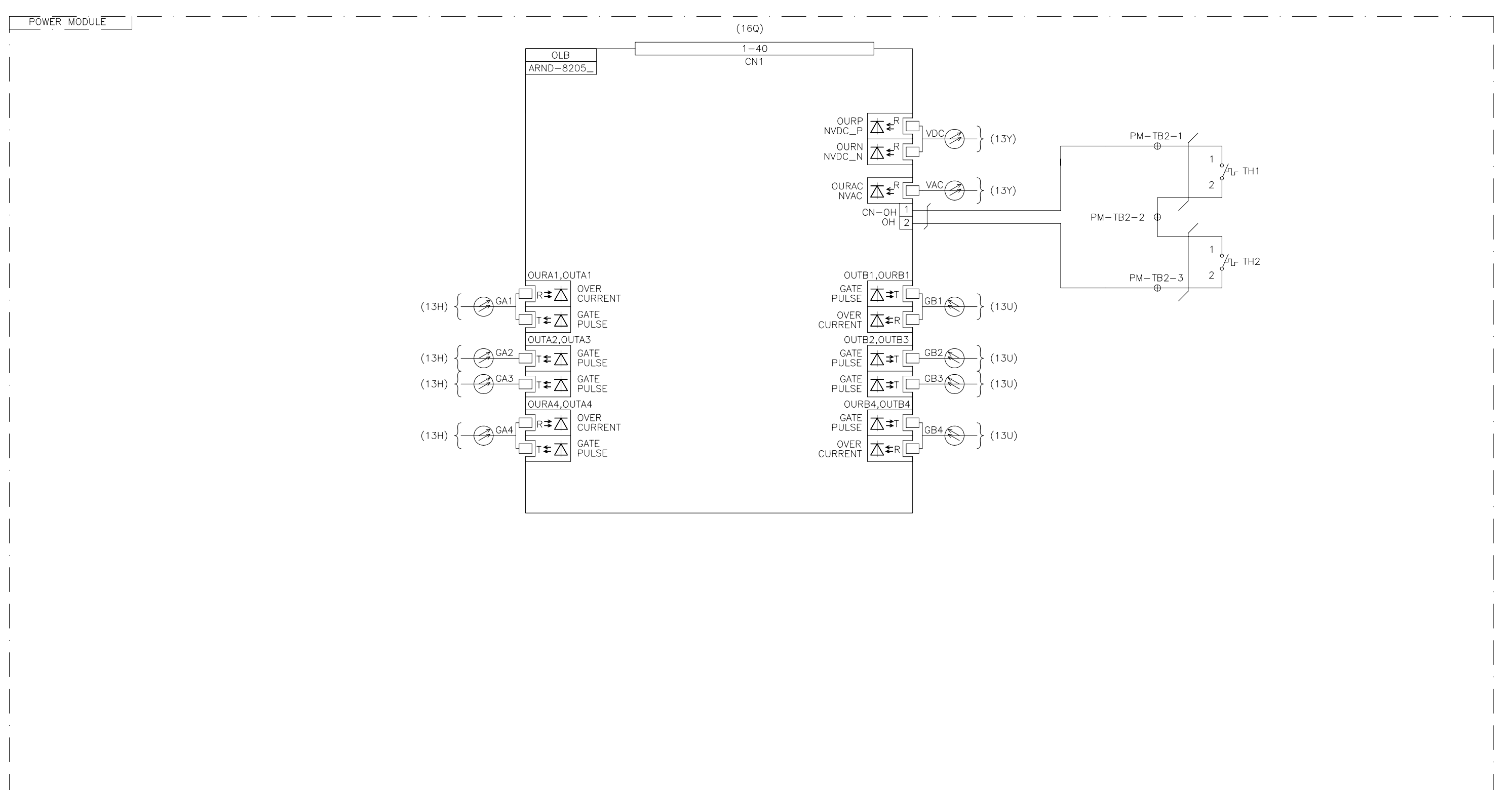
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TITLE: POWER MODULE – INVERTER  
TOSVERT-300MTX

CUSTOMER: \_\_\_\_\_ PROJECT NUMBER: \_\_\_\_\_

REVISION: 0	SCALE: NTS
FOR REFERENCE ONLY	
DRAWING NUMBER: SKT42113	

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

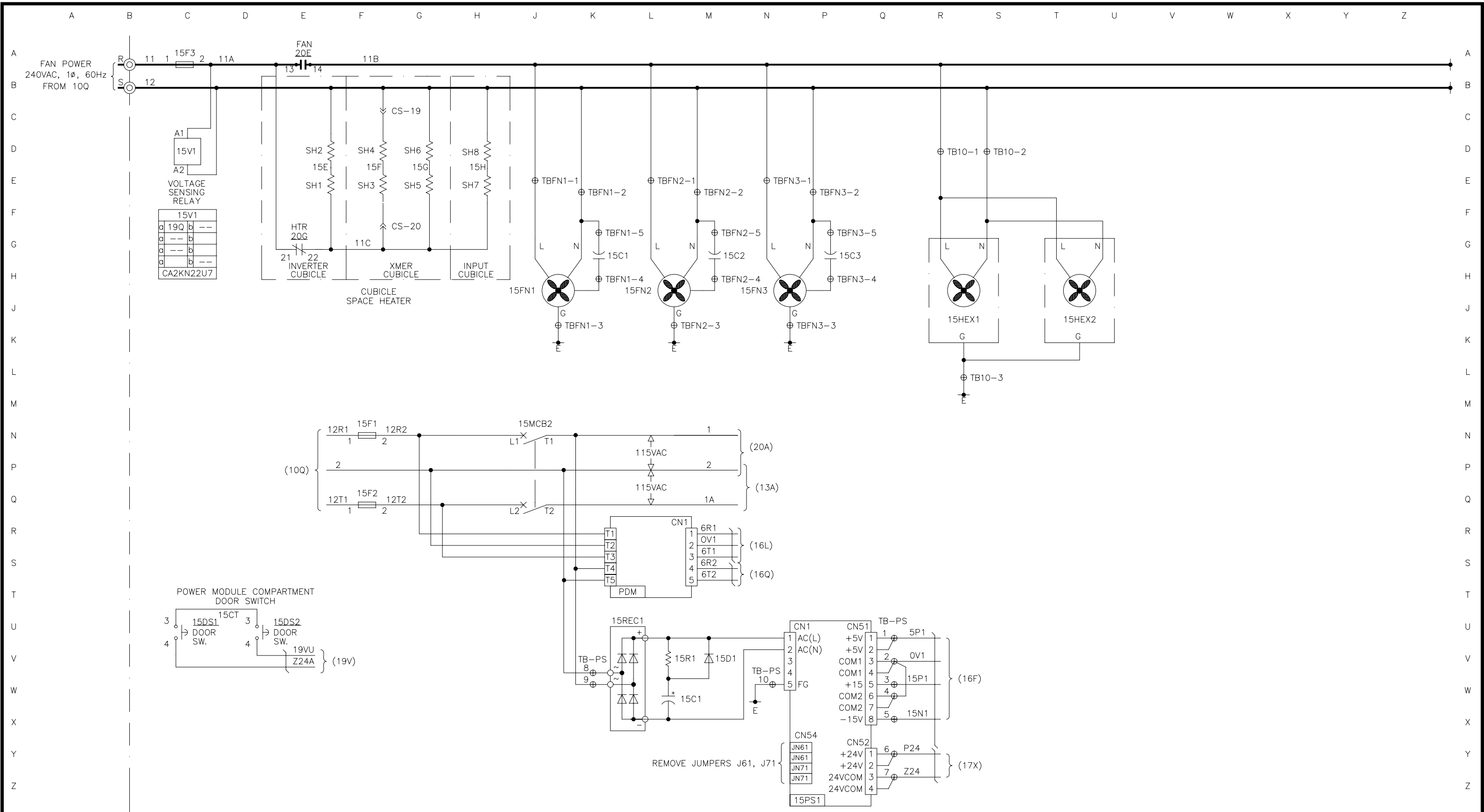


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TITLE:  
 POWER MODULE – OPTICAL INTERFACE  
 TOSVERT-300MTX  
 CUSTOMER:  
 PROJECT NUMBER:

REVISION:  
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 SCALE:  
 NTS  
 FOR REFERENCE ONLY  
 DRAWING NUMBER:  
 SKT42114



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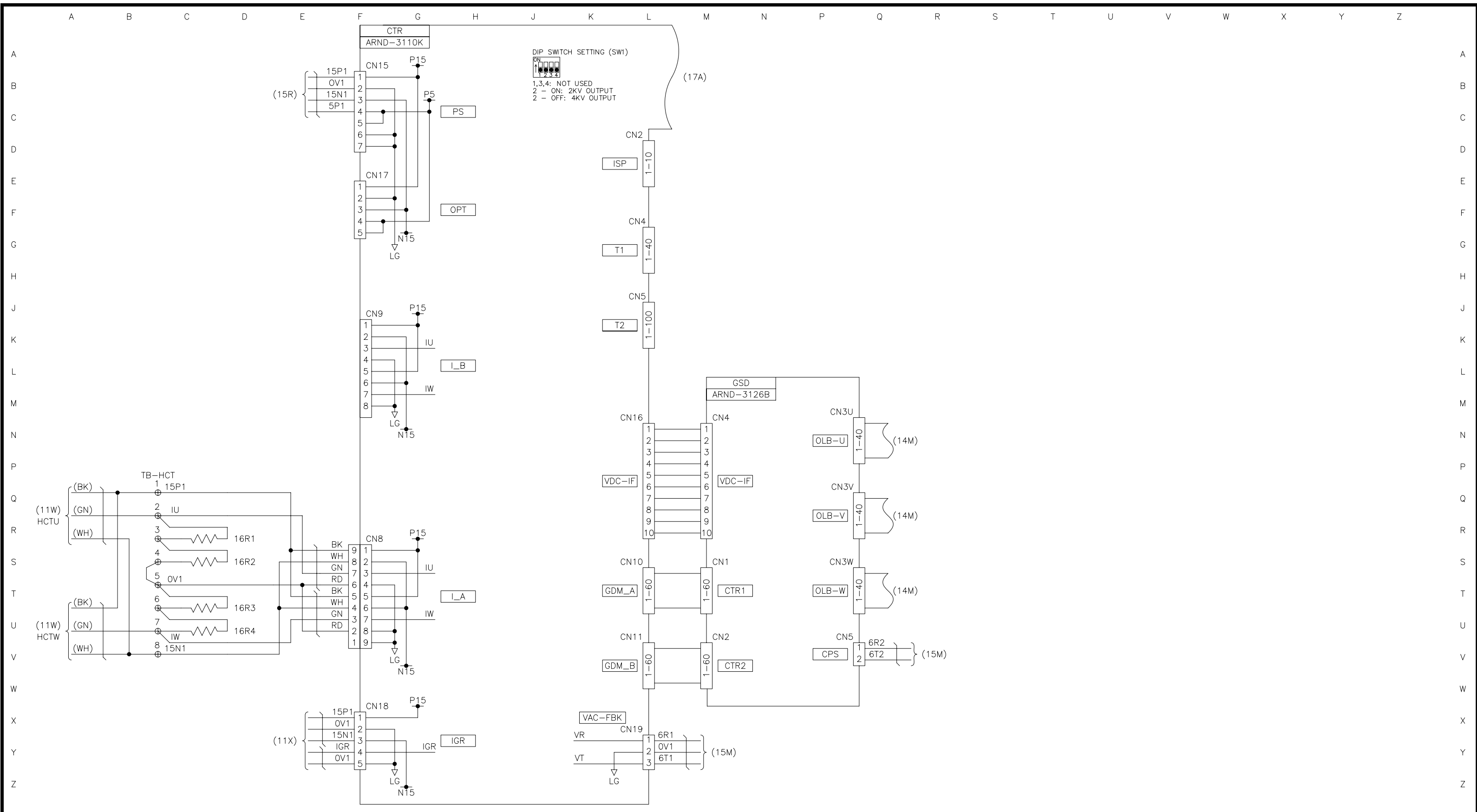
TITLE: CONTROL POWER AND FAN CIRCUITS  
 TOSVERT-300MTX

CUSTOMER: \_\_\_\_\_ PROJECT NUMBER: \_\_\_\_\_

REVISION: 0 SCALE: NTS

FOR REFERENCE ONLY

DRAWING NUMBER: SKT42115



4					
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REV	DATE	DESCRIPTION	BY	CHK	APPR

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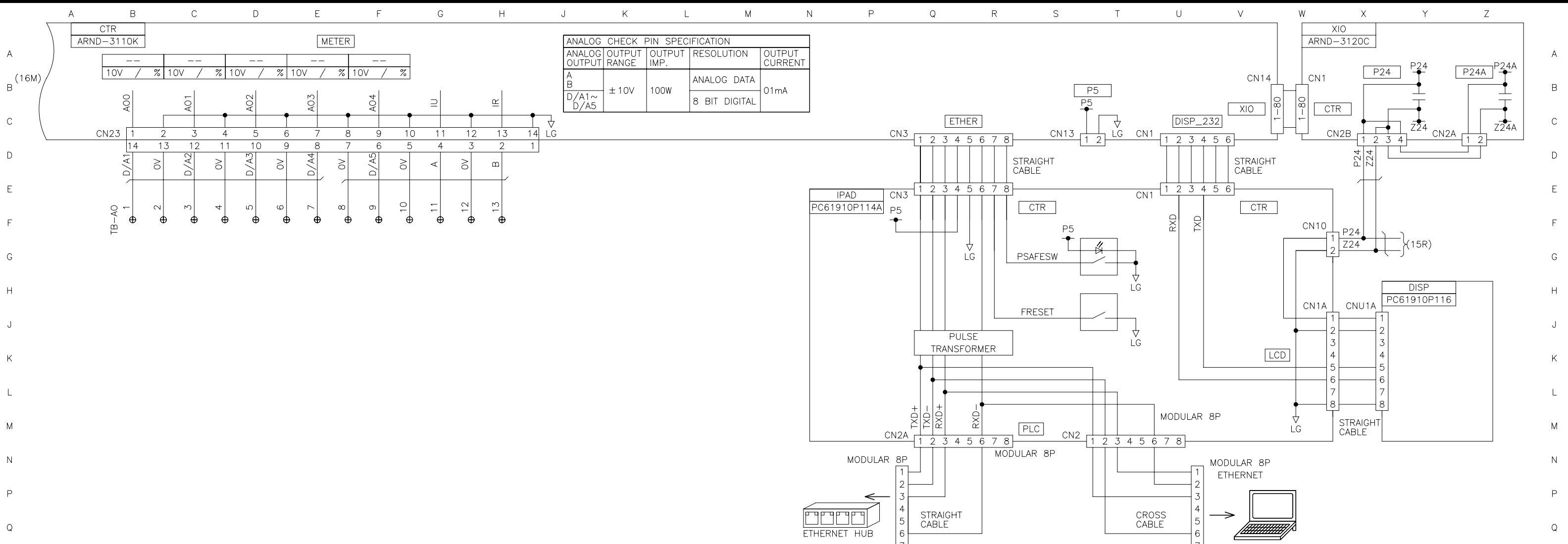
TITLE:  
**PCB INTERCONNECTION (1)**  
**TOSVERT-300MTX**

CUSTOMER: \_\_\_\_\_ PROJECT NUMBER: \_\_\_\_\_

REVISION: 0 SCALE: NTS

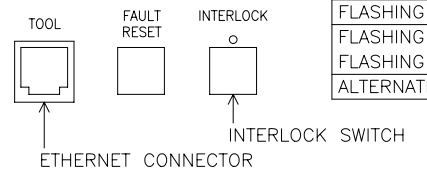
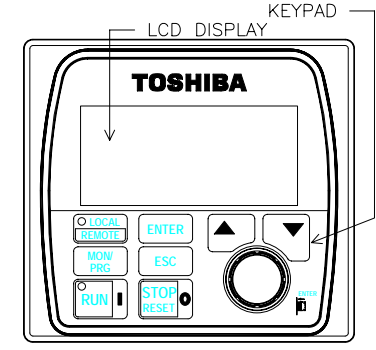
FOR REFERENCE ONLY

DRAWING NUMBER:  
**SKT42116**



ANALOG CHECK PIN SPECIFICATION				
ANALOG OUTPUT	OUTPUT RANGE	OUTPUT IMP.	RESOLUTION	OUTPUT CURRENT
A	± 10V	100W	ANALOG DATA	01mA
B			8 BIT DIGITAL	

STATUS LED COLOR/CONDITION	DRIVE STATUS DESCRIPTION
OFF	NOT READY
GREEN	READY
RED	RUNNING
FLASHING RED (2.0Hz)	FAULT
FLASHING RED (0.67Hz)	ALARM - RUNNING
FLASHING GREEN (0.67Hz)	ALARM - STOPPED
ALTERNATING RED/GREEN (2.0Hz)	TEST MODE



**WARNING:**  
SIMULTANEOUS CONNECTION OF CN2 AND CN2A IS NOT PERMITTED.

REV	DATE	DESCRIPTION	BY	CHK	APPR
4					
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TITLE: PCB INTERCONNECTION (2)  
TOSVERT-300MTX

CUSTOMER: PROJECT NUMBER:

REVISION: 0 SCALE: NTS

FOR REFERENCE ONLY

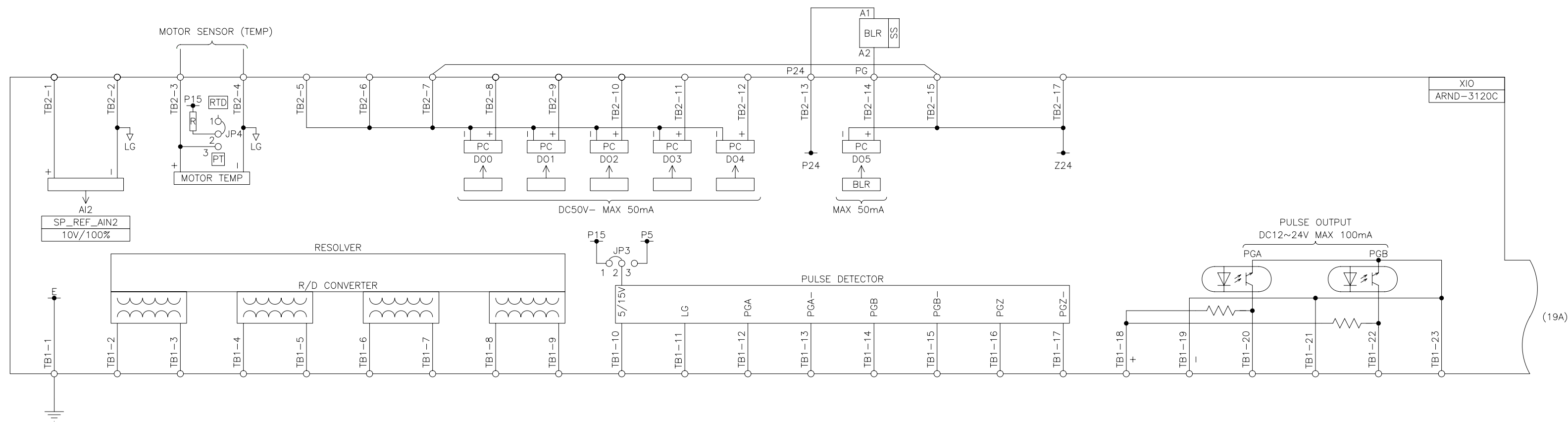
DRAWING NUMBER: SKT42117

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

XIO JUMPER SETTINGS			
JUMPER	EXPLANATION	SILKSCREEN	SETTING
JP3	Pulse Generator (PG) power supply level selection. "P15" = +15VDC power supply "P5" = +5VDC power supply	PT5	1-2
		P5	2-3
JP4	Motor temperature sensor type selection. External transducer required when using 100 ohm sensor. "PT" = 1k ohm platinum motor temperature sensor "RTD" = 100 ohm platinum motor temperature sensor	PT	2-3
		RTD	1-2

BLR	
a	b ---
a 20C	b ---
a 20C	b ---
a	b ---

CA44KN40BW3  
AC TRIP



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REV	DATE	DESCRIPTION	BY	CHK	APPR

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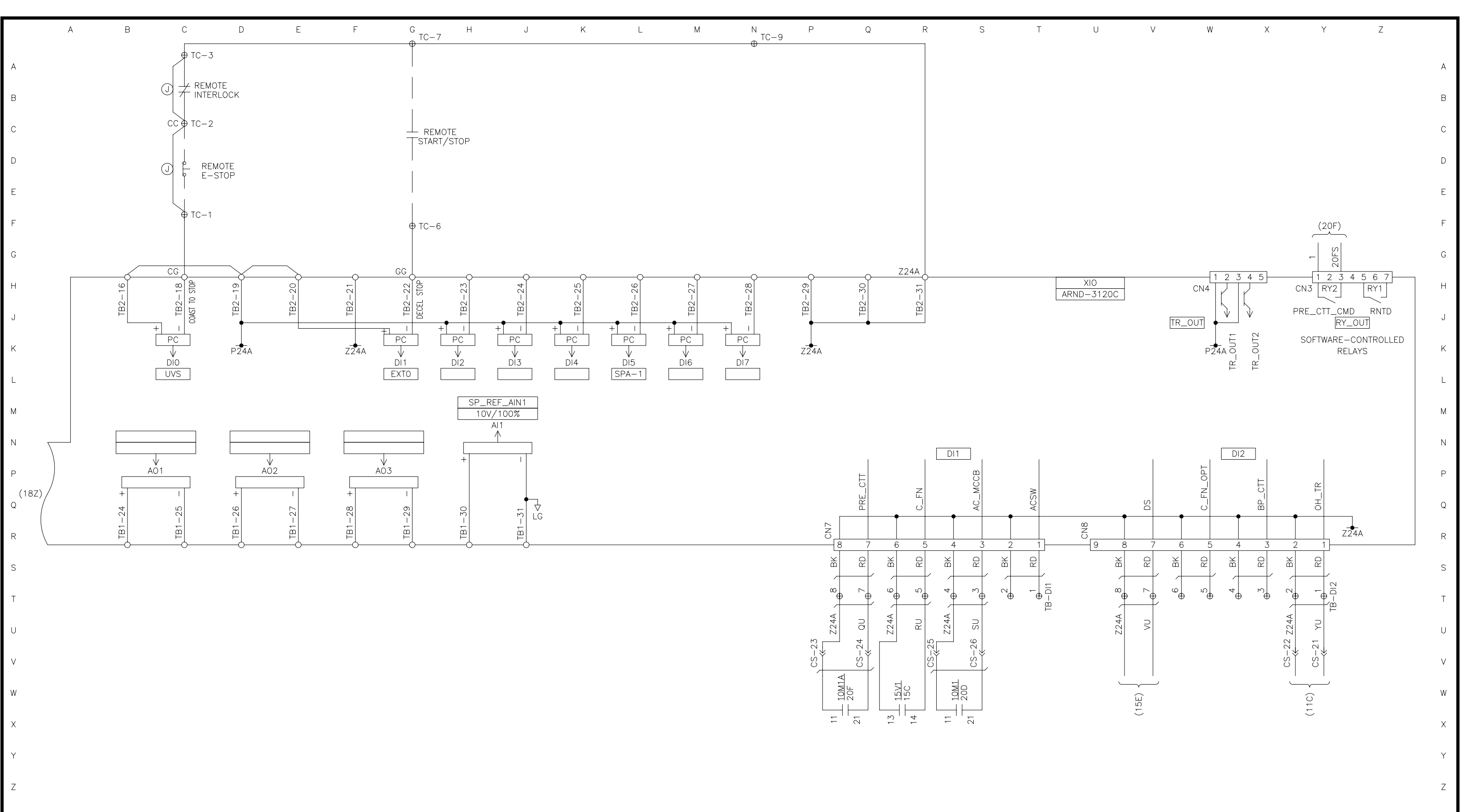
TITLE:  
EXTERNAL I/O (1)  
TOSVERT-300MTX

CUSTOMER: PROJECT NUMBER:

REVISION: 0 SCALE: NTS

FOR REFERENCE ONLY

DRAWING NUMBER:  
SKT42118



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TITLE:  
 EXTERNAL I/O (2)  
 TOSVERT-300MTX

CUSTOMER:

PROJECT NUMBER:

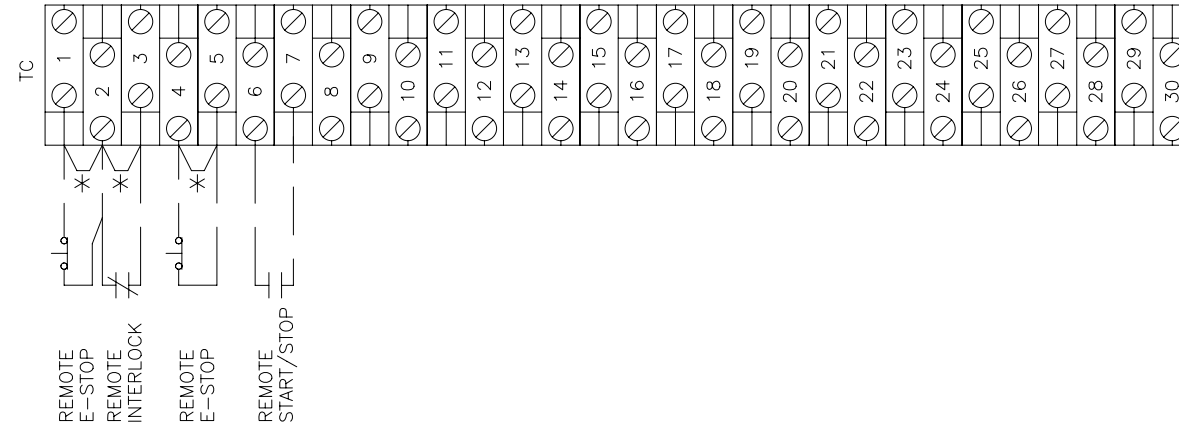
REVISION:  
 0

SCALE:  
 NTS

FOR REFERENCE ONLY

DRAWING NUMBER:  
 SKT42119





\* REMOVE JUMPER AFTER INSTALLING REMOTE DEVICE

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REV	DATE	DESCRIPTION	BY	CHK	APPR

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TITLE:  
 INTERCONNECTIONS  
 TOSVERT-300MTX

CUSTOMER:

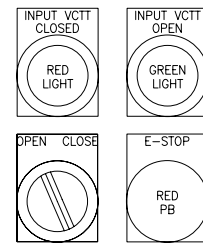
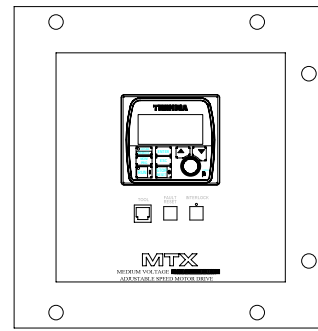
PROJECT NUMBER:

REVISION:  
 0

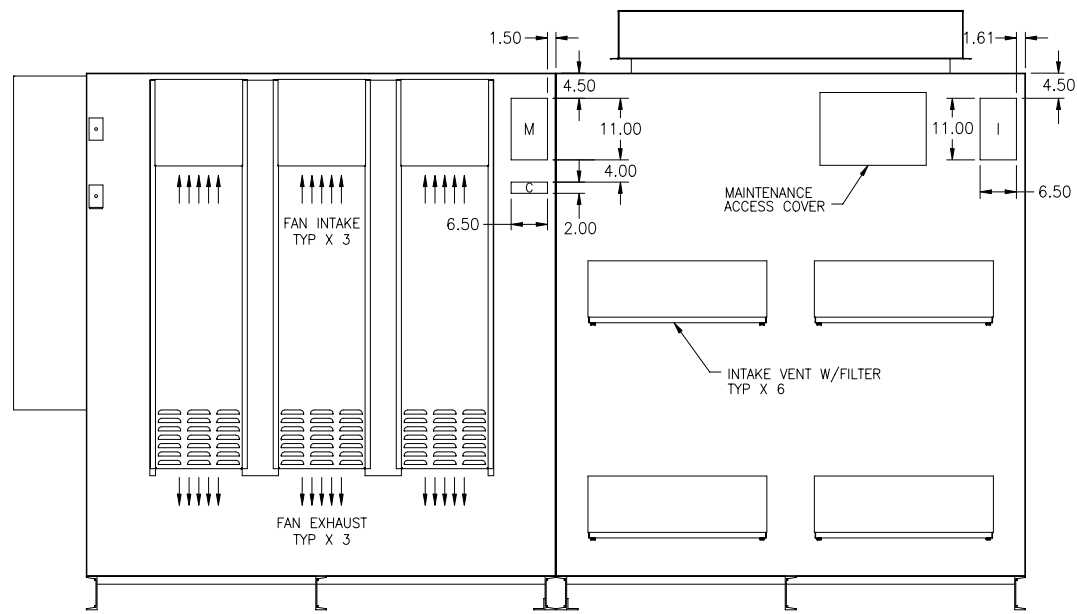
SCALE:

FOR REFERENCE ONLY

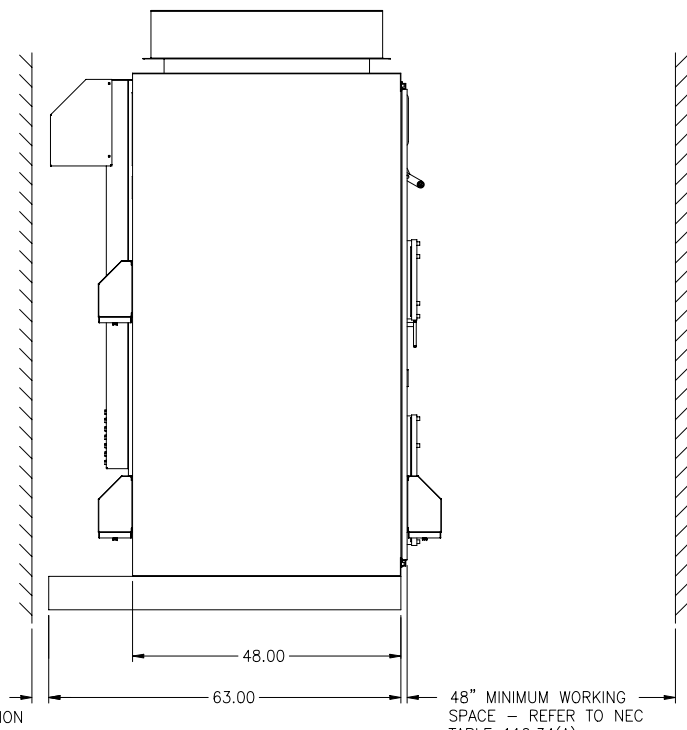
DRAWING NUMBER:  
 SKT42128



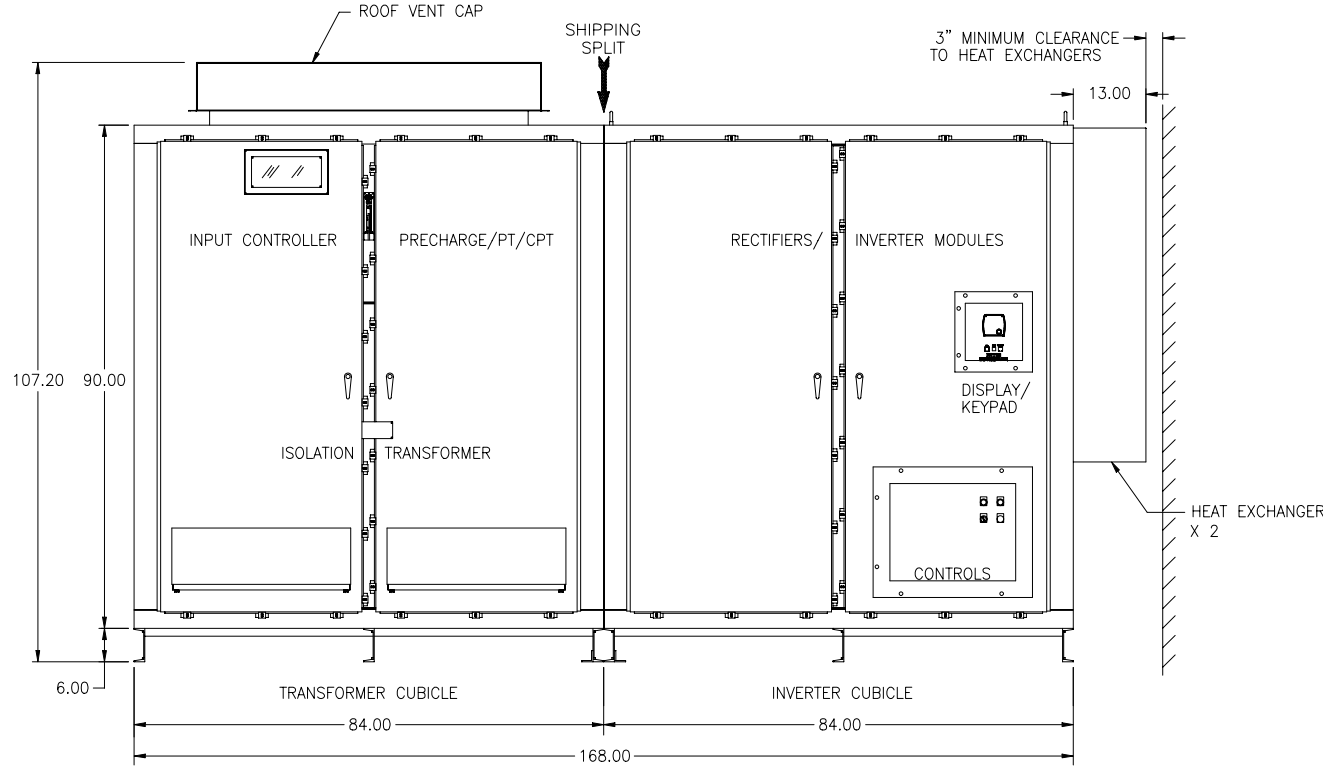
DETAIL OF PILOT DEVICES, 369 AND KEYPAD



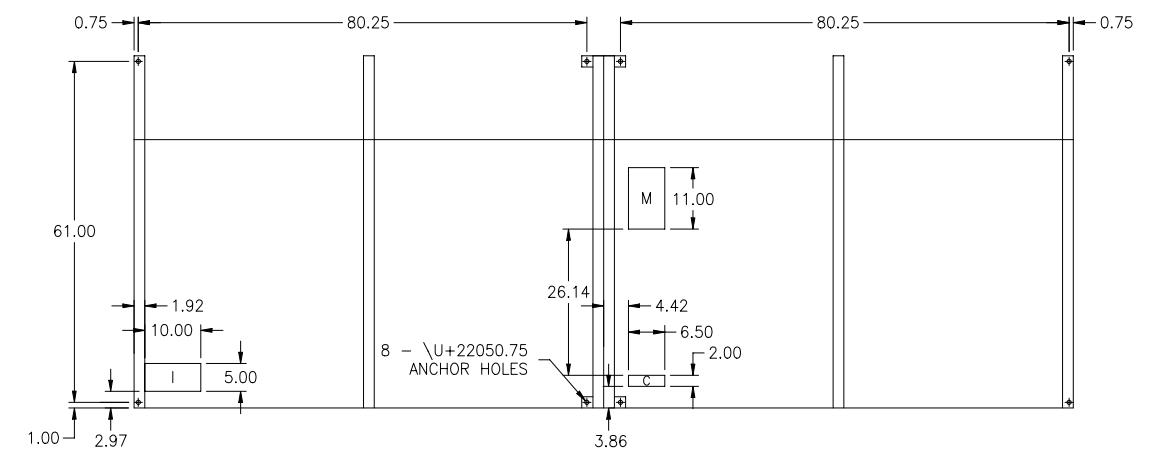
REAR VIEW



LH VIEW



FRONT VIEW



FLOOR PLAN VIEW

APPROXIMATE WEIGHTS:  
 TRANSFORMER CUBICLE . . . . .10000 LBS  
 INVERTER CUBICLE . . . . . 5000 LBS  
 TOTAL UNIT WEIGHT . . . . .15000 LBS

CABLE TERMINATIONS			
ENTRY	INCOMING CABLES	MOTOR LEADS	CONTROL WIRE
BOTTOM	I	M	C
REAR	I	M	C

INCOMING AND MOTOR TERMINATIONS USE NEMA 4-HOLE PATTERN

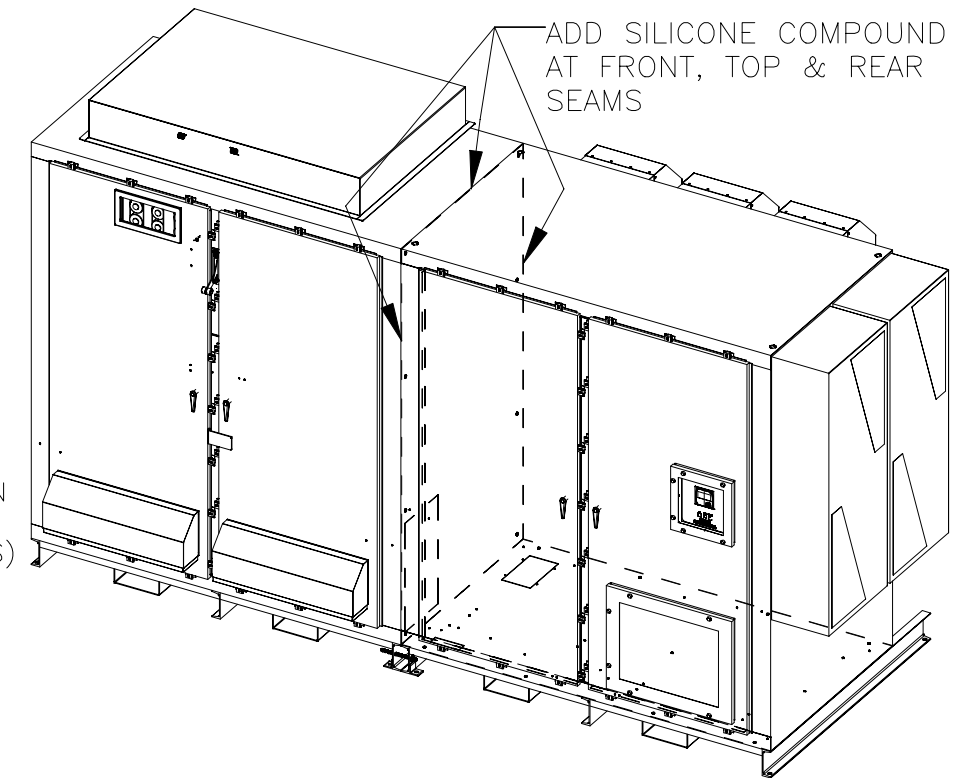
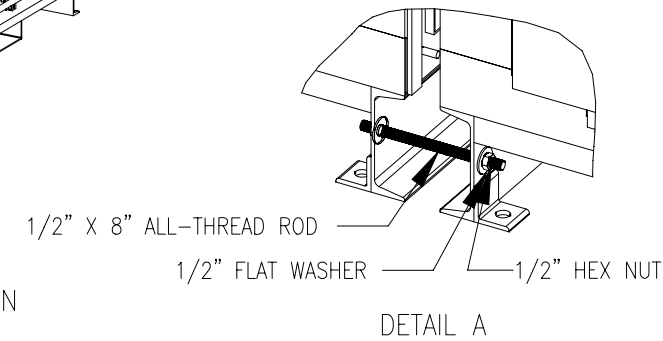
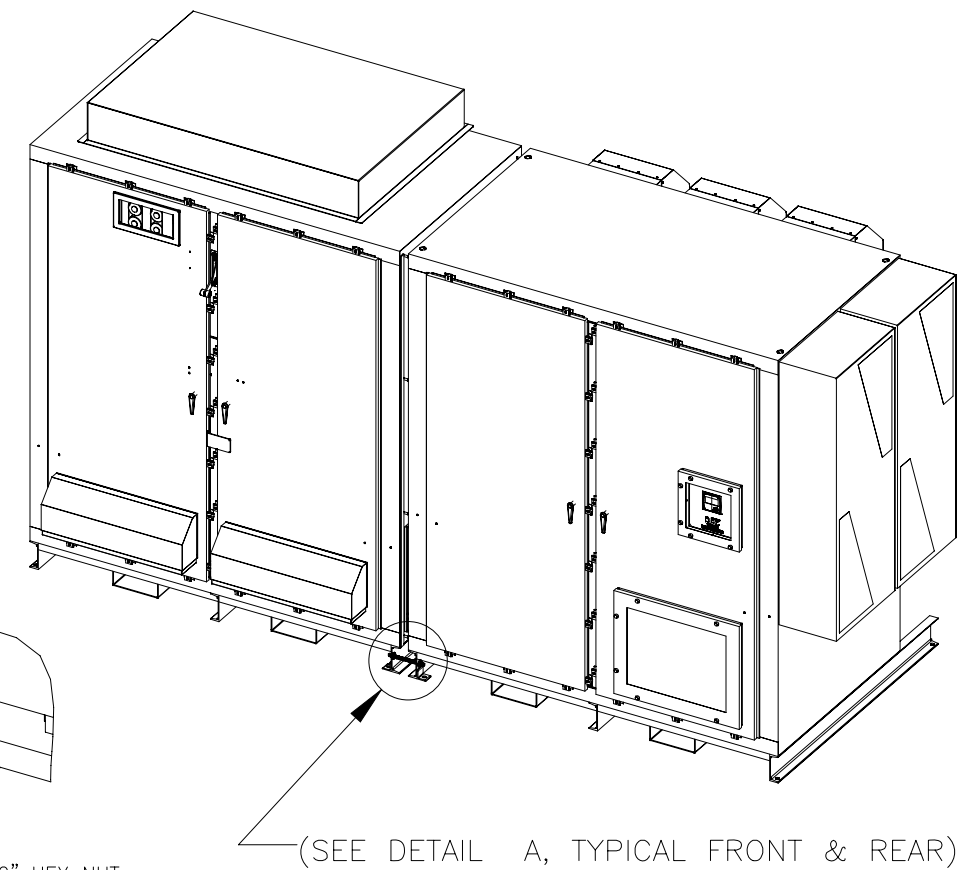
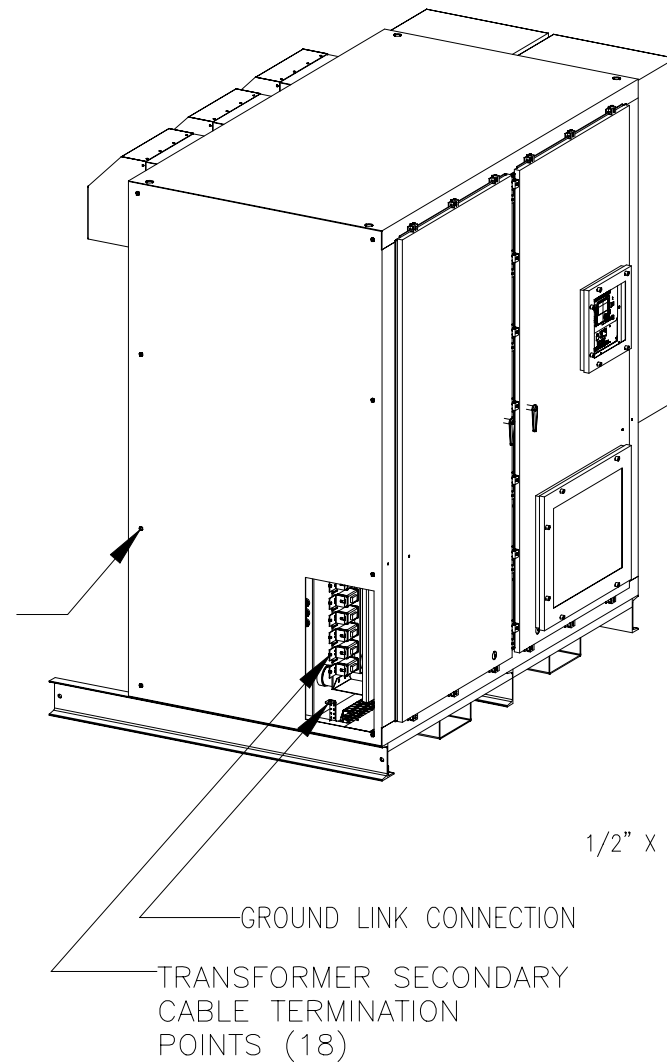
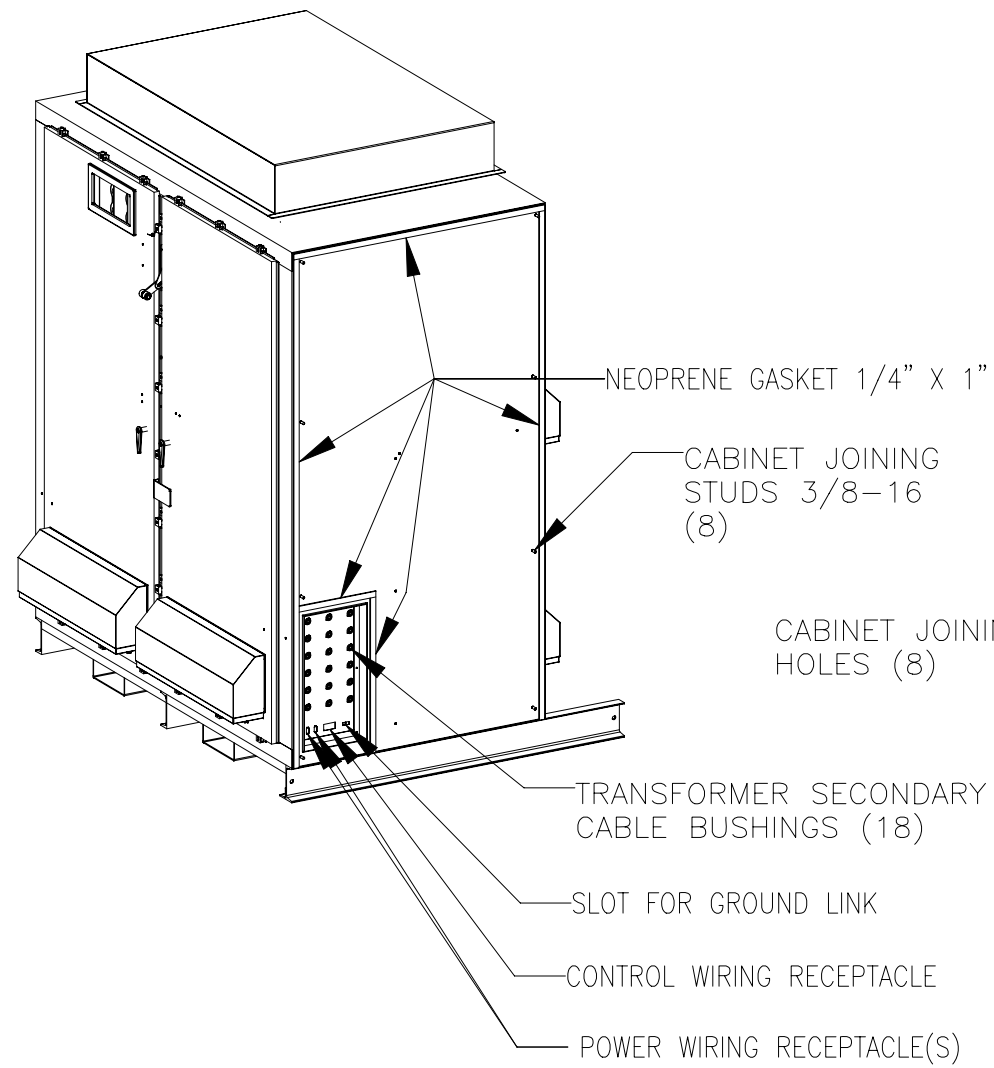
- NOTES
- ENCLOSURE TYPE: NEMA 3R
  - FINISH: SMOOTH WHITE PAINT
  - ALL WEIGHTS ARE APPROXIMATE
  - ALL DIMS ARE IN INCHES
  - CUBICLES MUST BE LIFTED FROM THE BOTTOM USING EITHER FORKLIFT OR SLING. NO LIFTING EYES ON TOP.
  - REFER TO DRAWING SKT42131 FOR INSTRUCTIONS ON JOINING TRANSFORMER AND INVERTER CUBICLES.

REV	DATE	DESCRIPTION	BY	CHK	APPR
4					
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TITLE: ENCLOSURE OUTLINE - 500HP~1500HP, 4160V  
 TOSVERT-300MTX

REVISION: 0 SCALE: 1.0=16.0  
 FOR REFERENCE ONLY  
 DRAWING NO.: SKT42130



**MECHANICAL ASSEMBLY:**

- CHECK TO BE SURE THAT GASKETING INSTALLED ON RH SIDE OF TRANSFORMER CABINET IS NOT DAMAGED BY SHIPPING. REPLACE IF NECESSARY WITH EXTRA GASKET SUPPLIED.
- POSITION CABINETS 1" TO 2" APART, FLUSH FRONT AND REAR.
- TEMPORARILY INSTALL (2) 1/2" ALL-THREAD RODS, (4) WASHERS & (4) HEX NUTS (SUPPLIED) AT FRONT & REAR OF CHANNEL BASES AS SHOWN IN DETAIL A.
- DRAW THE CABINETS TOGETHER BY TIGHTENING THE NUTS ONTO THE STUDS INSTALLED IN STEP 3.
- SECURE THE CABINETS TOGETHER BY INSTALLING 3/8" NUTS, FLATWASHERS & LOCKWASHERS (SUPPLIED) ONTO THE (8) STUDS EXTENDING FROM THE TRANSFORMER CABINET INTO THE INVERTER CABINET.
- SECURE THE DRIVE ASSEMBLY TO THE MOUNTING PAD USING THE (8) ANCHORING HOLES SHOWN ON THE OUTLINE DRAWING.
- RUN A BEAD OF SILICONE SEALING COMPOUND (SUPPLIED) ALONG THE FRONT, TOP & REAR SEAMS WHERE THE TWO CABINETS JOIN.

**ELECTRICAL CONNECTIONS:**

- REMOVE TEMPORARY SHIPPING TIES AND PULL (18) TRANSFORMER SECONDARY CABLES INTO INVERTER CABINET.
- CONNECT CABLES TO TERMINALS U1R,U1S,U1T,U2R,U2S,U2T,V1R,V1S,V1T,V2R,V2S,V2T,W1R,W1S,W1T,W2R,W2S & W2T USING 1/4-20 BOLTS, FLATWASHERS & LOCKWASHERS (SUPPLIED). TORQUE TO 4-6 FT-LBS.
- INSTALL GROUND LINK BETWEEN CABINETS USING 5/16-18 BOLTS, FLATWASHERS & LOCKWASHERS (SUPPLIED). TORQUE TO 10-15 FT-LBS.
- INSERT CONTROL WIRING PLUG FROM INVERTER CABINET INTO RECEPTACLE IN TRANSFORMER CABINET.
- INSERT POWER WIRING PLUG(S) FROM INVERTER CABINET INTO RECEPTACLE(S) IN TRANSFORMER CABINET. THERE MAY BE (1) OR (2) PLUGS DEPENDING ON THE INDIVIDUAL APPLICATION.

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REV	DATE	DESCRIPTION	BY	CHK	APPR

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TITLE: CONSTRUCTIONS - JOINING SHIPPING SECTIONS  
TOSVERT-300MTX

REVISION: 0 SCALE: NTS  
FOR REFERENCE ONLY  
DRAWING NO.: SKT42131