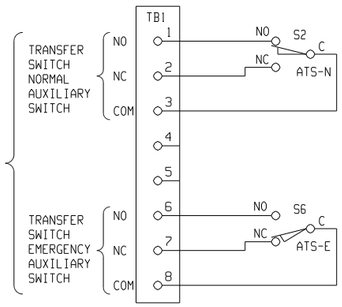
CUSTOMER CONNECTIONS

AUXILIARY CONTACTS

MOUNTED ON FRONT OF TRANSFER SWITCH. AVAILABLE ON ALL UNITS.

FOR CUSTOMER USE

TRANSFER SWITCH AUXILIARY CONTACTS RATED: 10 AMPS, 250 VAC



UTILITY TO GENERATOR

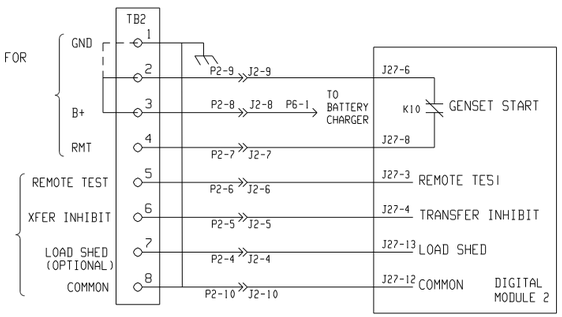
TO ENGINE GENERATOR CONTROL

REFER TO THE INTERCONNECTION DRAWING FOR PROPER INSTALLATION OF WIRING AND IF NEEDED, JUMPER LOCATION, BETWEEN THE GENSET CONTROL AND TRANSFER SWITCH.

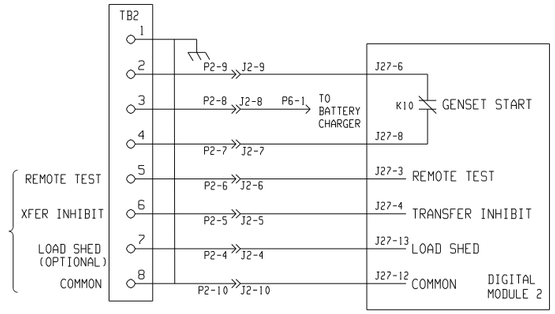
ON PARALLELING SYSTEMS. REFER TO SYSTEM INTERCONNECTION DRAWING FOR CORRECT WIRING.

FOR CUSTOMER USE

TO USE REMOTE TEST, TRANSFER INHIBIT AND LOAD SHED CONNECT AN OPEN CONTACT BETWEEN THE APPLICABLE TERMINAL AND COMMON (TB2-8). CLOSE THE CONTACT TO ACTIVATE THE FUNCTION. NOTE THAT LOAD SHED IS OPTIONAL AND MUST BE INSTALLED IN ORDER TO USE.



UTILITY TO UTILITY



FOR CUSTOMER USE

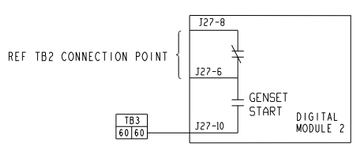
TO USE REMOTE TEST, TRANSFER INHIBIT AND LOAD SHED CONNECT AN OPEN CONTACT BETWEEN THE APPLICABLE TERMINAL AND COMMON (TB2-8). CLOSE THE CONTACT TO ACTIVATE THE FUNCTION. NOTE THAT LOAD SHED IS OPTIONAL AND MUST BE INSTALLED IN ORDER TO USE.

NOT AVAILABLE ON OTPCSE MODEL

ALTERNATE ENGINE GENERATOR CONTROL

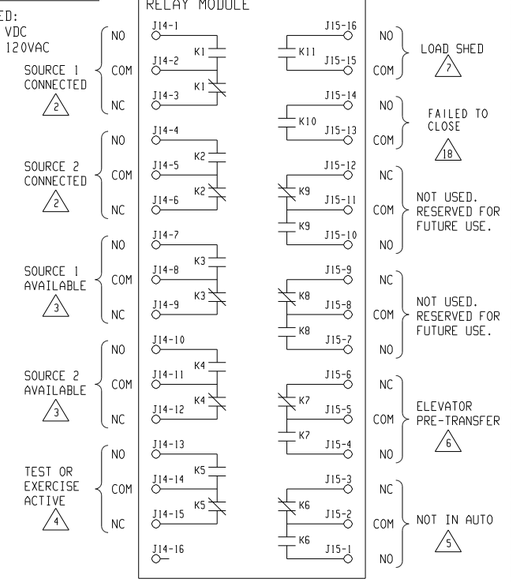
REFER TO THE INTERCONNECTION DRAWING FOR PROPER INSTALLATION OF WIRING AND, IF NEEDED, JUMPER LOCATION, BETWEEN THE GENSET CONTROL AND TRANSFER SWITCH.

NOTE THAT J27-6 IS COMMON BETWEEN GENSET START NORMALLY OPEN AND STANDARD NORMALLY CLOSED CONTACTS



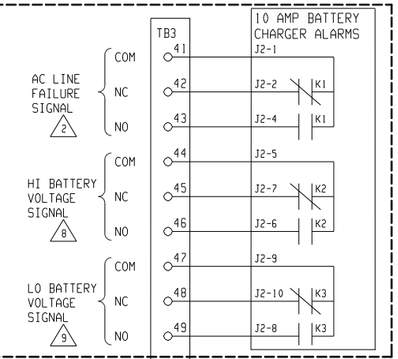
OPTIONAL: RELAY MODULE

CONTACTS RATED:
2 AMPS AT 30 VDC
0.60 AMPS AT 120VAC



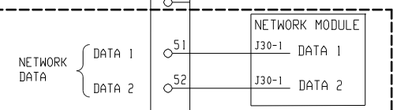
OPTIONAL: 10 AMP BATTERY CHARGER ALARMS

CONTACTS RATED:
4 AMPS AT 30 VDC OR 120VAC MAX



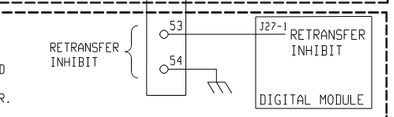
OPTIONAL: NETWORK MODULE

USE TWISTED PAIR



OPTIONAL: RETRANSFER INHIBIT

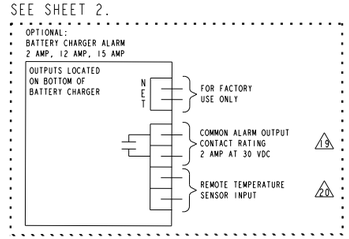
CONNECT A JUMPER OR A CLOSED CONTACT BETWEEN TB3-53 AND TB3-54 TO INHIBIT RETRANSFER.



REL NO	REV	NO	REVISION	DWN	CKD	APVD	DATE
ECO-178421	H	1	ZONE A6, ADD CONNECTIONS FOR ALTERNATE ENGINE GENERATOR CONTROL	-	-	-	-
				MSC	LNK	T.BEAUCAGE	10JUL18
		2	ZONE B2, TEXT "INVERTER" WAS "INVENTER"	MSC	LNK	T.BEAUCAGE	10JUL18
		3	SITE CODE "PGF" WAS "PGA"	MSC	LNK	T.BEAUCAGE	10JUL18
		4	SEE SHEET 4	MSC	LNK	T.BEAUCAGE	10JUL18
		5	SEE SHEET 4	MSC	LNK	T.BEAUCAGE	10JUL18
		6	SEE SHEET 4	MSC	LNK	T.BEAUCAGE	10JUL18
		7	SEE SHEET 5	MSC	LNK	T.BEAUCAGE	10JUL18

NOTES:

1. TB1 AND TB2 ARE MOUNTED ON THE FRONT OF THE TRANSFER SWITCH.TB3 IS MOUNTED ON THE LEFT INSIDE PANEL OF THE ENCLOSURE.
2. SHOWN WITH SOURCE NOT CONNECTED.
3. SHOWN WITH SOURCE NOT AVAILABLE.
4. SHOWN NOT ACTIVE. CONTACTS CHANGE STATE DURING TEST OR EXERCISE PERIOD.
5. SHOWN WITH CONTROL IN AUTOMATIC MODE. CONTACTS CHANGE STATE WHEN CONTROL IS NOT IN AUTO.
6. SHOWN NOT ACTIVE. CONTACTS CHANGE STATE FOR AN ADJUSTABLE TIME BEFORE LOAD TRANSFER OCCURS.
7. SHOWN NOT ACTIVE. CONTACTS CHANGE STATE DURING LOAD SHED.
8. SHOWN UNDER NORMAL BATTERY VOLTAGE CONDITION. CONTACTS TRANSFER UNDER A HIGH BATTERY VOLTAGE CONDITION.
9. SHOWN UNDER A LOW BATTERY VOLTAGE CONDITION.
10. SEE SHEET 2.
11. SEE SHEET 2.
12. SEE SHEET 2.
13. SEE SHEET 4.
14. SEE SHEET 4.
15. SEE SHEET 5.
16. SEE SHEET 5.
17. SEE SHEET 5.
18. SHOWN NOT ACTIVE. CONTACT CHANGES STATE DURING A FAILED TO TRANSFER OR FAILED TO TRANSFER EVENT.
19. THE FOLLOWING WILL CAUSE A BATTERY CHARGER ALARM OUTPUT:
    LOW BATTERY VOLTAGE
    HIGH BATTERY VOLTAGE
    LOW AC INPUT VOLTAGE
    HIGH AC INPUT VOLTAGE
    OVERCURRENT
    HIGH CHARGER TEMPERATURE
    BATTERY FAILURE
    HIGH BATTERY TEMPERATURE:
    NOT AVAILABLE ON 2 AMP CHARGER
20. USE THE INVERTER REMOTE TEMPERATURE PROBE. (PART NO. 0193-0530).
21. SEE SHEET 2.



LEVEL 2 CONTROL
DISPLAY MODULE
3 AND 4 POLE
OTPC 40-600 AMP, OTPCSE 40-125 AMP & OTPCSE 300-600 AMP
120 VOLT 1 PHASE L-N
240 VOLT 1 PHASE
190 VOLT 3 PHASE
208 VOLT 3 PHASE
220 VOLT 3 PHASE
240 VOLT 3 PHASE
380 VOLT 3 PHASE
415 VOLT 3 PHASE
440 VOLT 3 PHASE
480 VOLT 3 PHASE

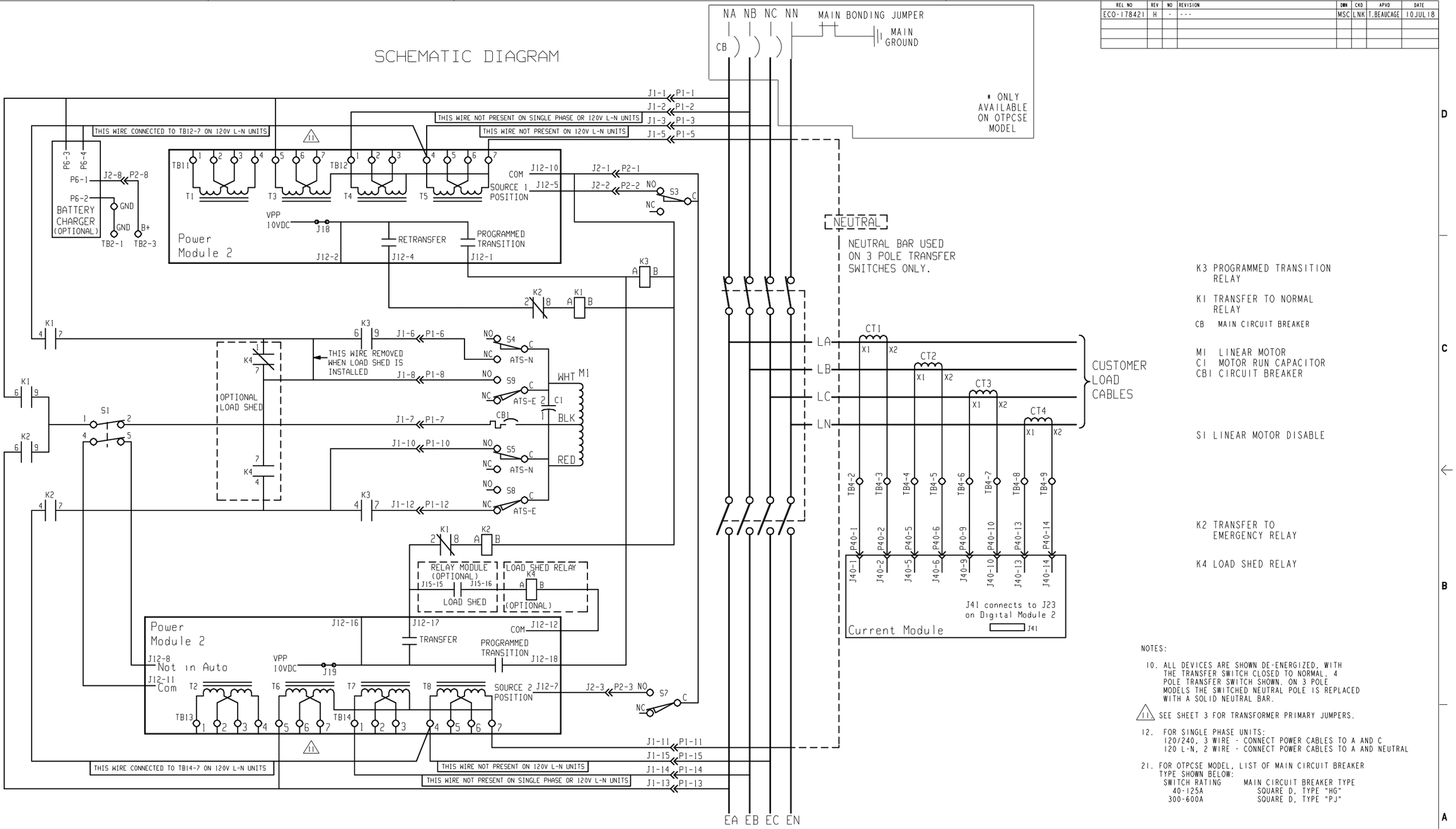
OPTIONS:
NETWORK MODULE
LOAD SHED
RELAY MODULE
BAR GRAPH
LOAD CURRENT MODULE
BATTERY CHARGER
BATTERY CHARGER ALARMS
RETRANSFER INHIBIT

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SIM TO .	DWN S D MORE	CUMMINS POWER GENERATION	
DIM: X ± | .X ± | .XX± | HOLE: 0.00- 4.99 +0.15/-0.08; 5.00- 9.99 +0.20/-0.10; 10.00-17.49 +0.25/-0.13; 17.50-24.99 +0.30/-0.13		DO NOT SCALE PRINT	CKD I A MAHADESHWAR	WD-TRANSFER SWITCH	
			APVD MILLER	SITE CODE .	
			DATE 26NOV04		
ANG TOL ± 1.0°	SCALE 1:1	THIS DOCUMENT (AND THE INFORMATION SHOWN THEREON) IS CONFIDENTIAL AND PROPRIETARY AND SHALL NOT BE DISCLOSED TO OTHERS IN HARD COPY OR ELECTRONIC FORM, REPRODUCED BY ANY MEANS, OR USED FOR ANY PURPOSE WITHOUT WRITTEN CONSENT OF CUMMINS INC.	FOR INTERPRETATION OF DIMENSIONS AND TOLERANCING, SEE ANSI Y14.5M-1982	FIRST USED ON OTPC 40-600A SPEC A 120-480 VAC	PGF	DWG SIZE D 0626_2311	CAD SHEET 1 OF 5

PTC® Creo® Parametric

REL NO	REV	NO	REVISION	DWN	CKD	APVD	DATE
ECO-178421	H	-	---	MSC	LNK	T.BEAUCAGE	10JUL18

SCHEMATIC DIAGRAM



K3 PROGRAMMED TRANSITION RELAY

K1 TRANSFER TO NORMAL RELAY

CB MAIN CIRCUIT BREAKER

M1 LINEAR MOTOR
C1 MOTOR RUN CAPACITOR
CB1 CIRCUIT BREAKER

S1 LINEAR MOTOR DISABLE

K2 TRANSFER TO EMERGENCY RELAY

K4 LOAD SHED RELAY

NOTES:

10. ALL DEVICES ARE SHOWN DE-ENERGIZED, WITH THE TRANSFER SWITCH CLOSED TO NORMAL. 4 POLE TRANSFER SWITCH SHOWN. ON 3 POLE MODELS THE SWITCHED NEUTRAL POLE IS REPLACED WITH A SOLID NEUTRAL BAR.

11. SEE SHEET 3 FOR TRANSFORMER PRIMARY JUMPERS.

12. FOR SINGLE PHASE UNITS:
120/240, 3 WIRE - CONNECT POWER CABLES TO A AND C
120 L-N, 2 WIRE - CONNECT POWER CABLES TO A AND NEUTRAL

21. FOR OTPCSE MODEL, LIST OF MAIN CIRCUIT BREAKER TYPE SHOWN BELOW:

SWITCH RATING	MAIN CIRCUIT BREAKER TYPE
40-125A	SQUARE D, TYPE "HG"
300-600A	SQUARE D, TYPE "PJ"

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS

DIM: X ± | .X ± | .XX±

HOLE: 0.00- 4.99 +0.15/-0.08; 5.00- 9.99 +0.20/-0.10; 10.00-17.49 +0.25/-0.13; 17.50-24.99 +0.30/-0.13

ANG TOL ± 1.0° | SCALE 1:1

SIM TO .

DO NOT SCALE PRINT

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

FIRST USED ON

OTPC 40-600A SPEC A 120-480 VAC

DWN	S D MORE
CKD	I A MAHADESHWAR
APVD	MILLER
DATE	26NOV04

CUMMINS POWER GENERATION

WD-TRANSFER SWITCH

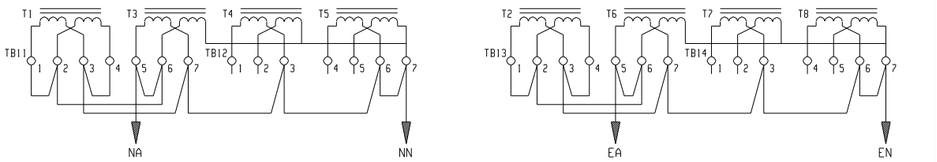
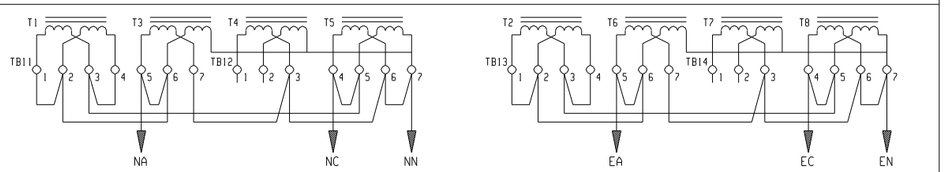
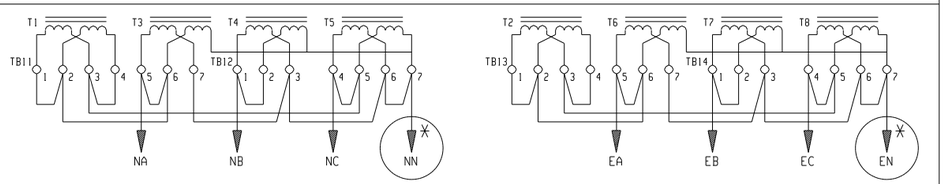
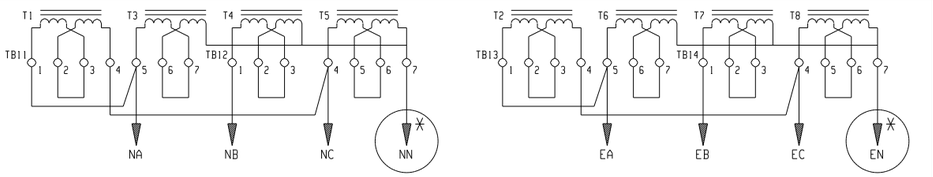
SITE CODE .

PGF | DWG SIZE D | 0626_2311 | CAD SHEET 2 of 5

PTC® Creo® Parametric

REL NO	REV	NO	REVISION	DWN	CKD	APVD	DATE
ECO-178421	H	-	---	MSC	LNK	T.BEAUCAGE	10JUL18

POWER MODULE 2 FACTORY TRANSFORMER CONNECTIONS

LINE TO LINE VOLTAGE	
120 VAC L-N 2 WIRE	
240 VAC 1 PHASE 3 WIRE	
190-240 VAC 3 PHASE 4 WIRE	
380-480 VAC 3 PHASE 4 WIRE	

SEE 0626-2312 FOR 600 VOLT CONNECTIONS.

*CONNECTIONS FOR SPECIAL WYE AND DELTA APPLICATIONS

APPLICATION	POWER MODULE WIRING CHANGES
4-WIRE, 3-PHASE WYE WITH GROUNDED NEUTRAL	NO WIRING CHANGES NECESSARY THIS IS THE FACTORY CONFIGURATION
3-WIRE, 3-PHASE DELTA OR WYE WITH NO NEUTRAL OR UNGROUNDED NEUTRAL	1. DISCONNECT THE NEUTRAL SENSING WIRES FROM TB12-7 & TB14-7 ON THE POWER MODULE.
4-WIRE, 3-PHASE DELTA WITH GROUNDED NEUTRAL OR 3-WIRE, 3 PHASE DELTA WITH A GROUNDED CORNER.	1. DISCONNECT THE NEUTRAL SENSING WIRES FROM TB12-7 & TB14-7 ON THE POWER MODULE.

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS

DIM: X ± | .X ± | .XX± | HOLE: 0.00- 4.99 +0.15/-0.08; 5.00- 9.99 +0.20/-0.10; 10.00-17.49 +0.25/-0.13; 17.50-24.99 +0.30/-0.13

ANG TOL ± 1.0° | SCALE 1:1

SIM TO .

DO NOT SCALE PRINT

DWN S D MORE

CKD I A MAHADESHWAR

APVD MILLER

DATE 26NOV04

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

FIRST USED ON

GTPC 48-60HA SPEC A 120-480 VAC

CUMMINS POWER GENERATION

WD-TRANSFER SWITCH

SITE CODE .

PGF

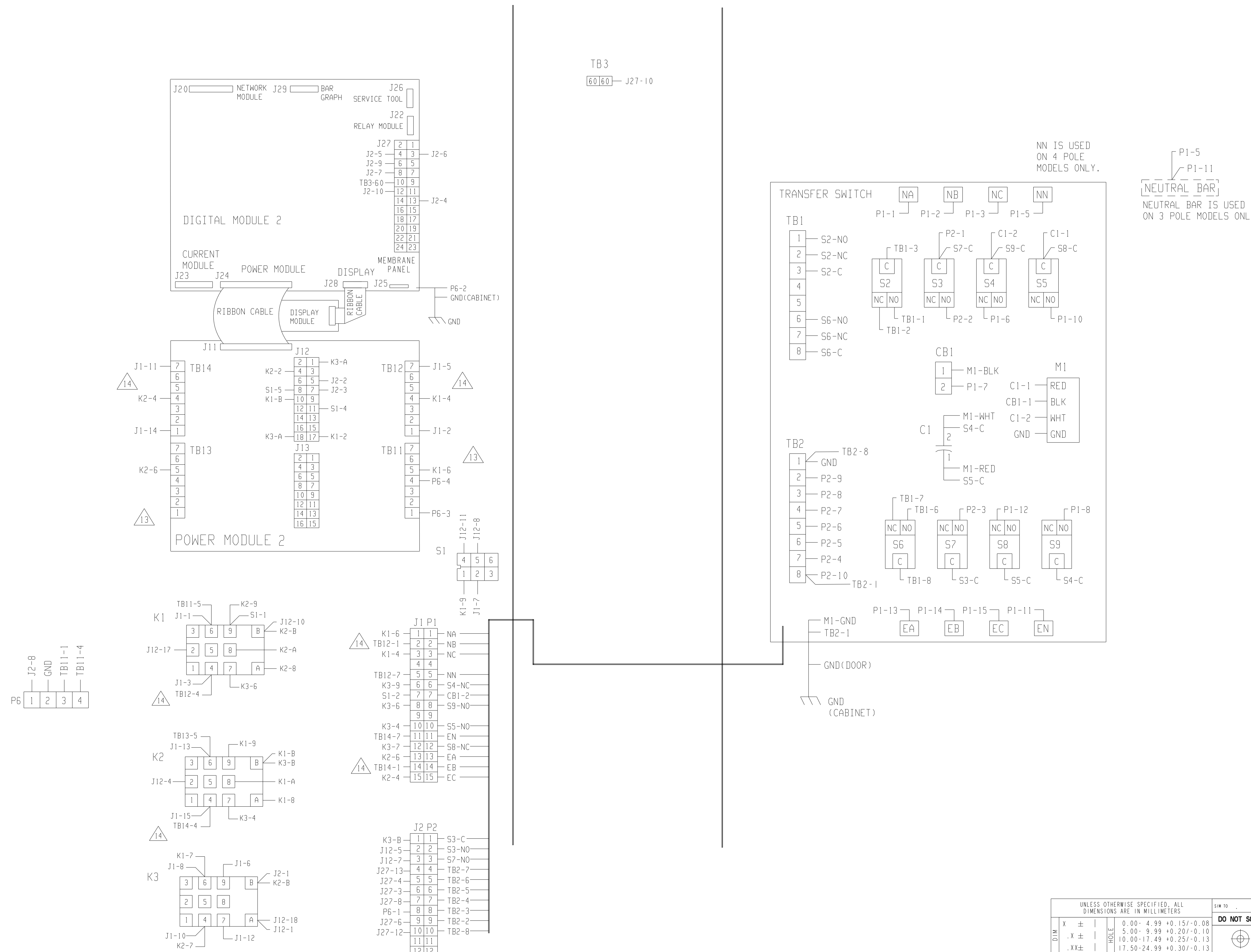
DWG SIZE D

0626_2311

CAD SHEET 3 OF 5

REL NO	REV	NO	REVISION	DWN	CKD	APVD	DATE
ECO-178421	H	4	ZONE D4, ADD CONNECTION TB3-60 TO J27-10	MSC	LNK	T.BEAUCAGE	10JUL18
		5	ZONE C5, ADD CONNECTION J27-10 TO TB3-60	MSC	LNK	T.BEAUCAGE	10JUL18
		6	ZONE C5, TEXT "MEMBRANE PANEL" WAS	-	-	-	-
			"MEMBRANE PANAL"	MSC	LNK	T.BEAUCAGE	10JUL18

STANDARD WIRING



NOTES:

13. SEE SHEET 3 FOR TB11, TB12, TB13 AND TB14 JUMPER CONNECTIONS.

14. ON ALL SINGLE PHASE, 2 OR 3 WIRE UNITS: THE WIRE CONNECTED FROM J1-2 TO TB12-1 AND FROM J1-14 TO TB14-1 ARE NOT PRESENT.

IN ADDITION, ON 120 VOLT L-N, 2 WIRE UNITS: THE WIRES CONNECTED FROM J1-3 TO K1-4 AND FROM J1-15 TO K2-4 ARE NOT PRESENT. THE WIRE CONNECTED FROM K1-4 TO TB12-4 WILL BE CONNECTED FROM K1-4 TO TB12-7 AND THE WIRE CONNECTED FORM K2-4 TO TB14-4 WILL BE CONNECTED FROM K2-4 TO TB14-7.

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS

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DWN S D MORE
CKD I A MAHADESHWAR
APVD MILLER
DATE 26NOV04

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CUMMINS POWER GENERATION

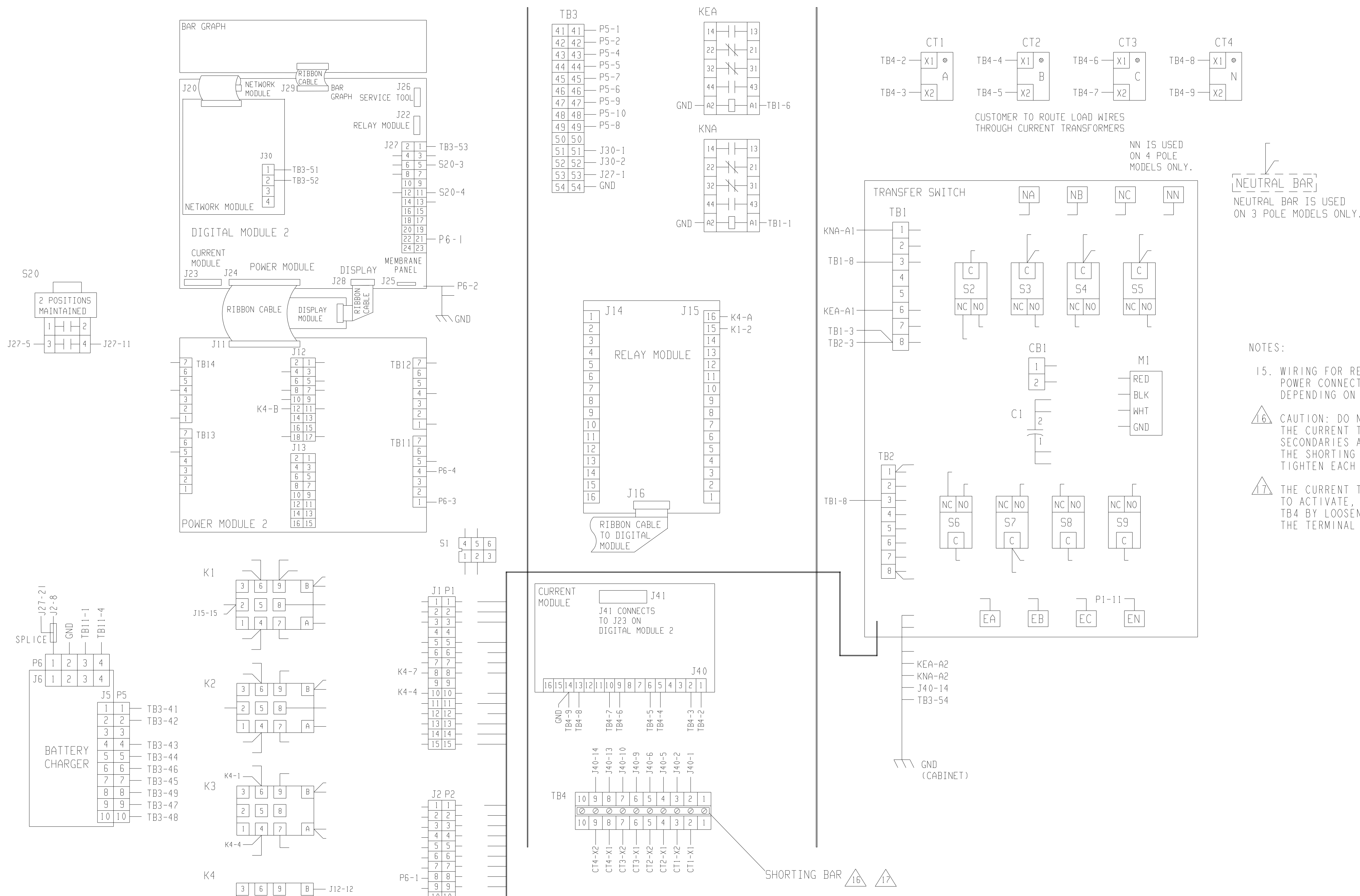
WD-TRANSFER SWITCH

SITE CODE PGF | SIZE D | 0626_2311 | CAD SHEET 4 OF 5

PTC® Creo® Parametric

REL NO	REV	NO	REVISION	DWN	CKD	APVD	DATE
ECO-178421	H	7	ZONE C5, TEXT "MEMBRANE PANEL" WAS	-	-	-	-
			"MEMBRANE PANAL"	MSC	LNK	T.BEAUCAGE	10JUL18

OPTION WIRING



NOTES:

15. WIRING FOR RELAYS KNA AND KEA IS TYPICAL. POWER CONNECTIONS TO COILS MAY VARY SLIGHTLY DEPENDING ON THE NUMBAR OF RELAYS INSTALLED

16. CAUTION: DO NOT DISCONNECT THE CURRENT MODULE WHILE THE CURRENT TRANSFORMER ARE ENERGIZED UNLESS THE SECONDARIES ARE SHORTED. TO SHORT SECONDARIES ATTACH THE SHORTING BAR TO THE CENTER OF TB4 BEING SURE TO TIGHTEN EACH SCREW.

17. THE CURRENT TRANSFORMERS ARE SHORTED DURING SHIPPING. TO ACTIVATE, REMOVE THE SHORTING BAR FROM THE CENTER OF TB4 BY LOOSENING ALL OF THE SCREWS AND LIFTING IT OUT OF THE TERMINAL BLOCK. SAVE FOR REUSE.

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS

DIM .X ± 1 | .X ± 1 | .XX± 1 — HOLE 0.00- 4.99 +0.15/-0.08; 5.00- 9.99 +0.20/-0.10; 10.00-17.49 +0.25/-0.13; 17.50-24.99 +0.30/-0.13

ANG TOL ± 1.0° — SCALE 1:1

DO NOT SCALE PRINT

DWN S D MORE — CKD I A MAHADESHWAR — APVD MILLER — DATE 26NOV04

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

CUMMINS POWER GENERATION

WD-TRANSFER SWITCH

SITE CODE PGF — DWG SIZE D — 0626_2311 — CAD SHEET 5 OF 5

Part A007N390 H

Description	Legacy Name	External Regulations	Application Status	Release Phase Code	Security Classification	Alternates
DIAGRAM,WIRING	0626-2311	No External Regulations Apply	Production Only	Production	Confidential	

Part Specifications :A007N390 H

Name	Description	Legacy Name
A030B356	SPECIFICATION,MATERIAL	CES10903
A014K482	DRAWING,WIRING SCHEMATIC	0626-2311