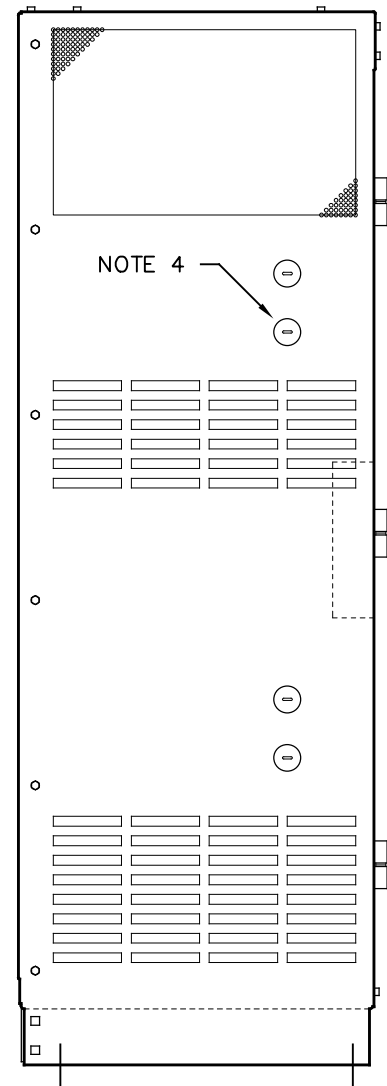
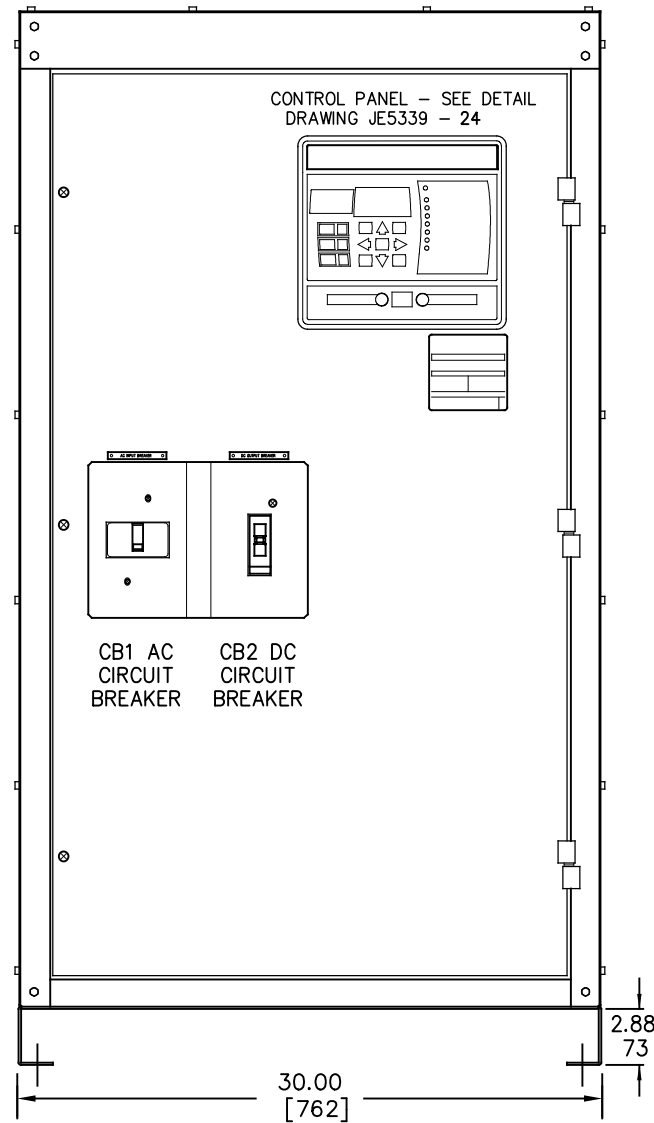


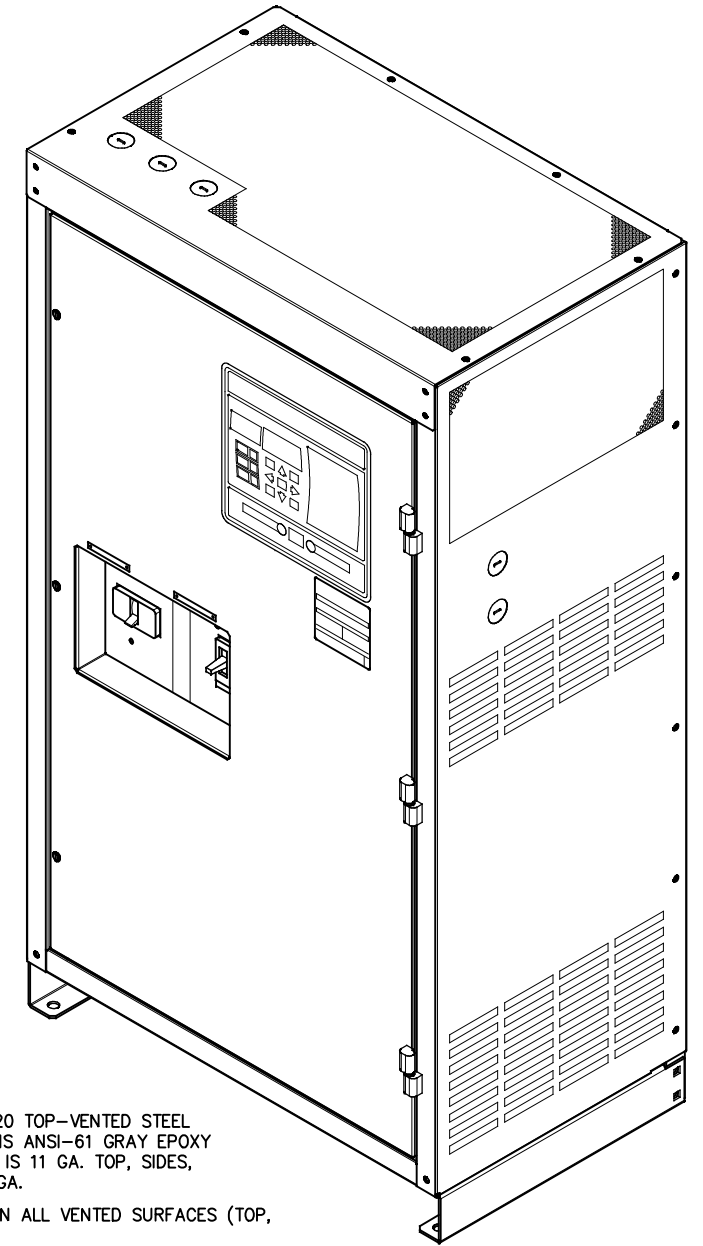
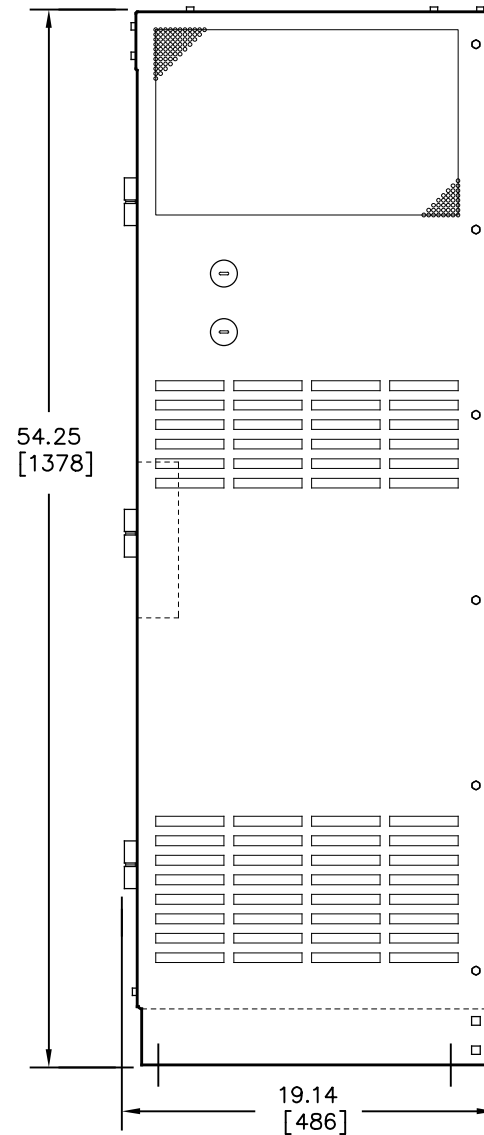
SIDE VIEW



FRONT VIEW

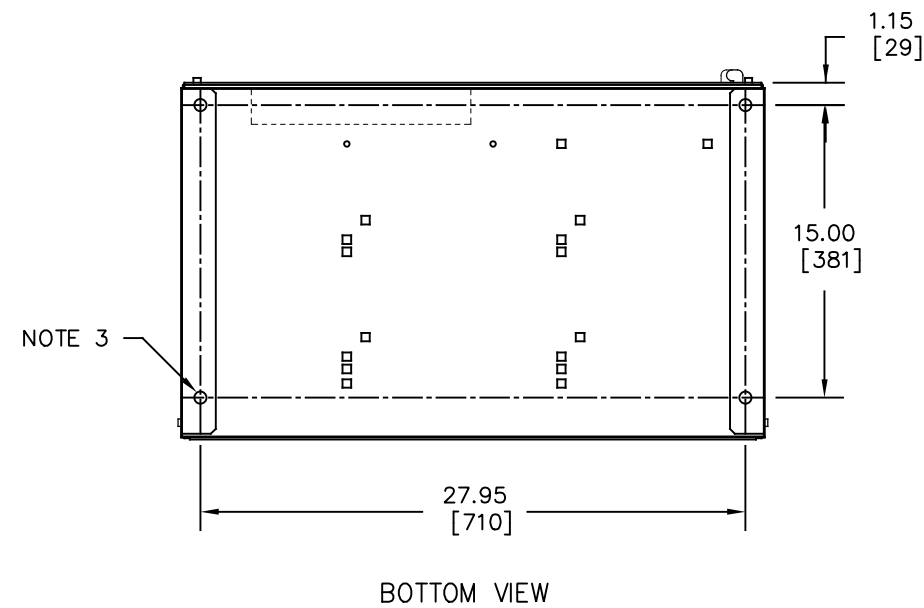


SIDE VIEW



NOTES:

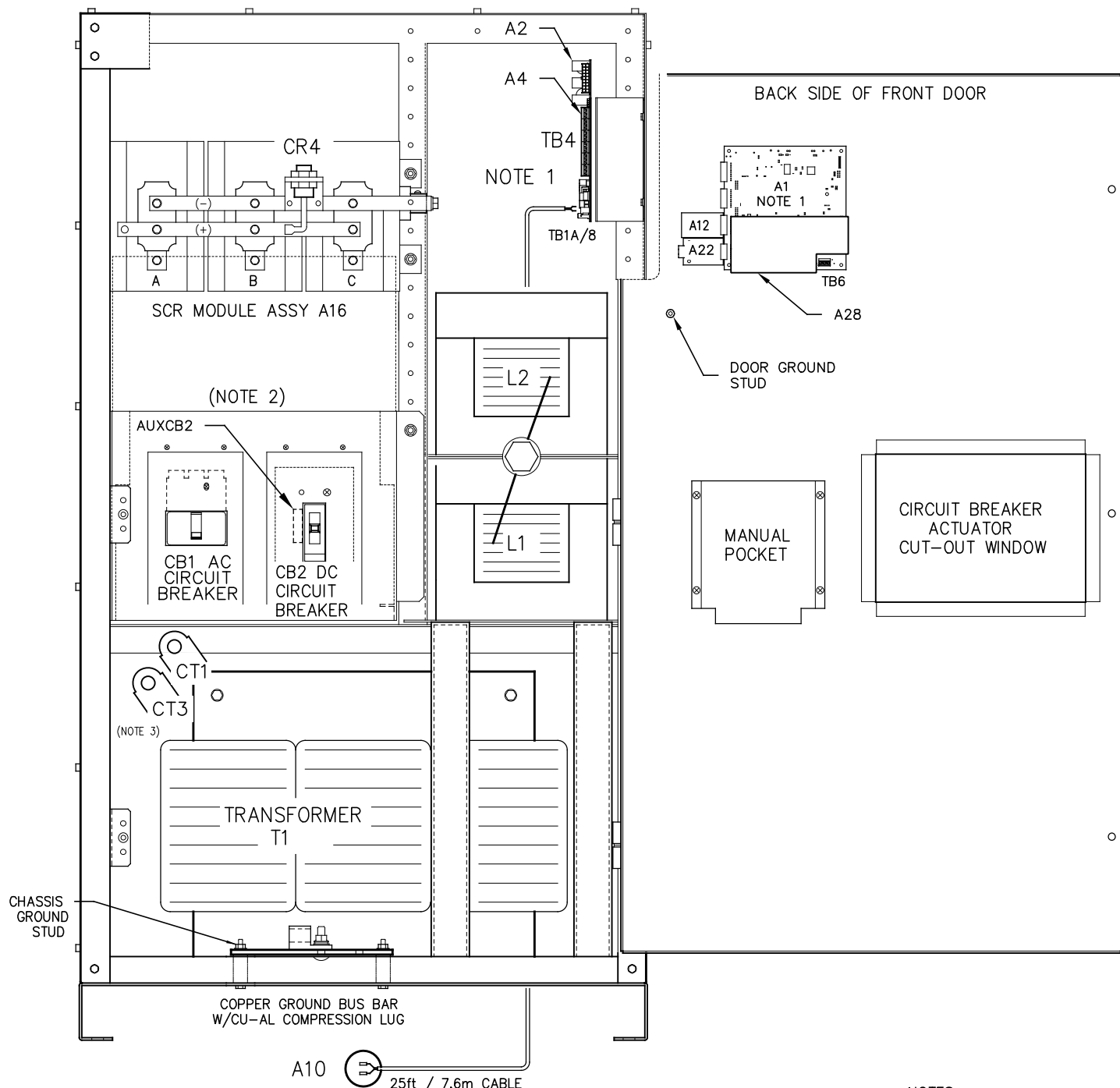
- ENCLOSURE IS A NEMA TYPE 1 / IP20 TOP-VENTED STEEL CABINET WITHOUT GASKETS. FINISH IS ANSI-61 GRAY EPOXY POWDERCOAT. BASE IS 7 GA. FRAME IS 11 GA. TOP, SIDES, AND BACK ARE 16 GA. DOOR IS 14 GA.
- ALLOW 6in / 152mm OF FREE AIR ON ALL VENTED SURFACES (TOP, SIDES & REAR) FOR COOLING.
- FOUR (4) 0.625in / 16mm FLOOR-MOUNTING HOLES ARE PROVIDED ON BOTTOM OF ENCLOSURE AS SHOWN.
- NINE (9) 1.31in / 33mm DIA STANDARD PRE-FAB KEY-SLOT KNOCKOUTS ARE PROVIDED AS SHOWN FOR 1in / 25mm CONDUIT ENTRY. IF ADDITIONAL CONDUIT ENTRANCES ARE REQUIRED, ENCLOSURE SHOULD BE FIELD-MODIFIED BY INSTALLER.
- BATTERY CHARGER SHIPPING WEIGHT: APPROXIMATELY TBD lbs / TBD kg



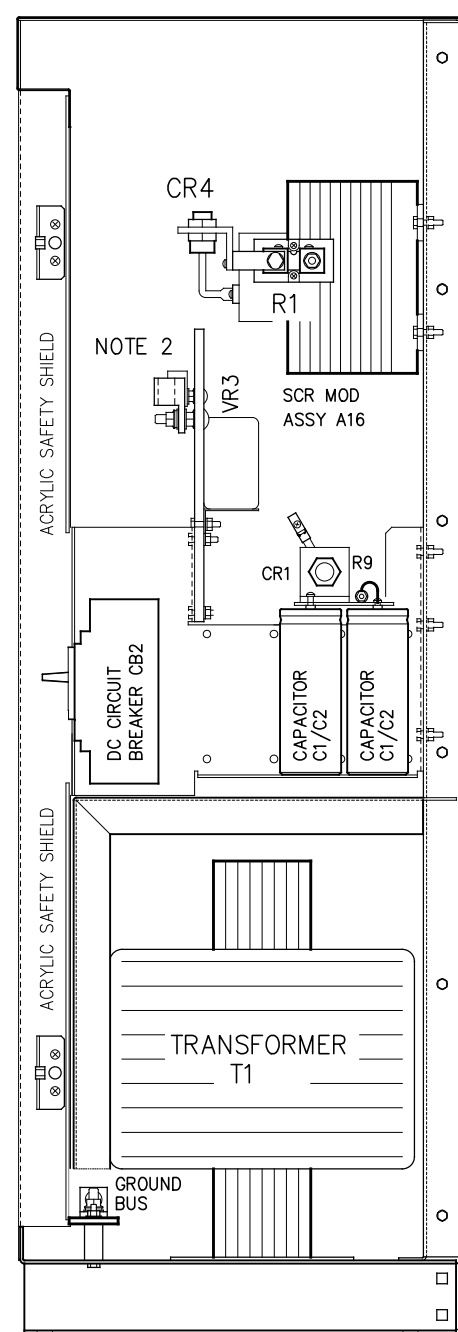
DUAL DIMENSIONS in mm

REV. 0	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 10/26/2021	DRN BY KJB	DATE 10/26/2021		1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com
DESCRIPTION STANDARD DRAWINGS.					CHK BY MCR	DATE 10/26/2021		
ECN NO. N/A					CHK BY MCR	DATE 10/26/2021	TITLE	
							ATEVO 3PH BATTERY CHARGER OUTLINE: NEMA-1 STYLE-5030 ENCL 3Ø WITH COMMON OPTIONS 125-300A	
							SCALE: B DWG No: JE5337-24	REV: 0 SHEET: 1 OF 1

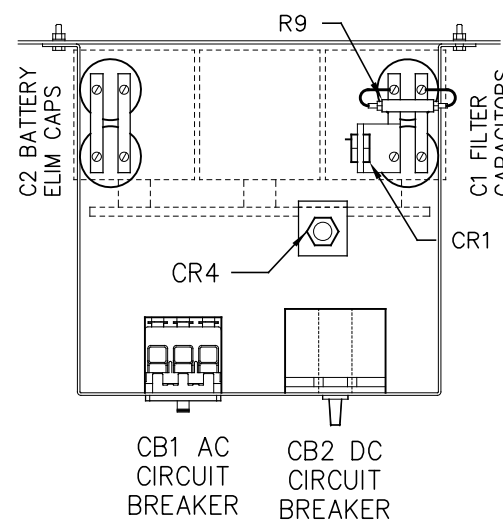
FRONT VIEW



SIDE SECTION



TOP VIEW OF CIRCUIT BREAKER MOUNTING BRACKET

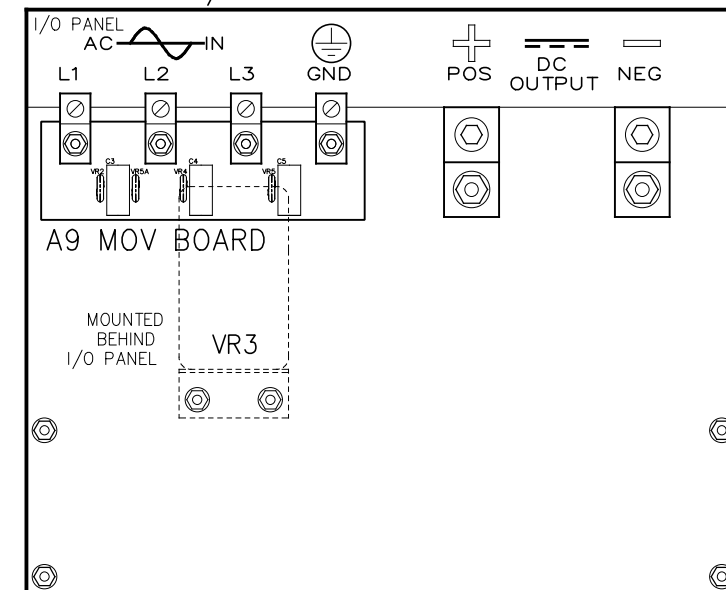


SYM STANDARD COMPONENT DESCRIPTION	
A1	MAIN CONTROL PC BOARD
A2	THREE PHASE POWER BOARD
A9	MOV PC BOARD
A16	6-PULSE SCR MODULE HEATSINK ASSY
C1x	DC OUTPUT FILTER CAPACITOR
CB1	AC INPUT CIRCUIT BREAKER (Bx3)
CB2	DC OUTPUT CIRCUIT BREAKER (B&2)
AUXCB2	DC CKT BKR (CB2) AUXILIARY CONTACTS
CR1	POLARITY DIODE
CR4	FREE-WHEELING DIODE
L1	MAIN INDUCTOR
L2	FILTER INDUCTOR
R1	MAIN DC SHUNT, NEG(-) BUS
R9	FILTER CAP (C1) BLEED RESISTOR
T1	POWER ISOLATION TRANSFORMER
TB1A	REMOTE SENSE (A2)
TB6	SUMMARY ALARM CONTACTS
TB8	TEMPCO PROBE TERMINAL BLOCK

SYM FEATURED OPTION COMP DESCRIPTION	
A4	AUXILIARY I/O PC BOARD
A10	TEMPERATURE COMPENSATION PROBE
A12	SERIAL COMMUNICATION ADAPTER
A22	ETHERNET ADAPTER BOARD
A28	METER MODULE PC BOARD
C2	BATTERY ELIMINATOR CAPACITOR
CT#	AC LINE CURRENT XFMR (AFFIXED TO WIRE)
TB4	AUX ALARM PCB (A4) TERM BLOCK
VR3	AC INPUT LIGHTNING ARRESTOR

I/O TERMINAL BOARD DETAIL



NOTES:

- FOR DETAIL VIEWS OF ALL PC BOARDS (A1, A2, A4, A12, A22, etc.) SEE DRAWING JE5339-24
- I/O PANEL TERMINAL BOARD NOT SHOWN FOR CLARITY OF VIEW. SEE DETAIL TO RIGHT.
- CURRENT TRANSFORMER AFFIXED TO LINE 1 AND LINE 3 BETWEEN AC INPUT BREAKER (CB1) AND POWER ISOLATION TRANSFORMER (T1). (SEE JA5124-03).

I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
I/O(+/-)	POS/NEG DC OUTPUT TERMS - CU-ALUMINUM COMPRESSION LUG	#6 AWG-350 MCM
(2) I/O-GND	USER GROUND TERMINAL - CU-ALUMINUM COMPRESSION LUG	#14 AWG-350 MCM
I/O-L1/L2/L3	AC INPUT TERMINALS - CU-ALUMINUM COMPRESSION LUG	#14-1/0 AWG
(A1) TB6	SUMMARY ALARM TERMINAL BLOCK (A1) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A2) TB1	POS/NEG REMOTE SENSE TERMS (A2) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A2) TB8	TEMPCO PROBE (A10) TERM BLK - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A4) TB4	AUX I/O RELAY CONTACTS (A4) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG

REV. 0	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 10/26/2021	DRN BY KJB	DATE 10/26/2021
DESCRIPTION: STANDARD DRAWINGS.					CHK BY MCR	DATE 10/26/2021
ECN NO. N/A					CHK BY MCR	DATE 10/26/2021

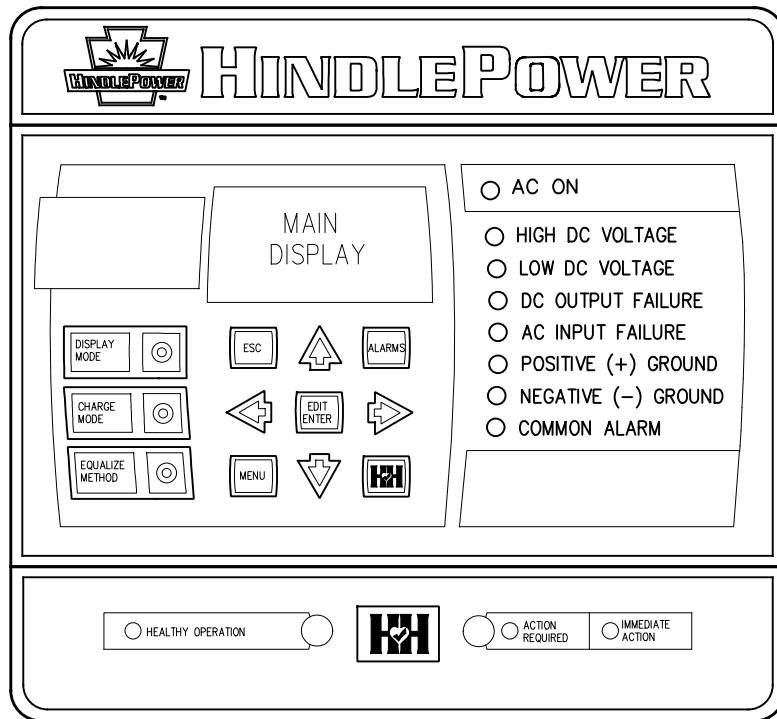
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**HINDLEPOWER**

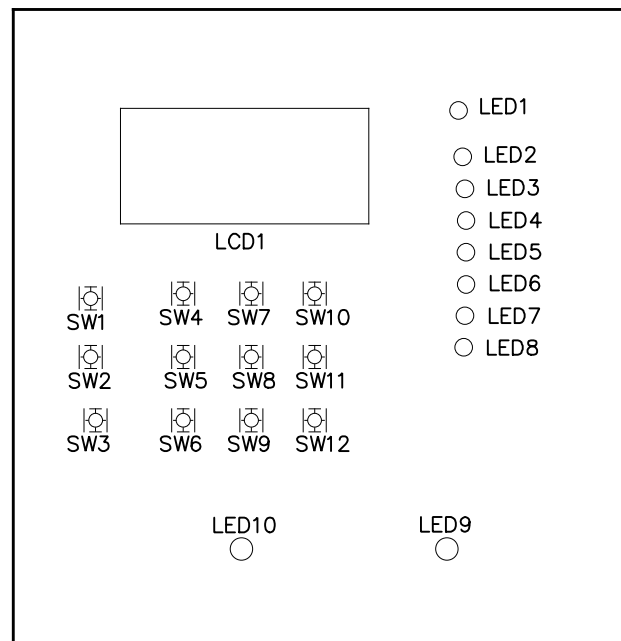
TITLE  
ATEVO 3PH BATTERY CHARGER  
INTERNAL COMPONENT LAYOUT: STYLE-5030  
3Ø WITH COMMON OPTIONS 125-300A

**B** SCALE NTS DWG No JE5338-24

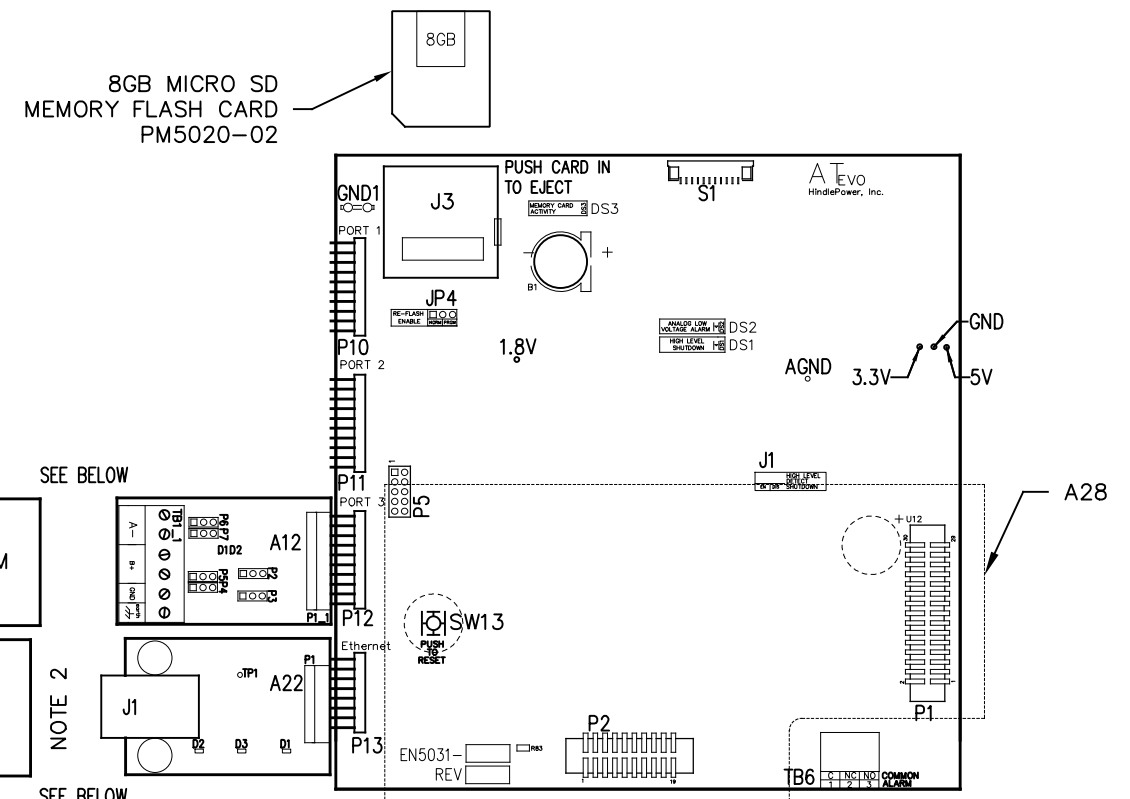
REV 0A SHEET 1 OF 1



**CONTROL PANEL**  
(PART No. FK5047-00)



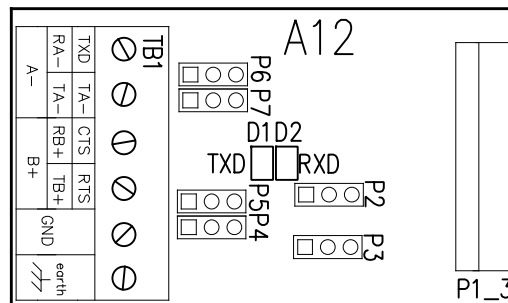
**MAIN CONTROL PC BOARD (A1)**  
FRONT VIEW - FACING CHARGER DOOR WHEN INSTALLED



**MAIN CONTROL PC BOARD (A1)**  
BACK VIEW - FACING CHARGER COMPONENTS WHEN INSTALLED

NOTE: ALL ALARM CONTACTS ARE ENERGIZED WHEN IN THE NON-ALARM STATE (FAIL SAFE). ALL ALARM CONTACTS WILL CHANGE STATE WHEN CHARGER IS POWERED DOWN. CONTACT RATING IS 0.5A @ 125VAC/VDC RESISTIVE.

**SERIAL COMMUNICATION ADAPTER (A12)**



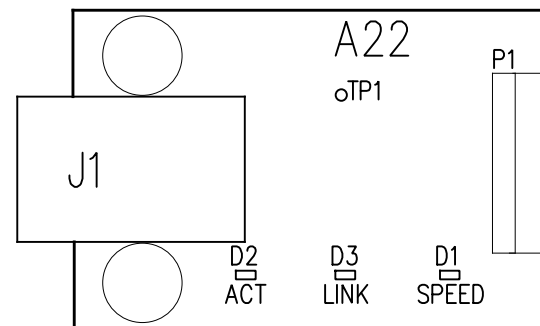
**CONNECTORS (A12):**  
P1 - MAIN CONTROL BOARD

**JUMPERS & CONFIGURATION SWITCHES (A12):**  
P2 - RECEIVER ENABLE CONTROL SELECTION  
P3 - MEDIA CONTROL SELECTION (RS-234 OR RS-485)  
P4 - RS-485 TERMINATION RESISTOR ENABLE (RECEIVE)  
P5 - RS-485 TERMINATION RESISTOR ENABLE (TRANSMIT)  
P6 - RS-485 INTERFACE 2 WIRE/4 WIRE SELECTION (A)  
P7 - RS-485 INTERFACE 2 WIRE/4 WIRE SELECTION (B)

**TERMINAL BLOCKS (A12):**  
TB1 - USER CONNECTIONS TO SERIAL INTERFACE

**INDICATOR LIGHTS (A12):**  
TXD (D1) - SERIAL DATA BEING SENT  
RXD (D2) - SERIAL DATA BEING RECEIVED

**ETHERNET ADAPTER (A22)**

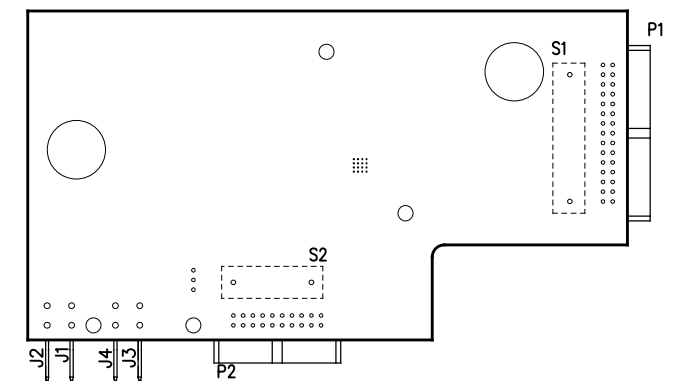


**CONNECTORS (A22):**  
P1 - MAIN CONTROL BOARD

**INDICATOR LIGHTS (A22):**  
D1 - ORANGE - ETHERNET SPEED INDICATION 10/100 MBPS  
D2 - YELLOW - ETHERNET ACTIVITY (FLASHING)  
D3 - RED - ETHERNET LINK

**TEST POINTS (A22):**  
TP1 - CLOCK OUT

**METER MODULE PC BOARD (A28)**  
MOUNTED ON MAIN CONTROL PC BOARD



2. ETHERNET ADAPTER (A22) SUPPORTS MULTIPLE PROTOCOLS (DNP3 AND MODBUS) SIMULTANEOUSLY. SEE JA0102-54.

NOTE 2

**MAIN CONTROL PC BOARD (A1)**

- INDICATOR LIGHTS (LEDs):**  
LED1 - GREEN - AC ON  
LED2 - RED - HIGH DC VOLTAGE ALARM  
LED3 - RED - LOW DC VOLTAGE ALARM  
LED4 - RED - DC OUTPUT FAILURE ALARM  
LED5 - RED - AC INPUT FAILURE ALARM  
LED6 - RED - POSITIVE (+) GROUND ALARM  
LED7 - RED - NEGATIVE (-) GROUND ALARM  
LED8 - RED - COMMON ALARM  
LED9 - RED - ACTION REQUIRED ALARM  
LED10 - GREEN - HEALTHY OPERATION  
DS1 - RED - HIGH LEVEL SHUTDOWN (HLD)  
DS2 - RED - ANALOG LOW VOLTAGE ALARM (LLD)  
DS3 - RED - MEMORY CARD ACTIVITY
- JUMPERS:**  
J1 - ANALOG HIGH VOLTAGE SHUTDOWN JUMPER  
J3 - SD CARD PORT  
JP4 - RE-FLASH (FIELD PROGRAMMING) JUMPER
- TERMINAL BLOCKS:**  
TB6 - COMMON ALARM RELAY CONTACTS
- TEST POINTS:**  
1.8V - 1.8 VOLTS  
3.3V - 3.3 VOLTS  
5V - 5.0 VOLTS  
GND - GROUND  
AGND - ANALOG GROUND  
SDA - MAIN BOARD 12C DATA  
SCL - MAIN BOARD 12C CLOCK
- SWITCHES:**  
S1 - DISPLAY BUTTON  
S2 - CHARGE MODE BUTTON  
S3 - EQUALIZE METHOD BUTTON  
S4 - ESCAPE (ESC) BUTTON  
S5 - LEFT ARROW BUTTON  
S6 - MENU BUTTON  
S7 - UP ARROW BUTTON  
S8 - EDIT / ENTER BUTTON  
S9 - DOWN ARROW BUTTON  
S10 - ALARM BUTTON  
S11 - RIGHT ARROW BUTTON  
S12 - HINDLE HEALTH (HHS) BUTTON  
S13 - SYSTEM RESET BUTTON (BACK OF BOARD)
- CONNECTORS:**  
P1 - POWER BOARD RIBBON  
P2 - 3 PHASE RECTIFIER RIBBON  
P3 - USB EXPANSION PORT  
P4 - SPI & I2C EXPANSION PORT #1  
P5 - SPI & I2C EXPANSION PORT #2  
P6 - DISPLAY SPI PORT  
P7 - DISPLAY JTAG PORTS  
P10 - SERIAL INTERFACE PORT #1  
P11 - SERIAL INTERFACE PORT #2  
P12 - SERIAL INTERFACE PORT #3  
P13 - ETHERNET INTERFACE PORT  
P17 - GENERAL EXPANSION PORT

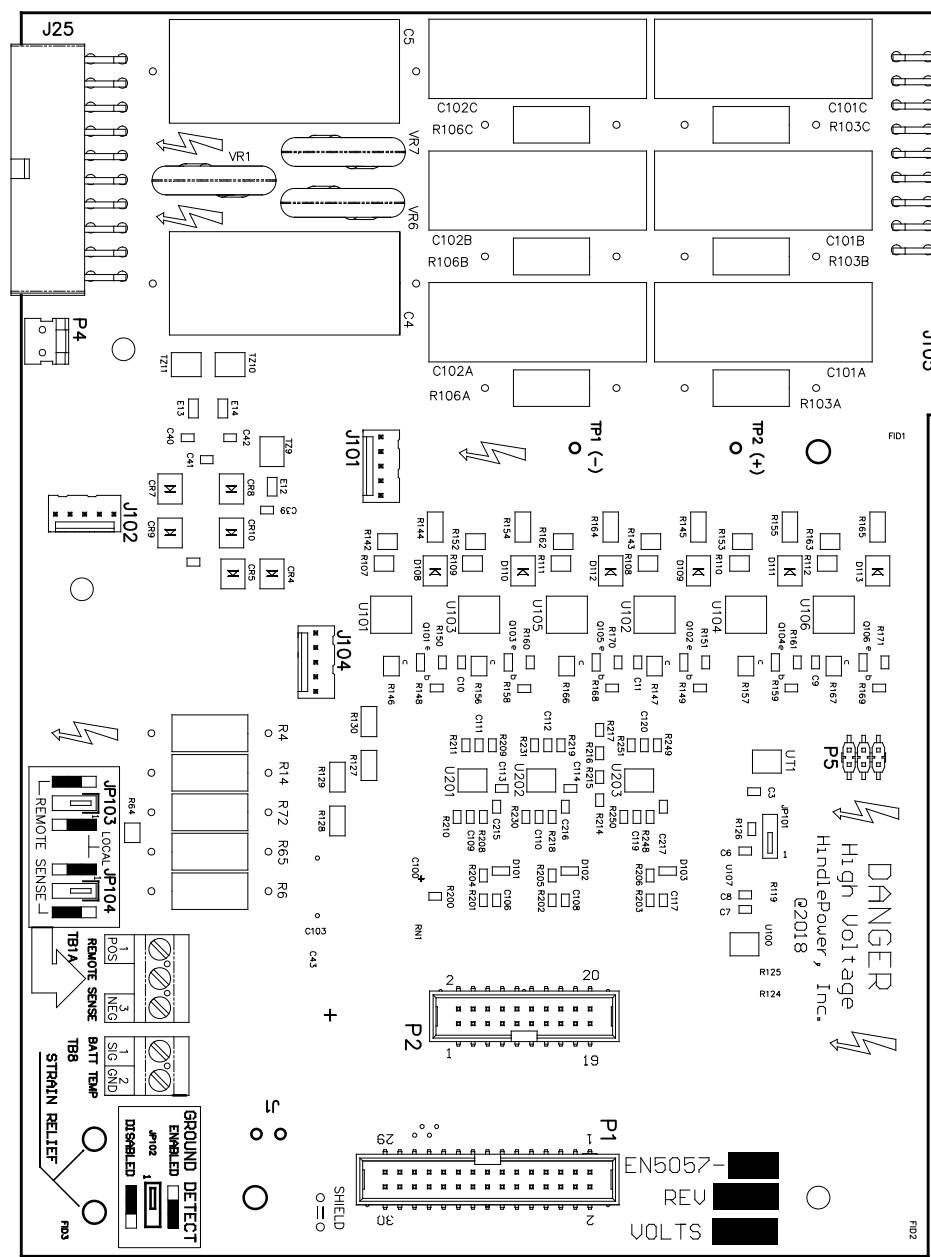
I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
(A1) TB6	SUMMARY ALARM TERMINAL BLOCK (A1) - SOLDERLESS COMP SCREW	#22-14 AWG
(A12) TB1	RS-232 / RS-485 USER CONNECTIONS - SOLDERLESS COMP SCREW	#22-14 AWG
(A22) J1	ETHERNET CONNECTION - RJ45 PLUG	CATS

REV. DRN BY 0 KJB	CHK BY MCR	APP BY MCR	DATE 10/26/2021	DRN BY KJB	DATE 10/26/2021
DESCRIPTION STANDARD DRAWINGS.				CHK BY MCR	DATE 10/26/2021
ECN NO. N/A				CHK BY MCR	DATE 10/26/2021

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**ATEVO 3PH BATTERY CHARGER  
CONTROL PANEL / PC BOARD DETAIL  
3Ø WITH COMMON OPTIONS 125-300A**

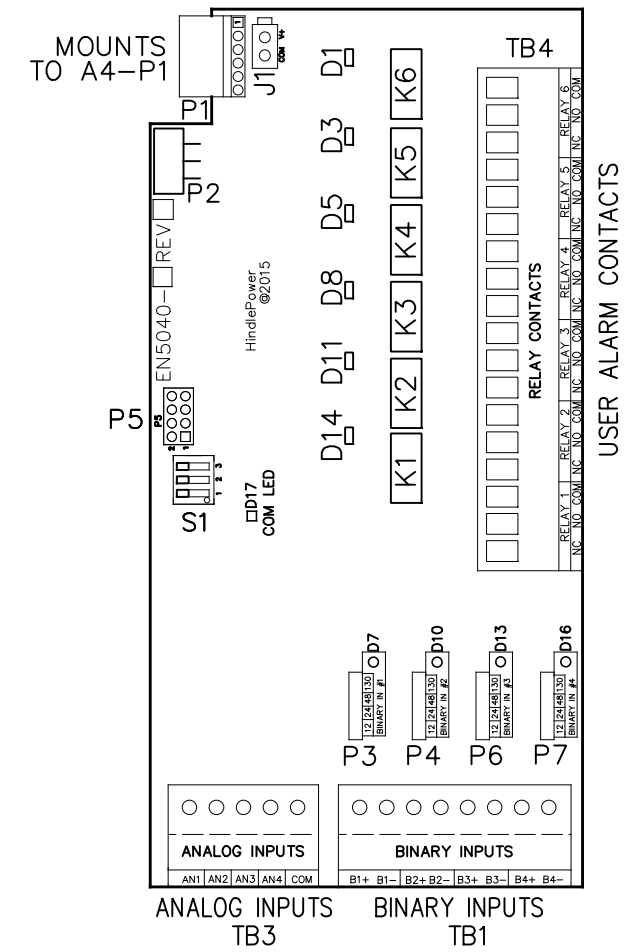
SCALE: **B** DWG No: **JE5339-24** REV: **0** SHEET: **1 OF 2**



MOUNTS TO A2-J105

- USER TERMINALS ON POWER BOARD (A2):**  
 TB1 - REMOTE VOLTAGE SENSE  
 TB8 - BATTERY TEMPERATURE COMPENSATION
- JUMPERS ON POWER BOARD (A2):**  
 JP102 - GROUND DETECT CIRCUIT ENABLE / DISABLE  
 JP103 - REMOTE OR LOCAL SENSE SELECTOR (+)  
 JP104 - REMOTE OR LOCAL SENSE SELECTOR (-)
- CONNECTORS ON POWER BOARD (A2):**  
 J1 - POWER OUT  
 J25 - MAIN CONTROL SIGNAL HARNESS  
 J26 - SCR FIRING CONTROL HARNESS  
 J101 - DC POWER SUPPLY  
 J102 - DC POWER SUPPLY  
 J104 - BATTERY SHUNT  
 J105 - AUXILIARY I/O BOARD  
 P1 - MAIN CONTROL BOARD RIBBON 1  
 P2 - MAIN CONTROL BOARD RIBBON 2  
 P4 - CB1 AUX  
 P5 - RECTIFIER TEMP SENSOR INTERFACE
- TEST POINTS ON POWER BOARD (A2):**  
 TP1 - PRE-FILTERED DC BUS (-)  
 TP2 - PRE-FILTERED DC BUS (+)

POWER BOARD (A2)

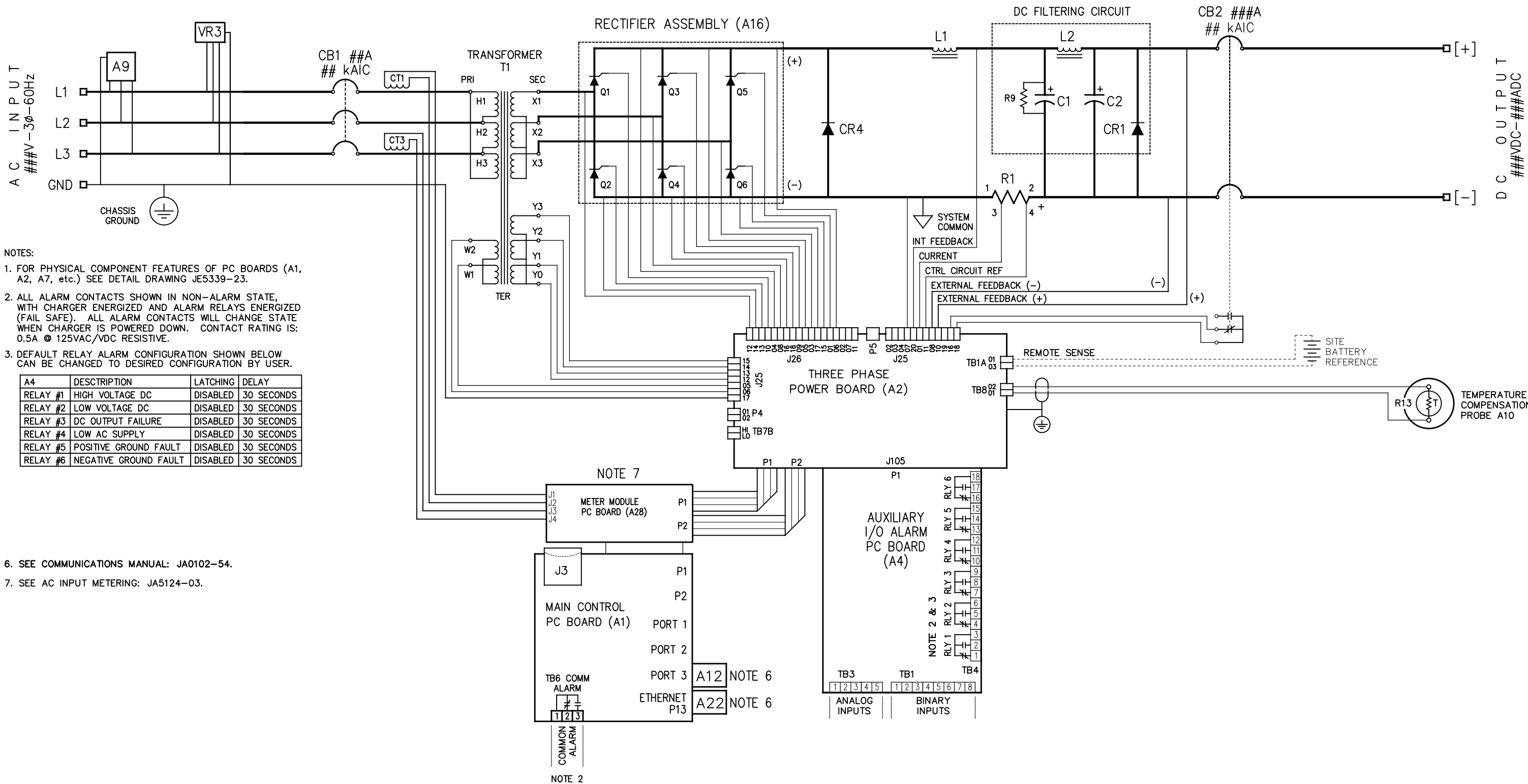


AUXILIARY I/O BOARD (A4)

- JUMPERS & CONFIGURATION SWITCHES FOR AUX I/O BOARD (A4)**  
 J1 - AUXILIARY POWER INPUT  
 P1 - POWER BOARD (PRIMARY POWER & COMM SOURCE)  
 P5 - PROGRAMMING HEADER
- USER TERMINALS ON RELAY BOARD (A4):**  
 D1 - RED - RELAY #6 IN ALARM STATE  
 D3 - RED - RELAY #5 IN ALARM STATE  
 D5 - RED - RELAY #4 IN ALARM STATE  
 D7 - YELLOW - BINARY INPUT #1 IS ABOVE THRESHOLD  
 D8 - RED - RELAY #3 IN ALARM STATE  
 D10 - YELLOW - BINARY INPUT #2 IS ABOVE THRESHOLD  
 D11 - RED - RELAY #2 IN ALARM STATE  
 D13 - YELLOW - BINARY INPUT #3 IS ABOVE THRESHOLD  
 D14 - RED - RELAY #1 IN ALARM STATE  
 D16 - YELLOW - BINARY INPUT #4 IS ABOVE THRESHOLD  
 D17 - GREEN - COMMUNICATION TO MAIN BOARD (FLASHING)
- USER TERMINALS ON RELAY BOARD (A4):**  
 TB1 - BINARY INPUTS  
 TB2 - SERIAL INTERFACE  
 TB3 - ANALOG INPUTS  
 TB4 - AUXILIARY I/O RELAY CONTACTS
- JUMPERS & CONFIGURATION SWITCHES**  
 P3, 4, 6, 7 - BINARY INPUT VOLTAGE CONFIGURATION JUMPERS  
 S1 - BOARD ADDRESS DIPSWITCH

I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
(A2) TB1A	POS/NEG REMOTE SENSE TERMS (A2) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A2) TB8	TEMPCO PROBE (A10) TERM BLK - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A4) TB1	AUX I/O BINARY INPUTS (A4) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A4) TB3	AUX I/O ANALOG INPUTS (A4) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A4) TB4	AUX I/O RELAY CONTACTS (A4) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG

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CHK BY MCR	DATE: 10/26/2021		
CHK BY MCR	DATE: 10/26/2021		
TITLE		<b>ATEVO BATTERY CHARGER          CONTROL PANEL / PC BOARD DETAIL          3Ø WITH COMMON OPTIONS 125-300A</b>	
		<b>B</b> SCALE NTS	DWG No <b>JE5339-24</b>
		REV 0	SHEET 2 OF 2

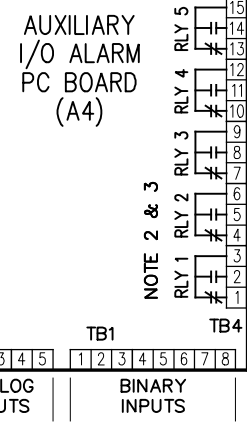
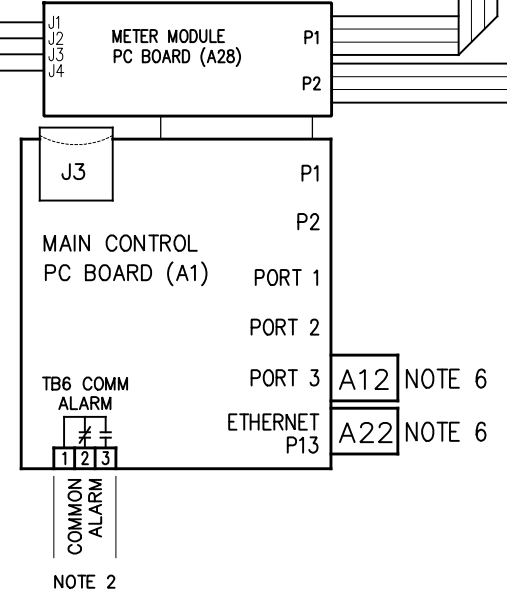


- NOTES:
- FOR PHYSICAL COMPONENT FEATURES OF PC BOARDS (A1, A2, A7, etc.) SEE DETAIL DRAWING JE5339-23.
  - ALL ALARM CONTACTS SHOWN IN NON-ALARM STATE, WITH CHARGER ENERGIZED AND ALARM RELAYS ENERGIZED (FAIL SAFE). ALL ALARM CONTACTS WILL CHANGE STATE WHEN CHARGER IS POWERED DOWN. CONTACT RATING IS: 0.5A @ 125VAC/VDC RESISTIVE.
  - DEFAULT RELAY ALARM CONFIGURATION SHOWN BELOW CAN BE CHANGED TO DESIRED CONFIGURATION BY USER.

A4	DESCRIPTION	LATCHING	DELAY
RELAY #1	HIGH VOLTAGE DC	DISABLED	30 SECONDS
RELAY #2	LOW VOLTAGE DC	DISABLED	30 SECONDS
RELAY #3	DC OUTPUT FAILURE	DISABLED	30 SECONDS
RELAY #4	LOW AC SUPPLY	DISABLED	30 SECONDS
RELAY #5	POSITIVE GROUND FAULT	DISABLED	30 SECONDS
RELAY #6	NEGATIVE GROUND FAULT	DISABLED	30 SECONDS

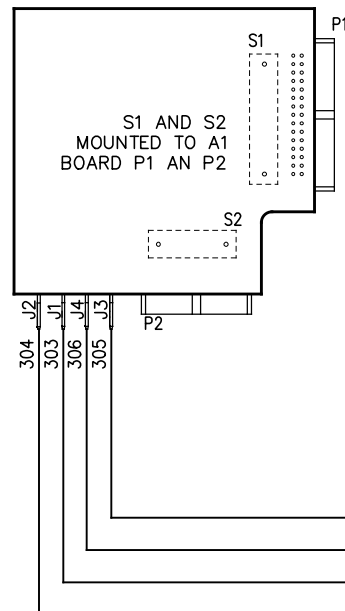
- SEE COMMUNICATIONS MANUAL: JA0102-54.
- SEE AC INPUT METERING: JA5124-03.

NOTE 7

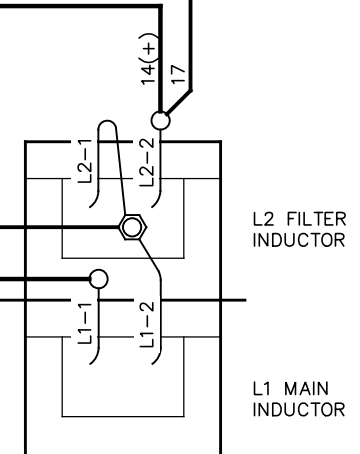
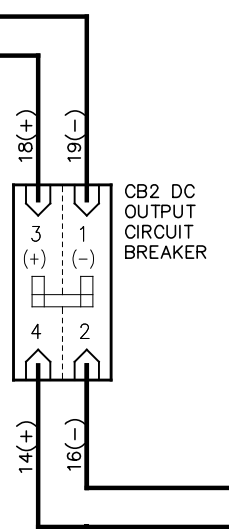
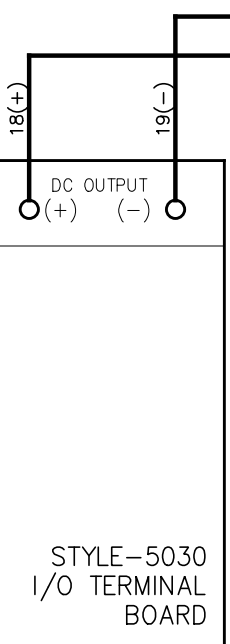
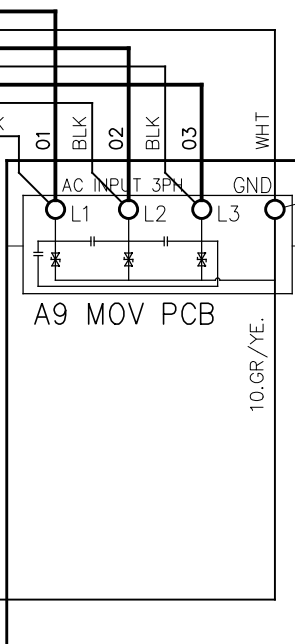
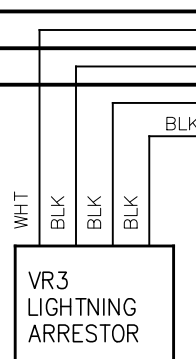
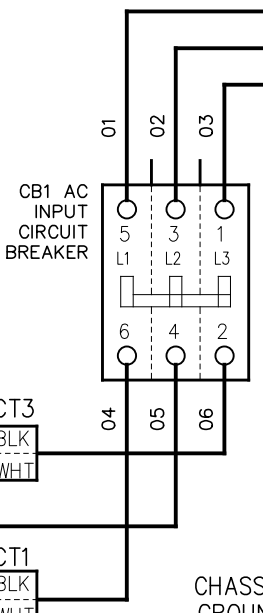
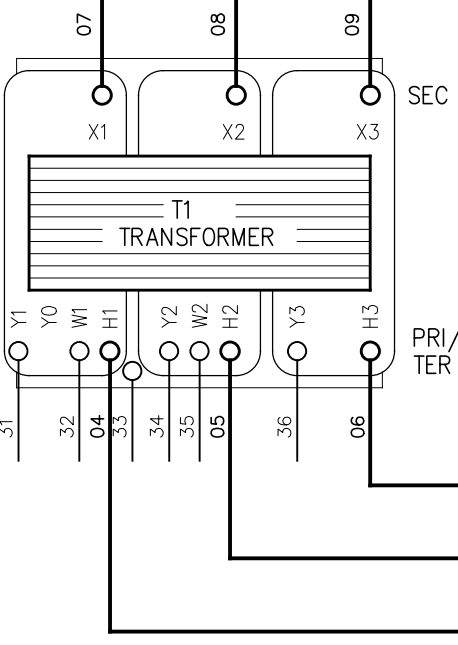
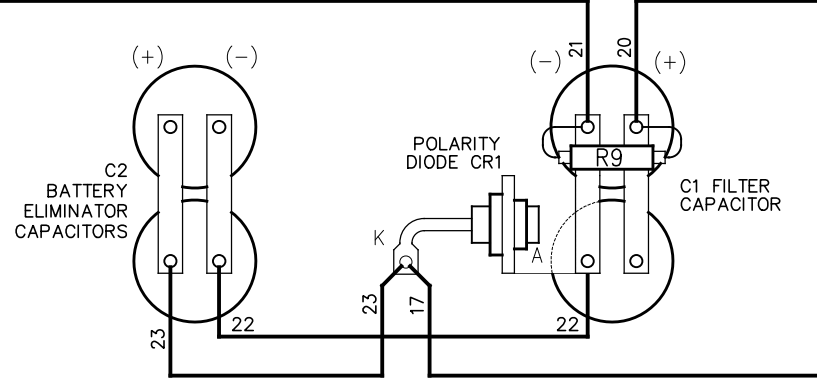
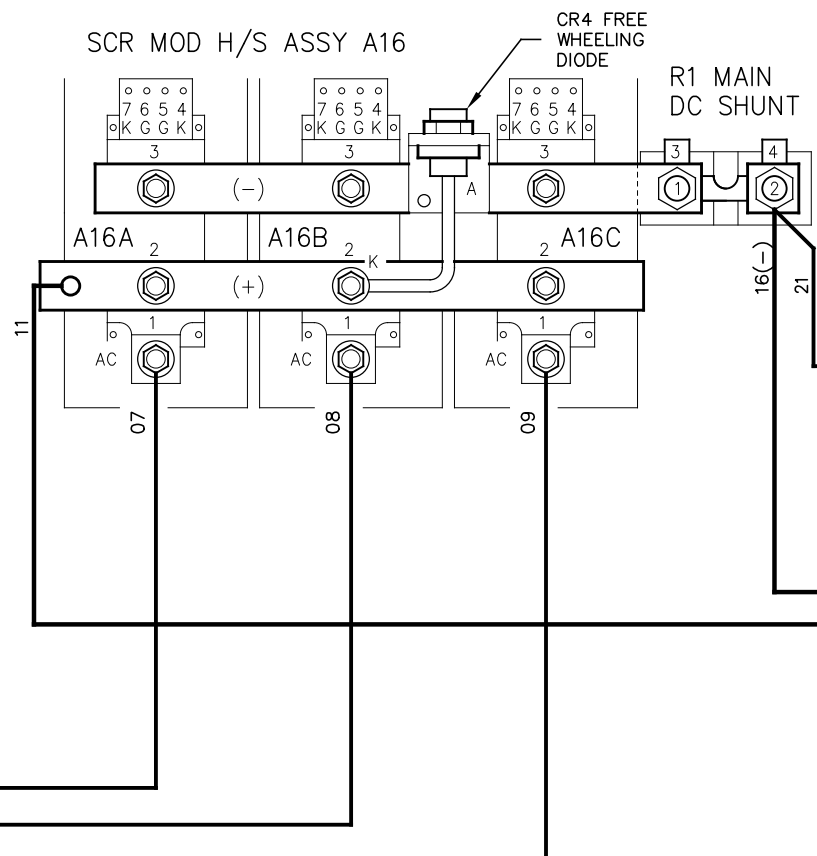


REV. DRN BY 0 KJB	CHK BY MCR	APP BY MCR	DATE 10/26/2021	DRN BY KJB	DATE 10/26/2021
DESCRIPTION STANDARD DRAWINGS.				CHK BY MCR	DATE 10/26/2021
ECN NO. N/A				CHK BY MCR	DATE 10/26/2021
<b>BATTERY CHARGER</b> <b>SCHEMATIC: STYLE 5030</b> <b>3φ WITH COMMON OPTIONS 125-300A</b>					
SCALE NTS		DWG No JE5340-24		REV 0	SHEET 1 OF 1

METER MODULE PC BOARD (A28)



SCR MOD H/S ASSY A16



- NOTES:
1. CHARGER COMPONENTS ARE CONNECTED WITH BLACK FLAME-RETARDANT SWITCHBOARD INSULATION SYSTEM (SIS) TYPE WIRING, IDENTIFIED ON EACH END WITH NUMBER-CODED MARKERS. GROUND WIRES ARE GREEN WITH YELLOW STRIPE.
  2. THIS DRAWING (SHEET 1) SHOWS THE MAINFRAME POWER WIRING AND USER CONNECTION CONTACTS TO CONTROL PC BOARDS (A1 & A2). SEE SHEET 2 FOR ALL CONTROL (SIGNAL) WIRING.

REV. 2	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 9/11/2023	DRN BY KJB	DATE 10/26/2021
DESCRIPTION				REVISED T1 SINGAL WIRING ORDER.	CHK BY MCR	DATE 10/26/2021
ECN NO. N/A					CHK BY MCR	DATE 10/26/2021

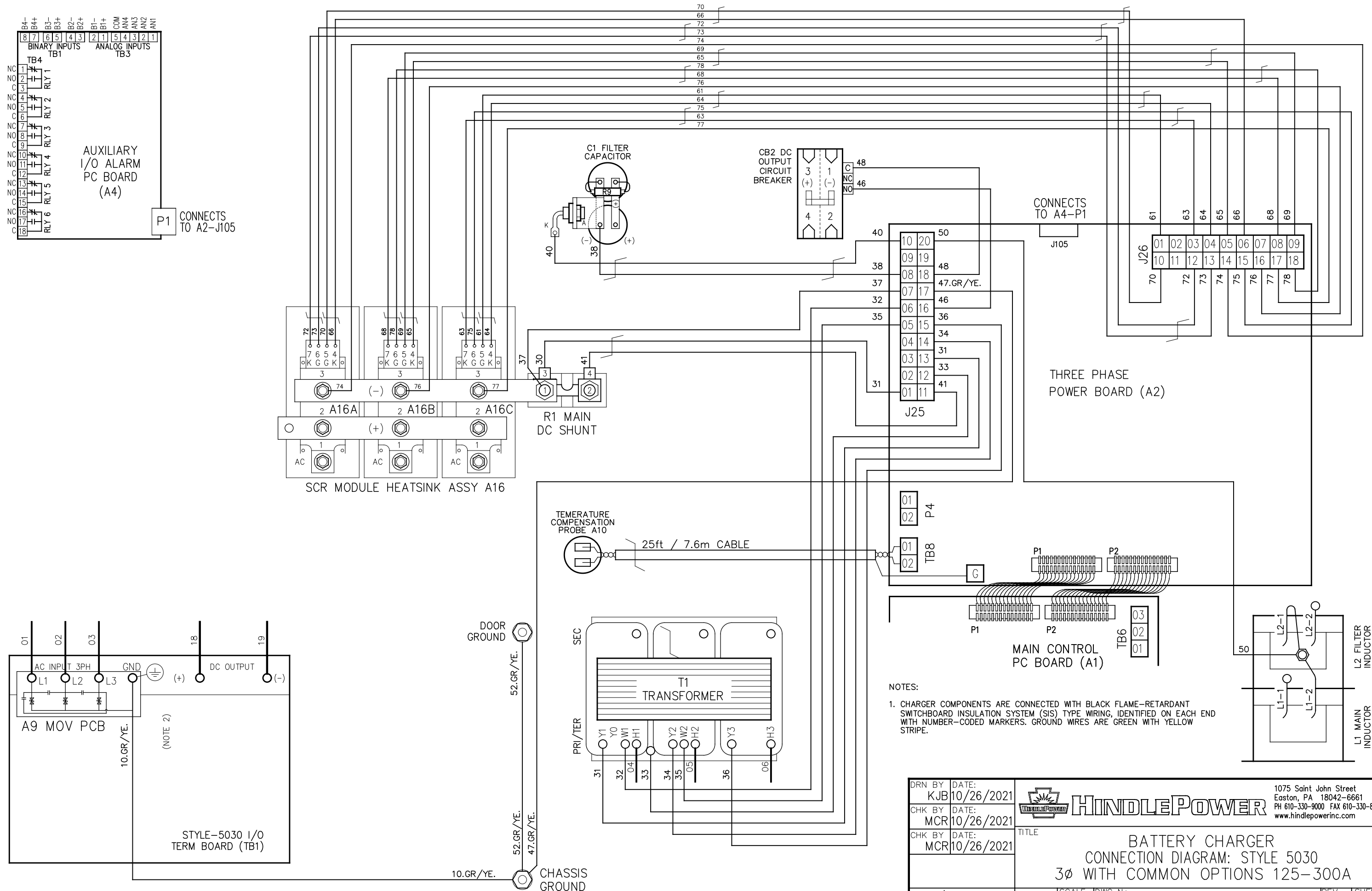
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TITLE  
**BATTERY CHARGER**  
 CONNECTION DIAGRAM: STYLE 5030  
 3Ø WITH COMMON OPTIONS 125-300A

SCALE: NTS DWG No: **JE5341-24**

REV 2 SHEET 1 OF 2



NOTES:  
 1. CHARGER COMPONENTS ARE CONNECTED WITH BLACK FLAME-RETARDANT SWITCHBOARD INSULATION SYSTEM (SIS) TYPE WIRING, IDENTIFIED ON EACH END WITH NUMBER-CODED MARKERS. GROUND WIRES ARE GREEN WITH YELLOW STRIPE.

DRN BY KJB	DATE: 10/26/2021
CHK BY MCR	DATE: 10/26/2021
CHK BY MCR	DATE: 10/26/2021

1075 Saint John Street  
 Easton, PA 18042-6661  
 PH 610-330-9000 FAX 610-330-8510  
 www.hindlepowerinc.com

**HINDLEPOWER**

TITLE  
**BATTERY CHARGER**  
 CONNECTION DIAGRAM: STYLE 5030  
 3Ø WITH COMMON OPTIONS 125-300A

	<b>B</b>	SCALE	DWG No	REV	SHEET
		NTS	JE5341-24	2	2 OF 2