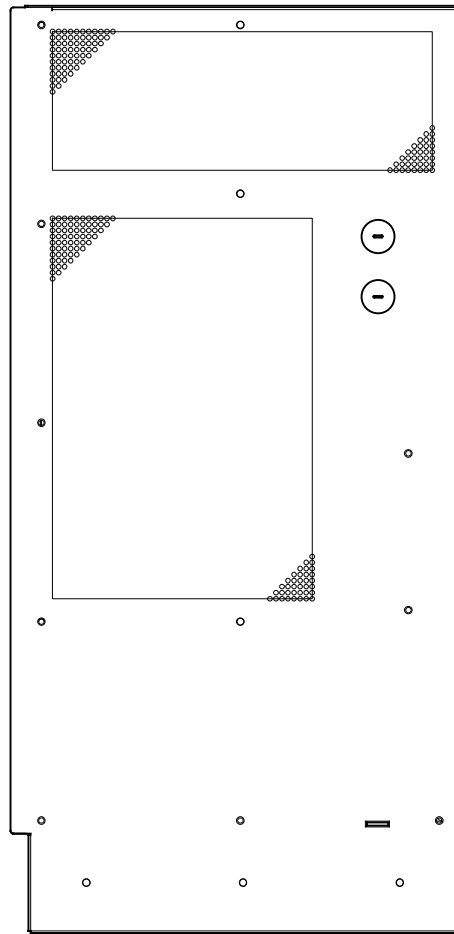
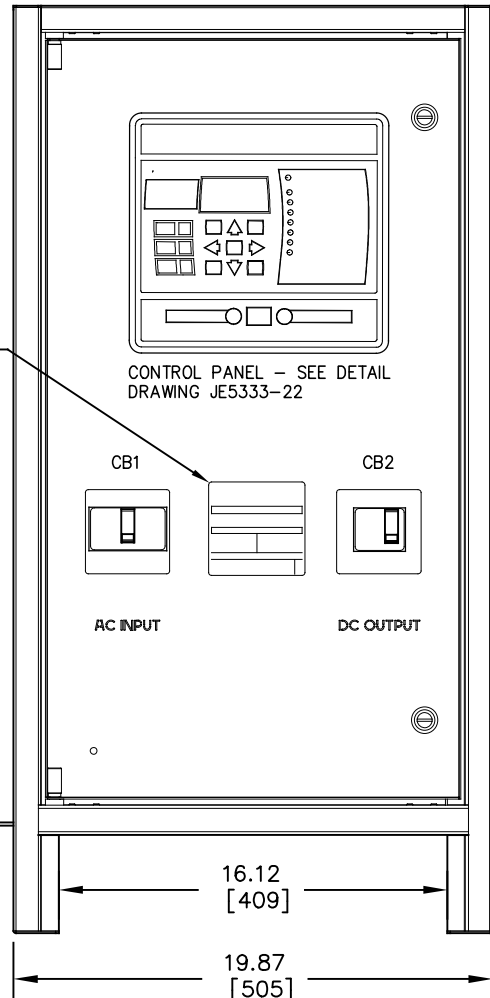


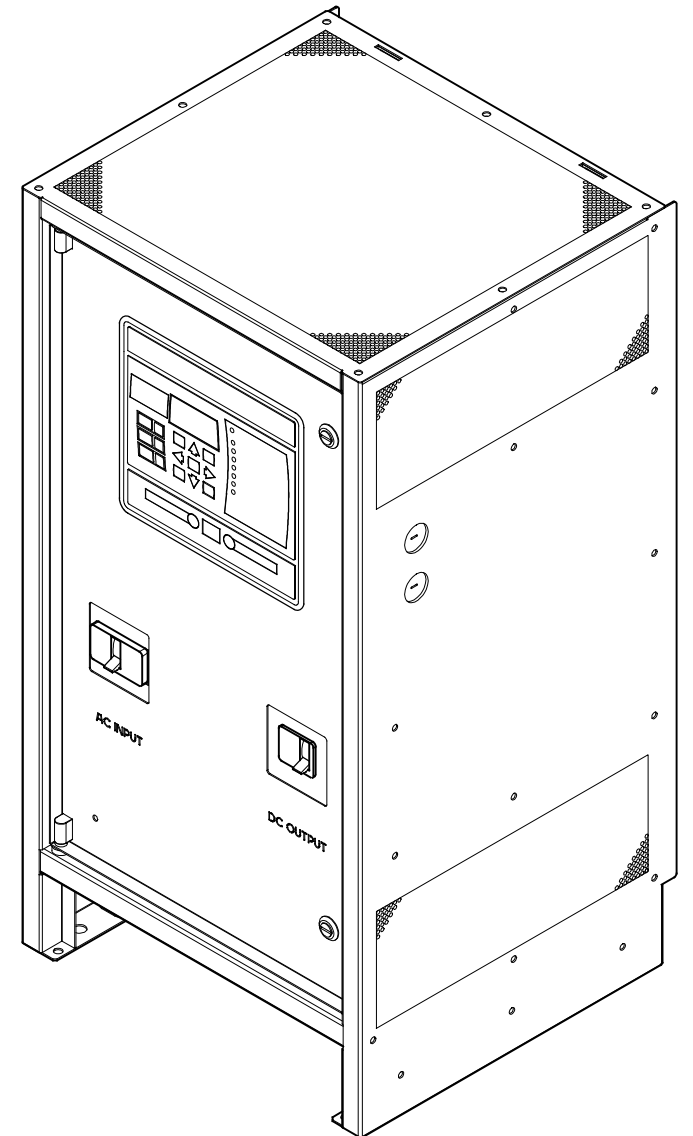
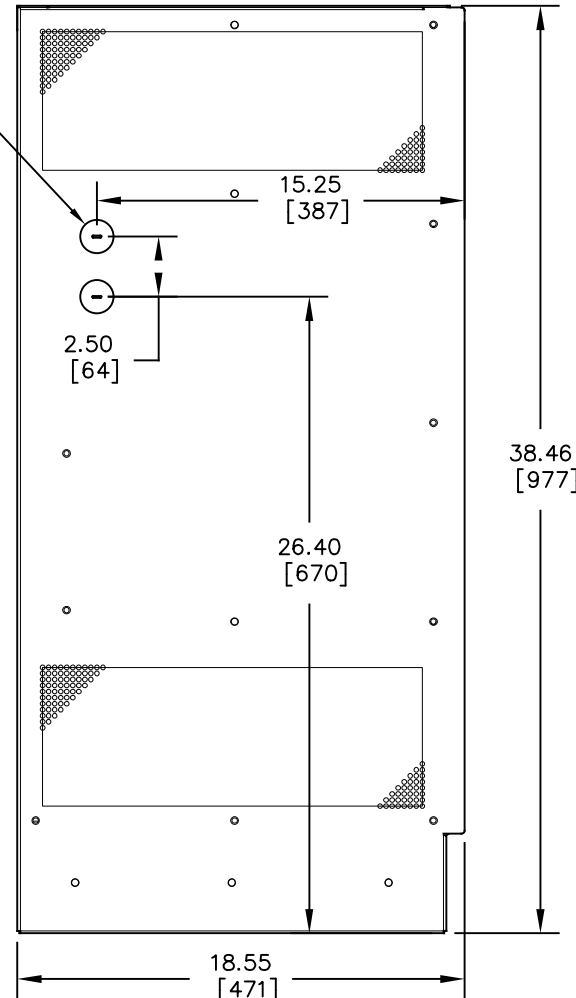
LEFT SIDE VIEW



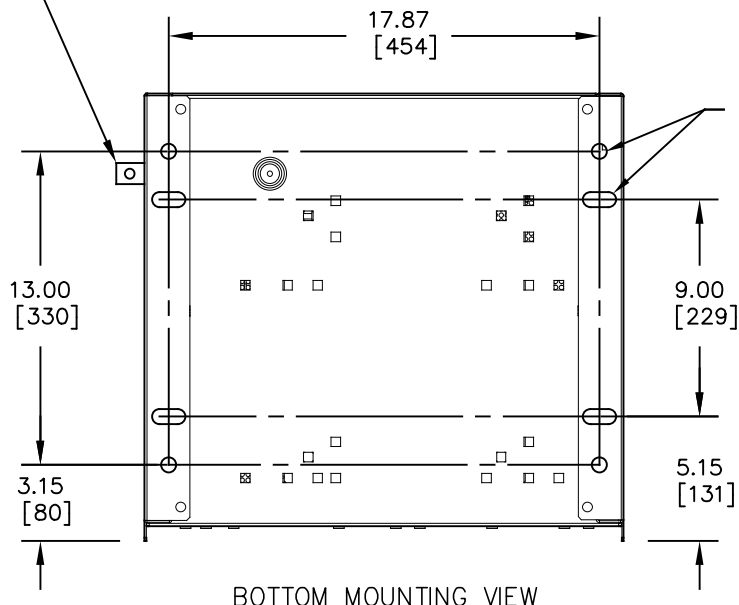
FRONT VIEW



RIGHT SIDE VIEW



NOTE 7



NOTE 4

NOTES:

- ENCLOSURE IS A NEMA TYPE 1 / IP20 TOP-VENTED STEEL CABINET WITHOUT GASKETS. FINISH IS ANSI-61 GRAY EPOXY POWDERCOAT. MOUNTING BASE IS 12 GA. SIDE PANELS ARE 14 GA. TOP PANEL AND DOOR ARE 16 GA.
- ALLOW 6in / 152mm OF FREE AIR ON ALL VENTED SURFACES (TOP, SIDES & REAR) FOR COOLING.
- DATA NAMEPLATE (WITH CHARGER RATINGS) MOUNTED ON DOOR.
- FOUR (4) 0.5in / 12mm FLOOR-MOUNTING HOLES AND FOUR (4) 1in x 0.625in / 25mm x 16mm FLOOR-MOUNTING SLOTS ARE PROVIDED ON BOTTOM OF ENCLOSURE AS SHOWN.
- FOUR (4) 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
- GROUND BUS BAR WITH 0.41 in / 10.41 mm DIA HOLE.

DUAL DIMENSIONS in [mm]

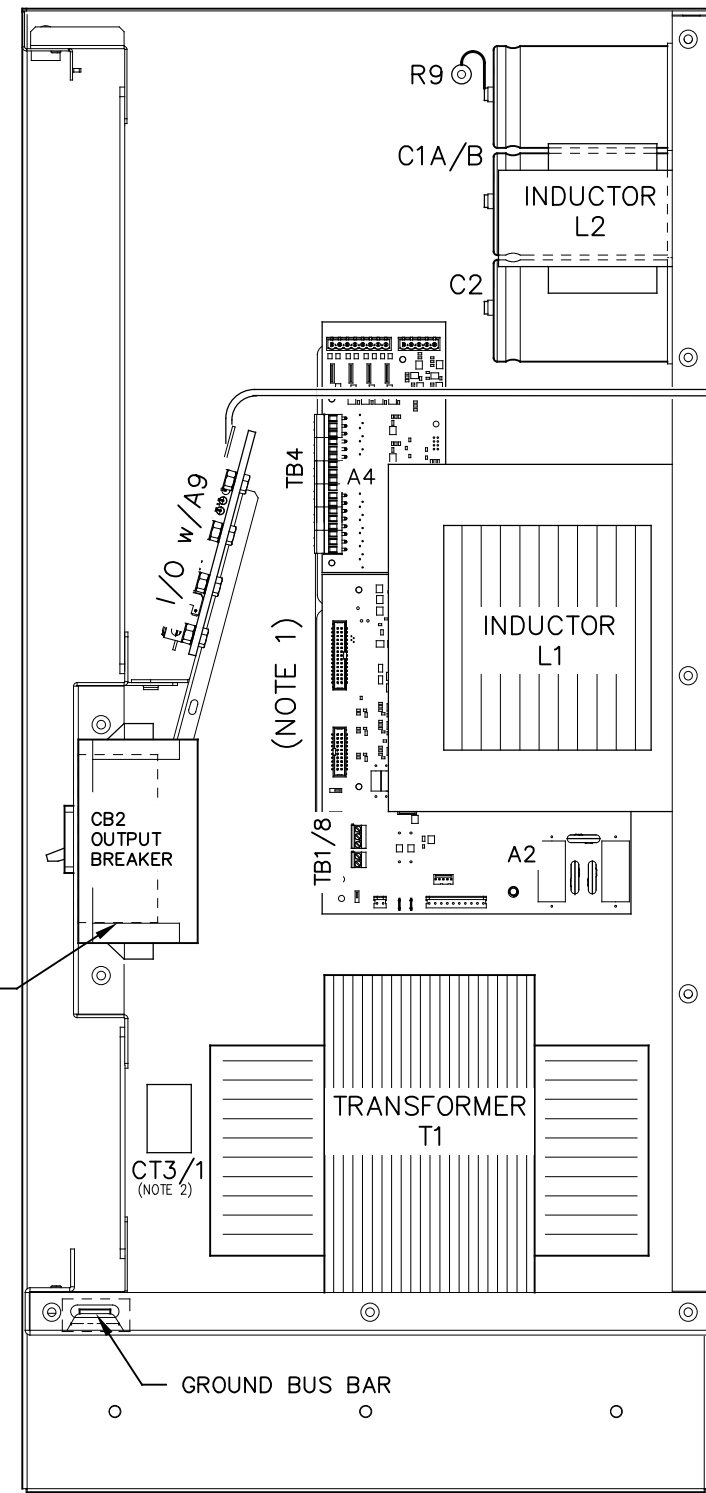
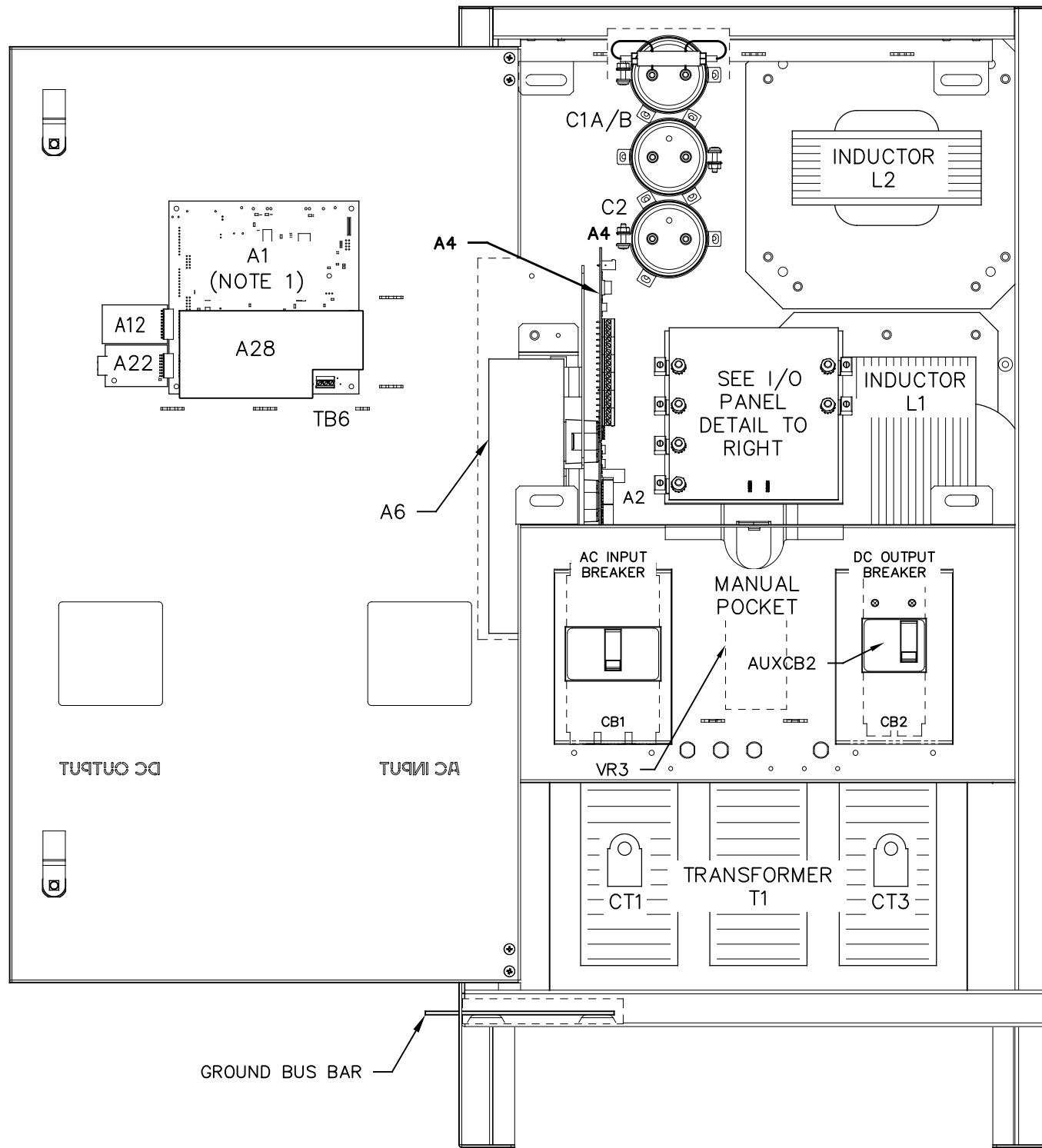
REV. 2	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 2/1/2023	DRN BY KMW	DATE 11/05/19
DESCRIPTION				SMALL CORRECTIONS.	CHK BY MCR	DATE 11/05/19
ECN No. N/A				APP BY MCR	DATE 11/05/19	

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TITLE
**ATEVO BATTERY CHARGER
OUTLINE: NEMA-1 STYLE-5070 ENCL
3Φ WITH COMMON OPTIONS 75-100A**

B SCALE NTS DWG No JE5331-22 REV 2 SHEET 1 OF 1

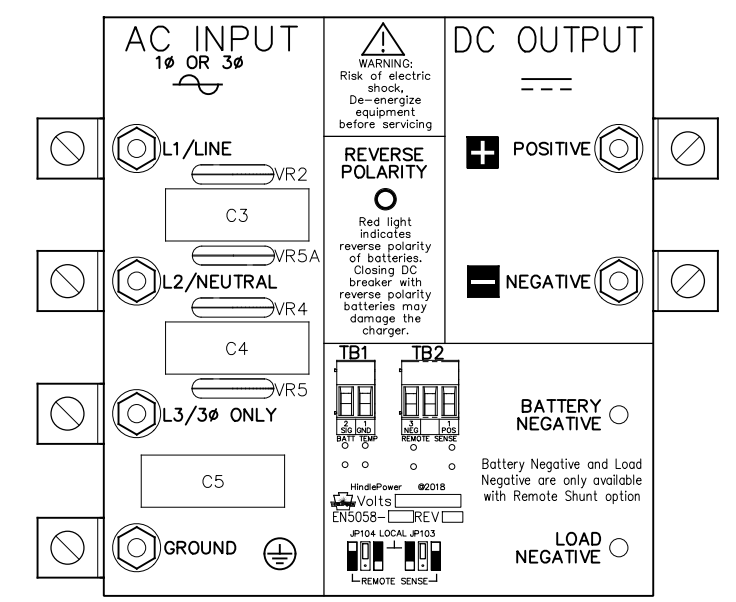


TO BE PLACED NEAR BATTERY CELL

SYM STANDARD COMPONENT DESCRIPTION	
A1	MAIN CONTROL PC BOARD
A6	RECTIFIER H/S ASSEMBLY
A2	POWER BOARD
C1	FILTER CAPACITOR
A9	MOV PC BOARD
CB1	AC INPUT CIRCUIT BREAKER (Bx3)
CB2	DC OUTPUT CIRCUIT BREAKER (Bx2)
AUXCB2	DC CKT BKR (CB2) AUXILIARY CONTACTS
L1	MAIN INDUCTOR
L2	FILTER INDUCTOR
T1	POWER TRANSFORMER
R9	FILTER CAP BLEED RESISTOR

SYM FEATURED OPTION COMP DESCRIPTION	
A4	AUXILIARY I/O PC BOARD
A10	TEMPERATURE COMPENSATION PROBE
A12	SERIAL COMMUNICATION ADAPTER
A22	ETHERNET ADAPTER
A28	AC METER MODULE PC BOARD
C2	BATTERY ELIMINATOR FILTER CAP
CTx	CURRENT TRANSFORMERS
VR3	AC INPUT LIGHTNING ARRESTOR

ST-5070 I/O TERMINAL BOARD DETAIL



MOV PC BOARD (A9)

I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
I/O (+/-)	POS/NEG OUTPUT TERMINALS - CU-ALUMINUM COMPRESSION LUG	#14-1/0 AWG
GND LUG	USER GROUND TERMINAL - CU-ALUMINUM COMPRESSION LUG	#14-1/0 AWG
I/O (L1/L2/L3)	AC INPUT TERMINALS - CU-ALUMINUM COMPRESSION LUG	#14-1/0 AWG
GND BUS	COPPER GROUND BUS - 0.41 in / 10.41 mm DIA HOLE	0.38in/9.7mm RING LUG
(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

- NOTES:
- FOR DETAIL VIEWS OF ALL PC BOARDS (A1, A2, etc.) SEE DRAWING JE5333-22.
 - CURRENT TRANSFORMERS AFFIXED TO LINE 1 AND LINE 3 BETWEEN AC INPUT BREAKER (CB1) AND POWER ISOLATION TRANSFORMER (T1).

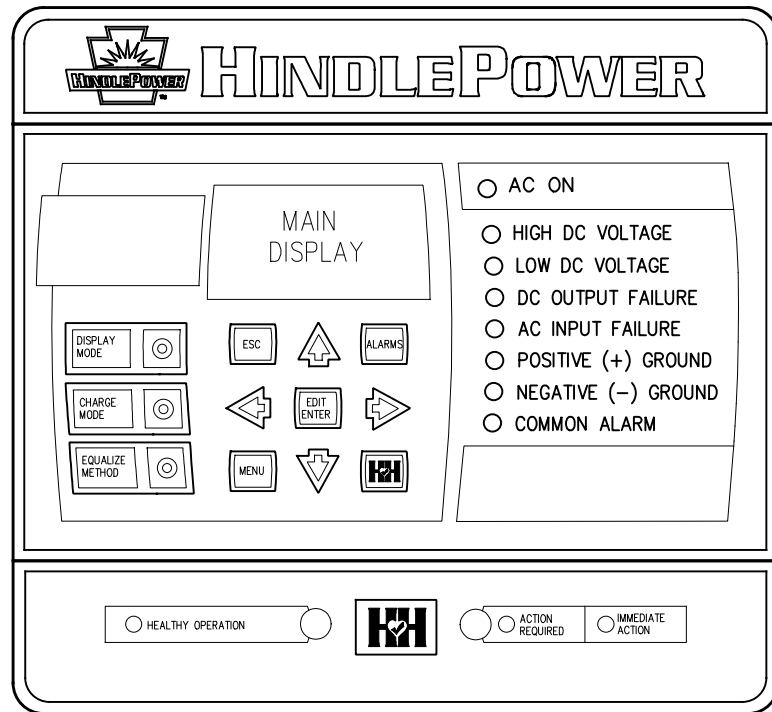
REV. 2	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 2/1/2023	DRN BY KMW	DATE: 11/05/19
DESCRIPTION: SMALL CORRECTIONS.					CHK BY MCR	DATE: 11/05/19
ECN No. N/A					APP BY MCR	DATE: 11/05/19

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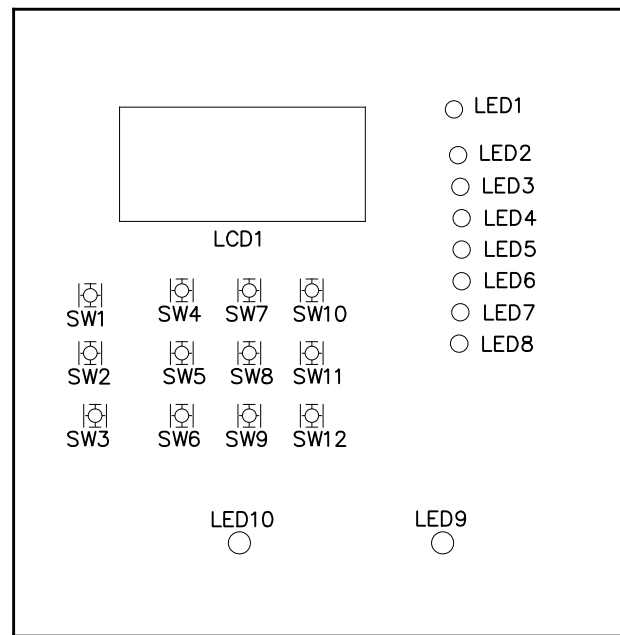
TITLE: **ATEVO BATTERY CHARGER**
INTERNAL COMPONENT LAYOUT: STYLE-5070
3Ø WITH COMMON OPTIONS 75-100A

B SCALE DWG No **JE5332-22** REV **2** SHEET **1 OF 1**

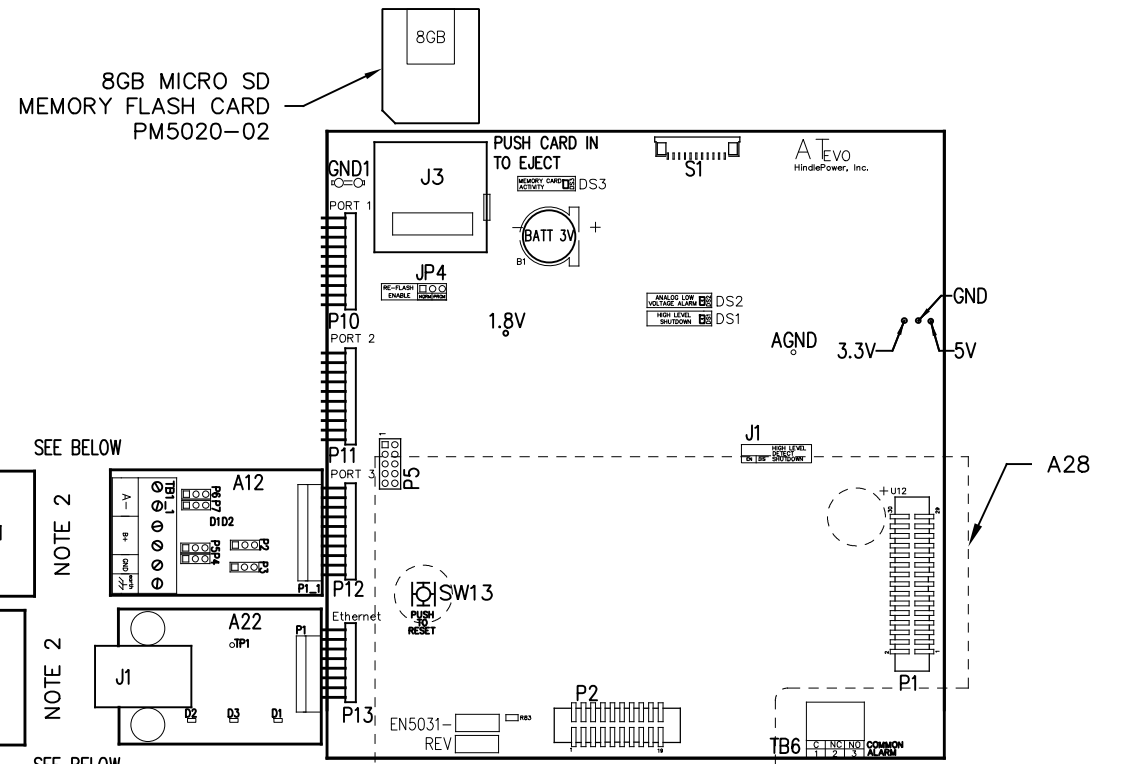


CONTROL PANEL
(PART No. FK5047-00)

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.

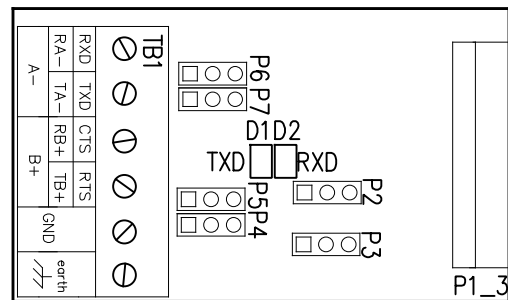


MAIN CONTROL PC BOARD (A1)
FRONT VIEW - FACING CHARGER DOOR WHEN INSTALLED



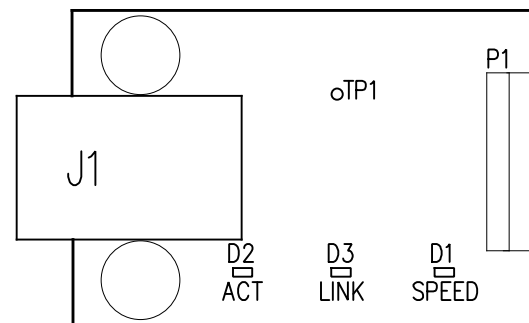
MAIN CONTROL PC BOARD (A1)
BACK VIEW - FACING CHARGER COMPONENTS WHEN INSTALLED

SERIAL COMMUNICATION ADAPTER (A12)



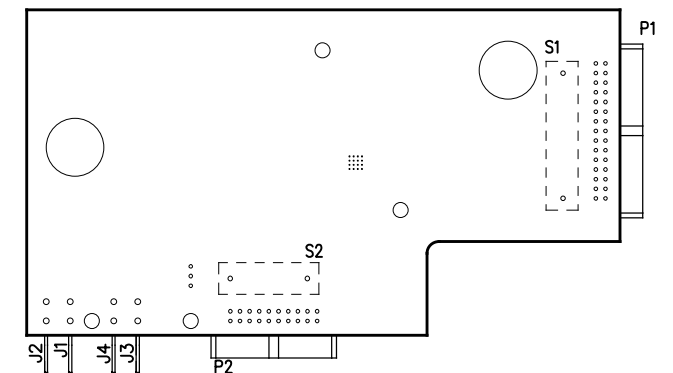
- CONNECTORS (A12):**
P1 - MAIN CONTROL BOARD
- JUMPERS & CONFIGURATION SWITCHES (A12):**
P2 - RECEIVER ENABLE CONTROL SELECTION
P3 - MEDIA CONTROL SELECTION (RS-234 OR RS-485)
P4 - RS-485 TERMINATION RESISTOR ENABLE (RECEIVE)
P5 - RS-485 TERMINATION RESISTOR ENABLE (TRANSMIT)
P6 - RS-485 INTERFACE 2 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 (A5):**
P1 - MAIN CONTROL BOARD
J1 - RJ-45 ETHERNET CONNECTION
- INDICATOR LIGHTS (A5 LEDs):**
D1 - ORANGE - ETHERNET SPEED INDICATION 10/100 MBPS
D2 - YELLOW - ETHERNET ACTIVITY (FLASHING)
D3 - RED - ETHERNET LINK
- TEST POINTS (A5):**
TP1 - CLOCK OUT

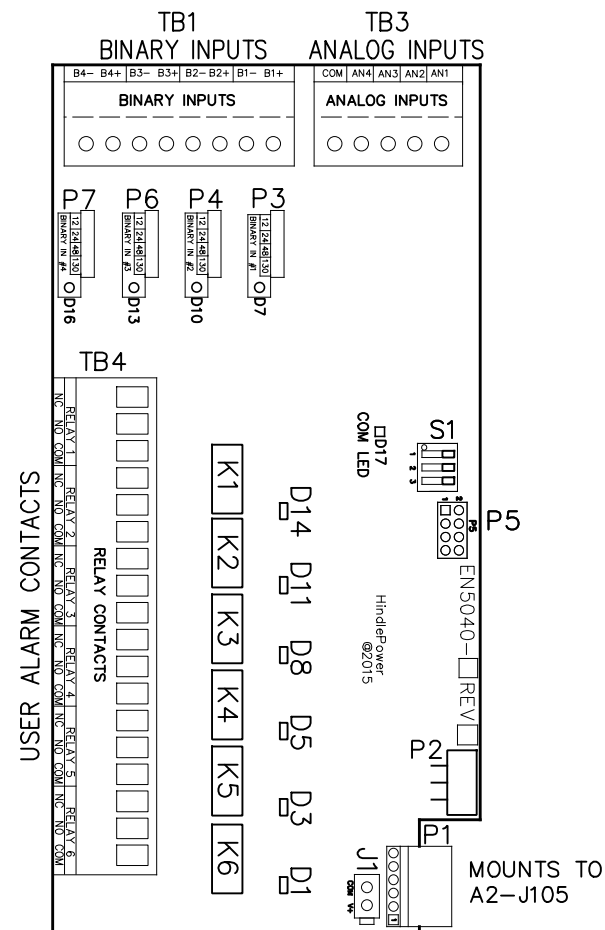
METER MODULE PC BOARD (A28)
MOUNTED ON MAIN CONTROL PC BOARD



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	SERIAL ETHERNET CONNECTION - RJ45 PLUG	CAT5

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 SW13 - 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

REV. 2	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 2/1/2023	DRN BY KMW	DATE: 11/05/19	<p>1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com</p>
DESCRIPTION: SMALL CORRECTIONS.					CHK BY MCR	DATE: 11/05/19	
ECN No. N/A					APP BY MCR	DATE: 11/05/19	
<p>TITLE ATEVO BATTERY CHARGER CONTROL PANEL / PC BOARD DETAIL 3Φ WITH COMMON OPTIONS 75-100A</p>							<p>SCALE NTS DWG No JE5333-22 REV 2 SHEET 1 OF 2</p>
<p>B</p>							



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):

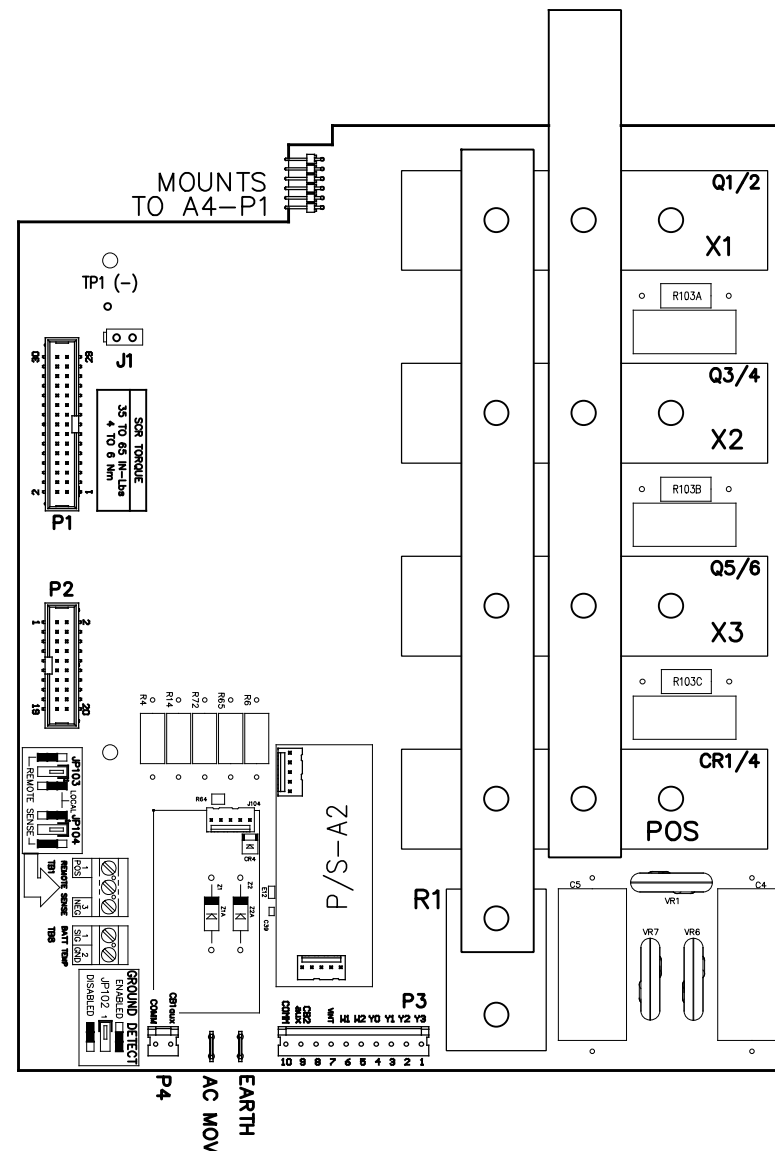
- D1 - RED - RELAY #6 IN ALARM STATE
- D3 - RED - RELAY #5 IN ALARM STATE
- D5 - RED - RELAY #4 IN ALARM STATE
- D7 - YELLOW - BINARY INPUT #1 IS ABOVE THRESHOLD
- D8 - RED - RELAY #3 IN ALARM STATE
- D10 - YELLOW - BINARY INPUT #2 IS ABOVE THRESHOLD
- D11 - RED - RELAY #2 IN ALARM STATE
- D13 - YELLOW - 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



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
- 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
- P3 - Wx, Yx, CB2-AUX, VINT
- P4 - CB1-AUX

DISCRETE TERMINALS:

- AC MOV - CHASSIS EARTH GROUND
- EARTH - CHASSIS EARTH GROUND (DOOR)
- POS - POSITIVE CONNECTION POINT
- NEG - NEGATIVE CONNECTION POINT
- COMM - BREAKER AUX SWITCH COMMON
- X1 - TRANSFORMER SECONDARY WINDING
- X2 - TRANSFORMER SECONDARY WINDING
- X3 - TRANSFORMER SECONDARY WINDING
- L1-1 - FILTER INDUCTOR #1 (TERMINAL #1)
- L1-2 - FILTER INDUCTOR #1 (TERMINAL #2)

TEST POINTS ON POWER BOARD (A2):

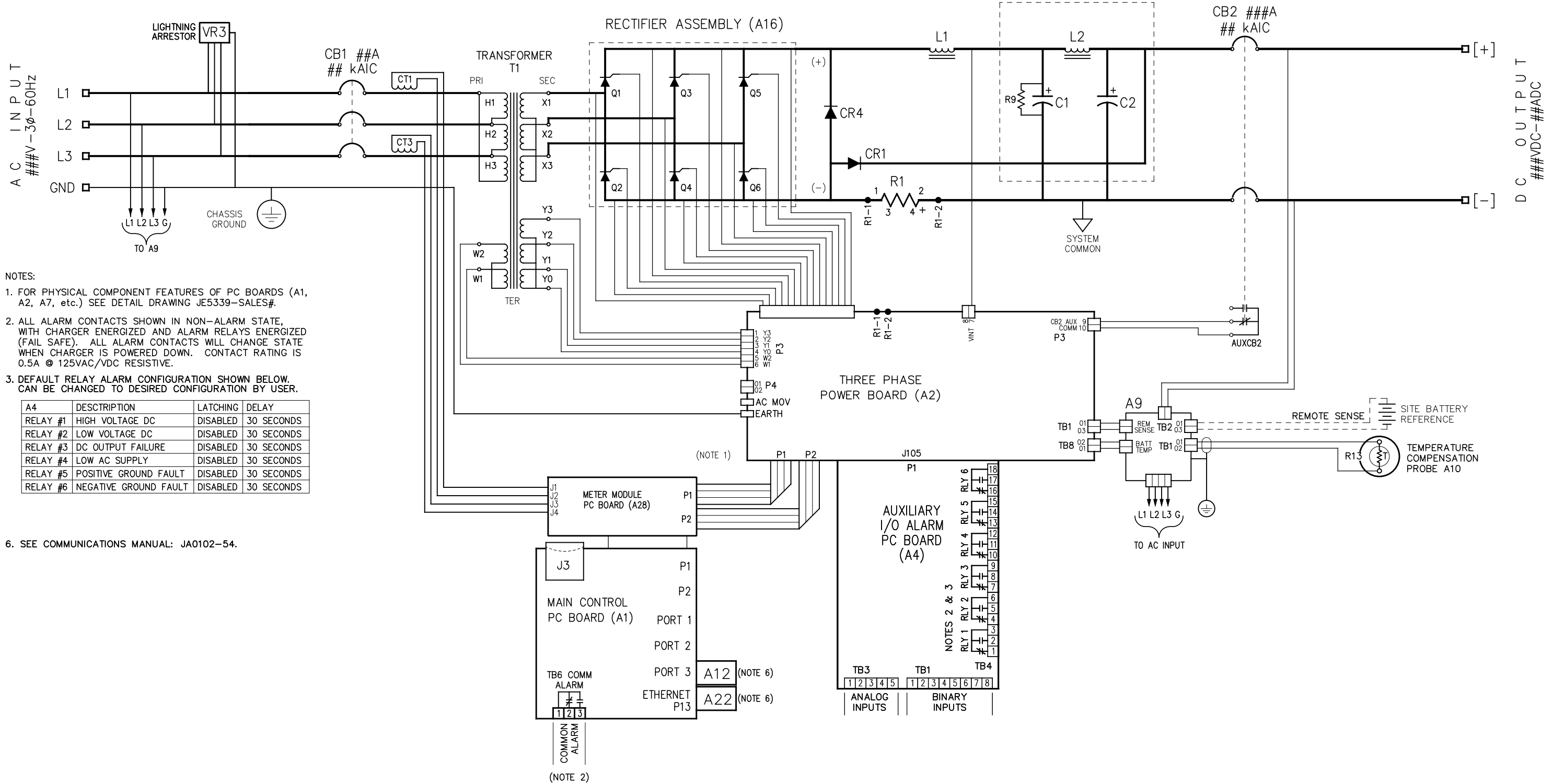
- TP1 - PRE-FILTERED DC BUS (-)
- TP2 - PRE-FILTERED DC BUS (+)
- TP3 - DC BUS (-)
- TP4 - DC BUS (+)

NOTE:

1. REMOTE SENSE JUMPERS (JP103, JP104) MUST BE IN REMOTE SENSE POSITION IN STYLE-5070 ENCLOSURE.

I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
(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) TB1	AUX I/O BINARY INPUTS (A4) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A4) TB2	AUX I/O RELAY CONTACTS (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

REV. 2	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 2/1/2023	DRN BY KMW	DATE: 11/05/19
DESCRIPTION: SMALL CORRECTIONS.				CHK BY MCR	DATE: 11/05/19	
ECN No. N/A				APP BY MCR	DATE: 11/05/19	
				TITLE: ATEVO BATTERY CHARGER CONTROL PANEL / PC BOARD DETAIL 3φ WITH COMMON OPTIONS 75-100A		
SCALE: B		DWG No: JE5333-22		REV: 2	SHEET: 2 OF 2	



- NOTES:
- FOR PHYSICAL COMPONENT FEATURES OF PC BOARDS (A1, A2, A7, etc.) SEE DETAIL DRAWING JE5339-SALES#.
 - 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

6. SEE COMMUNICATIONS MANUAL: JA0102-54.

REV. DRN BY 0A KJB	CHK BY MCR	APP BY MCR	DATE 2/1/2023	DRN BY KMW	DATE 11/05/19
DESCRIPTION SMALL CORRECTIONS.				CHK BY MCR	DATE 11/05/19
ECN No. N/A				APP BY MCR	DATE 11/05/19

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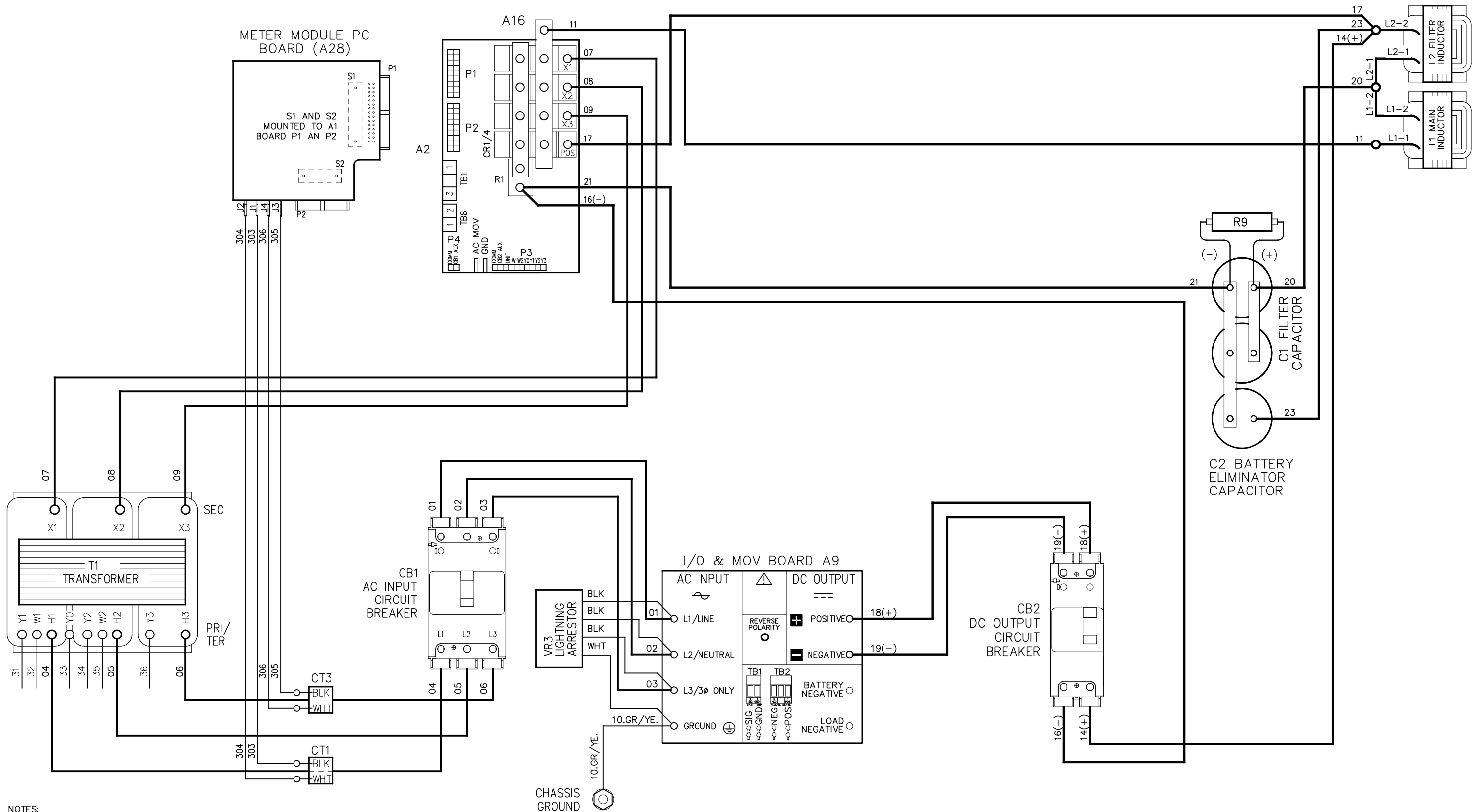
1075 Saint John Street
Easton, PA 18042-6661
PH 610-330-9000 FAX 610-330-8510
www.hindlepowerinc.com

TITLE

ATEVO BATTERY CHARGER
SCHEMATIC: STYLE 5070

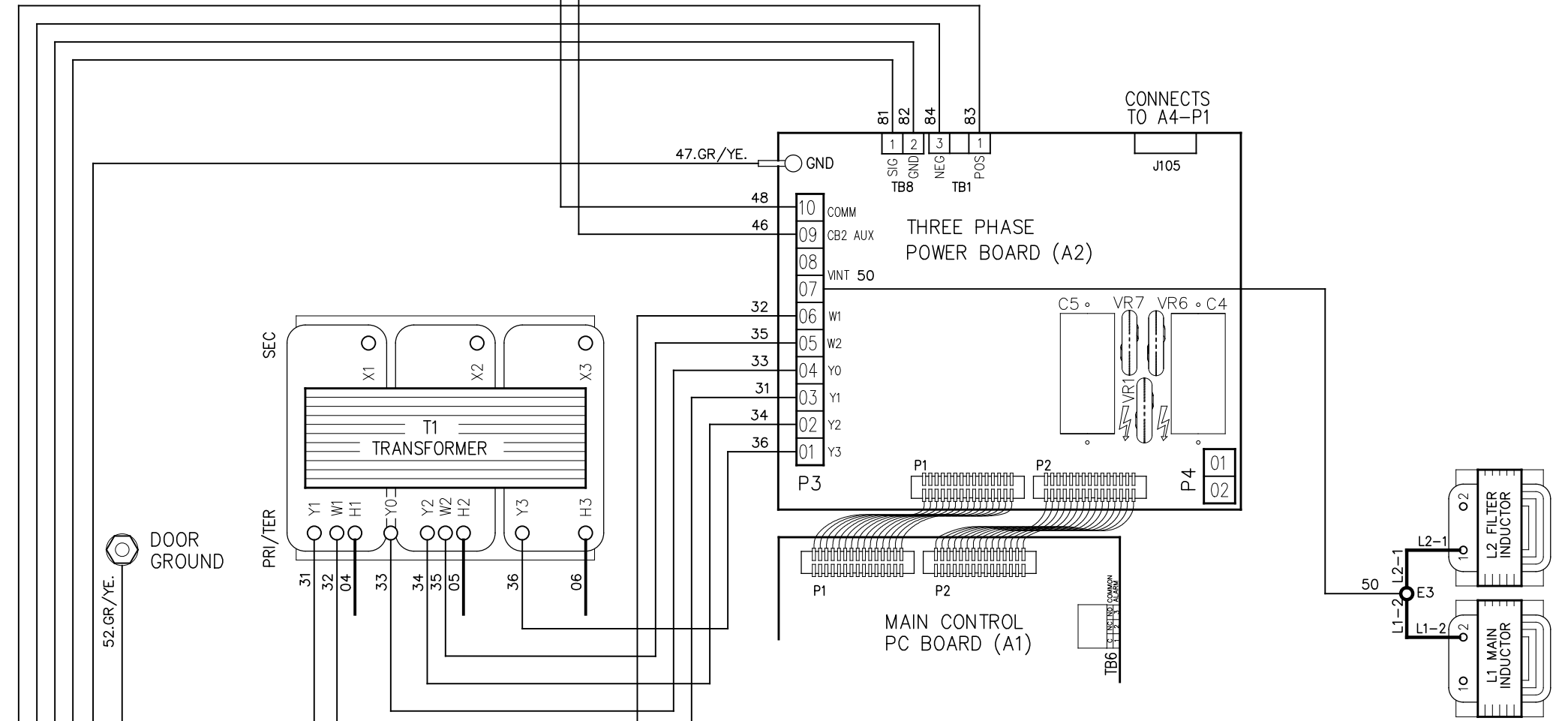
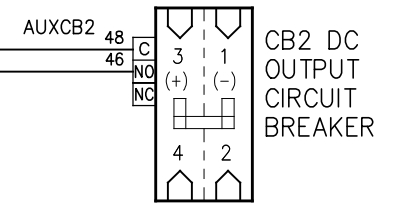
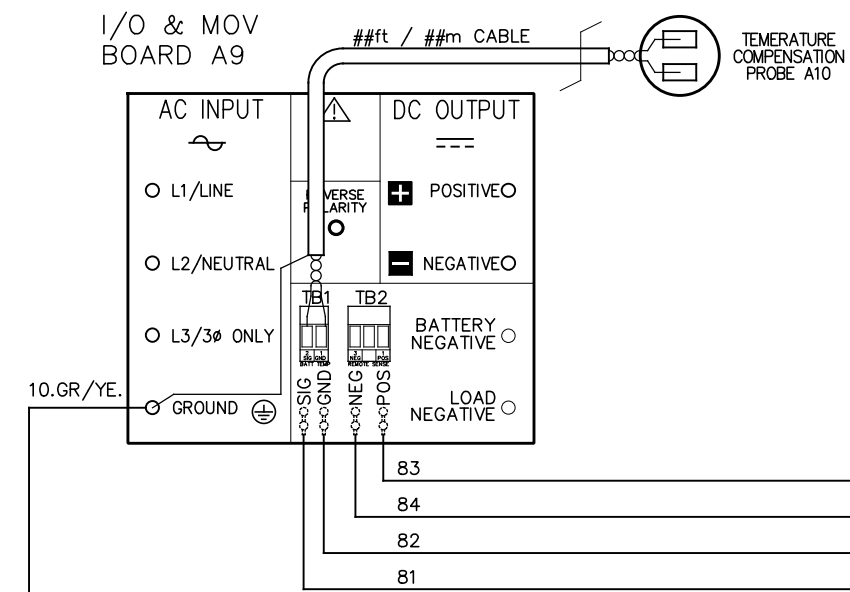
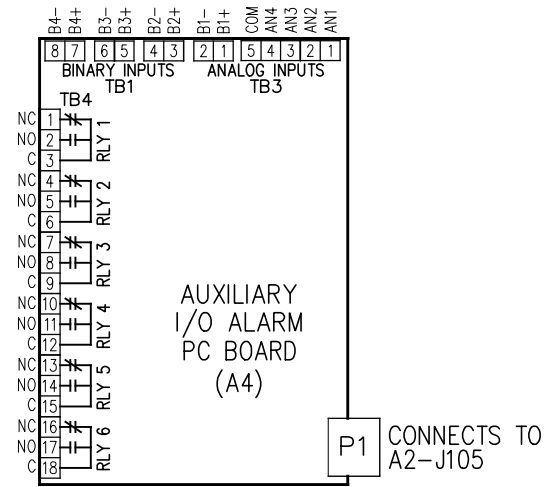
3Φ WITH COMMON OPTIONS 75-100A

B	SCALE NTS	DWG No JE5334-22	REV 0A	SHEET 1 OF 1
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- NOTES:
1. WHEN NATURAL LEADS OF MAGNETICS ARE NOT USED, 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 CONTROL (SIGNAL) WIRING.

REV. 3	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 9/11/2023	DRN BY KMW	DATE 11/05/19	<p>1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com</p>
DESCRIPTION REVISED T1 SINGAL WIRING ORDER.					CHK BY MCR	DATE 11/05/19	
ECN No. N/A					APP BY MCR	DATE 11/05/19	
TITLE ATEVO BATTERY CHARGER CONN DIAGRAM: STYLE 5070 3φ WITH COMMON OPTIONS 75-100A							SCALE DWG No B NTS JE5335-22
							REV SHEET 3 1 OF 2



- NOTES:
1. WHEN NATURAL LEADS OF MAGNETICS ARE NOT USED, 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. STANDARD USER ALARM CONTACTS (TB6 [A1], etc.) ARE SOLDERLESS COMPRESSION SCREW TERMINALS, ACCEPTING #22-14 AWG WIRE.

DRN BY KMW	DATE: 11/05/19		1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com			
CHK BY MCR	DATE: 11/05/19		HINDLEPOWER			
APP BY MCR	DATE: 11/05/19		TITLE ATEVO BATTERY CHARGER CONN DIAGRAM: style 5070 3Ø WITH COMMON OPTIONS 75-100A			
		B	SCALE NTS	DWG No JE5335-22	REV 3	SHEET 2 OF 2