

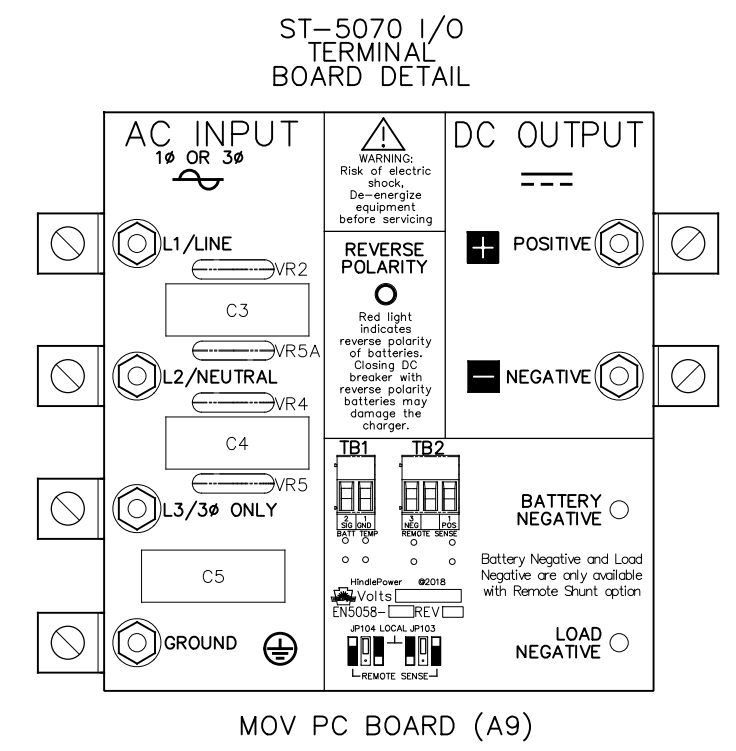
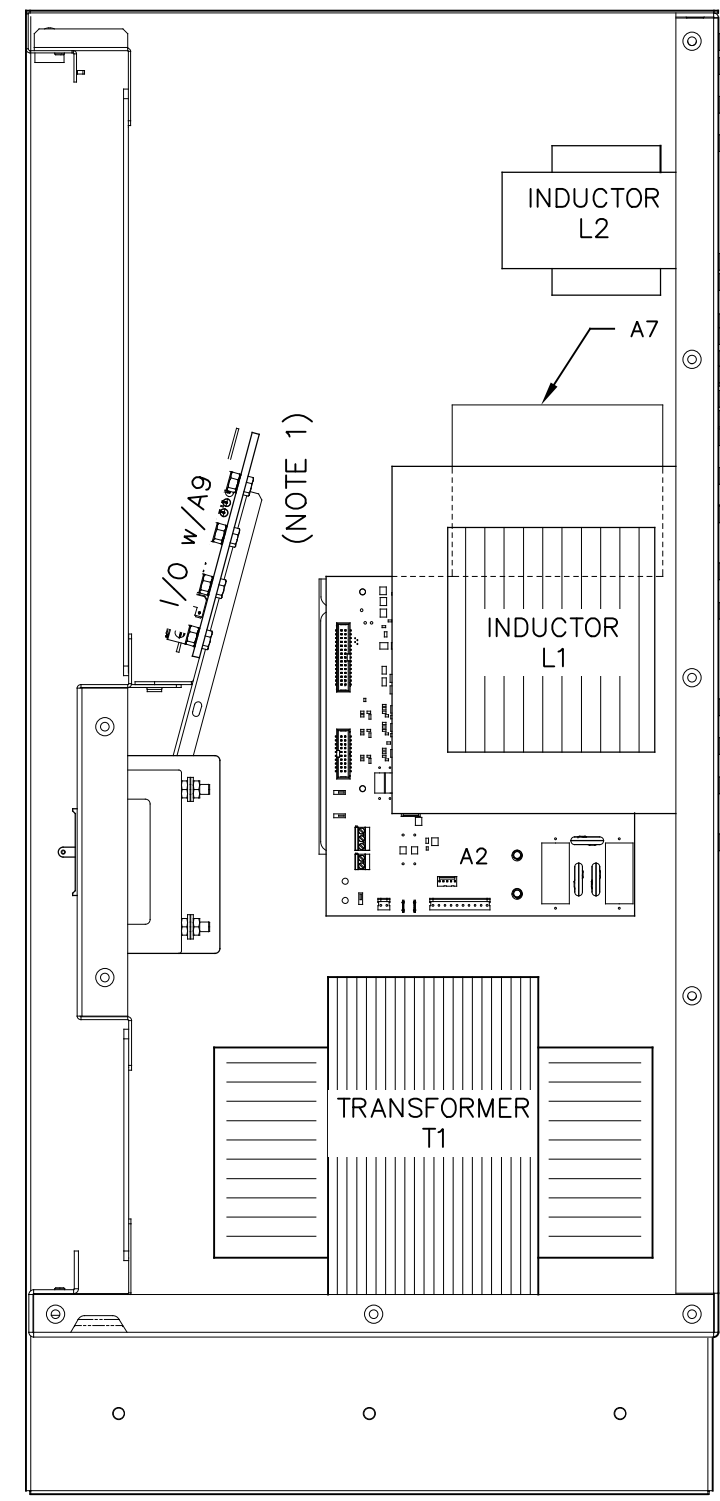
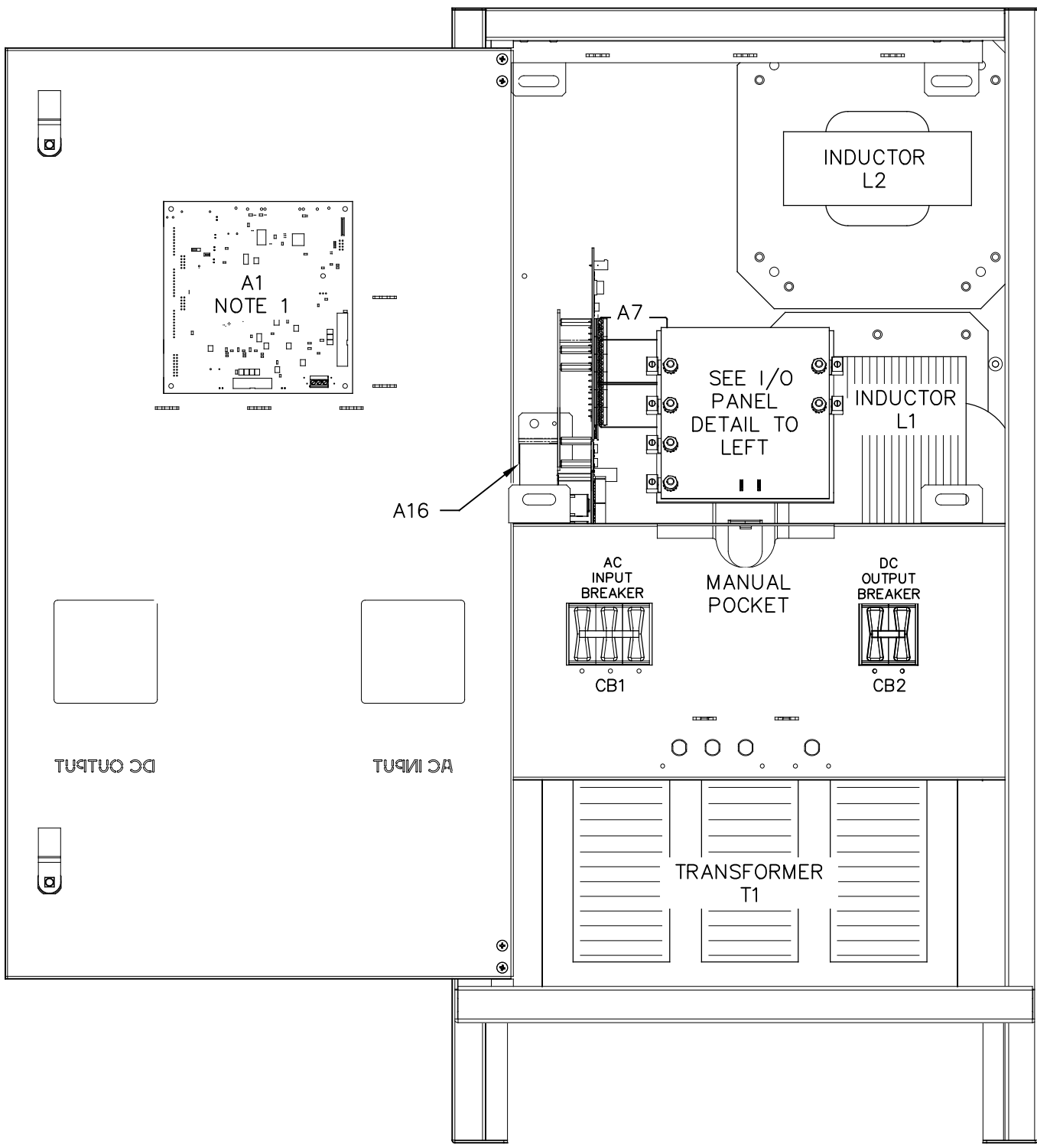
NOTES:

- ENCLOSURE IS A NEMA TYPE 1 / IP20 TOP-VENTED STEEL CABINET WITHOUT GASKETS. FINISH IS ANSI-61 GRAY EPOXY POWDERCOAT.
- 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
- OPTIONAL GROUND BUS BAR WITH 0.41 in / 10.41 mm DIA HOLE.

DUAL DIMENSIONS [mm]

REV. 0	DRN BY KJB	CHK BY MCR	APP BY RDB	DATE 11/05/19	DRN BY KJB	DATE 11/05/19	TITLE <b>ATEVO 3PH BATTERY CHARGER OUTLINE: NEMA-1 STYLE-5070 ENCL</b>
DESCRIPTION STANDARD DRAWINGS.					CHK BY MCR	DATE 11/05/19	
					APP BY RDB	DATE 11/05/19	
							<b>B</b> SCALE NTS DWG No JE5331-00 REV 0 SHEET 1 OF 1

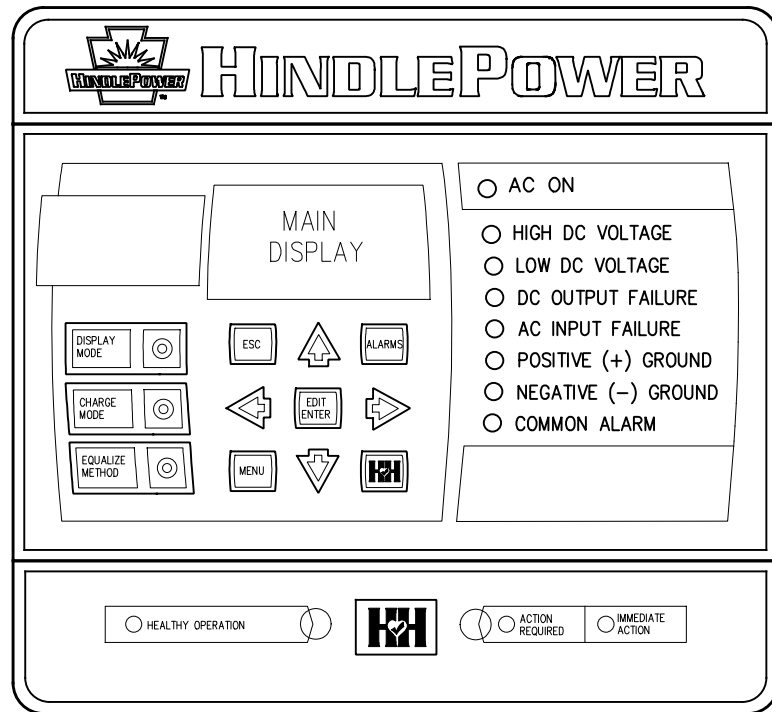
SYM STANDARD COMPONENT DESCRIPTION	
A1	MAIN CONTROL PC BOARD
A2	POWER BOARD
A16	RECTIFIER H/S ASSEMBLY
A7	FILTER BOARD (C1x/R9)
A9	MOV PC BOARD
CB1	AC INPUT CIRCUIT BREAKER (CD3)
CB2	DC OUTPUT CIRCUIT BREAKER (CD2)
L1	MAIN INDUCTOR
L2	FILTER INDUCTOR
T1	POWER TRANSFORMER



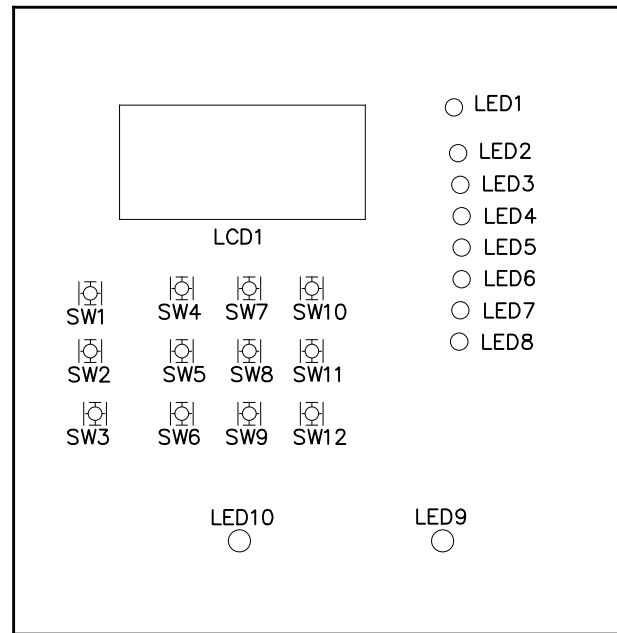
I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
I/O (+/-)	POS/NEG OUTPUT TERMINALS - CU-ALUMINUM COMPRESSION LUG	#14-1/0 AWG
GND LUG	USER GROUND TERMINAL - CU-ALUMINUM COMPRESSION LUG	#14-1/0 AWG
I/O (L1/L2)	AC INPUT TERMINALS - CU-ALUMINUM COMPRESSION LUG	#14-1/0 AWG
(A1) TB6	SUMMARY ALARM TERMINAL BLOCK (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

NOTES:  
 1. FOR DETAIL VIEWS OF ALL PC BOARDS (A1, A2, etc.) SEE DRAWING JE5213 - JE5333-00, 10, 30

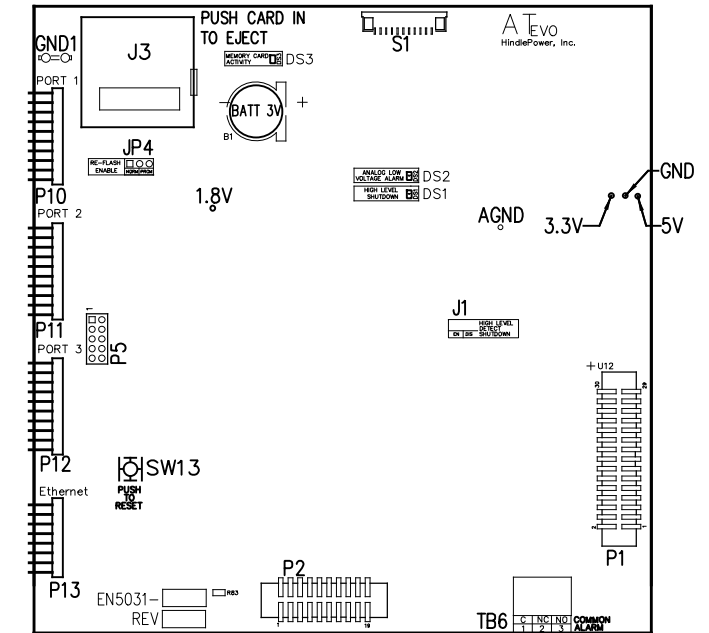
REV. DRN BY B KJB	CHK BY MCR	APP BY RDB	DATE 9/21/2020	DRN BY KJB	DATE 11/05/19
DESCRIPTION STANDARD DRAWINGS.				CHK BY MCR	DATE 11/05/19
				APP BY MCR	DATE 11/05/19
				TITLE ATEVO 3PH BATTERY CHARGER INTERNAL COMPONENT LAYOUT: STYLE-5070 3Ø W/O OPTIONS 25-50A	
SCALE NTS		DWG No JE5332-10		REV B	SHEET 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.

**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 I2C DATA
- SCL – MAIN BOARD I2C 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

I/O TERMINAL	DESCRIPTION – TYPE	CONNECTION
(A1) TB6	SUMMARY ALARM TERMINAL BLOCK (A1) – SOLDERLESS COMP SCREW	#22-14 AWG

REV. 0	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 7/22/2021	DRN BY KJB	DATE: 4/17/2021
DESCRIPTION				CHK BY MCR	DATE: 4/17/2021	
STANDARD DRAWINGS.				APP BY MCR	DATE: 4/17/2021	

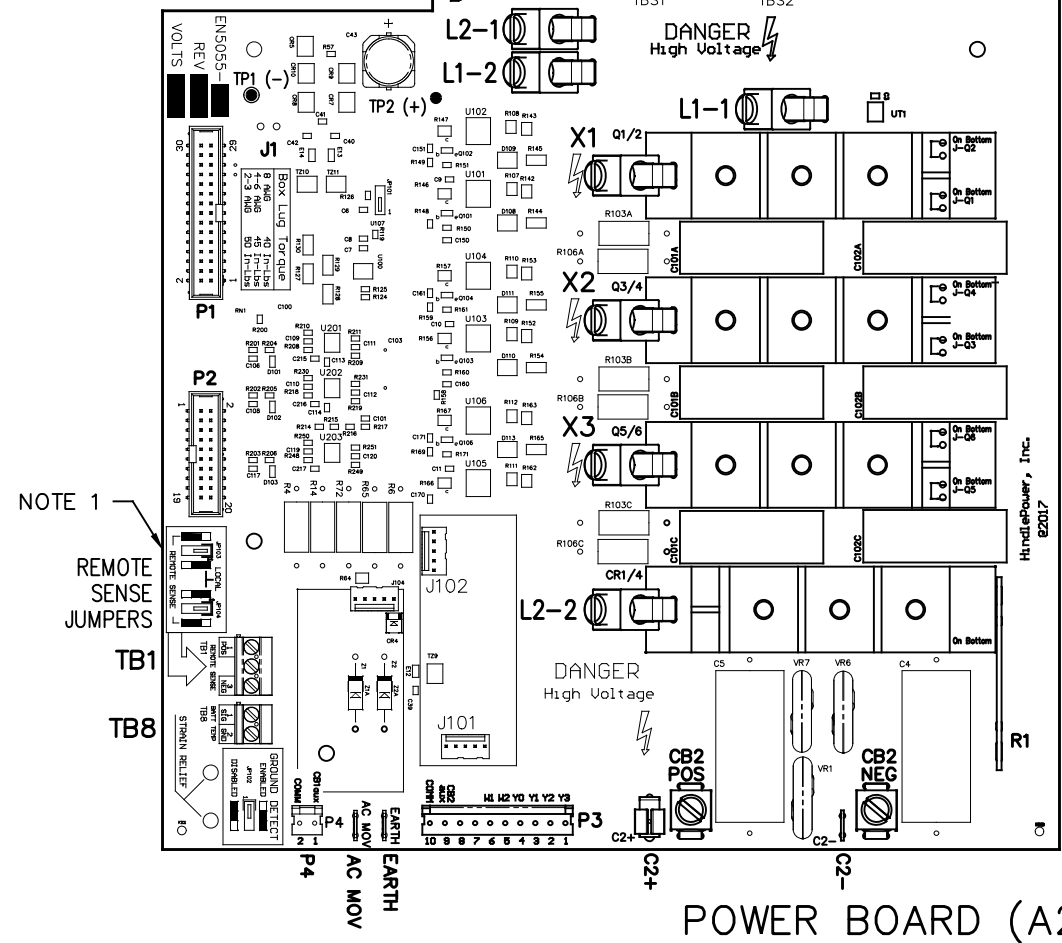
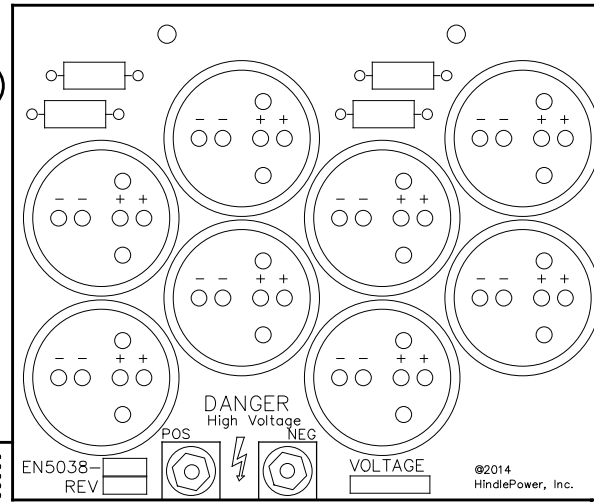
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Easton, PA 18042-6661  
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**HINDLEPOWER**

**ATEVO 3PH BATTERY CHARGER  
CONTROL PANEL / PC BOARD DETAIL  
3Ø W/O OPTIONS 25-50A**

**B** SCALE DWG No. JE5333-10 REV 0 SHEET 1 OF 2

FILTER BOARD (A7)



TB1 - REMOTE VOLTAGE SENSE  
TB8 - BATTERY TEMPERATURE COMPENSATION

JP102 - GROUND DETECT CIRCUIT ENABLE / DISABLE  
JP103 - REMOTE OR LOCAL SENSE SELECTOR (+)  
JP104 - REMOTE OR LOCAL SENSE SELECTOR (-)

J1 - POWER OUT  
J101 - DC POWER SUPPLY  
J102 - DC POWER SUPPLY  
J105 - AUXILIARY I/O BOARD  
P1 - MAIN CONTROL BOARD RIBBON  
P2 - MAIN CONTROL BOARD RIBBON (3 PHASE)  
P3 - TRANSFORMER AND CB2 AUX RIBBON  
P4 - CB2 AUX SWITCH CONTACTS

DISCRETE TERMINALS:

AC MOV - CHASSIS EARTH GROUND  
EARTH - CHASSIS EARTH GROUND (DOOR)  
CB2 POS - DCBREAKER POSITIVE  
CB2 NEG - DC BREAKER NEGATIVE  
C2+ - ELIMINATOR FILTER CAPACITOR (+)  
C2 - ELIMINATOR FILTER CAPACITOR (-)  
L1-1 - FILTER INDUCTOR #1 (TERMINAL #1)  
L1-2 - FILTER INDUCTOR #1 (TERMINAL #2)  
L2-1 - FILTER INDUCTOR #2 (TERMINAL #1)  
L2-2 - FILTER INDUCTOR #2 (TERMINAL #2)  
TBS1 - FILTER CAPACITOR BOARD (+)  
TBS2 - FILTER CAPACITOR BOARD (-)

TEST POINTS ON POWER BOARD (A2):

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

NOTE 1  
REMOTE SENSE JUMPERS  
TB1  
TB8

NOTE:

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

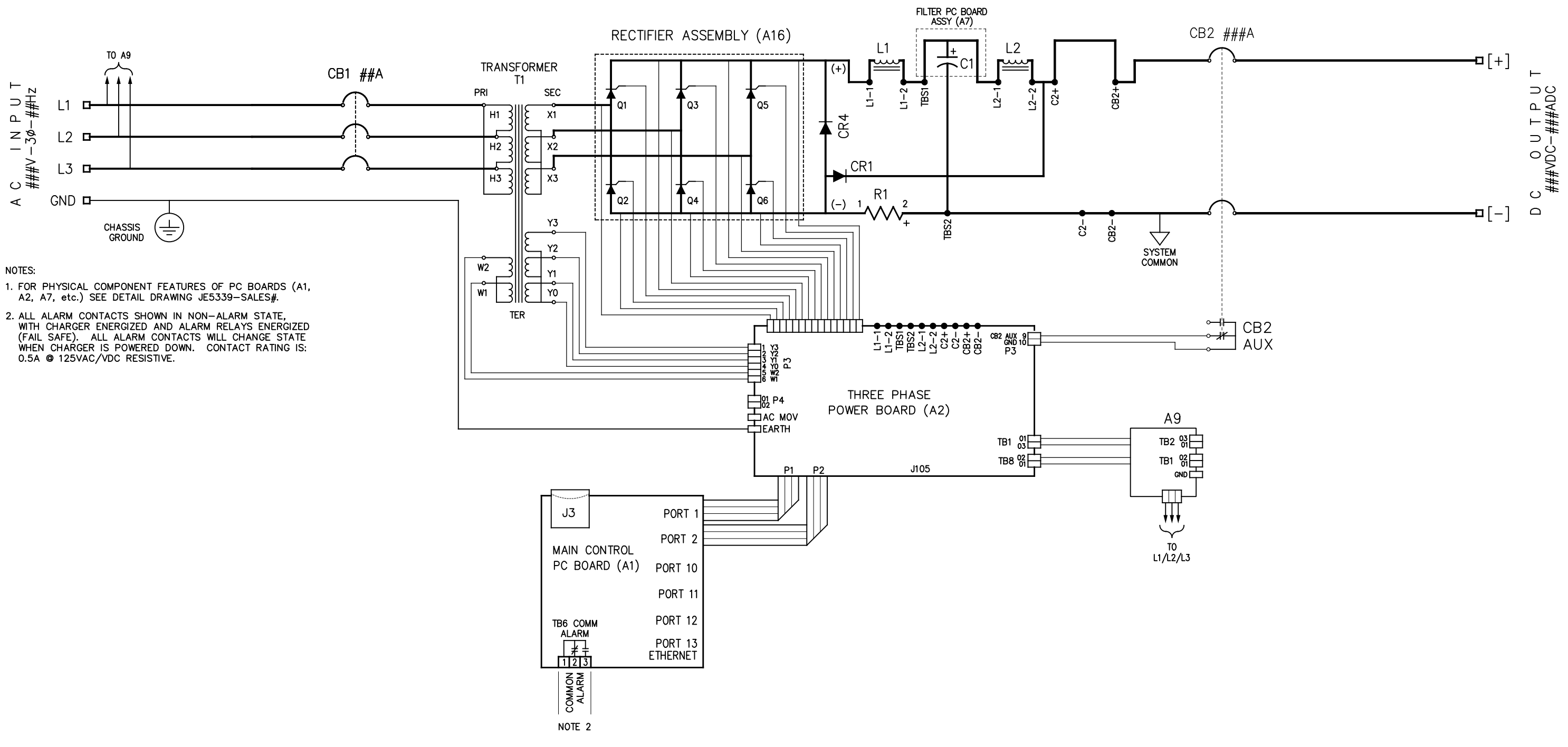
I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
(A2) TB1	POS/NEG REMOTE SENSE TERMS (A2) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A2) TB8	TEMPCO PROBE (A10) TERM BLK - SOLDERLESS COMPRESSION SCREW	#22-14 AWG

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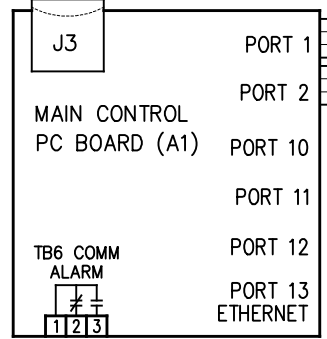
**HINDLEPOWER**

TITLE  
**ATEVO 3PH BATTERY CHARGER  
INSTRUMENT PANEL / PC BOARD DETAIL  
3Ø W/O OPTIONS 25-50A**

B	SCALE	DWG No	REV	SHEET
	NTS	JE5333-10	0	2 OF 2

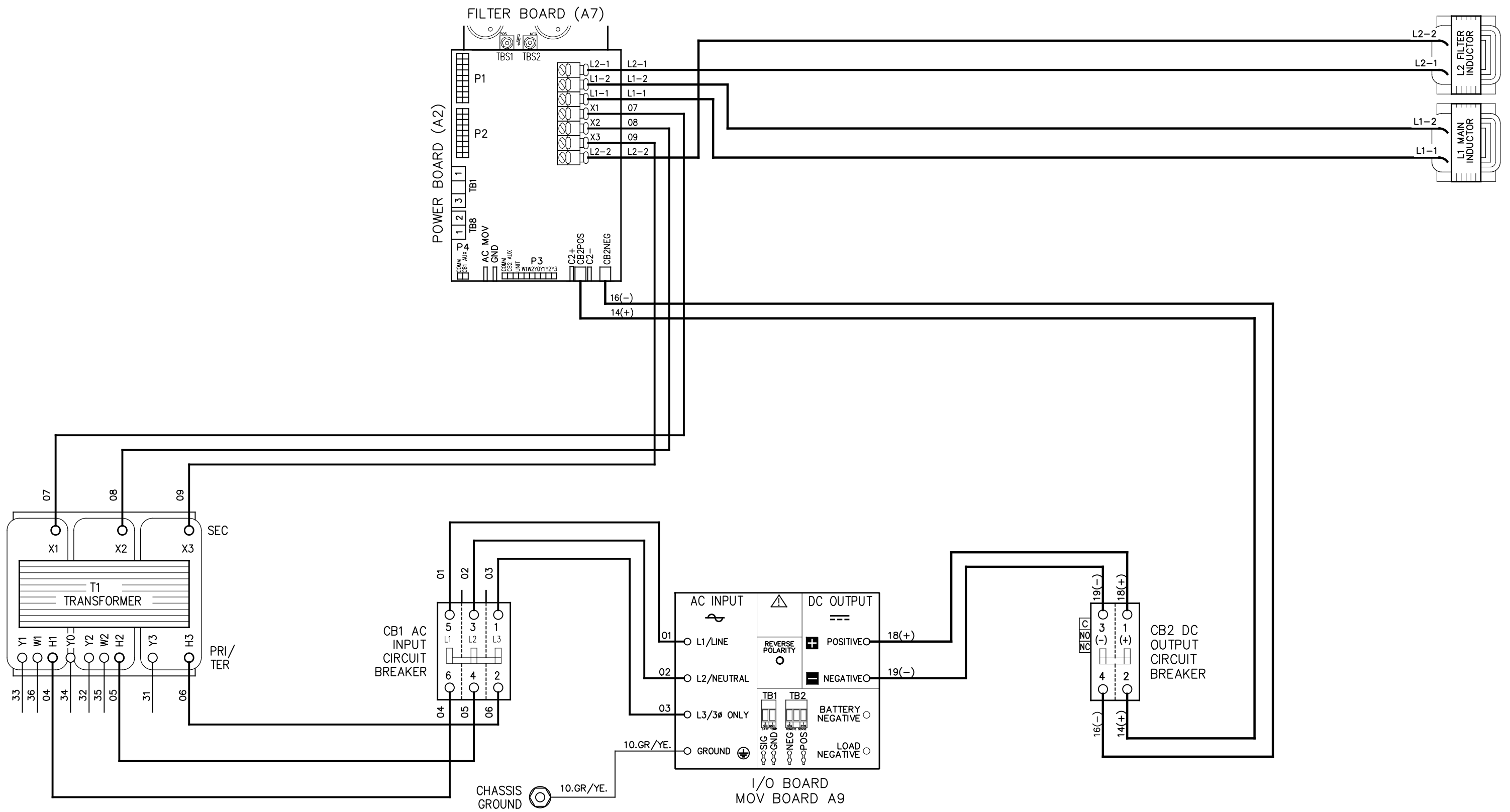


NOTES:  
 1. FOR PHYSICAL COMPONENT FEATURES OF PC BOARDS (A1, A2, A7, etc.) SEE DETAIL DRAWING JE5339-SALES#.  
 2. ALL ALARM CONTACTS SHOWN IN NON-ALARM STATE, WITH CHARGER ENERGIZED AND ALARM RELAYS ENERGIZED (FAIL SAFE). ALL ALARM CONTACTS WILL CHANGE STATE WHEN CHARGER IS POWERED DOWN. CONTACT RATING IS: 0.5A @ 125VAC/VDC RESISTIVE.



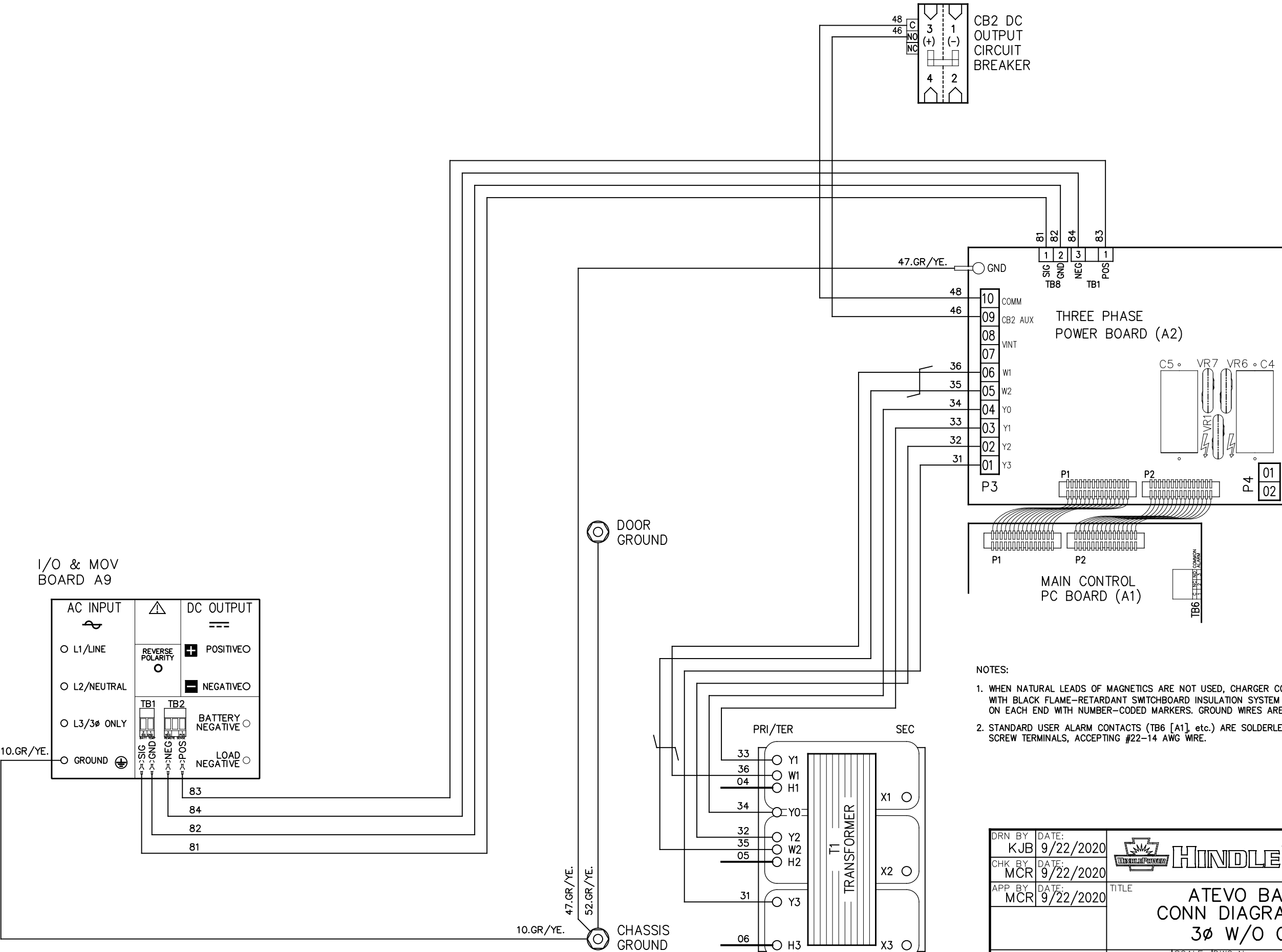
NOTE 2

REV. DRN BY B KJB	CHK BY MCR	APP BY MCR	DATE 9/22/2020	DRN BY KJB	DATE 2/6/2020	<b>HINDLEPOWER</b> 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 2/6/2020	
				APP BY MCR	DATE 2/6/2020	
TITLE <b>ATEVO BATTERY CHARGER SCHEMATIC: 3Ø STYLE 5070 3Ø W/O OPTIONS 25-50A</b>						
SCALE NTS		DWG No JE5334-10		REV B	SHEET 1 OF 1	

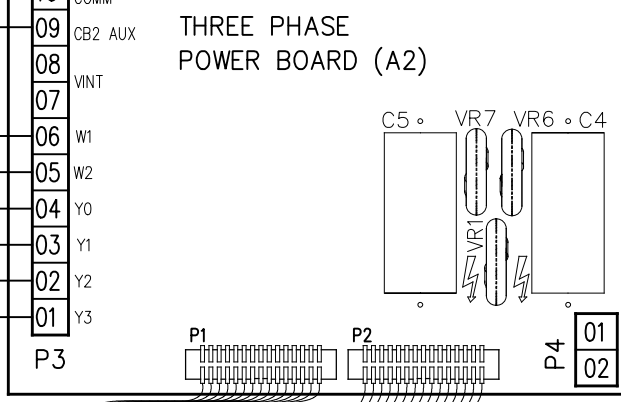
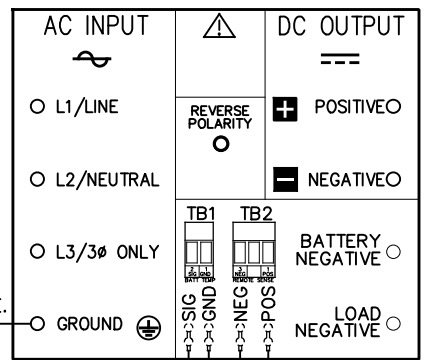


- NOTES:
1. WHEN NATURAL LEADS OF MAGNETICS ARE NOT USED, CHARGER COMPONENTS ARE CONNECTED WITH BLACK FLAME-RETARDANT SWITCHBOARD INSULATION SYSTEM (SIS) TYPE WIRING, IDENTIFIED ON EACH END WITH NUMBER-CODED MARKERS. GROUND WIRES ARE GREEN WITH YELLOW STRIPE.
  2. THIS DRAWING (SHEET 1) SHOWS THE MAINFRAME POWER WIRING AND USER CONNECTION CONTACTS TO CONTROL PC BOARDS (A1 & A2). SEE SHEET 2 FOR ALL CONTROL (SIGNAL) WIRING.

REV. B	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 6/8/2021	DRN BY KJB	DATE: 9/22/2020	<p><b>HINDLEPOWER</b></p> <p>1075 Saint John Street          Easton, PA 18042-6661          PH 610-330-9000 FAX 610-330-8510          www.hindlepowerinc.com</p>
DESCRIPTION REVISED SIGNAL WIRING.					CHK BY MCR	DATE: 9/22/2020	
					APP BY MCR	DATE: 9/22/2020	
TITLE <b>ATEVO BATTERY CHARGER CONN DIAGRAM: 3<math>\phi</math> STYLE 5070 3<math>\phi</math> W/O OPTIONS 25-50A</b>							
		SCALE NTS	DWG No JE5335-10		REV B	SHEET 1 OF 2	



I/O & MOV BOARD A9



- 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	DATE:
KJB	9/22/2020
CHK BY	DATE:
MCR	9/22/2020
APP BY	DATE:
MCR	9/22/2020



TITLE  
**ATEVO BATTERY CHARGER  
 CONN DIAGRAM: 3φ STYLE 5070  
 3φ W/O OPTIONS 25-50A**

	<b>B</b>	SCALE	DWG No	REV	SHEET
		NTS	JE5335-10	B	2 OF 2