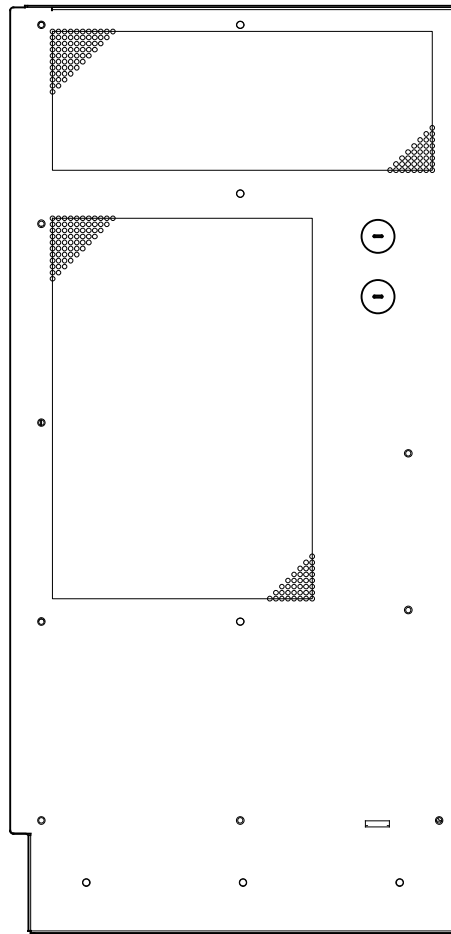
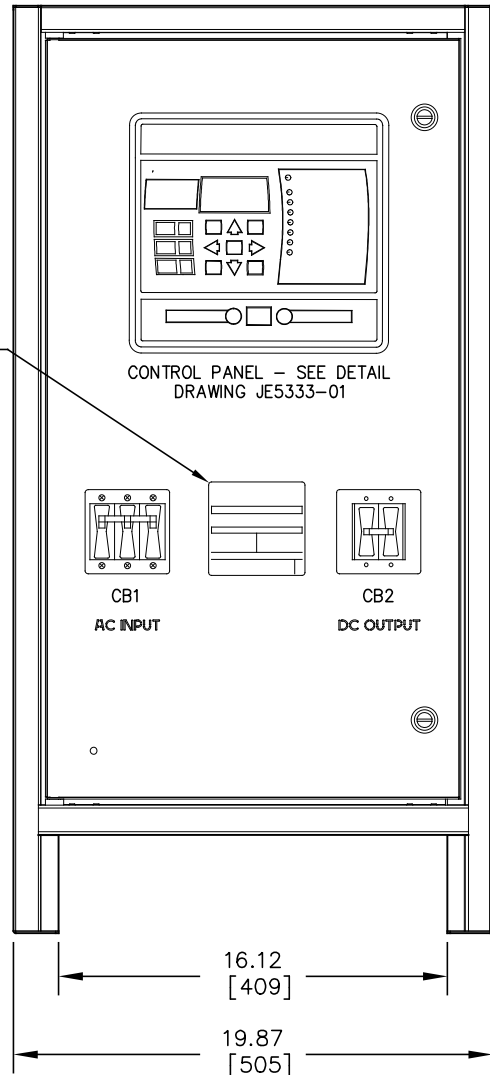


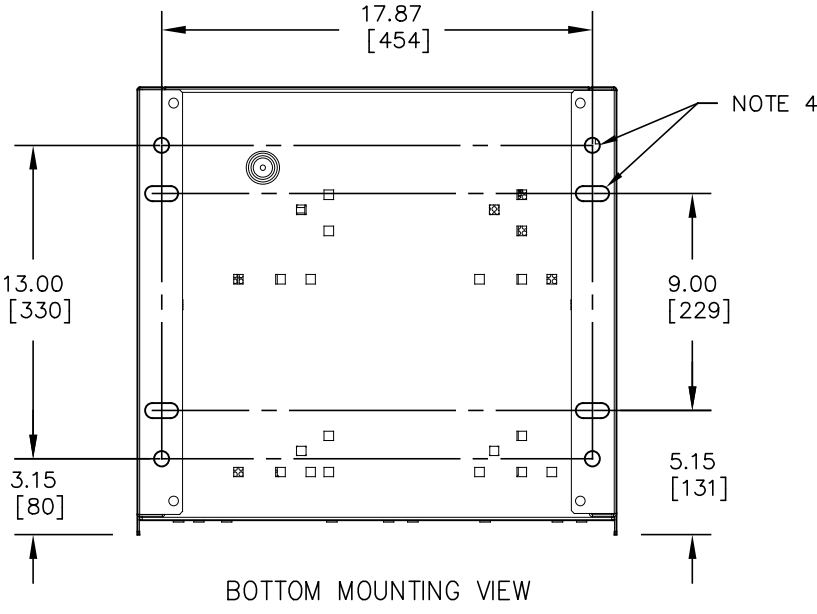
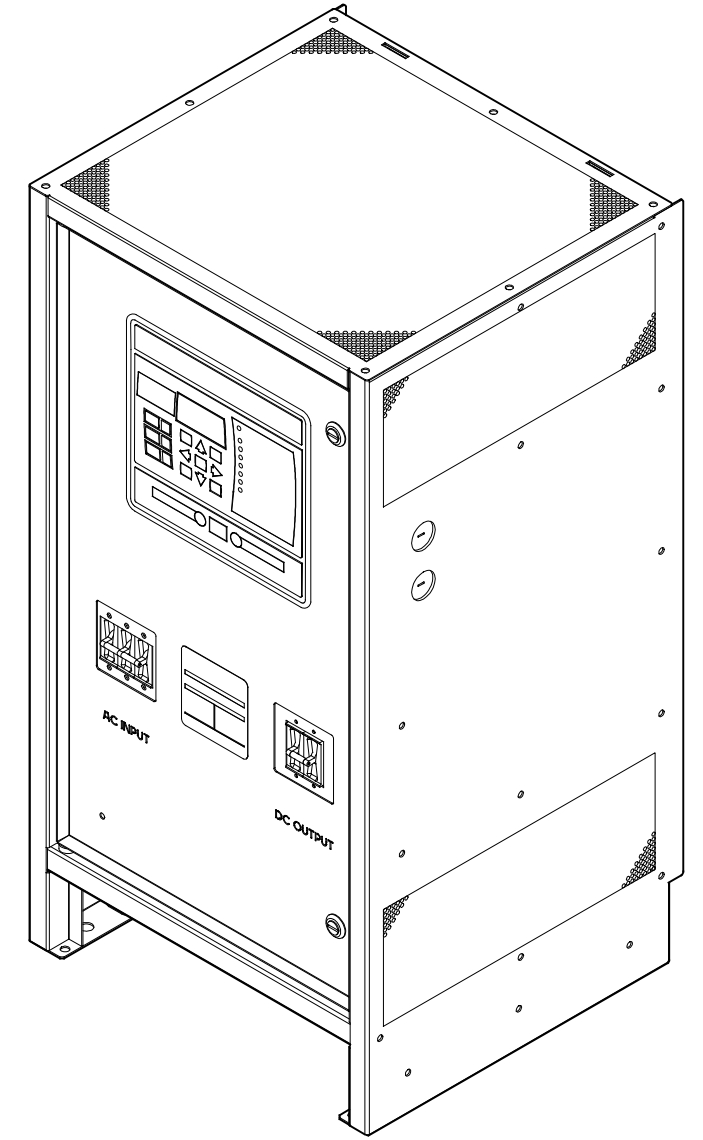
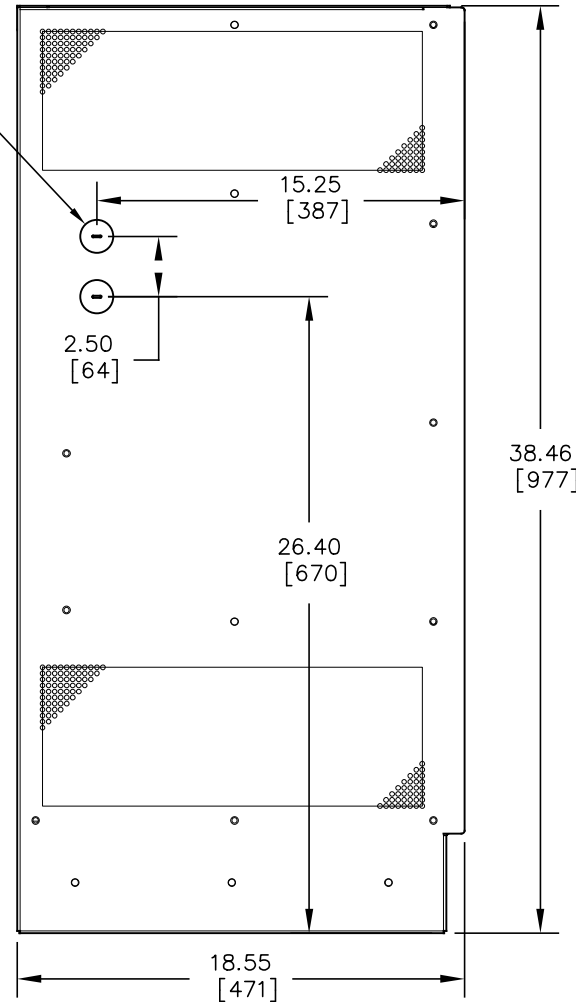
LEFT SIDE VIEW



FRONT VIEW



RIGHT SIDE VIEW



- NOTES:
- ENCLOSURE IS A NEMA TYPE-1 / IP20 TOP-VENTED STEEL CABINET WITHOUT GASKETS. SHEET STEEL THICKNESSES ARE 12 GA MOUNTING BASE, 14 GA SIDE PANELS, 16 GA TOP PANEL, AND 16 GA HINGED DOOR. EXTERNAL FINISH IS ANSI-61 GRAY EPOXY POWDERCOAT.
 - ALLOW 6in / 152mm OF FREE AIR ON ALL VENTED SURFACES (TOP & SIDES) FOR COOLING.
 - DATA NAMEPLATE (WITH CHARGER RATINGS) APPLIED TO DOOR.
 - FOUR (4) 0.5in / 12mm FLOOR-MOUNTING HOLES, AND FOUR (4) 1in x 0.625in / 25mm x 16mm FLOOR-MOUNTING SLOTS, PROVIDED ON BOTTOM OF ENCLOSURE AS SHOWN.
 - FOUR (4) 1.31in / 33mm DIA STANDARD PRE-FAB KEY-SLOT KNOCKOUTS PROVIDED AS SHOWN FOR 1in / 25mm CONDUIT ENTRY. IF ADDITIONAL CONDUIT ENTRANCES ARE REQUIRED, ENCLOSURE SHOULD BE FIELD-MODIFIED BY INSTALLER.
 - BATTERY CHARGER INSTALLATION WEIGHT: (SEE PRODUCT LITERATURE)

DUAL DIMENSIONS ⁱⁿ [mm]

REV	DRN BY	CHK BY	APP BY	DATE	DRN BY	DATE
1	TET	MCR	MCR	05.15.2025	KMW	02.24.2022
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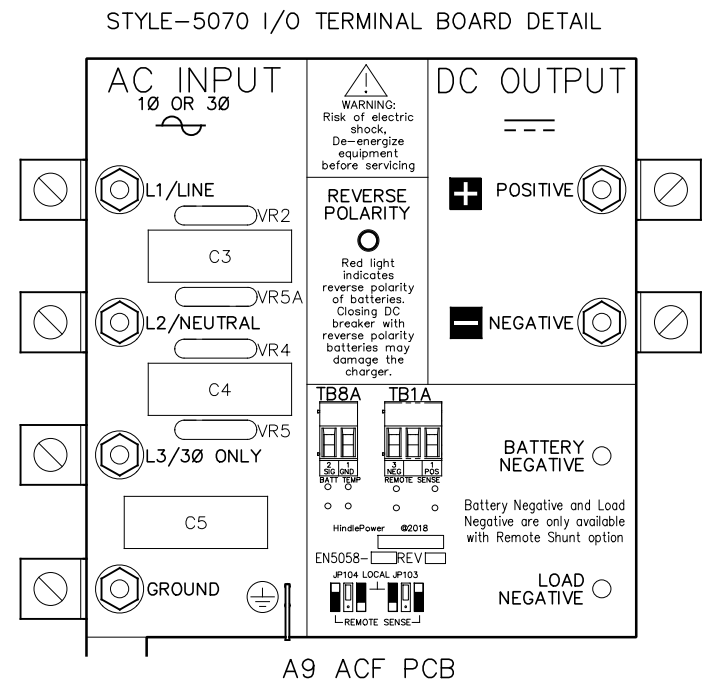
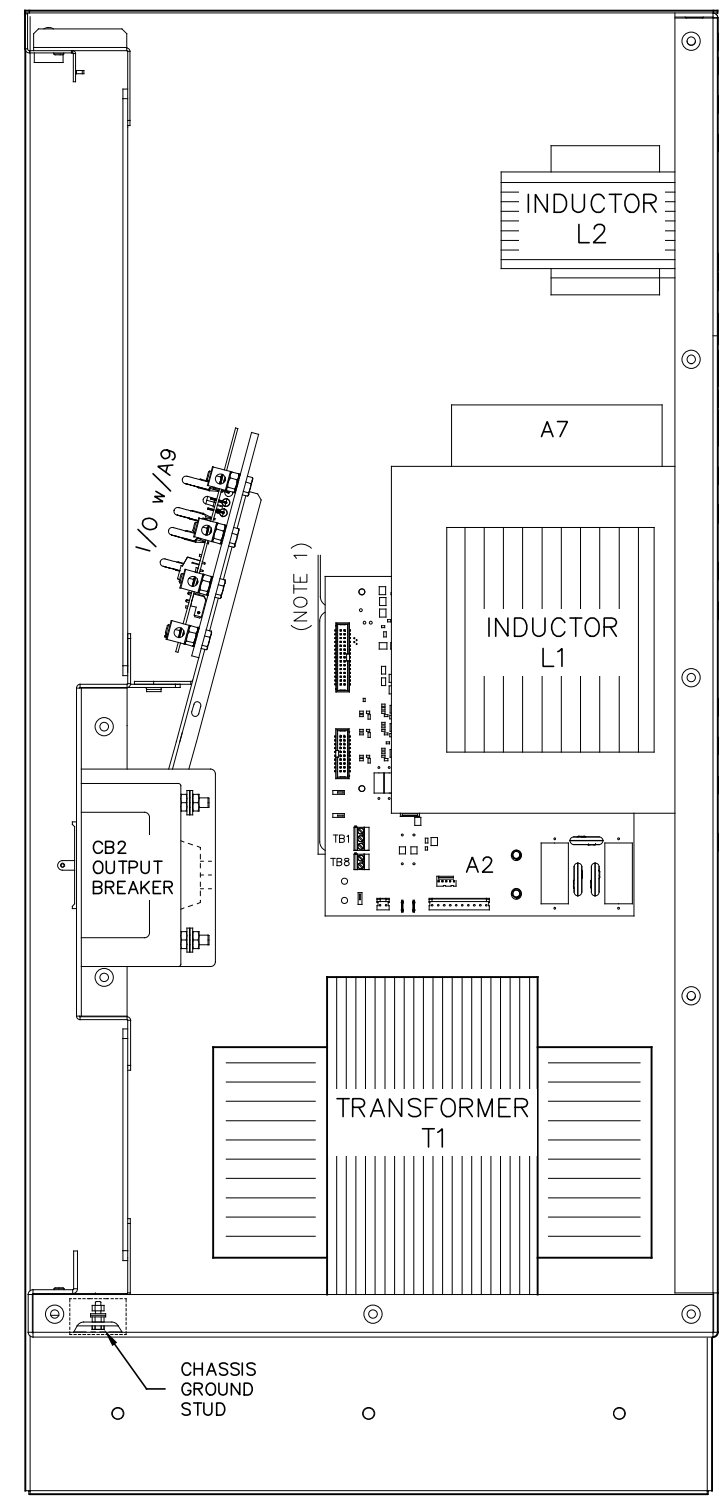
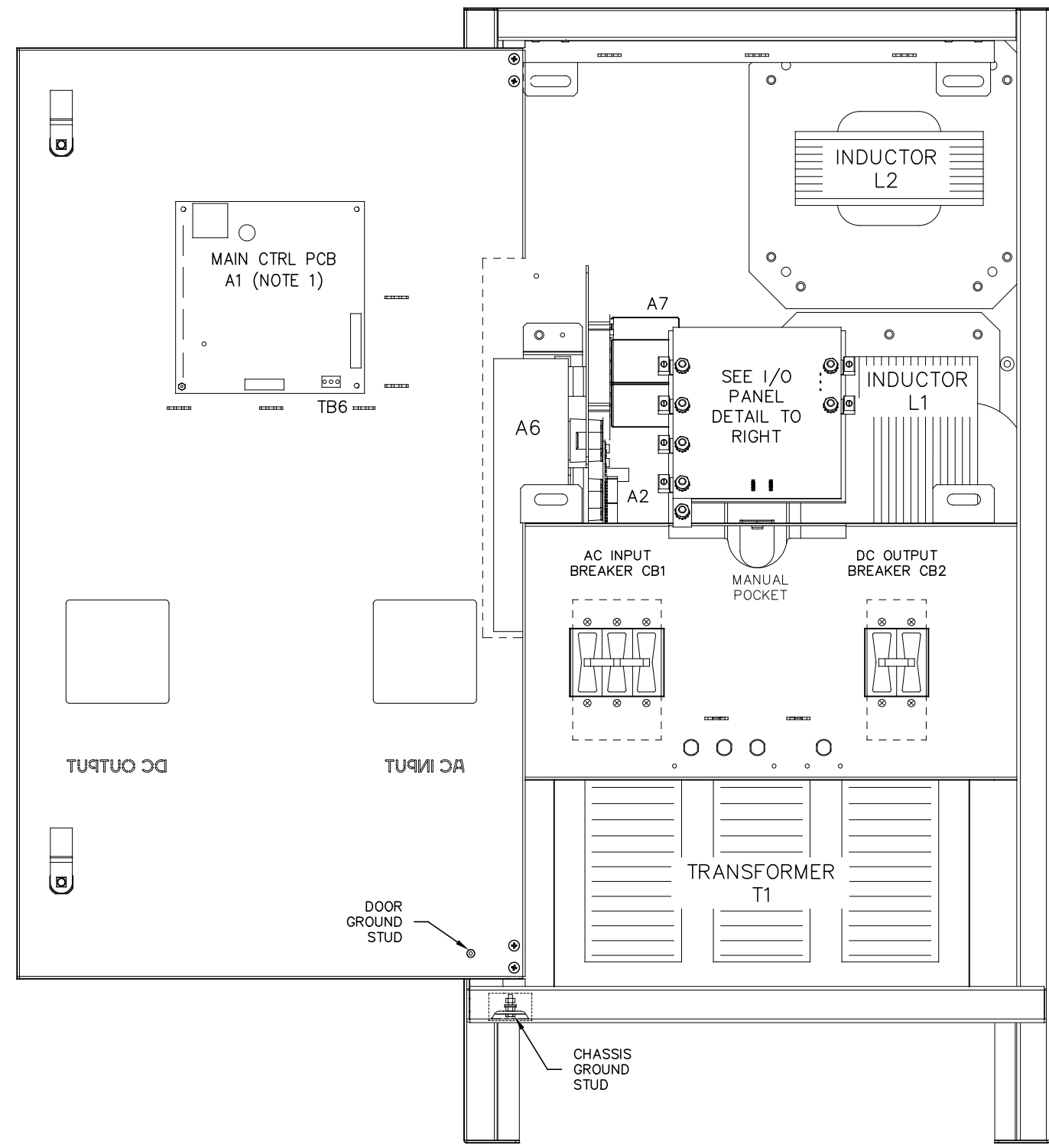
HINDLEPOWER

TITLE ATEVO BATTERY CHARGER OUTLINE
NEMA TYPE-1 STYLE-5070 ENCLOSURE
3PH 16-50ADC W/O OPTIONS

B SCALE DWG No
NTS JE5331-01

REV SHEET
1 1 OF 1

SYM STANDARD COMPONENT DESCRIPTION	
A1	MAIN CONTROL PC BOARD
A6	RECTIFIER H/S ASSEMBLY
A2	POWER BOARD
A7	FILTER BOARD (C1x/R9)
A9	AC FILTER BOARD
CB1	AC INPUT CIRCUIT BREAKER (CD3)
CB2	DC OUTPUT CIRCUIT BREAKER (CD2)
L1	MAIN INDUCTOR
L2	FILTER INDUCTOR
T1	POWER TRANSFORMER
TB1A	REMOTE SENSE (A9) TERMINAL BLOCK
TB6	COMMON ALARM RELAY (A1) CONTACTS
TB8A	BATT TEMPERATURE (A9) TERM BLOCK



I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
I/O (+/-)	DC OUTPUT TERMINALS - CU-AL COMPRESSION BOX LUG	#14-1/0 AWG
GND LUG	USER GROUND TERMINAL - CU-AL COMPRESSION BOX LUG	#14-1/0 AWG
I/O (L1/L2/L3)	AC INPUT TERMINALS - CU-AL COMPRESSION BOX LUG	#14-1/0 AWG
(NOTE 1) (A1) TB6	COMMON ALARM TERMINAL BLOCK (A1) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A9) TB1A	BATTERY V _{dc} REMOTE SENSE TERMINALS - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A9) TB8A	REMOTE TEMP/CO PROBE (A10) TERMINAL BLOCK - SOLDERLESS COMPRESSION SCREW	#22-14 AWG

NOTES:
 1. FOR ENHANCED VIEWS OF ALL PC BOARDS (A1, A2, etc.) SEE DETAIL DRAWING (JE5333-01).

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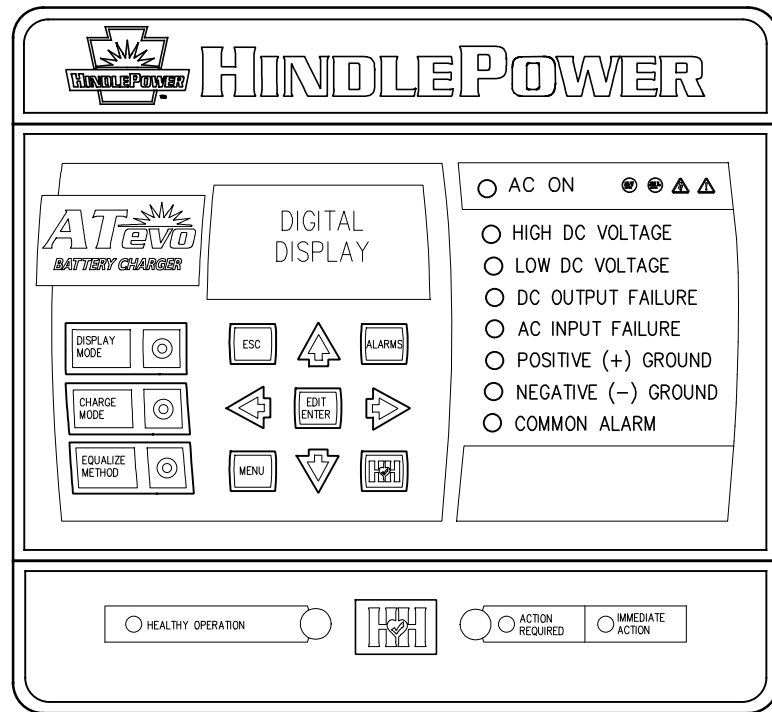
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TITLE

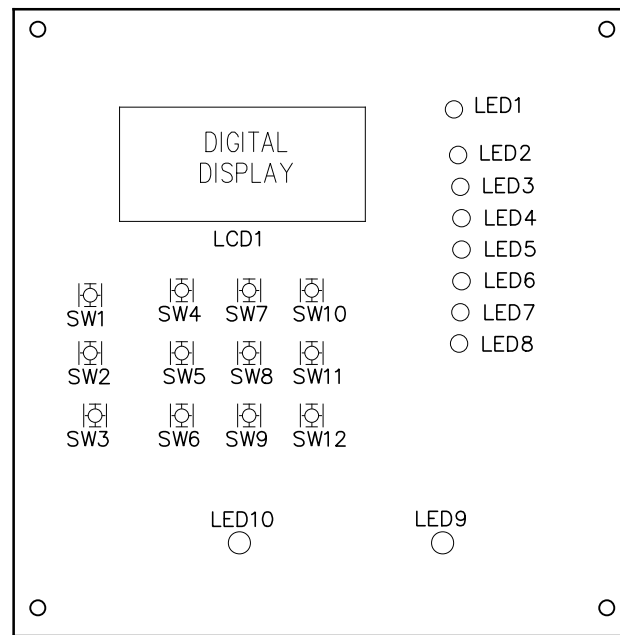
ATEVO BATTERY CHARGER
 INTERNAL COMPONENT LAYOUT: STYLE-5070
 3PH 16-50ADC W/O OPTIONS

B	SCALE	DWG No	JE5332-01	REV	SHEET
	NTS			1	1 OF 1

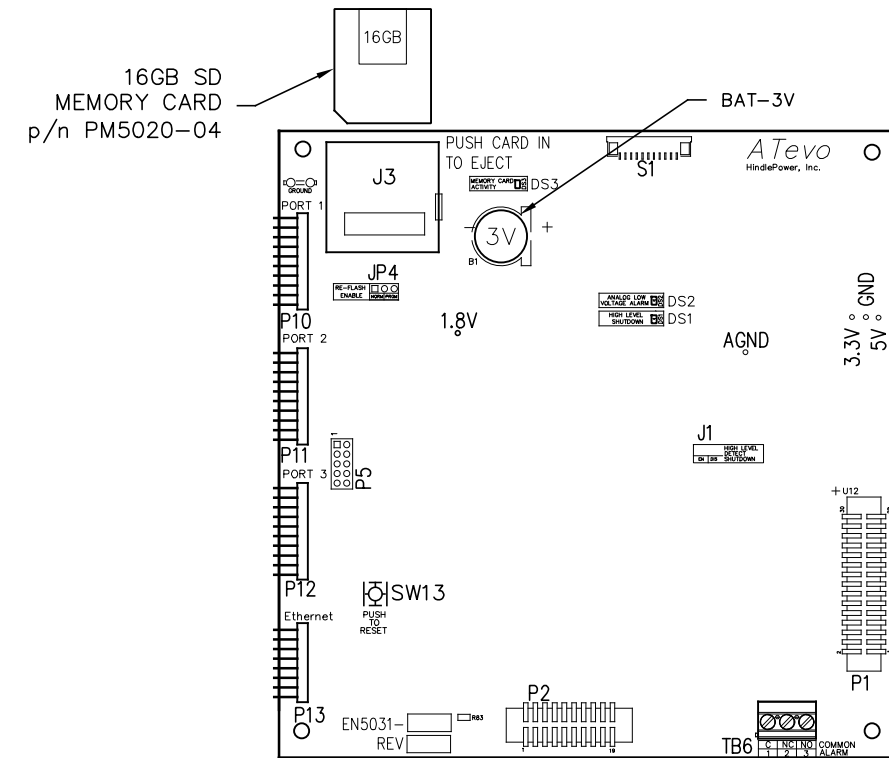
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CONTROL PANEL
(p/n FK5047-00)



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: UNLESS OTHERWISE SPECIFIED, ALL USER ALARM TERMINAL BLOCKS ARE SOLDERLESS COMPRESSION SCREW TERMINALS, ACCEPTING #22-14 AWG WIRE. ALARM CONTACTS SHOWN IN NON-ALARM STATE, WITH CHARGER ENERGIZED AND RELAYS ENERGIZED (FAIL SAFE). ALL ALARM CONTACTS WILL CHANGE STATE WHEN ATEVO 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 12C DATA
- SCL - MAIN BOARD 12C CLOCK

SWITCHES:

- SW1 - DISPLAY BUTTON
- SW2 - CHARGE MODE BUTTON
- SW3 - EQUALIZE METHOD BUTTON
- SW4 - ESCAPE (ESC) BUTTON
- SW5 - LEFT ARROW BUTTON
- SW6 - MENU BUTTON
- SW7 - UP ARROW BUTTON
- SW8 - EDIT / ENTER BUTTON
- SW9 - DOWN ARROW BUTTON
- SW10 - ALARM BUTTON
- SW11 - RIGHT ARROW BUTTON
- SW12 - HINDLE HEALTH (HHS) BUTTON
- SW13 - SYSTEM RESET BUTTON (BACK OF BOARD)

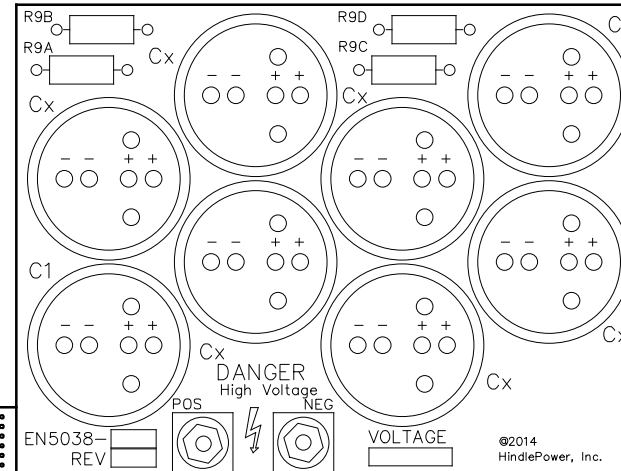
CONNECTORS:

- 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

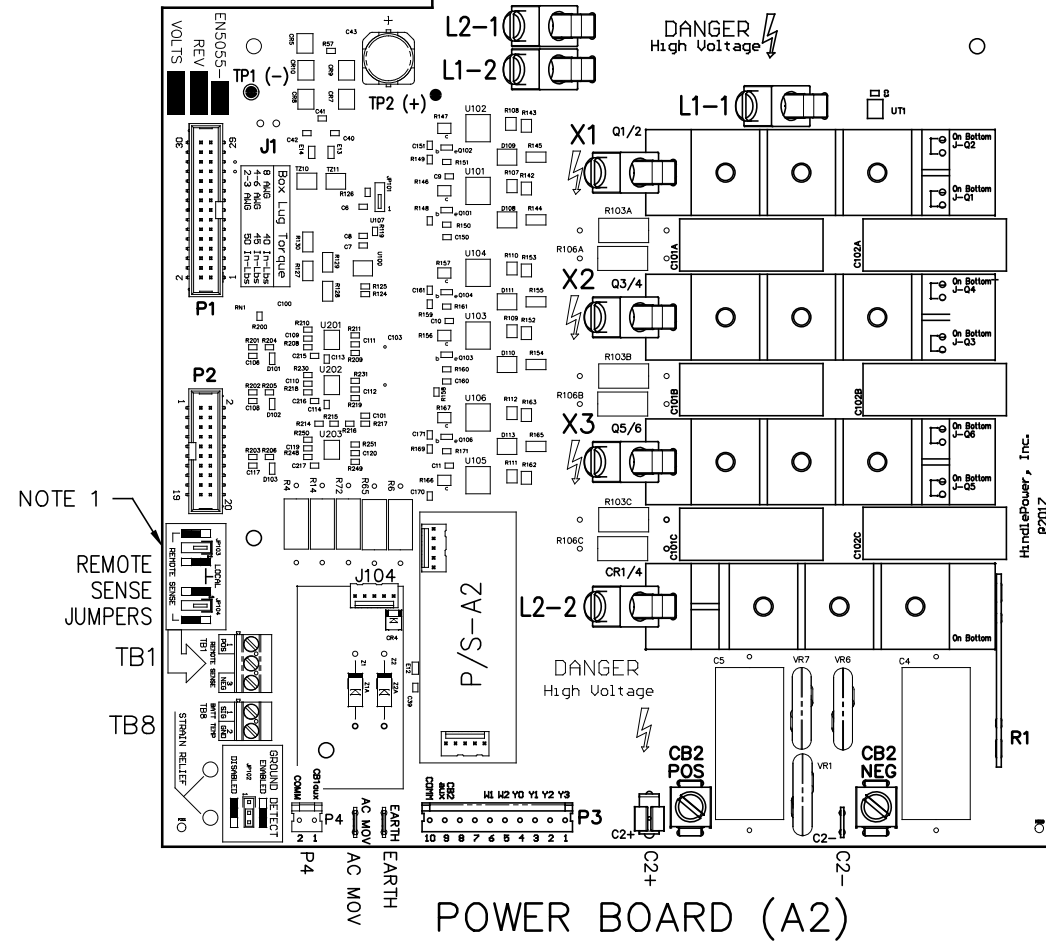
I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
(A1) TB6	COMMON ALARM RELAY (A1) TERMINAL BLOCK - SOLDERLESS COMPRESSION SCREW	#22-14 AWG

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<p>TITLE ATEVO BATTERY CHARGER CONTROL PANEL / PC BOARD DETAIL 3PH 16-50ADC W/O OPTIONS</p>						
B		SCALE	DWG No	REV	SHEET	
NTS			JE5333-01	1	1 OF 2	

FILTER BOARD (A7)



- 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
 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 – DC BREAKER 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. RS JUMPERS (JP103 & JP104) SET IN 'REMOTE SENSE' POSITION FOR STYLE-5070 ENCLOSURE.

I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
(A2) TB1	BATTERY Vdc REMOTE SENSE (A2) TERMINALS - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A2) TB8	REMOTE TEMPCO PROBE (A10) TERMINAL BLOCK - SOLDERLESS COMPRESSION SCREW	#22-14 AWG

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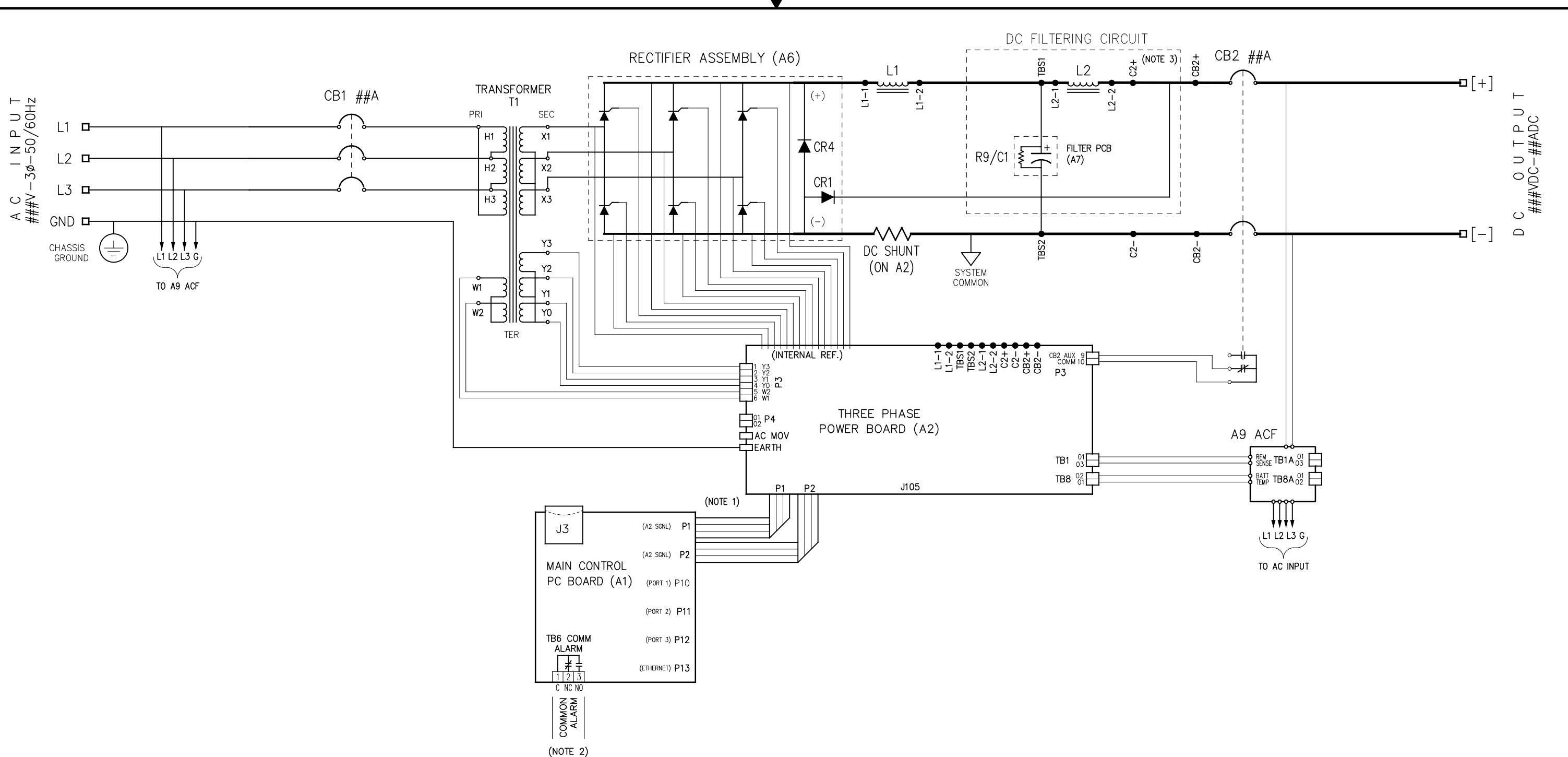
TITLE
 ATEVO BATTERY CHARGER
 CONTROL PANEL / PC BOARD DETAIL
 3PH 16-50ADC W/O OPTIONS

B SCALE DWG No
 NTS JE5333-01

REV SHEET
 1 2 OF 2

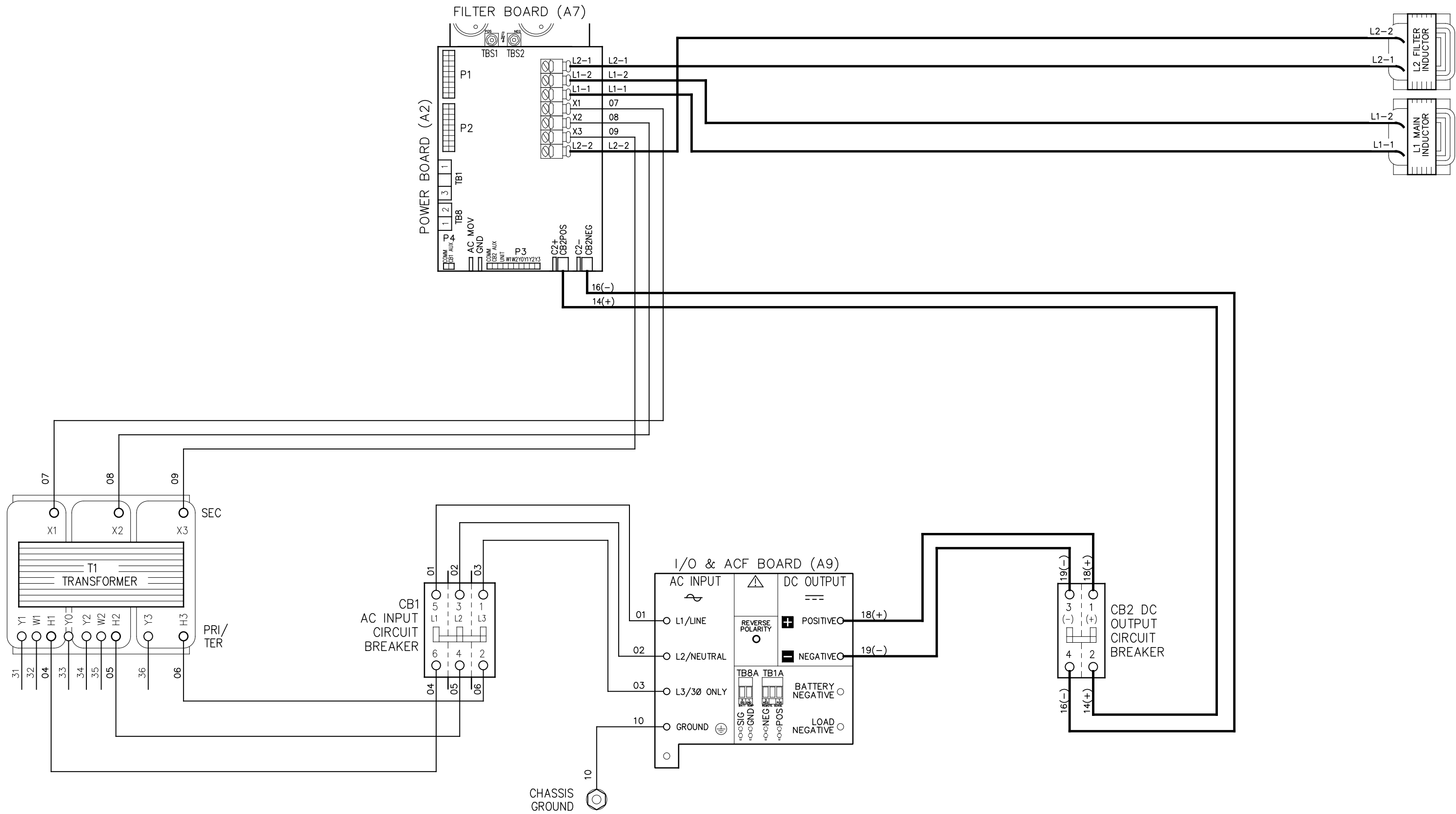
A C I N P U T
###V - 3 ϕ -50/60Hz

D C O U T P U T
###VDC-#ADC



- NOTES:
- FOR PHYSICAL COMPONENT FEATURES OF PC BOARDS (A1, A2, A7, etc.) SEE DETAIL DRAWING (JE5339-01).
 - ALL ALARM CONTACTS SHOWN IN NON-ALARM STATE, WITH CHARGER AND RELAYS ENERGIZED (FAIL SAFE). CONTACTS WILL CHANGE STATE WHEN ATEVO POWERED DOWN.
CONTACT RATING: 0.5A @ 125VAC/VDC RESISTIVE
 - DC FILTERING CIRCUIT (C1/R9/L2) DESIGNED AND TESTED TO MEET NEMA PE5 SPECIFICATION FOR "STANDARD" (CODE "F"), WITH ATEVO CONNECTED TO PROPERLY-SIZED BATTERY.

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REV. 1: (05.15.2025)					MCR	02.24.2022	
REV. 0: (02.24.2022)					APP BY	DATE	
					MCR	02.24.2022	NOTICE: UNCONTROLLED DOCUMENT CHANGES / DIGITAL SIGNATURES MAINTAINED BY MANUFACTURER
							B SCALE DWG No NTS JE5334-01
					REV	SHEET	1 1 OF 1



- NOTES:
- 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.
 - 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.

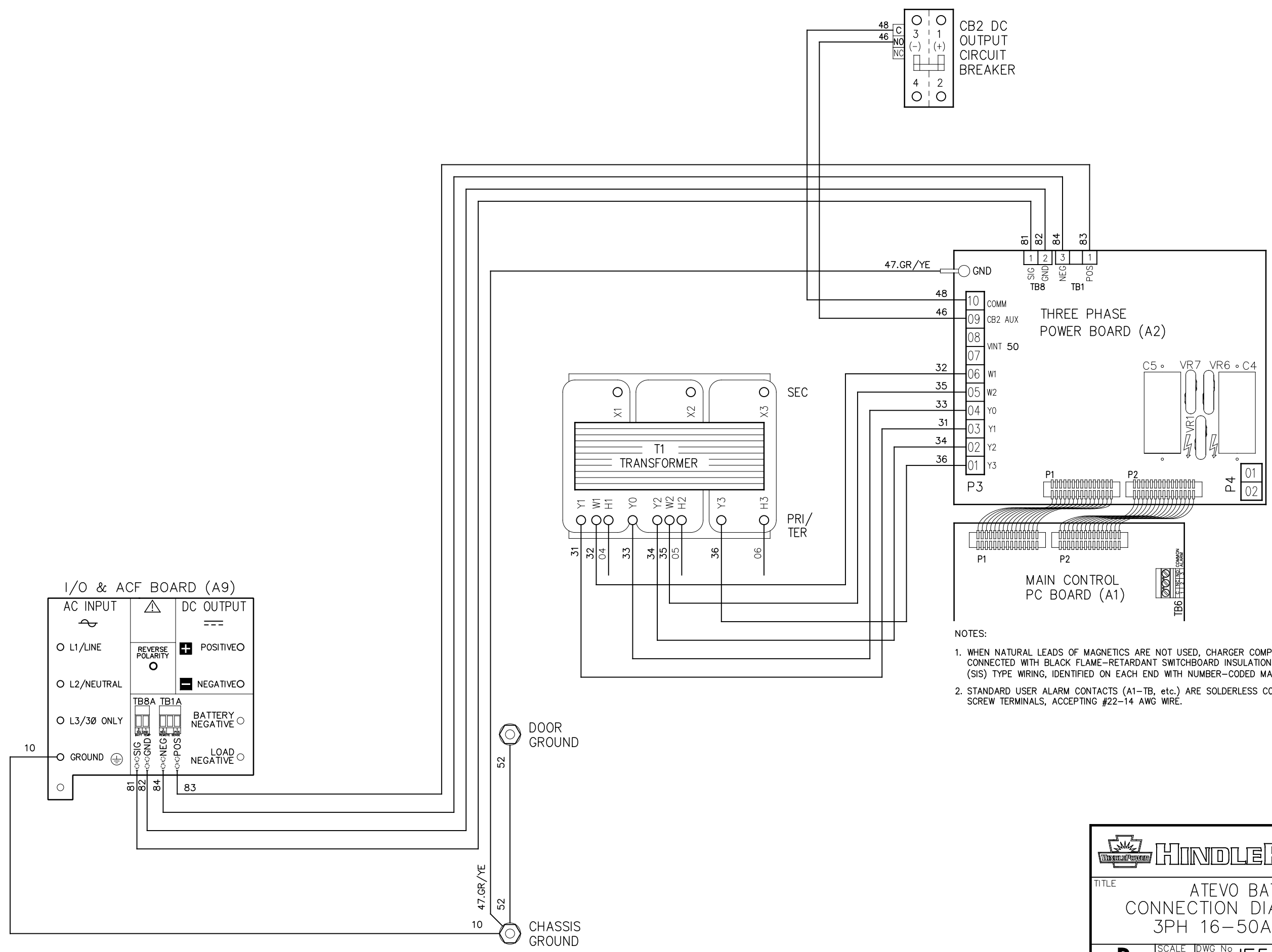
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TITLE
ATEVO BATTERY CHARGER
CONNECTION DIAGRAM: STYLE 5070
3PH 16-50ADC W/O OPTIONS

B	SCALE NTS	DWG No JE5335-01	REV 1	SHEET 1 OF 2
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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.
 2. STANDARD USER ALARM CONTACTS (A1-TB, etc.) ARE SOLDERLESS COMPRESSION SCREW TERMINALS, ACCEPTING #22-14 AWG WIRE.

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B	SCALE	DWG No	REV	SHEET
	NTS	JE5335-01	1	2 OF 2

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