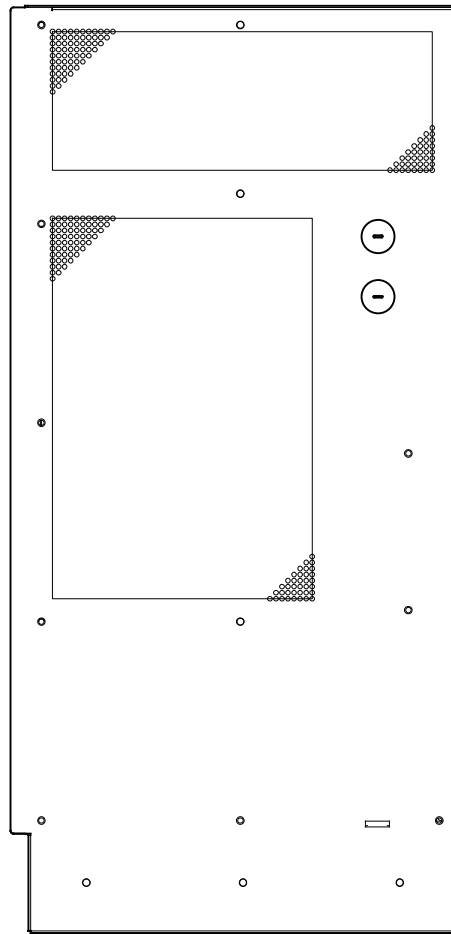
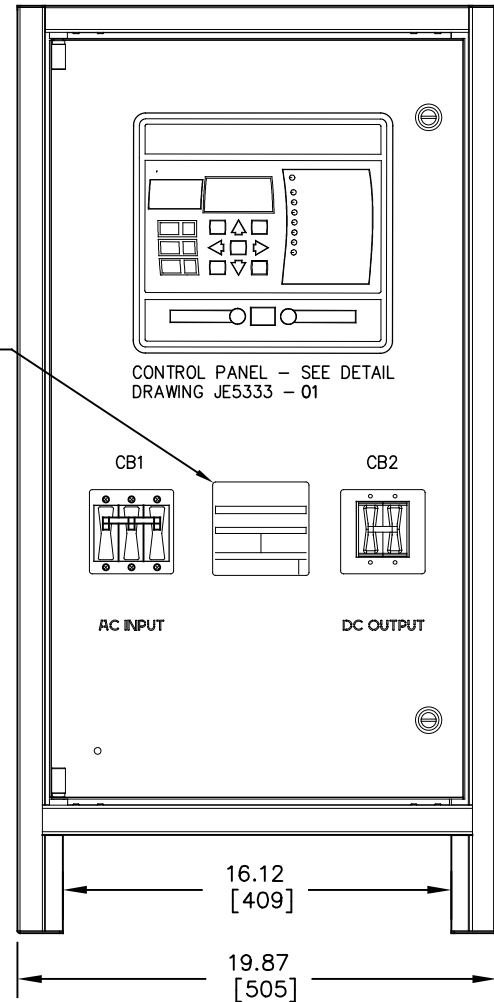


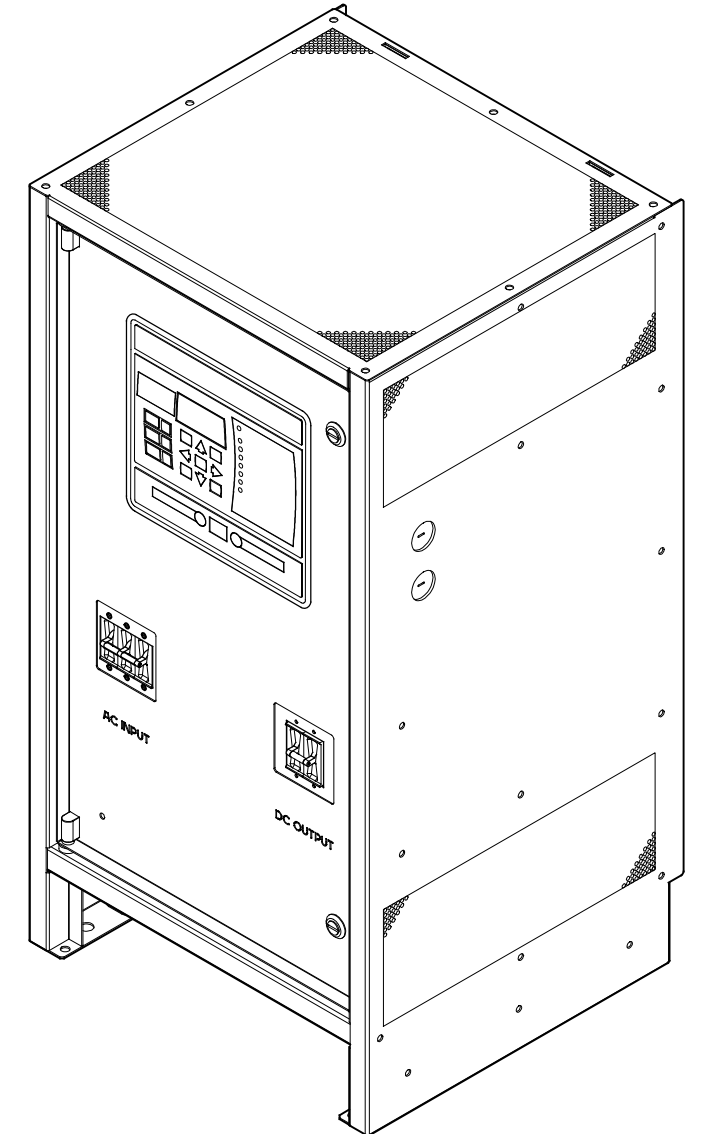
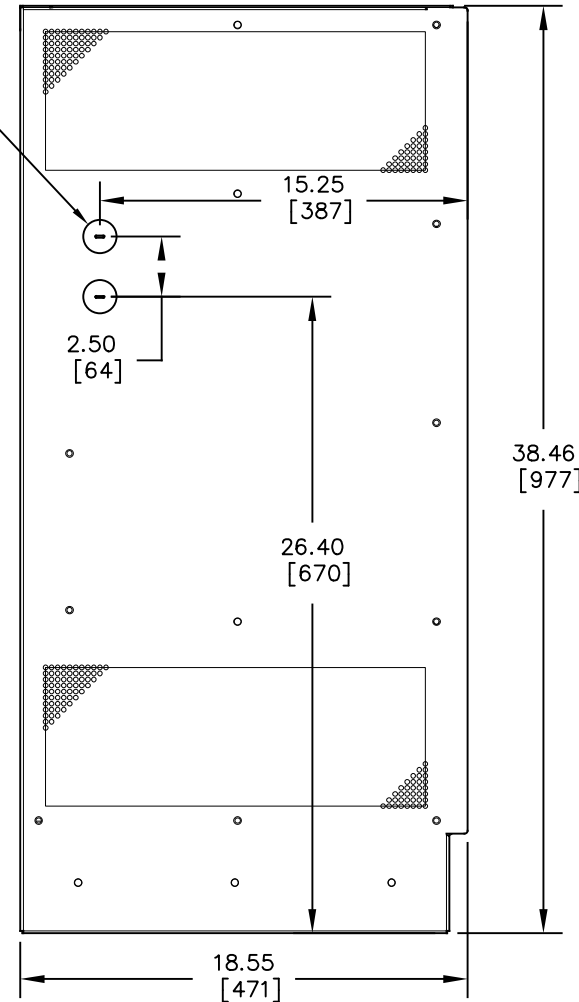
LEFT SIDE VIEW



FRONT VIEW

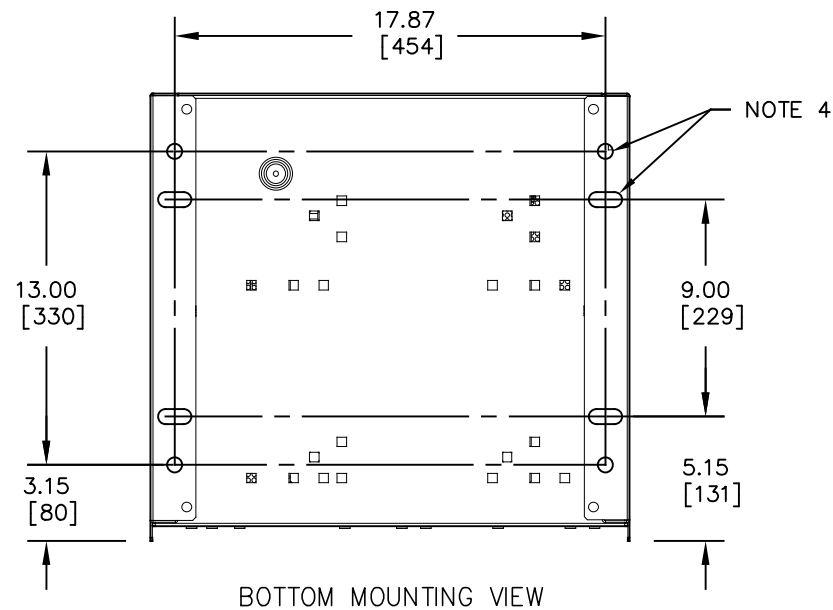


RIGHT SIDE VIEW



NOTES:

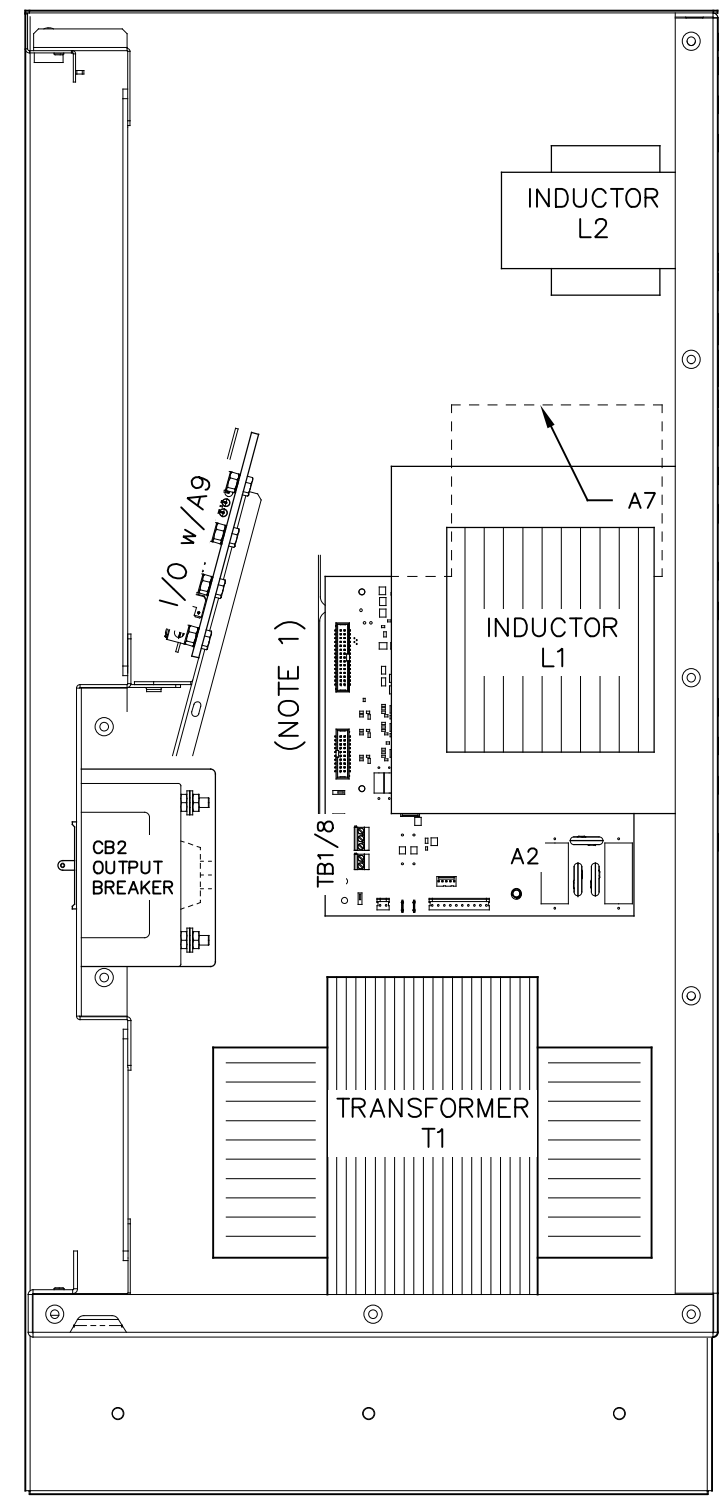
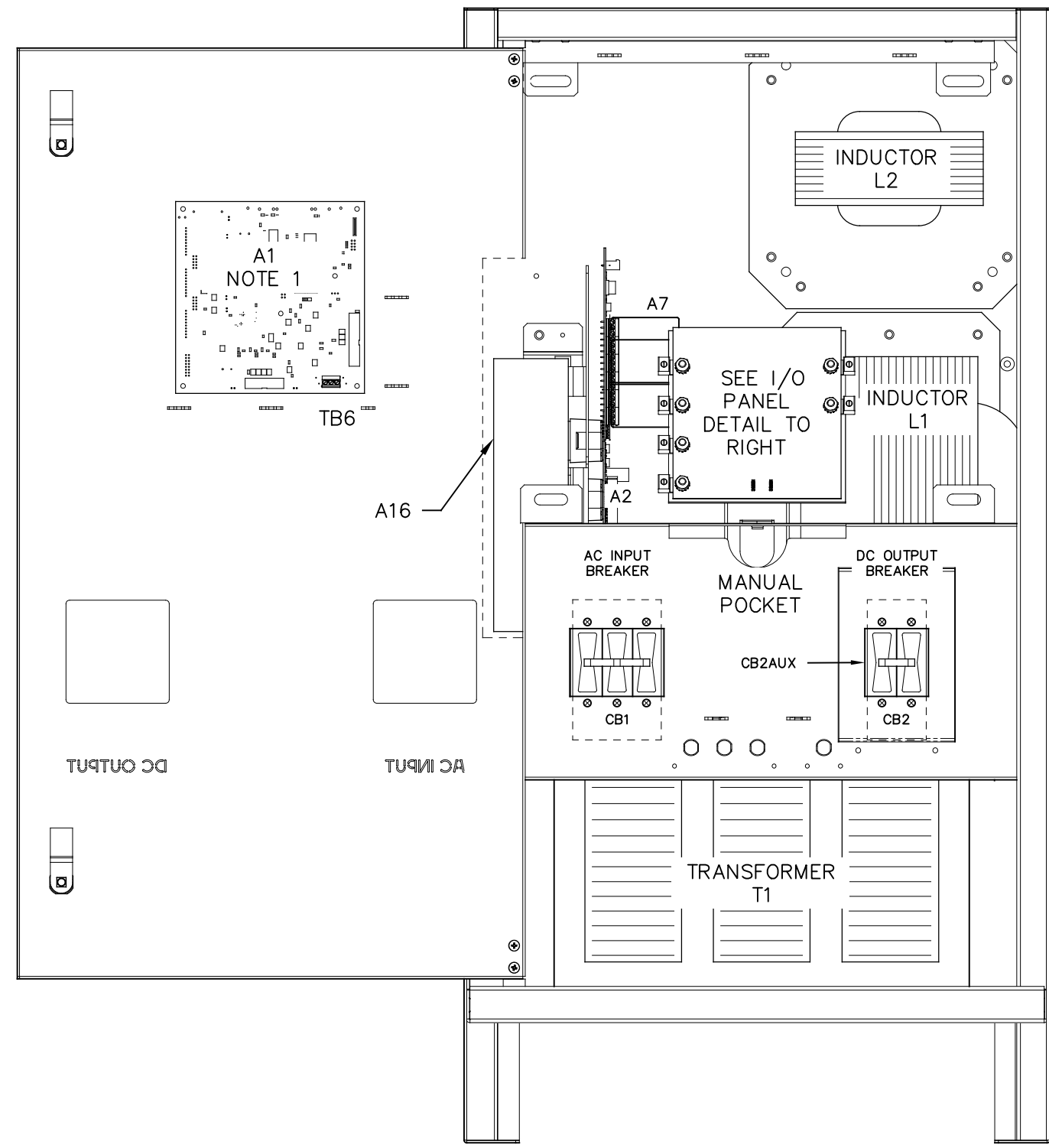
- ENCLOSURE IS A NEMA TYPE 1 / IP20 TOP-VENTED STEEL CABINET WITHOUT GASKETS. FINISH IS ANSI-61 GRAY EPOXY POWDERCOAT. MOUNTING BASE IS 12 GA. SIDE PANELS ARE 14 GA. TOP PANEL AND DOOR ARE 16 GA.
- ALLOW 6in / 152mm OF FREE AIR ON ALL VENTED SURFACES (TOP, SIDES & REAR) FOR COOLING.
- DATA NAMEPLATE (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



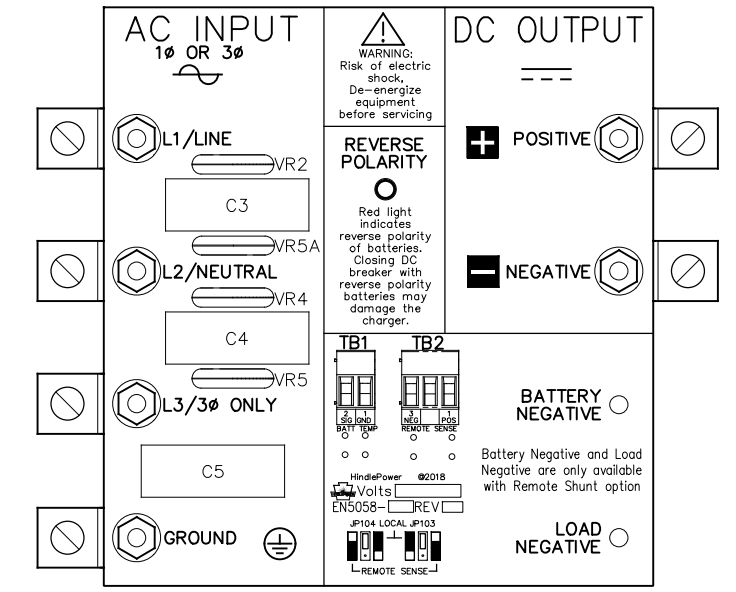
DUAL DIMENSIONS in [mm]

|                                |            |            |            |              |            |              |  |  |       |              |
|--------------------------------|------------|------------|------------|--------------|------------|--------------|--|--|-------|--------------|
| REV. 0                         | DRN BY KMW | CHK BY MCR | APP BY MCR | DATE 2/24/22 | DRN BY KMW | DATE 2/24/22 | TITLE<br><b>ATEVO BATTERY CHARGER<br/>                 OUTLINE: NEMA-1 STYLE-5070 ENCL<br/>                 3Ø W/O OPTIONS 16-100A</b> | SCALE DWG No<br><b>B NTS JE5331-01</b> | REV 0 | SHEET 1 OF 1 |
| DESCRIPTION APPROVAL DRAWINGS. |            |            |            |              | CHK BY MCR | DATE 2/24/22 |  |  |       |              |
| ECN No. N/A                    |            |            |            |              | APP BY MCR | DATE 2/24/22 |  |  |       |              |
|                                |            |            |            |              |            |              |  |  |       |              |

| 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)     |
| CB2AUX                             | DC CKT BKR (CB2) AUXILIARY CONTACTS |
| L1                                 | MAIN INDUCTOR                       |
| L2                                 | FILTER INDUCTOR                     |
| T1                                 | POWER TRANSFORMER                   |



ST-5070 I/O  
TERMINAL  
BOARD DETAIL



MOV PC BOARD (A9)

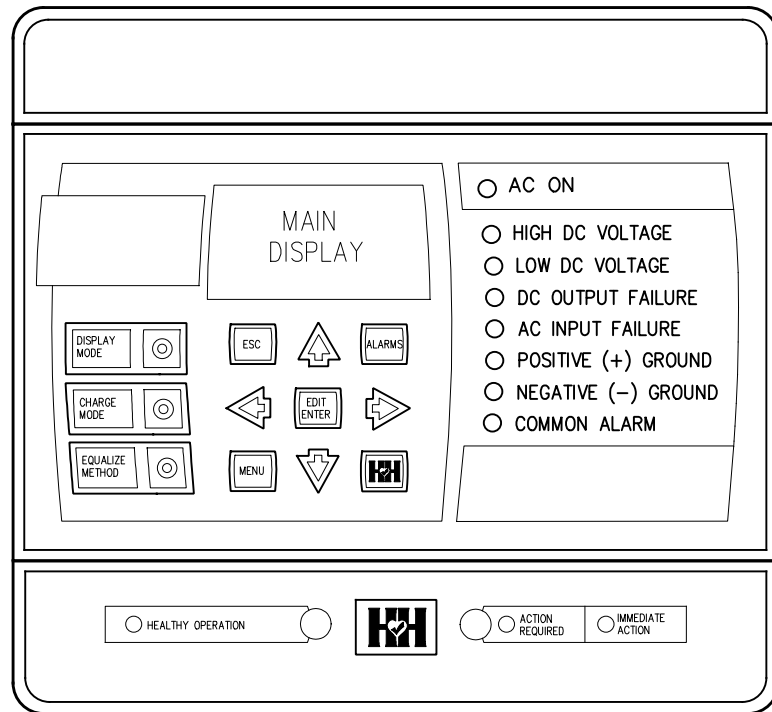
| I/O TERMINAL | DESCRIPTION - TYPE   | CONNECTION  |
|--------------|--|-------------|
| I/O (+/-)    | POS/NEG OUTPUT TERMINALS - CU-ALUMINUM COMPRESSION LUG           | #14-1/0 AWG |
| GND LUG      | USER GROUND TERMINAL - CU-ALUMINUM COMPRESSION LUG               | #14-1/0 AWG |
| I/O (L1/L2)  | 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 JE5333 - 01.

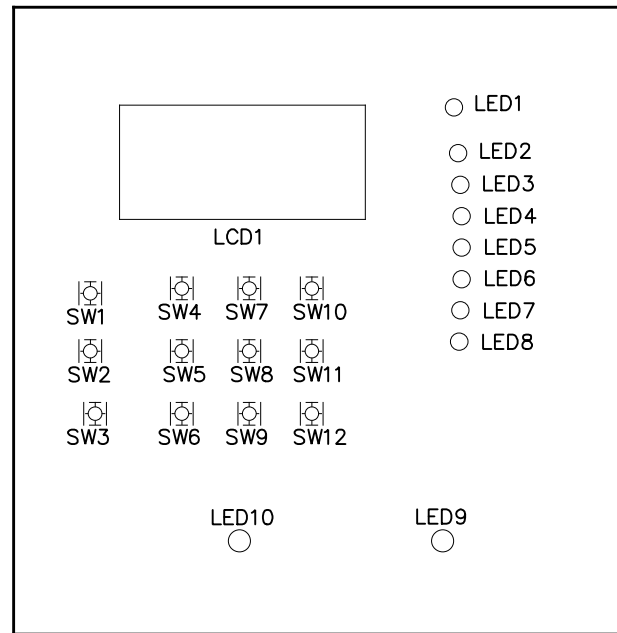
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| REV. 0                         | DRN BY KMW | CHK BY MCR | APP BY MCR | DATE 2/24/22 | DRN BY KMW    | DATE: 2/24/22 |
| DESCRIPTION APPROVAL DRAWINGS. |            |            |            | CHK BY MCR   | DATE: 2/24/22 |               |
| ECN No. N/A                    |            |            |            | APP BY MCR   | DATE: 2/24/22 |               |

TITLE  
**ATEVO BATTERY CHARGER  
INTERNAL COMPONENT LAYOUT: STYLE-5070  
3Ø W/O OPTIONS 16-100A**

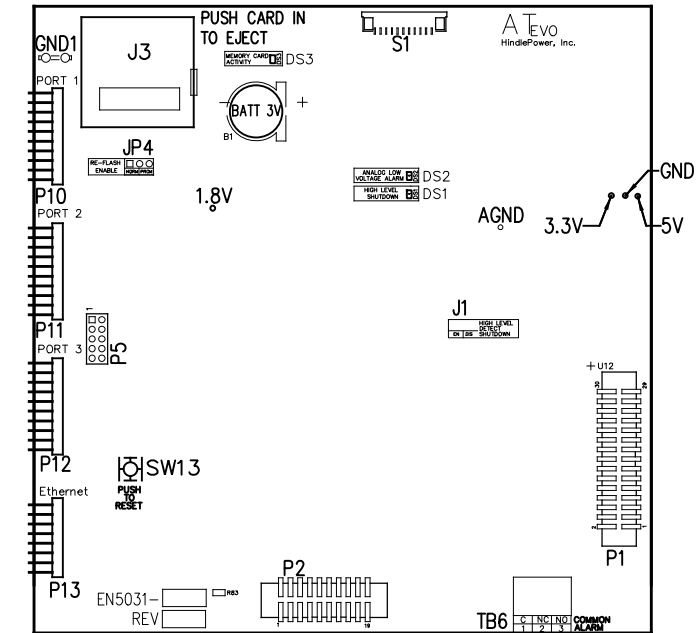
|          |           |                  |       |              |
|----------|-----------|------------------|-------|--------------|
| <b>B</b> | SCALE NTS | DWG No JE5332-01 | REV 0 | SHEET 1 OF 1 |
|----------|-----------|------------------|-------|--------------|



**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)

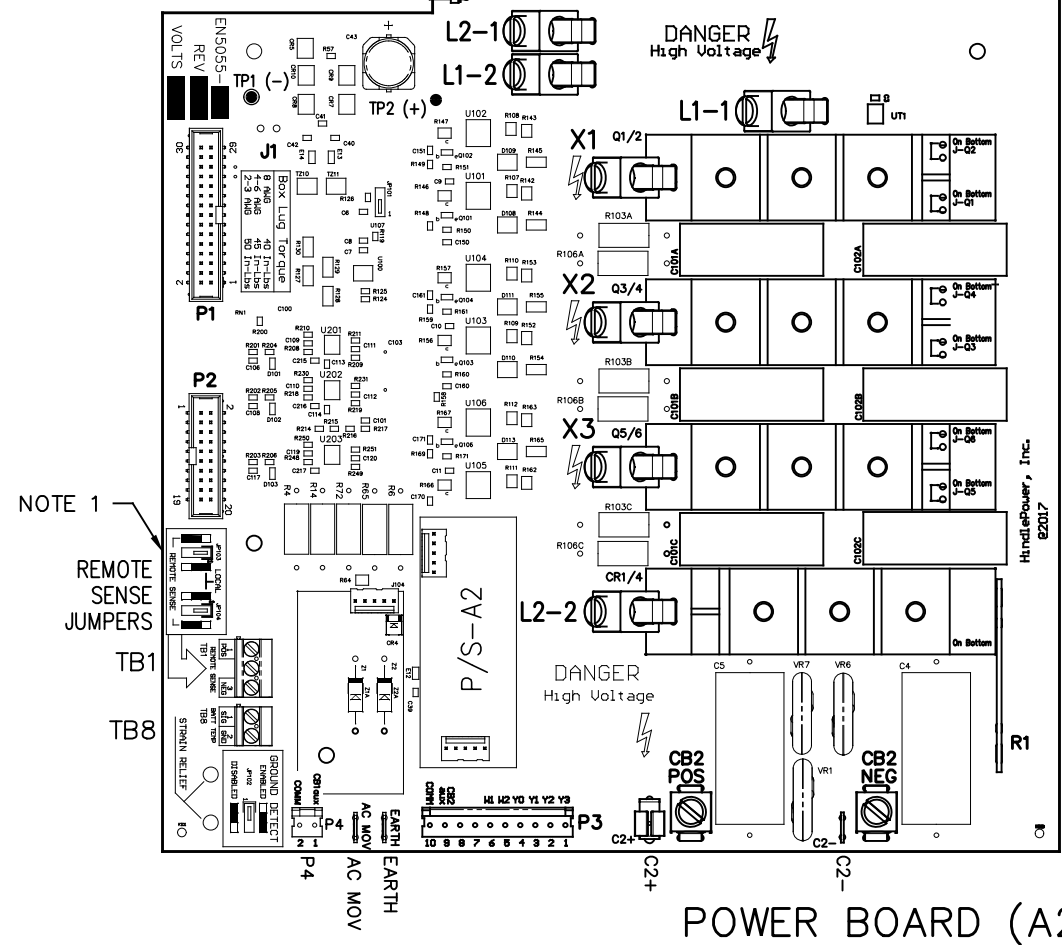
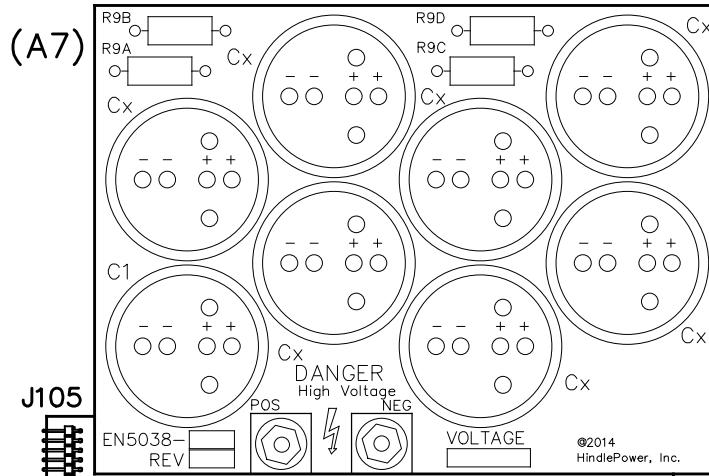
**CONNECTORS:**

- 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 KMW | CHK BY MCR | APP BY MCR | DATE 2/24/22 | DRN BY KMW | DATE: 2/24/22 | <b>TITLE</b><br><b>ATEVO BATTERY CHARGER</b><br><b>CONTROL PANEL / PC BOARD DETAIL</b><br><b>3Ø W/O OPTIONS 16-100A</b> | <b>B</b> SCALE NTS DWG No. JE5333-01 | REV 0 | SHEET 1 OF 2 |
| DESCRIPTION APPROVAL DRAWINGS. |            |            |            |              | CHK BY MCR | DATE: 2/24/22 |   |                                      |       |              |
| ECN No. N/A                    |            |            |            |              | APP BY MCR | DATE: 2/24/22 |   |                                      |       |              |

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 (+)

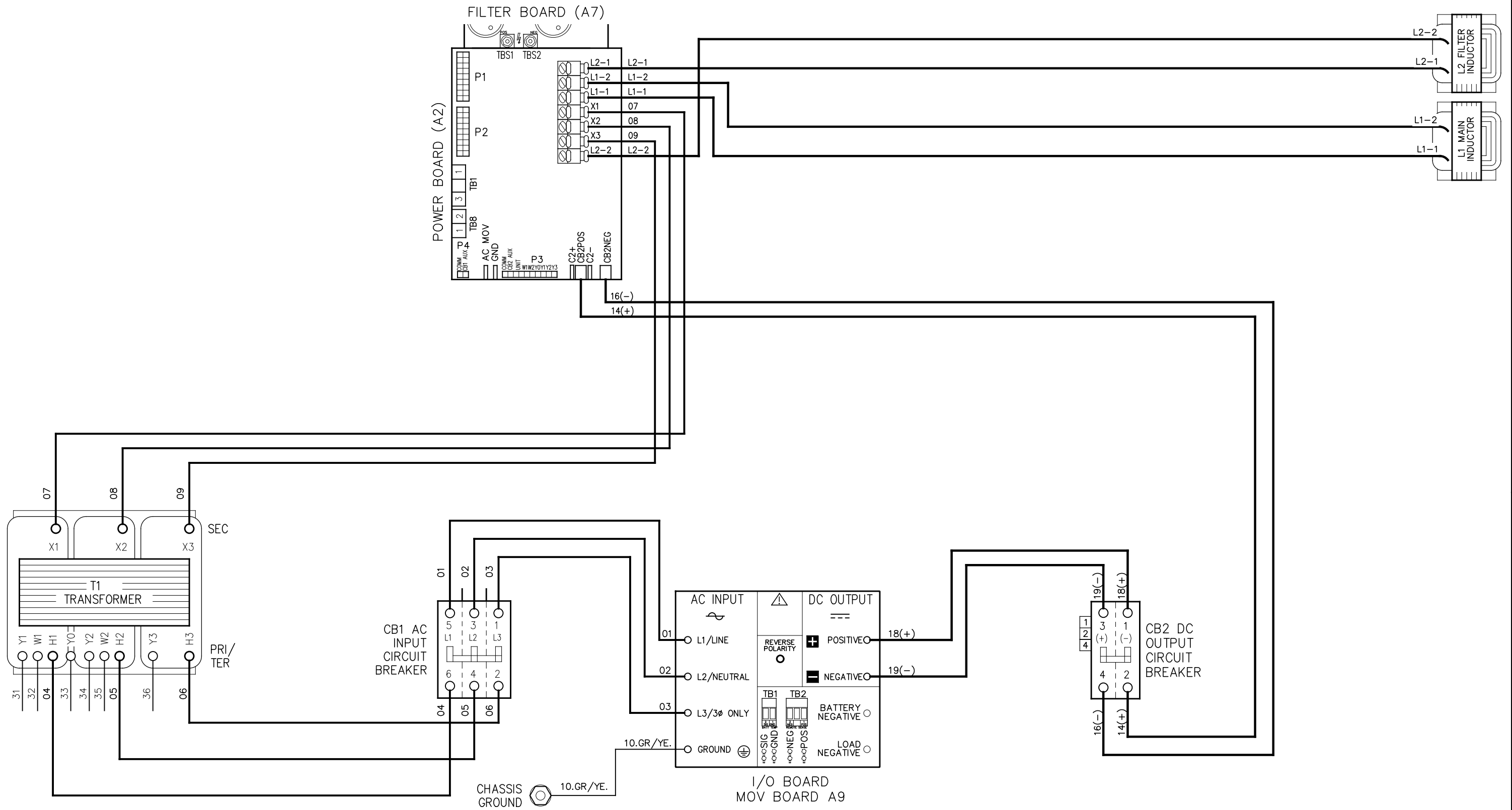
NOTE 1  
REMOTE SENSE JUMPERS  
TB1  
TB8

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 |

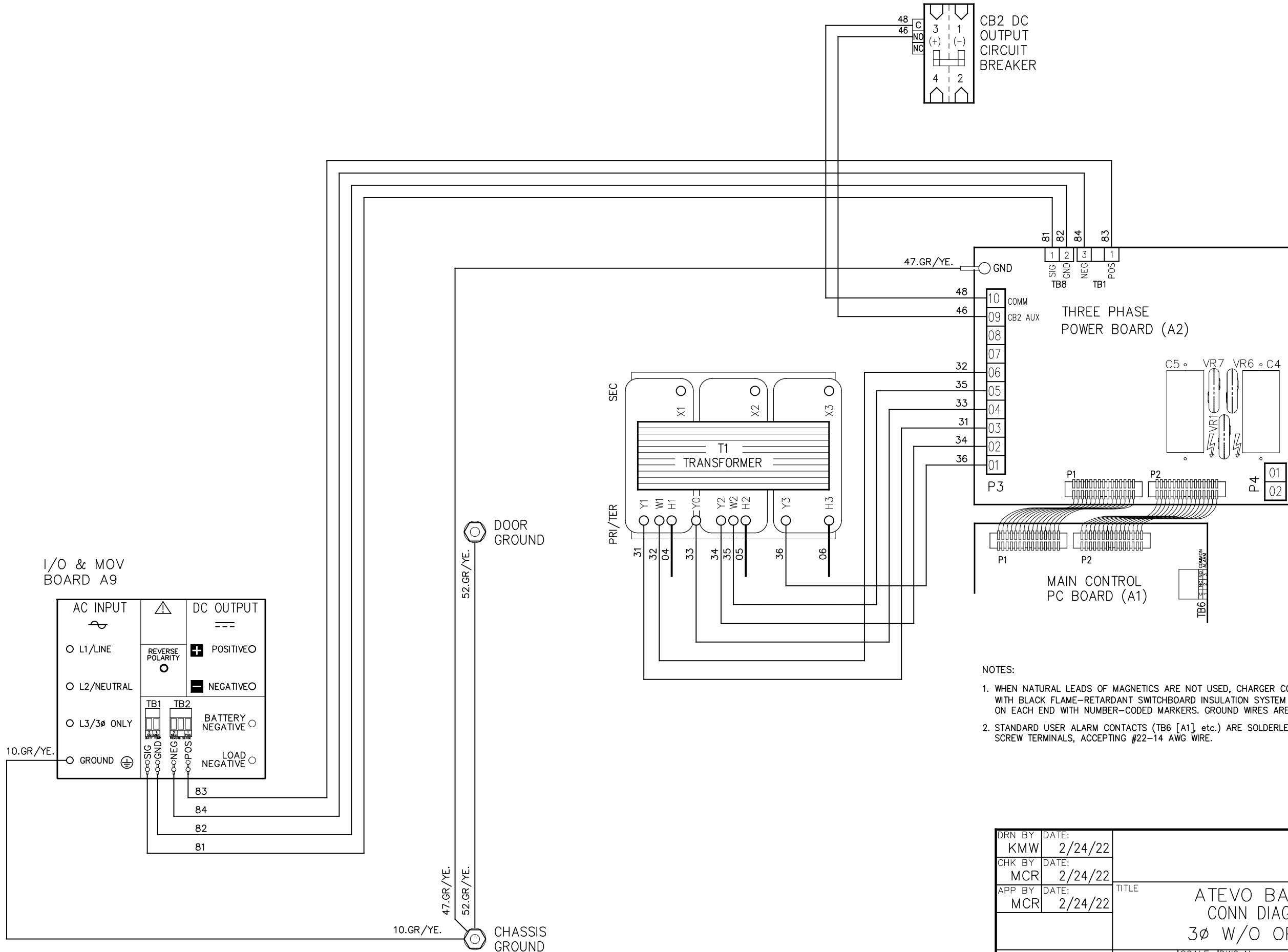
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|-----------------------------------|------------|------------|------------|--------------|--------------|--|--|
| REV. 0                            | DRN BY KMW | CHK BY MCR | APP BY MCR | DATE 2/24/22 | DRN BY KMW   | DATE 2/24/22                           | TITLE<br><b>ATEVO BATTERY CHARGER<br/>CONTROL PANEL / PC BOARD DETAIL<br/>3Ø W/O OPTIONS 16-100A</b> |
| DESCRIPTION<br>APPROVAL DRAWINGS. |            |            |            | CHK BY MCR   | DATE 2/24/22 | SCALE DWG No<br><b>B</b> NTS JE5333-01 |  |
| ECN No. N/A                       |            |            |            | APP BY MCR   | DATE 2/24/22 |  |  |
|                                   |            |            |            |              |              |  | REV 0 SHEET 2 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. 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. 1   | DRN BY KJB | CHK BY MCR | APP BY MCR | DATE 9/11/2023 | DRN BY KMW    | DATE: 2/24/22 | TITLE<br>ATEVO BATTERY CHARGER<br>CONN DIAGRAM: STYLE 5070<br>3 $\phi$ W/O OPTIONS 16-100A |
| DESCRIPTION<br>REVISED T1 SINGAL WIRING ORDER. |            |            |            | CHK BY MCR     | DATE: 2/24/22 | SCALE<br>NTS  |  |
| ECN No. N/A                                    |            |            |            | APP BY MCR     | DATE: 2/24/22 |               |  |
|  |            |            |            |                |               | REV 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. STANDARD USER ALARM CONTACTS (TB6 [A1], etc.) ARE SOLDERLESS COMPRESSION SCREW TERMINALS, ACCEPTING #22-14 AWG WIRE.

|               |                  |   |
|---------------|------------------|---|
| DRN BY<br>KMW | DATE:<br>2/24/22 | TITLE<br><b>ATEVO BATTERY CHARGER<br/>CONN DIAGRAM: STYLE 5070<br/>3<math>\phi</math> W/O OPTIONS 16-100A</b> |
| CHK BY<br>MCR | DATE:<br>2/24/22 |   |
| APP BY<br>MCR | DATE:<br>2/24/22 |   |
|               |                  | <b>B</b> SCALE DWG No<br>NTS JE5335-01  |
| REV<br>1      | SHEET<br>2 OF 2  |   |