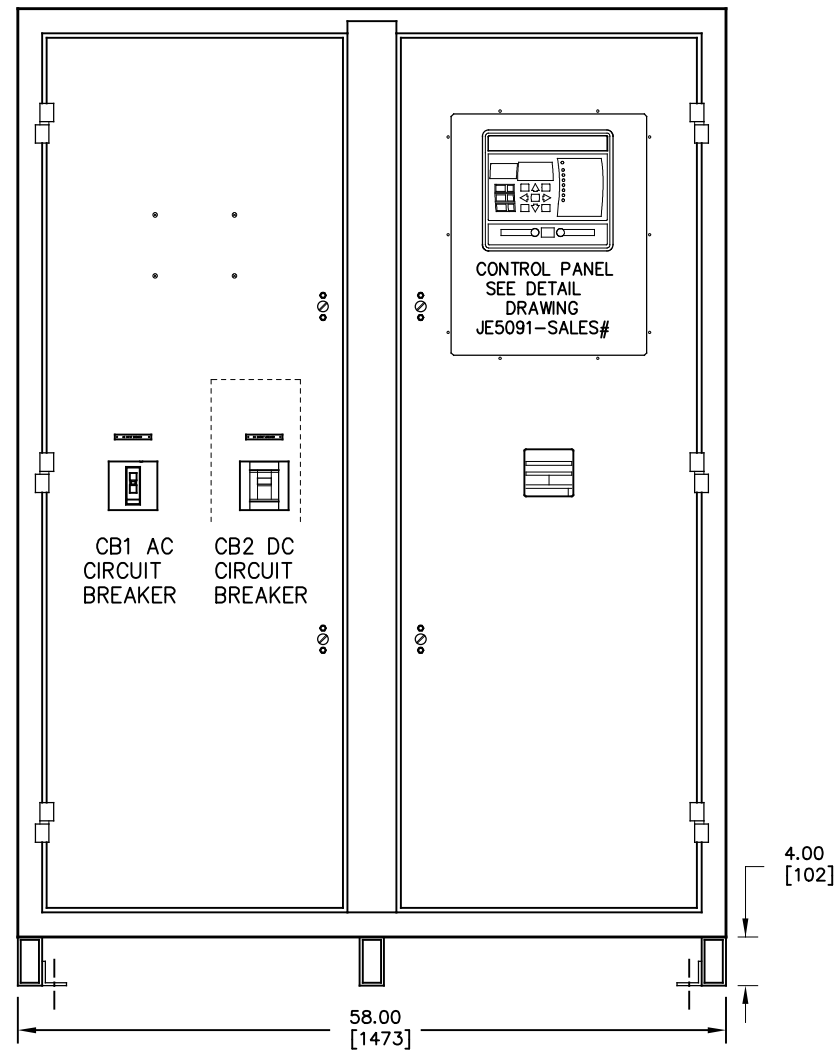
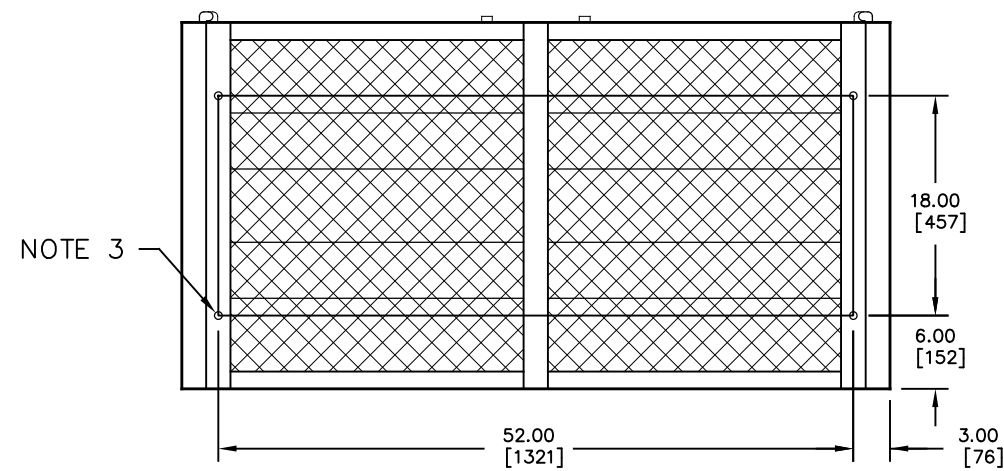
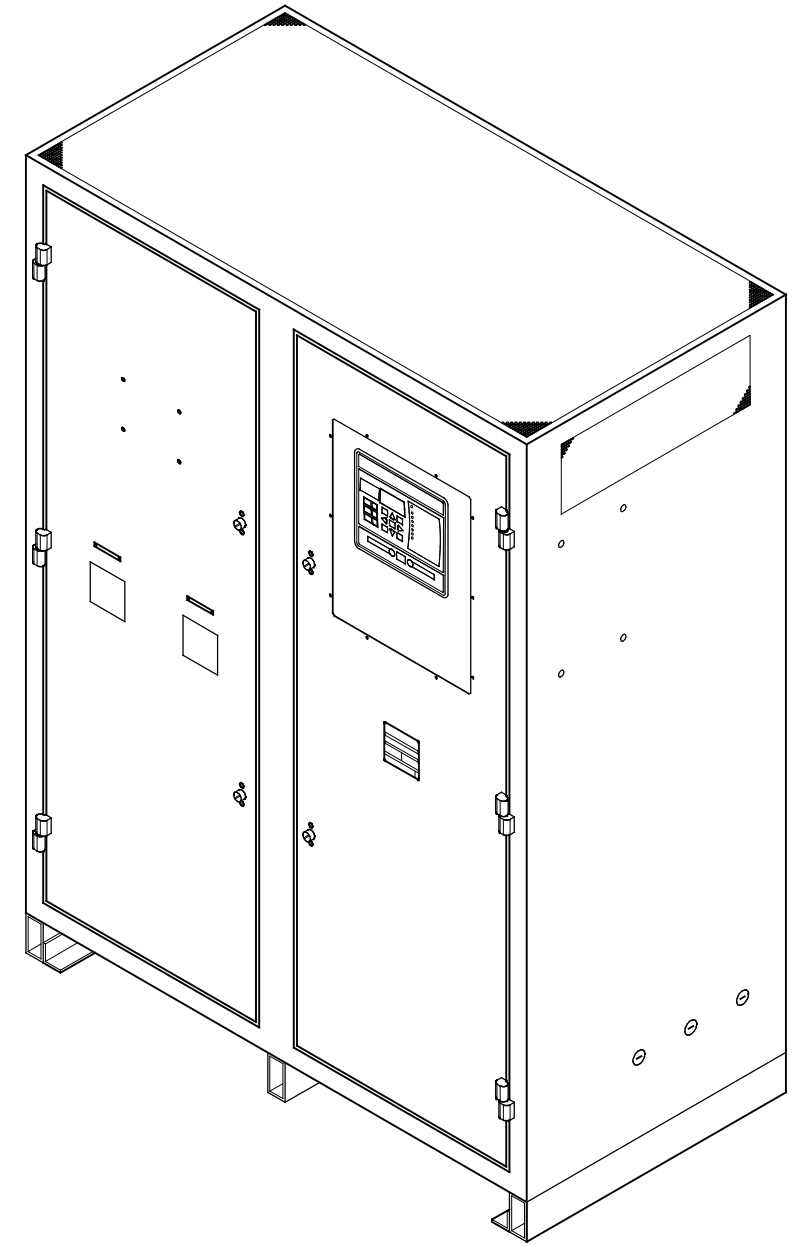
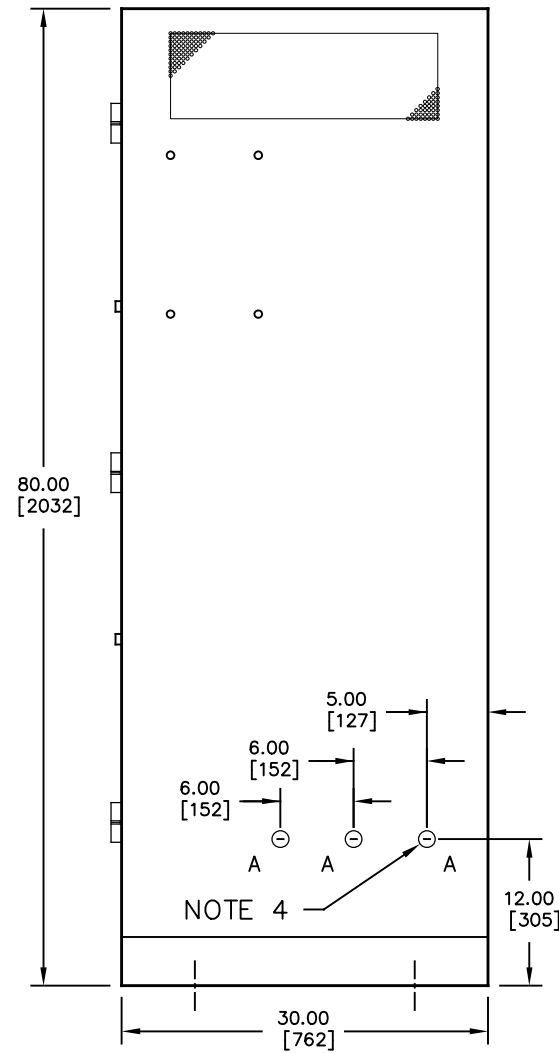


FRONT VIEW



RIGHT SIDE VIEW



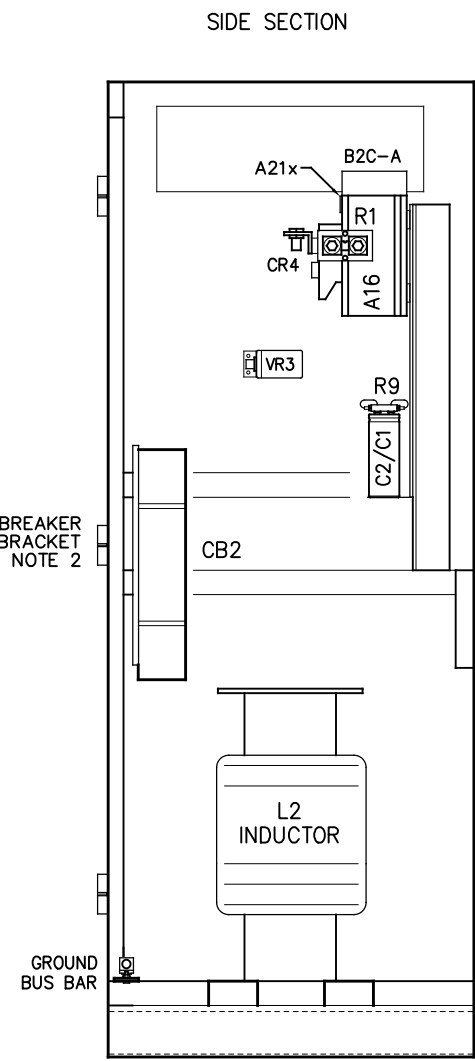
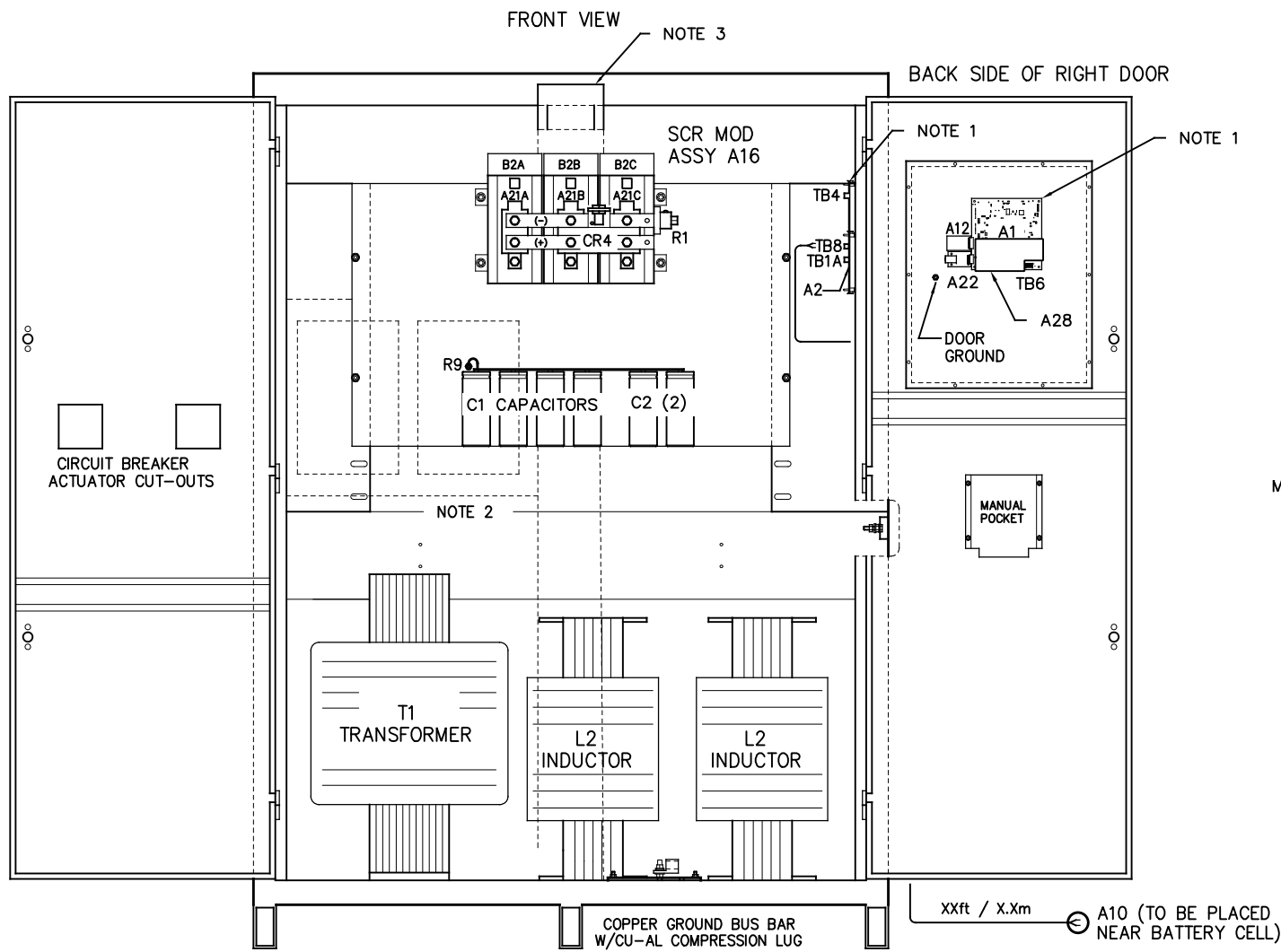
BOTTOM VIEW

NOTES:

- 1) ENCLOSURE IS A NEMA TYPE 1 / IP20 TOP-VENTED STEEL CABINET WITHOUT GASKETS. FINISH IS ANSI-61 GRAY EPOXY POWDERCOAT.
- 2) ALLOW 6in / 152mm OF FREE AIR ON ALL VENTED SURFACES (TOP, SIDES & REAR) FOR COOLING.
- 3) FOUR (4) 0.625in / 16mm FLOOR-MOUNTING HOLES ARE PROVIDED ON BOTTOM OF ENCLOSURE AS SHOWN.
- 4) SIX (6) STANDARD PRE-FAB CONDUIT KNOCKOUTS ARE PROVIDED AS SHOWN FOR CABLE ENTRY. BOTTOM AND TOP CONDUIT ENTRY IS POSSIBLE THROUGH EXPANDED METAL UNDERSIDE AND FULLY VENTED TOP. IF ADDITIONAL CONDUIT ENTRANCES ARE REQUIRED, ENCLOSURE SHOULD BE FIELD-MODIFIED BY INSTALLER.
- 5) BATTERY CHARGER SHIPPING WEIGHT: APPROXIMATELY TBD lb / TBD kg

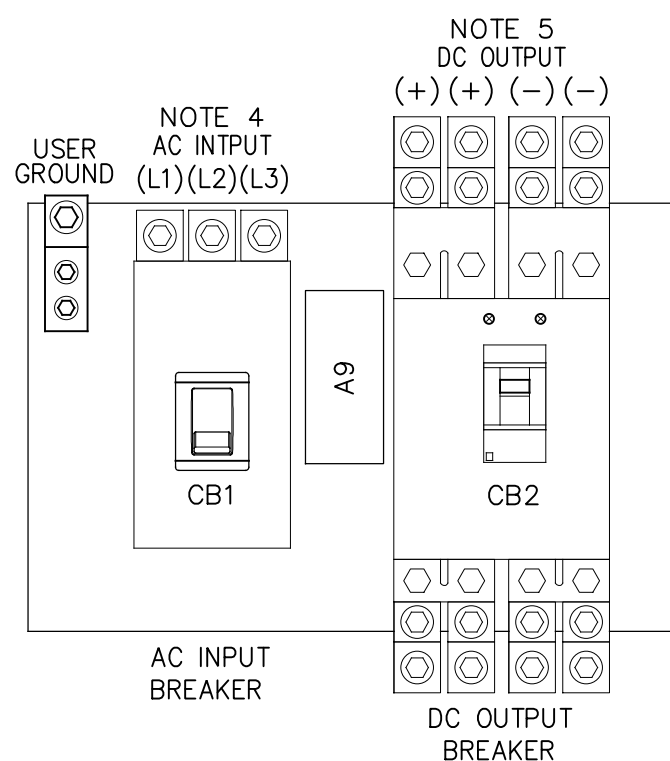
HOLE	DIA.	QTY.	APPLICATION
A	1.313 33.34	6	PRE-FAB CONDUIT KNOCKOUT FOR SML CABLE (BOTH SIDES)

REV. DRN BY 0 KJB	CHK BY MCR	APP BY MCR	DATE 11/01/2021	DRN BY KJB	DATE 11/01/2021	TITLE <b>ATEVO BATTERY CHARGER                  OUTLINE: NEMA-1 STYLE-198 ENCL                  3Ø WITH COMMON OPTIONS 300-1000A</b>			
DESCRIPTION STANDARD DRAWINGS.				CHK BY MCR	DATE 11/01/2021				
ECN NO. #ECN#				CHK BY MCR	DATE 11/01/2021				
DUAL DIMENSIONS in mm						SCALE NTS	DWG No JE5351-22	REV 0	SHEET 1 OF 1



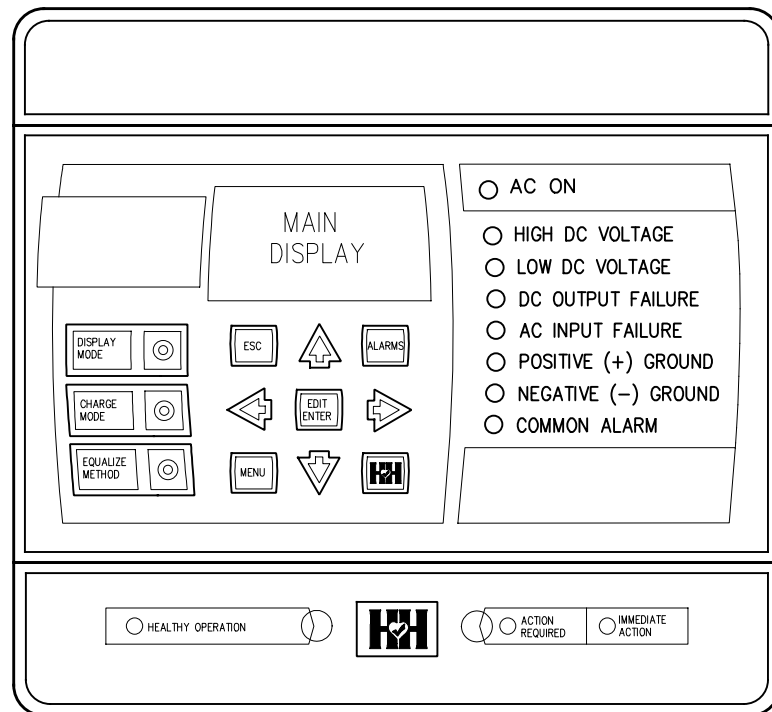
SYM	STANDARD COMPONENT DESCRIPTION
A1	MAIN CONTROL PC BOARD
A2	POWER BOARD
A9	MOV PC BOARD
A16	3PH SCR MODULE ASSY (1x6 Q1-Q6)
A21X	RECTIFIER TEMPERATURE BOARD
B2x	SCR MODULE (A16) COOLING FAN
C1x	DC OUTPUT FILTER CAPACITOR
CB1	AC INPUT CIRCUIT BREAKER (LAL3)
CB2	DC OUTPUT CIRCUIT BREAKER (LGL2)
AUXCB2	DC CKT BKR (CB2) AUXILIARY CONTACTS
CR1	POLARITY DIODE
CR4	FREE-WHEELING DIODE
E13	INDUCTOR INTER-CONNECT POINT
L1	MAIN INDUCTOR
L2	FILTER INDUCTOR
R1	MAIN DC SHUNT, NEG(-) BUS
R9	FILTER CAP (C1) BLEED RESISTOR
T1	POWER ISOLATION TRANSFORMER
TB6	SUMMARY ALARM CONTACTS
TB8	OPT. TEMPCO PROBE TERM BLOCK
SYM	FEATURED OPTION COMP DESCRIPTION
A4	AUXILIARY ALARM RELAY PC BOARD
A10	EXTERNAL TEMPCO PROBE
A12	SERIAL COMMUNICATIONS ADAPTER
A22	ETHERNET ADAPTER
A28	METER MODULE PC BOARD
C2x	BATTERY ELIMINATOR FILTER CAP
TB4	AUX ALARM PCB (A5) TERM BLOCK
VR3	AC INPUT LIGHTNING ARRESTOR

- NOTES:
- FOR DETAIL VIEWS OF ALL PC BOARDS (A1, A2, etc.) SEE DRAWING JE5353-SALES#.
  - CIRCUIT BREAKER(S) MOUNTED ON SIDE BRACKET, NOT FULLY SHOWN FOR CLARITY.
  - CENTER DIVIDER NOT SHOWN FOR CLARITY OF INTERNAL VIEW.
  - USER AC INPUT TERMINALS:
    - UTILIZES TOP OF AC OUTPUT BREAKER (CB1)
    - FOUR (3) REMOVABLE ALUMINUM COMPRESSION LUGS
    - TOTAL OF THREE (3) 4 AWG-4/0 WIRES
  - USER DC OUTPUT TERMINALS:
    - UTILIZES TOP OF DC OUTPUT BREAKER (CB2)
    - FOUR (4) REMOVABLE ALUMINUM COMPRESSION LUGS
    - TWO (2) LUGS PER POLE (+/-)
    - TWO (2) USER CONNECTIONS PER LUG
    - TOTAL OF EIGHT (8) 2/0-500 MCM WIRES



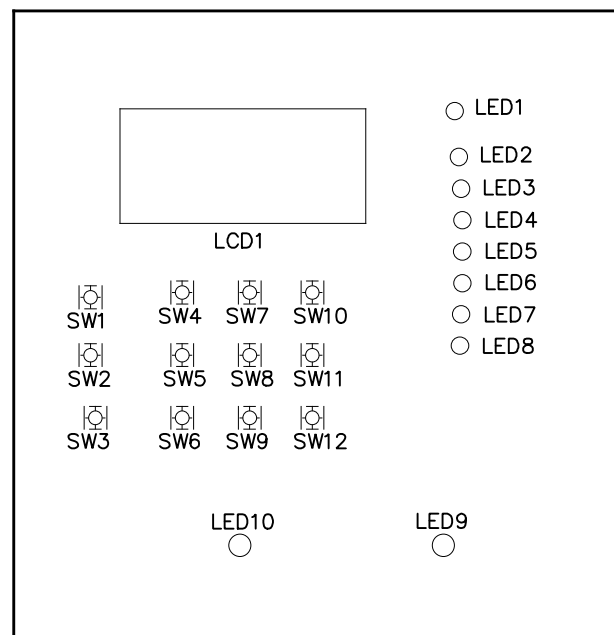
I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
CB2(+)	POS(+) OUTPUT TERMINAL - DC BREAKER TOP AL COMP LUGS	(4) 2/0-500 MCM
CB2(-)	NEG(-) OUTPUT TERMINAL - DC BREAKER TOP AL COMP LUGS	(4) 2/0-500 MCM
TB1-GND	USER GROUND TERMINAL - CU-ALUMINUM COMPRESSION LUG	#6 AWG-350 MCM
CB1(L1,L2,L3)	AC INPUT TERMINALS - AC BREAKER TOP AL COMP LUGS	#4-4/0 AWG
(A1) TB6	SUMMARY ALARM TERMINAL BLOCK (A1) - SLDRLSS COMP SCREW	#22-14 AWG
(A2) TB1	POS/NEG REMOTE SENSE TERMS (A2) - SOLDERLESS COMPRESSION	#22-14 AWG
(A2) TB8	TEMPCO PROBE (A10) TERM BLK - SOLDERLESS COMPRESSION	#22-14 AWG
(A4) TB4	AUX I/O RELAY CONTACTS (A4) - SOLDERLESS COMPRESSION	#22-14 AWG
TB4-AUX	BARRIER TYPE AUX ALARM (A5) CONTACTS - 6-32 COMP SCREW	#16-14 AWG

REV. 0	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 11/01/2021	DRN BY KJB	DATE 11/01/2021	<b>TITLE</b> <b>ATEVO BATTERY CHARGER</b> <b>INTERNAL COMPONENT LAYOUT: STYLE-198</b> <b>3Ø WITH COMMON OPTIONS 300-1000A</b>
DESCRIPTION STANDARD DRAWINGS.					CHK BY MCR	DATE 11/01/2021	
ECN NO. #ECN#					CHK BY MCR	DATE 11/01/2021	
					<b>B</b> SCALE NTS DWG No JE5352-22		
							REV 0 SHEET 1 OF 2

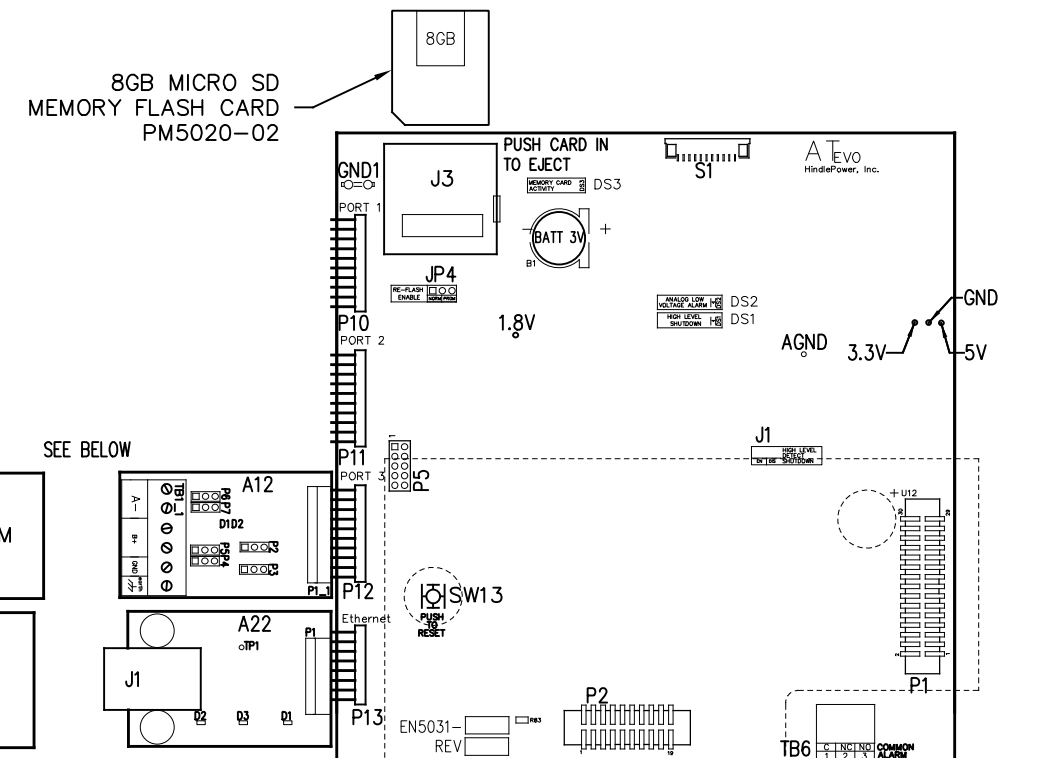


**INSTRUMENT PANEL**  
(PART No. FK5047-00)

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.

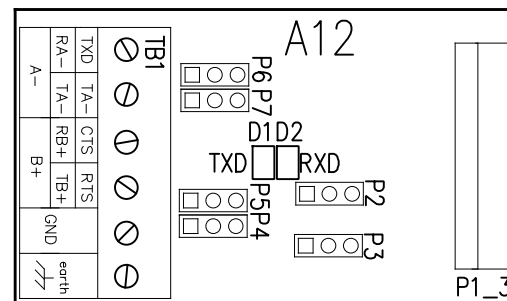


**MAIN CONTROL PC BOARD (A1)**  
FRONT VIEW - FACING CHARGER DOOR WHEN INSTALLED



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

**SERIAL COMMUNICATION ADAPTER (A12)**



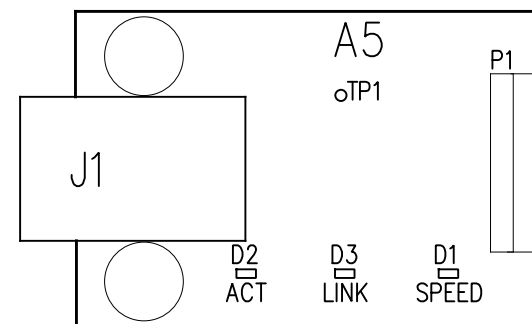
**CONNECTORS (A12):**  
P1 - MAIN CONTROL BOARD

**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)**

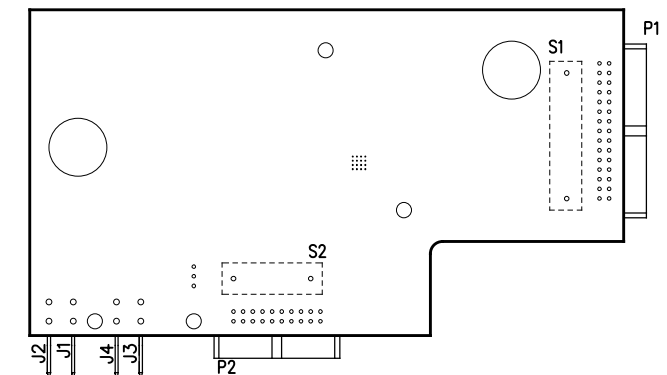


**CONNECTORS (A5):**  
P1 - MAIN CONTROL BOARD  
J1 - RJ-45 ETHERNET USER CONNECTION

**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

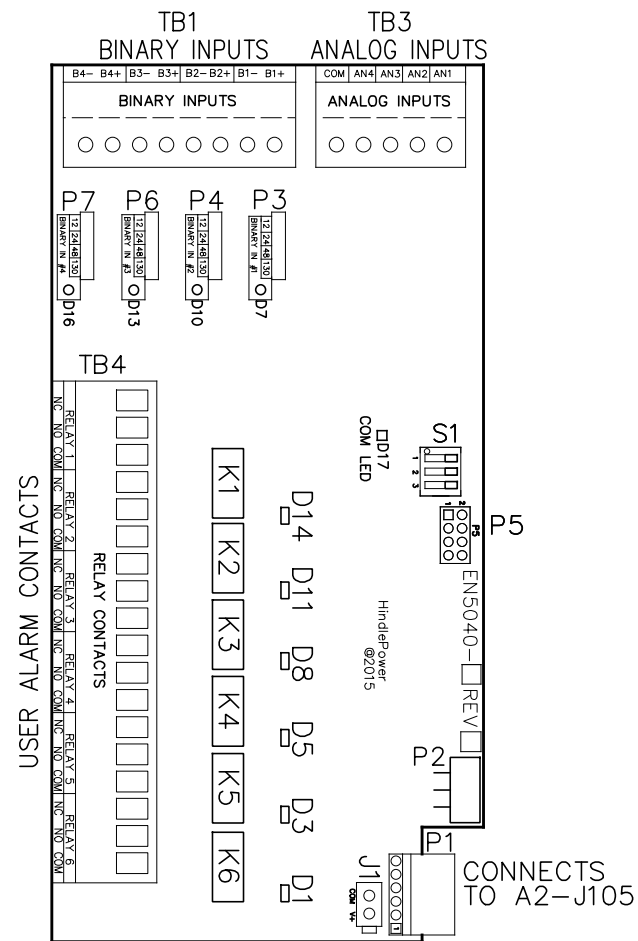


**MAIN CONTROL PC BOARD (A1)**

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

I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
(A1) TB6	SUMMARY ALARM TERMINAL BLOCK (A1) - SOLDERLESS COMPRESSION SCREW	#22-14 AWG
(A22) J1	SERIAL ETHERNET CONNECTION - RJ45 PLUG	CAT5
(A12) TB1	RS-232 / RS-485 USER CONNECTIONS - SOLDERLESS COMPRESSION SCREW	#22-14 AWG

REV. 0	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 11/01/2021	DRN BY KJB	DATE 11/01/2021	<p><b>TITLE</b> ATEVO BATTERY CHARGER INSTRUMENT PANEL / PC BOARD DETAIL 3Ø WITH COMMON OPTIONS 300-1000A</p>	<p><b>B</b></p>	<p>SCALE NTS</p>	<p>DWG No JE5353-22</p>	<p>REV 0</p>	<p>SHEET 1 OF 2</p>
DESCRIPTION STANDARD DRAWINGS.					CHK BY MCR	DATE 11/01/2021						
ECN NO. #ECN#					CHK BY MCR	DATE 11/01/2021						



**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):**

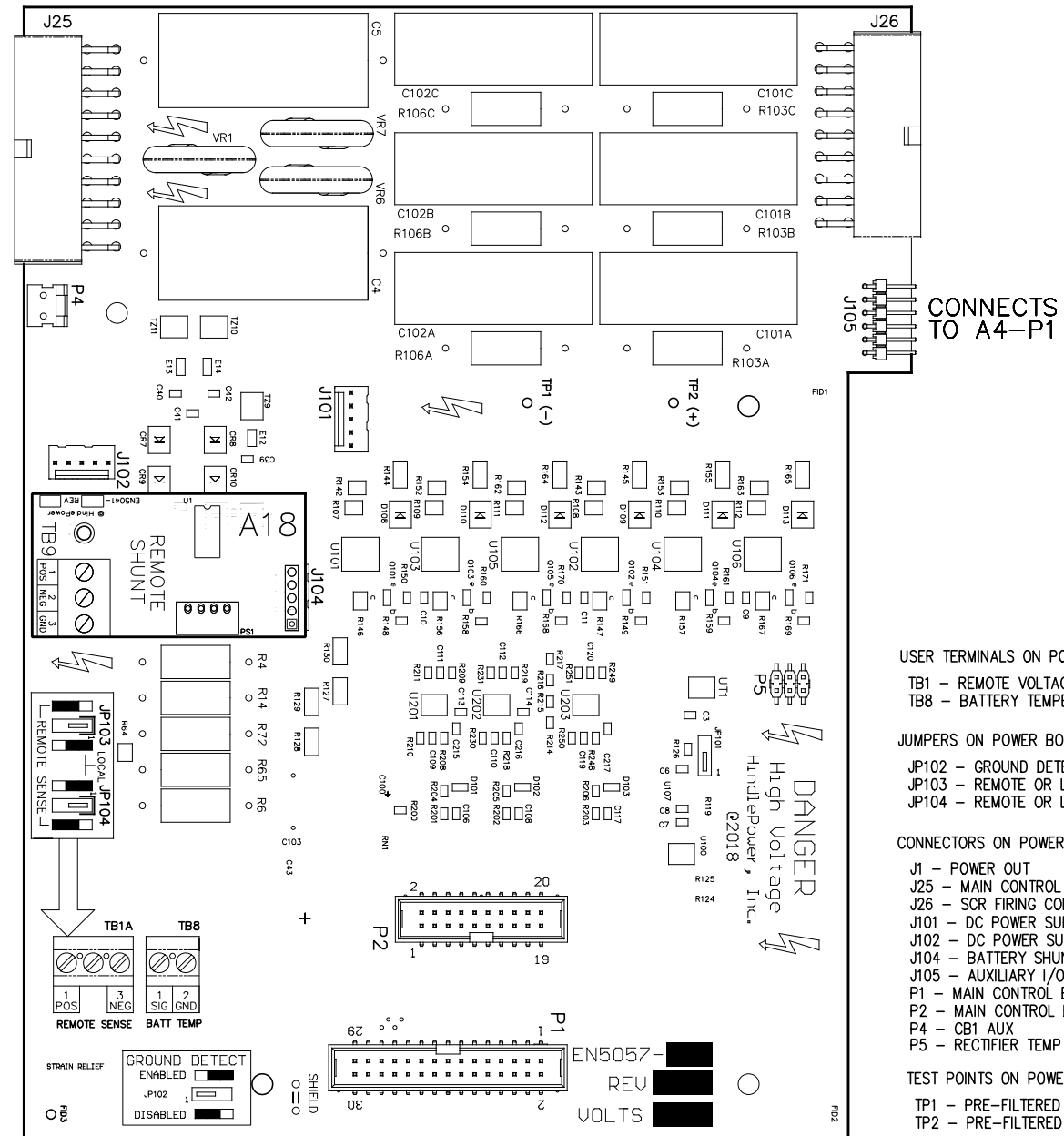
- D1 - RED - RELAY #6 IN ALARM STATE
- D3 - RED - RELAY #5 IN ALARM STATE
- D5 - RED - RELAY #4 IN ALARM STATE
- D7 - YELLOW - BINARY INPUT #1 IS ABOVE THRESHOLD
- D8 - RED - RELAY #3 IN ALARM STATE
- D10 - YELLOW - BINARY INPUT #2 IS ABOVE THRESHOLD
- D11 - RED - RELAY #2 IN ALARM STATE
- D13 - YELLOW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



**POWER BOARD (A2)**

- USER TERMINALS ON POWER BOARD (A2):**
- TB1 - REMOTE VOLTAGE SENSE
  - TB8 - BATTERY TEMPERATURE COMPENSATION

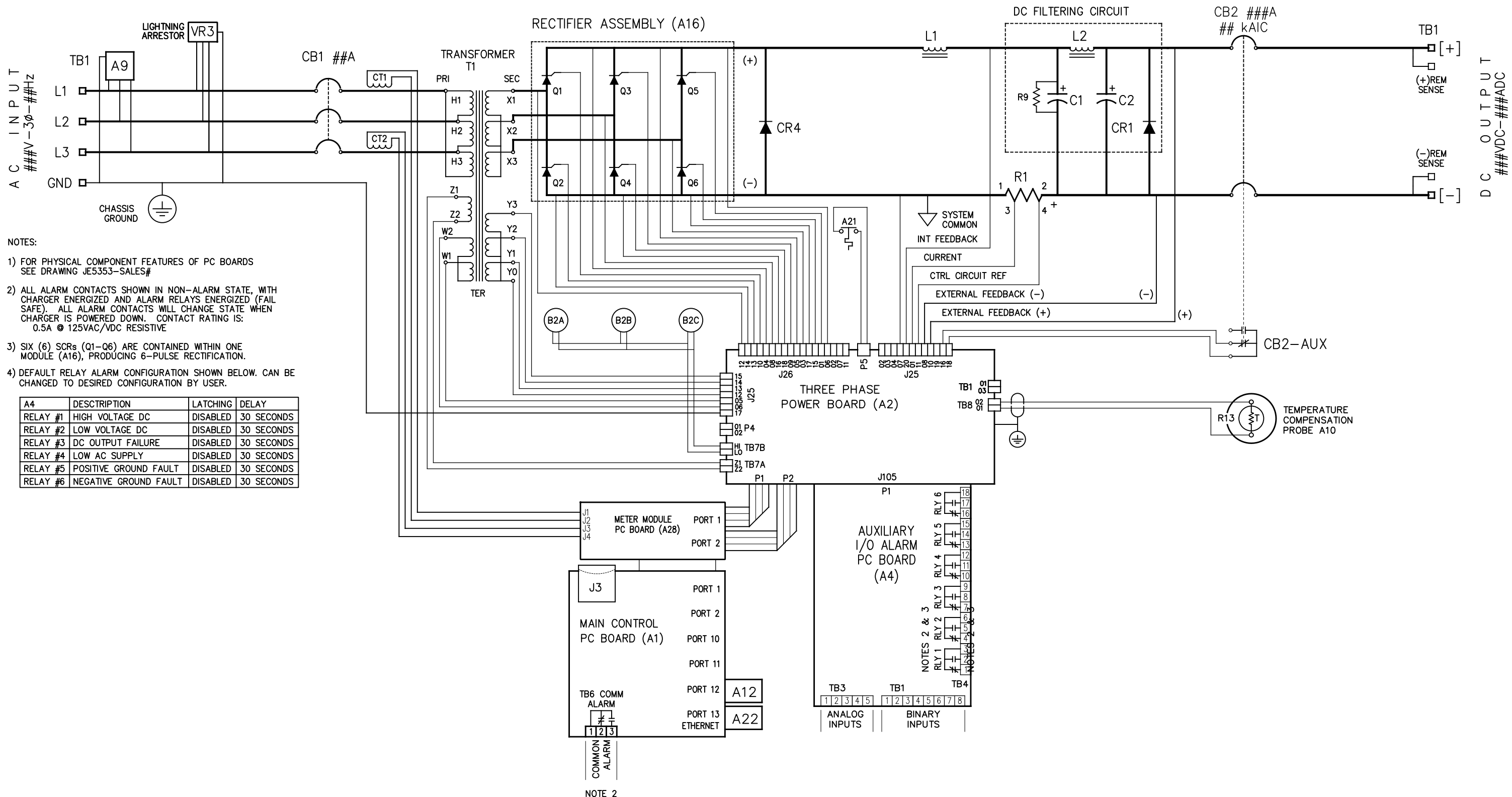
- JUMPERS ON POWER BOARD (A2):**
- JP102 - GROUND DETECT CIRCUIT ENABLE / DISABLE
  - JP103 - REMOTE OR LOCAL SENSE SELECTOR (+)
  - JP104 - REMOTE OR LOCAL SENSE SELECTOR (-)

- 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 (+)

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) TB4	AUX I/O RELAY CONTACTS (A4) - 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

DRN BY KJB	DATE: 11/01/2021	TITLE ATEVO BATTERY CHARGER INSTRUMENT PANEL / PC BOARD DETAIL 3Ø WITH COMMON OPTIONS 300-1000A	SCALE NTS	DWG No JE5353-22	REV 0A	SHEET 2 OF 2
CHK BY MCR	DATE: 11/01/2021					
CHK BY MCR	DATE: 11/01/2021					

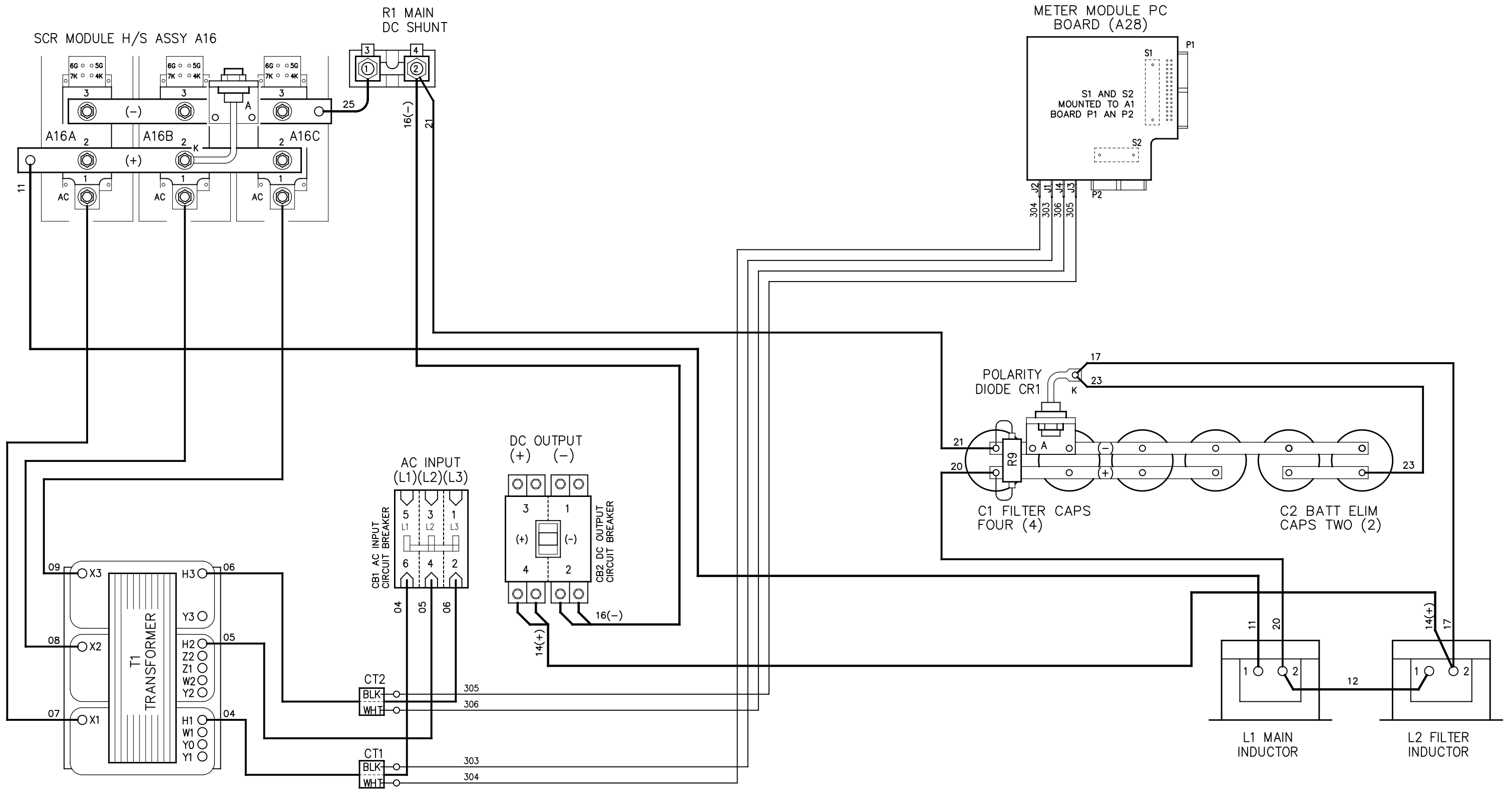


- NOTES:
- 1) FOR PHYSICAL COMPONENT FEATURES OF PC BOARDS SEE DRAWING JE5353-SALES#
  - 2) ALL ALARM CONTACTS SHOWN IN NON-ALARM STATE, WITH CHARGER ENERGIZED AND ALARM RELAYS ENERGIZED (FAIL SAFE). ALL ALARM CONTACTS WILL CHANGE STATE WHEN CHARGER IS POWERED DOWN. CONTACT RATING IS: 0.5A @ 125VAC/VDC RESISTIVE
  - 3) SIX (6) SCRs (Q1-Q6) ARE CONTAINED WITHIN ONE MODULE (A16), PRODUCING 6-PULSE RECTIFICATION.
  - 4) 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

NOTE 2

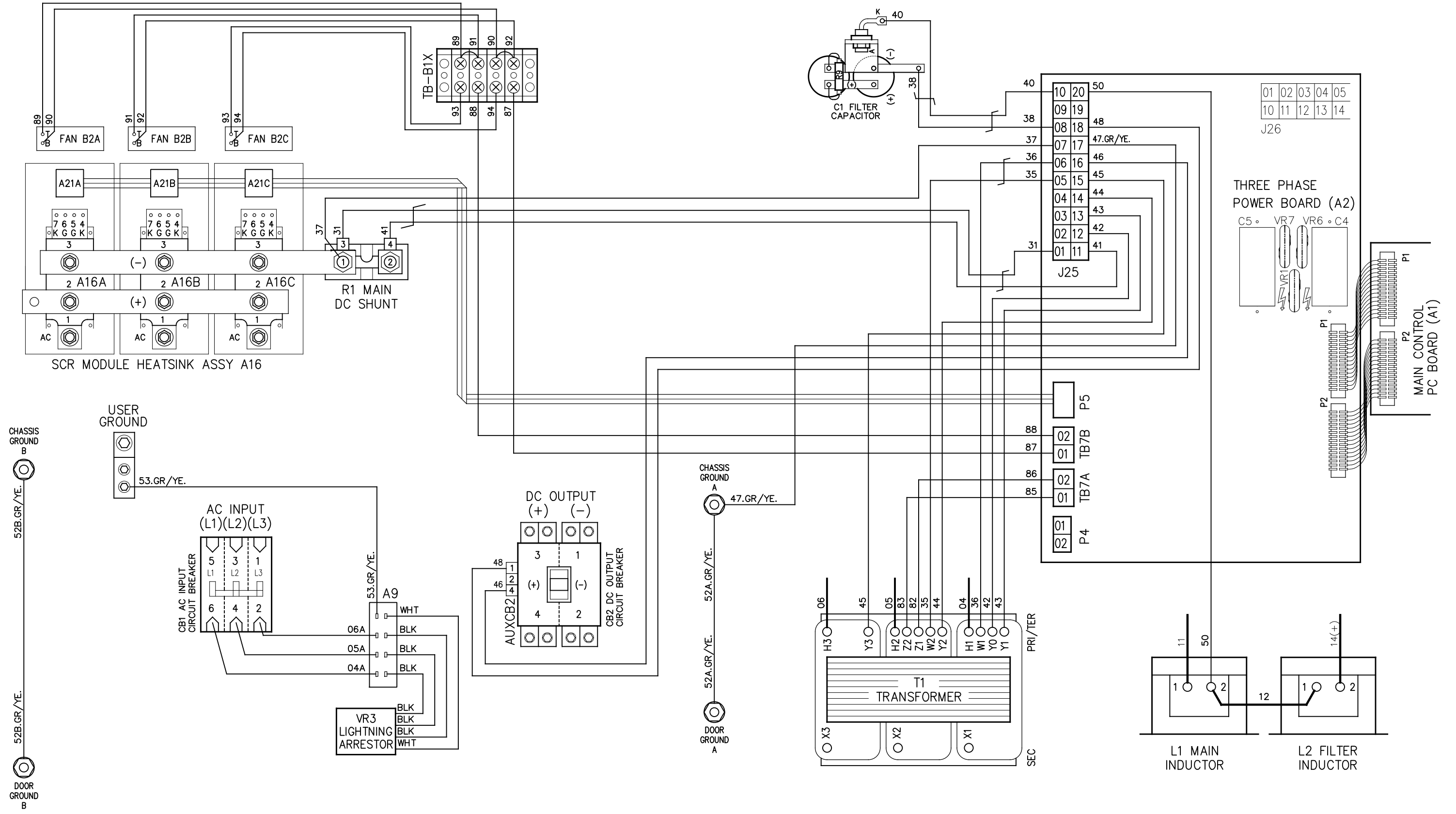
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DESCRIPTION STANDARD DRAWINGS.				CHK BY MCR	DATE: 11/01/2021
ECN NO. #ECN#				CHK BY MCR	DATE: 11/01/2021
TITLE <b>ATEVO BATTERY CHARGER SCHEMATIC: STYLE 198 3φ WITH COMMON OPTIONS 300-1000A</b>					
⊙		SCALE NTS	DWG No JE5354-22	REV 0	SHEET 1 OF 1



NOTES:

1. CHARGER COMPONENTS ARE CONNECTED WITH FLAME-RETARDANT SWITCHBOARD INSULATION SYSTEM (SIS) TYPE WIRING, IDENTIFIED ON EACH END WITH NUMBER-CODED MARKERS. GROUND WIRE #10 IS GREEN WITH YELLOW STRIPE.
2. THIS DRAWING (SHEET 1 OF 3) SHOWS MAINFRAME POWER WIRING. SEE SUBSEQUENT SHEETS FOR:
  - SHEET 2 OF 3 - SENSE (SIGNAL) WIRING.
  - SHEET 3 OF 3 - SCR (A16x) TRIGGER WIRING

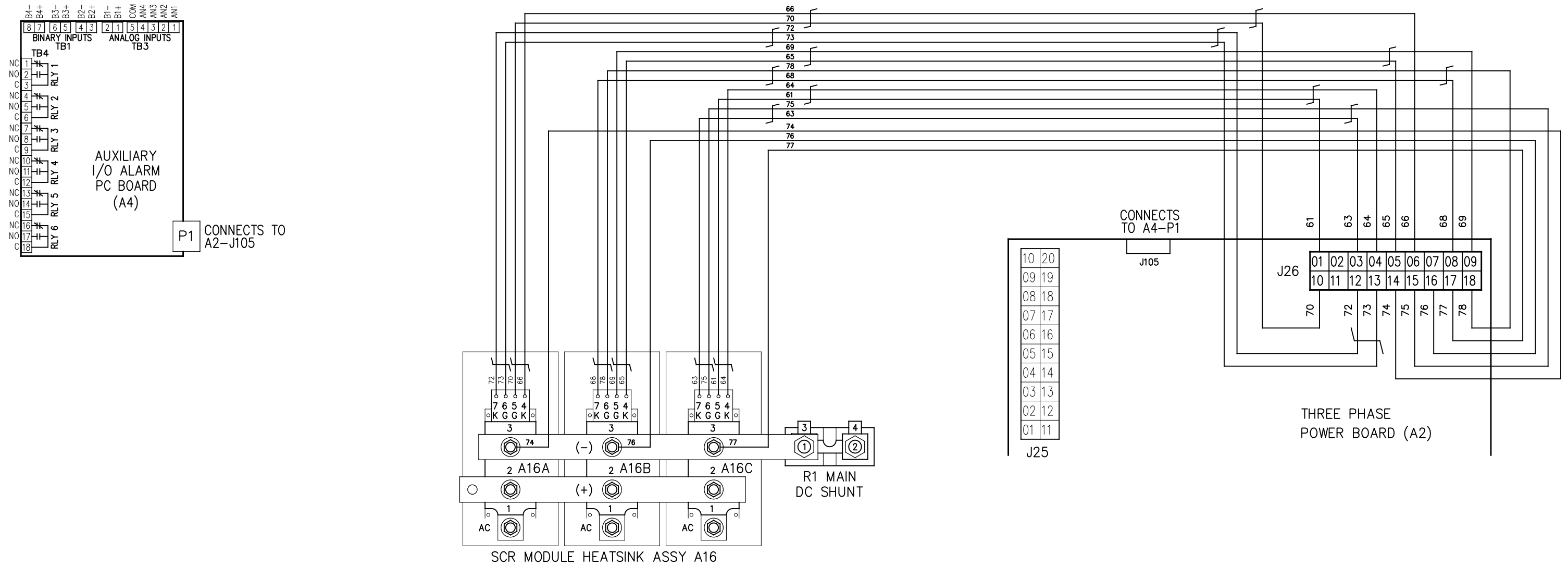
REV. 1	DRN BY KJB	CHK BY MCR	APP BY MCR	DATE 12/2/2021	DRN BY KJB	DATE: 11/01/2021	TITLE <b>ATEVO BATTERY CHARGER CONNECTION DIAGRAM: STYLE 198 3φ WITH COMMON OPTIONS 300-1000A</b>
DESCRIPTION UPDATED CAP WIRING.					CHK BY MCR	DATE: 11/01/2021	
ECN NO. #ECN#					CHK BY MCR	DATE: 11/01/2021	
							SCALE NTS
					DWG No <b>JE5355-22</b>		REV 1
							SHEET 1 OF 3



NOTES:

1. CHARGER COMPONENTS ARE CONNECTED WITH FLAME-RETARDANT SWITCHBOARD INSULATION SYSTEM (SIS) TYPE WIRING, IDENTIFIED ON EACH END WITH NUMBER-CODED MARKERS. GROUND WIRE #10 IS GREEN WITH YELLOW STRIPE.
2. THIS DRAWING (SHEET 2 OF 3) SHOWS SENSE (SIGNAL) WIRING, SEE SUBSEQUENT SHEETS FOR:
  - SHEET 1 OF 3 - MAINFRAME POWER WIRING
  - SHEET 3 OF 3 - SCR (A16x) TRIGGER WIRING

DRN BY KJB	DATE: 11/01/2021	TITLE <b>ATEVO BATTERY CHARGER CONNECTION DIAGRAM: STYLE 198 3φ WITH COMMON OPTIONS 300-1000A</b>	SCALE NTS	DWG No <b>JE5355-22</b>	REV 1	SHEET 2 OF 3
CHK BY MCR	DATE: 11/01/2021					
CHK BY MCR	DATE: 11/01/2021					



NOTES:

1. CHARGER COMPONENTS ARE CONNECTED WITH FLAME-RETARDANT SWITCHBOARD INSULATION SYSTEM (SIS) TYPE WIRING, IDENTIFIED ON EACH END WITH NUMBER-CODED MARKERS. GROUND WIRE #10 IS GREEN WITH YELLOW STRIPE.
2. THIS DRAWING (SHEET 3 OF 3) SHOWS SCR (A16x) TRIGGER WIRING, SEE SUBSEQUENT SHEETS FOR:
  - SHEET 1 OF 3 - MAINFRAME POWER WIRING
  - SHEET 2 OF 3 - SENSE (SIGNAL) WIRING.

DRN BY KJB	DATE: 11/01/2021	TITLE <b>ATEVO BATTERY CHARGER CONNECTION DIAGRAM: STYLE 198 3φ WITH COMMON OPTIONS 300-1000A</b>	REV	SHEET
CHK BY MCR	DATE: 11/01/2021		1	3 OF 3
CHK BY MCR	DATE: 11/01/2021			
		SCALE <b>B</b>	DWG No JE5355-22	