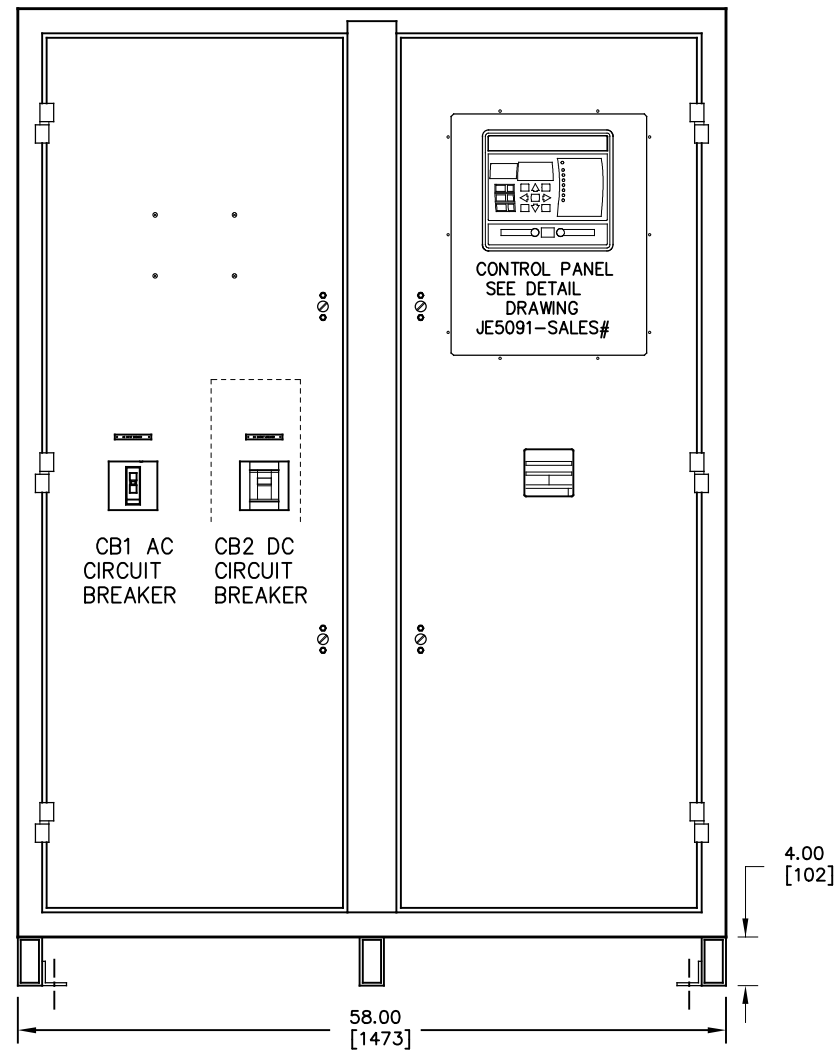
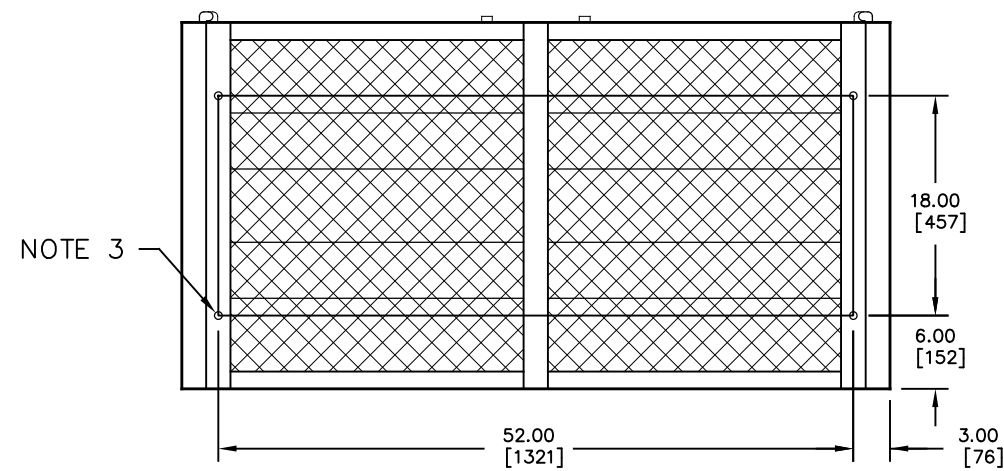
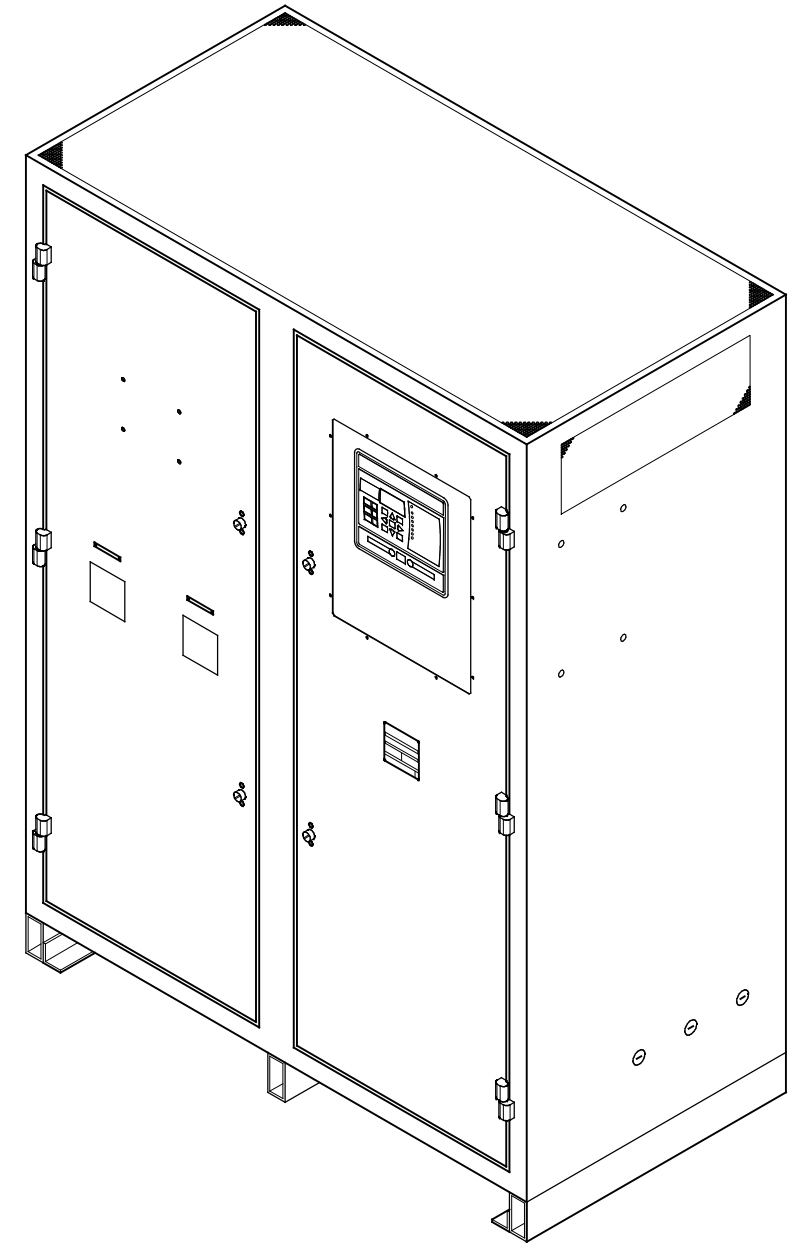
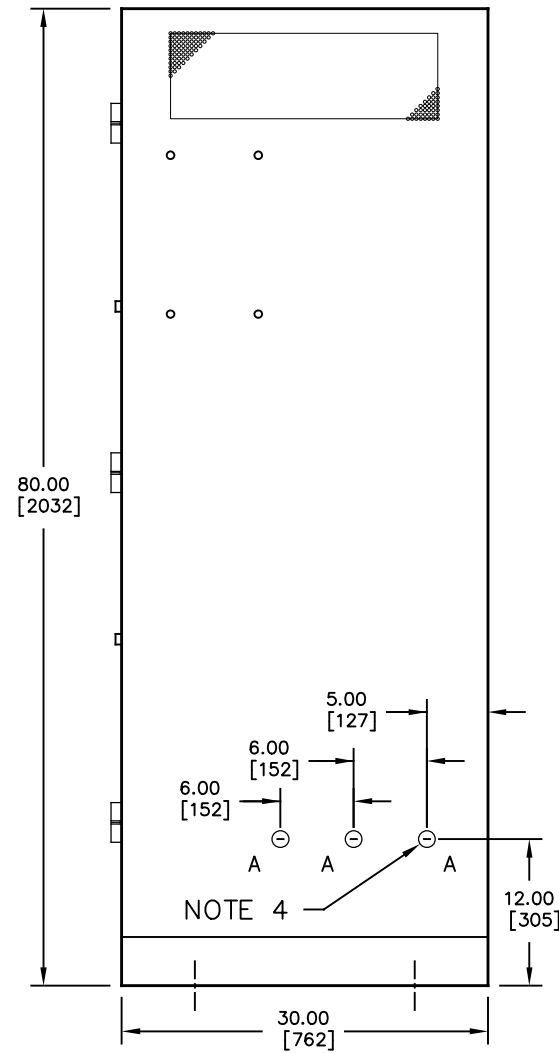


FRONT VIEW



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)

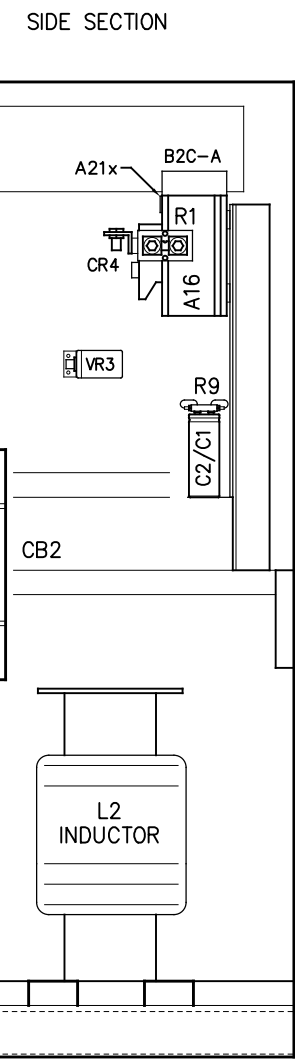
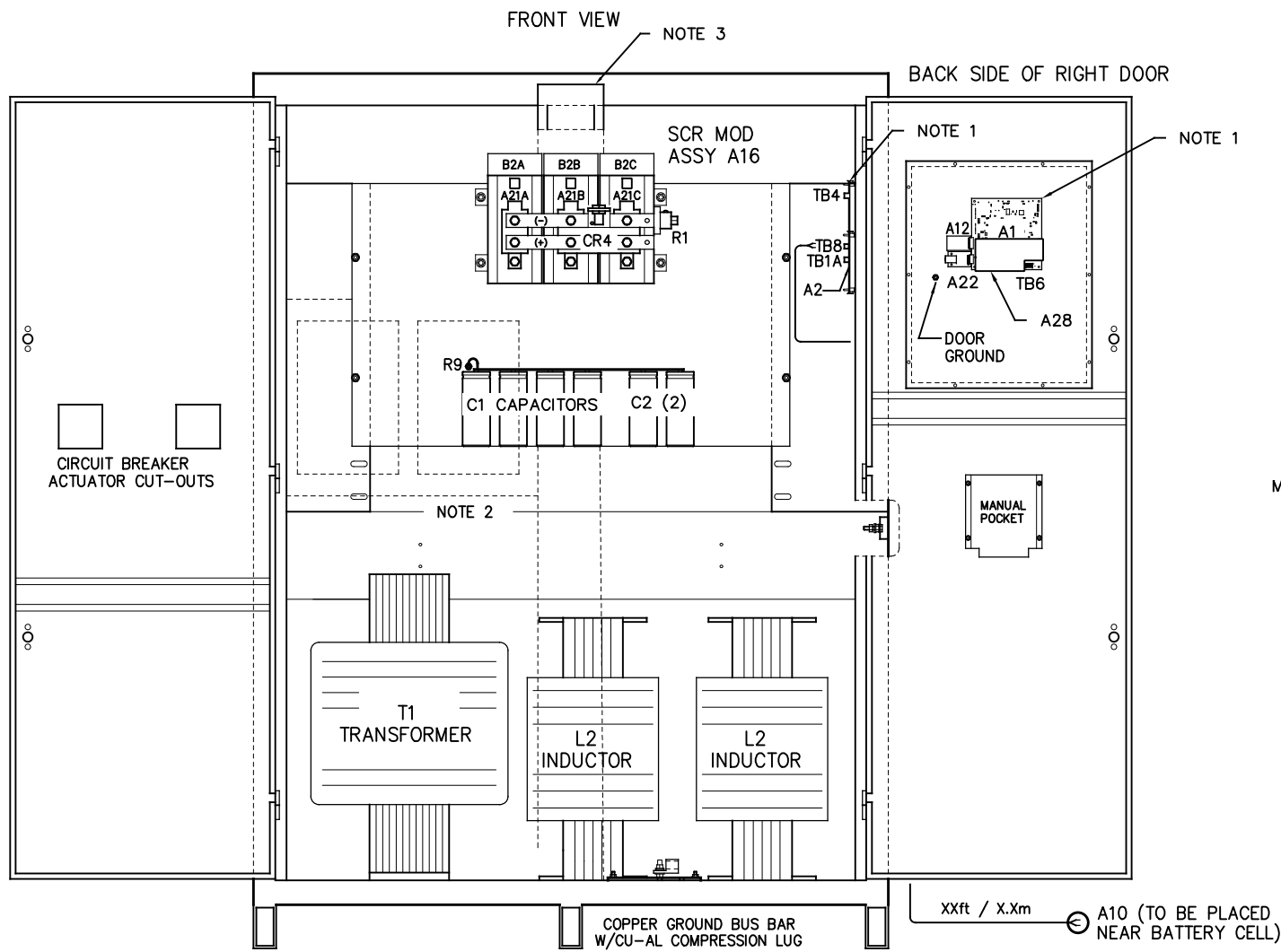
REV. DRN BY	CHK BY	APP BY	DATE	DRN BY	DATE	
0	KJB	MCR	MCR	11/01/2021	KJB	11/01/2021
DESCRIPTION				CHK BY	DATE	
STANDARD DRAWINGS.				MCR	11/01/2021	
ECN NO. #ECN#				CHK BY	DATE	
				MCR	11/01/2021	


**HINDLEPOWER**  
 1075 Saint John Street  
 Easton, PA 18042-6661  
 PH 610-330-9000 FAX 610-330-8510  
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**ATEVO BATTERY CHARGER**  
**OUTLINE: NEMA-1 STYLE-198 ENCL**  
**3Ø WITH COMMON OPTIONS 300-1000A**

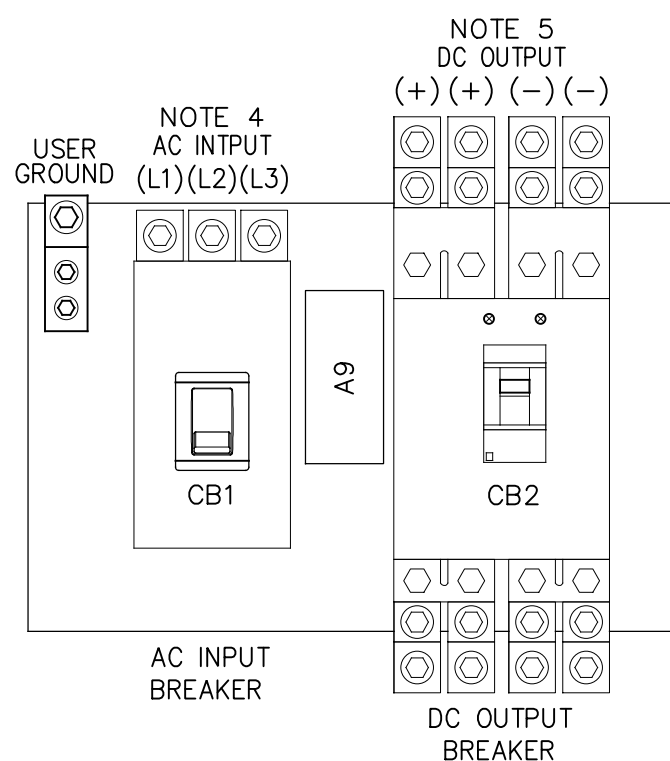
<b>B</b>	SCALE	NTS	DWG No	JE5351-22	REV	SHEET
					0	1 OF 1

DUAL DIMENSIONS in mm



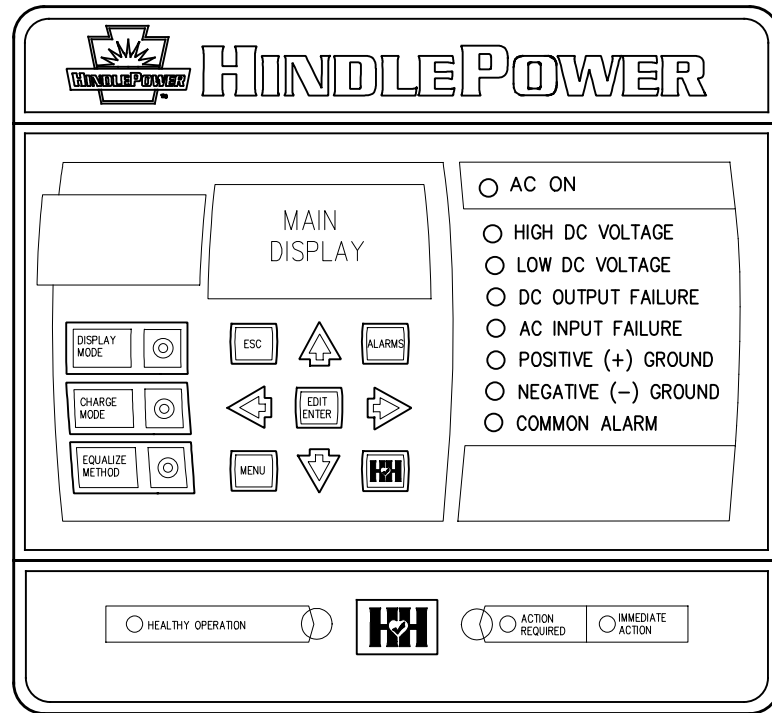
SYM	STANDARD COMPONENT DESCRIPTION
A1	MAIN CONTROL PC BOARD
A2	POWER BOARD
A9	MOV PC BOARD
A16	3PH SCR MODULE ASSY (1x6 Q1-Q6)
A21X	RECTIFIER TEMPERATURE BOARD
B2x	SCR MODULE (A16) COOLING FAN
C1x	DC OUTPUT FILTER CAPACITOR
CB1	AC INPUT CIRCUIT BREAKER (LAL3)
CB2	DC OUTPUT CIRCUIT BREAKER (LGL2)
AUXCB2	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



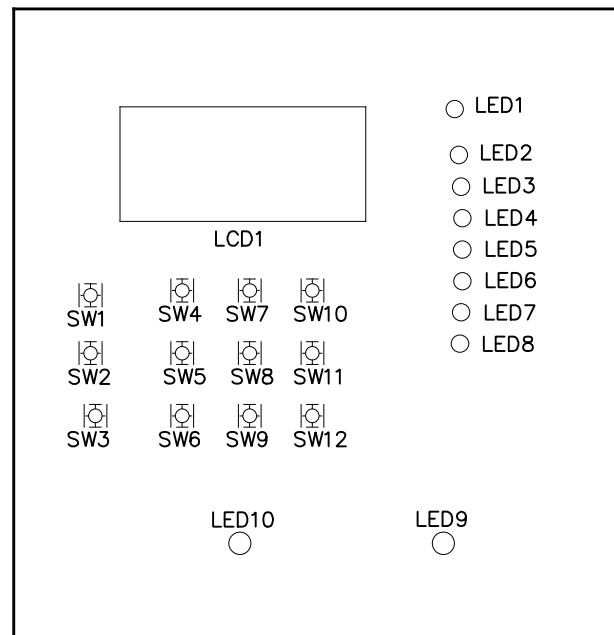
I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
CB2(+)	POS(+) OUTPUT TERMINAL - DC BREAKER TOP AL COMP LUGS	(4) 2/0-500 MCM
CB2(-)	NEG(-) OUTPUT TERMINAL - DC BREAKER TOP AL COMP LUGS	(4) 2/0-500 MCM
TB1-GND	USER GROUND TERMINAL - CU-ALUMINUM COMPRESSION LUG	#6 AWG-350 MCM
CB1(L1,L2,L3)	AC INPUT TERMINALS - 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		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 11/01/2021				
ECN NO. #ECN#					CHK BY MCR	DATE 11/01/2021				
TITLE: ATEVO BATTERY CHARGER INTERNAL COMPONENT LAYOUT: STYLE-198 3Ø WITH COMMON OPTIONS 300-1000A							SCALE: NTS	DWG No: JE5352-22	REV: 0	SHEET: 1 OF 2

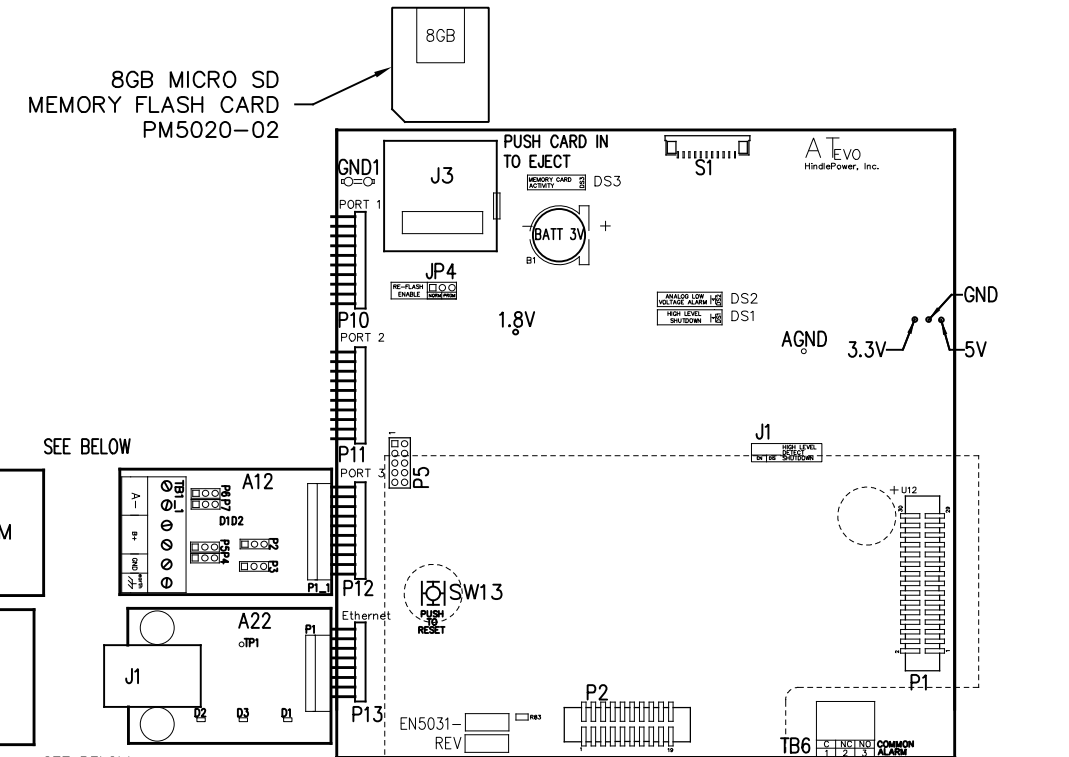


**INSTRUMENT PANEL**  
(PART No. FK5047-00)

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.

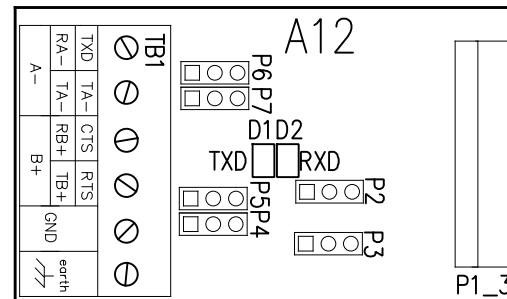


**MAIN CONTROL PC BOARD (A1)**  
FRONT VIEW - FACING CHARGER DOOR WHEN INSTALLED



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

**SERIAL COMMUNICATION ADAPTER (A12)**



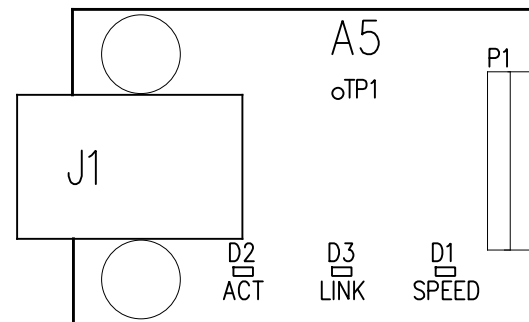
**CONNECTORS (A12):**  
P1 - MAIN CONTROL BOARD

**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)**

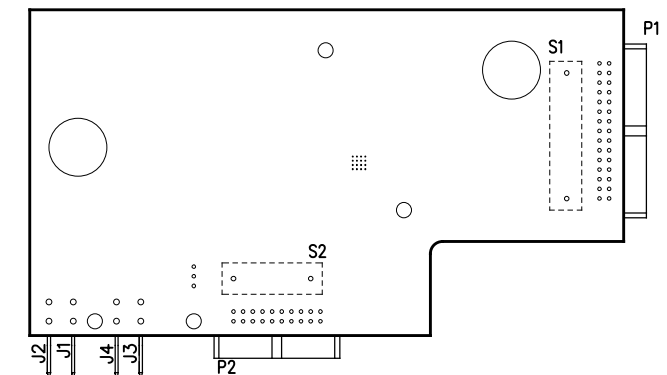


**CONNECTORS (A5):**  
P1 - MAIN CONTROL BOARD  
J1 - RJ-45 ETHERNET USER CONNECTION

**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

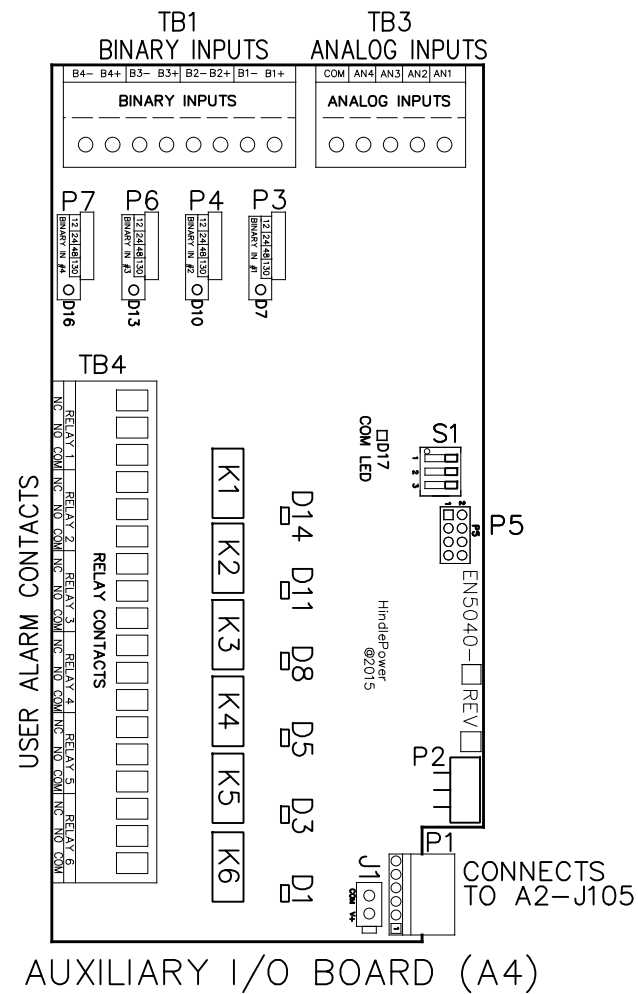
**METER MODULE PC BOARD (A28)**  
MOUNTED ON MAIN CONTROL PC BOARD



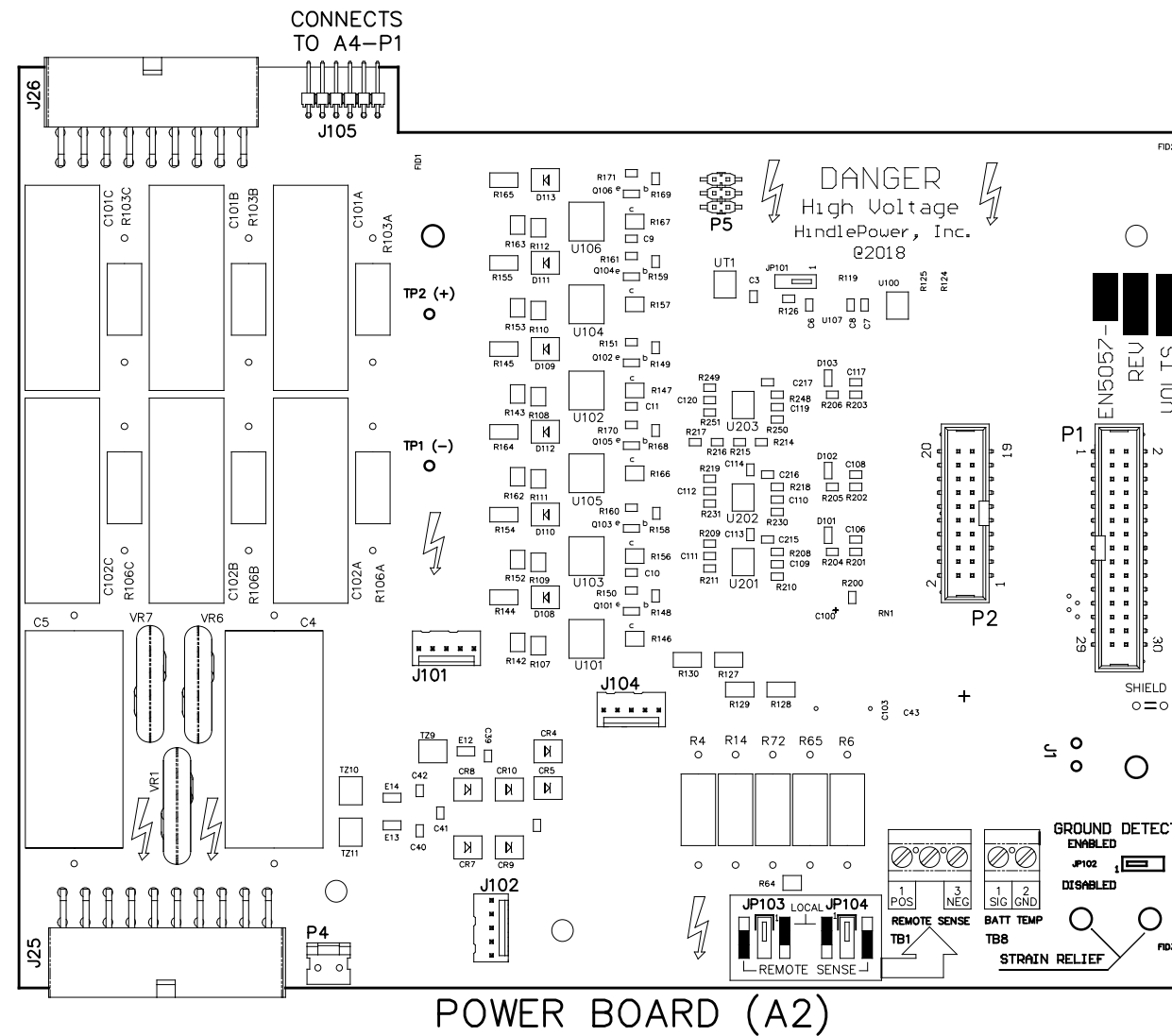
MAIN CONTROL PC BOARD (A1)		
<b>INDICATOR LIGHTS (LEDs):</b> LED1 - GREEN - AC ON LED2 - RED - HIGH DC VOLTAGE ALARM LED3 - RED - LOW DC VOLTAGE ALARM LED4 - RED - DC OUTPUT FAILURE ALARM LED5 - RED - AC INPUT FAILURE ALARM LED6 - RED - POSITIVE (+) GROUND ALARM LED7 - RED - NEGATIVE (-) GROUND ALARM 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	<b>JUMPERS:</b> J1 - ANALOG HIGH VOLTAGE SHUTDOWN JUMPER J3 - SD CARD PORT JP4 - RE-FLASH (FIELD PROGRAMMING) JUMPER <b>TERMINAL BLOCKS:</b> TB6 - COMMON ALARM RELAY CONTACTS <b>TEST POINTS:</b> 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	<b>SWITCHES:</b> 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 S13 - SYSTEM RESET BUTTON (BACK OF BOARD)
<b>CONNECTORS:</b> 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 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>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 STANDARD DRAWINGS.	CHK BY MCR DATE 11/01/2021	
ECN NO. #ECN#	CHK BY MCR DATE 11/01/2021	<p>TITLE</p> <p><b>ATEVO BATTERY CHARGER</b> <b>INSTRUMENT PANEL / PC BOARD DETAIL</b> <b>3Ø WITH COMMON OPTIONS 300-1000A</b></p>
		<p>SCALE DWG No</p> <p><b>B</b> NTS <b>JE5353-22</b></p>
		<p>REV 0 SHEET 1 OF 2</p>



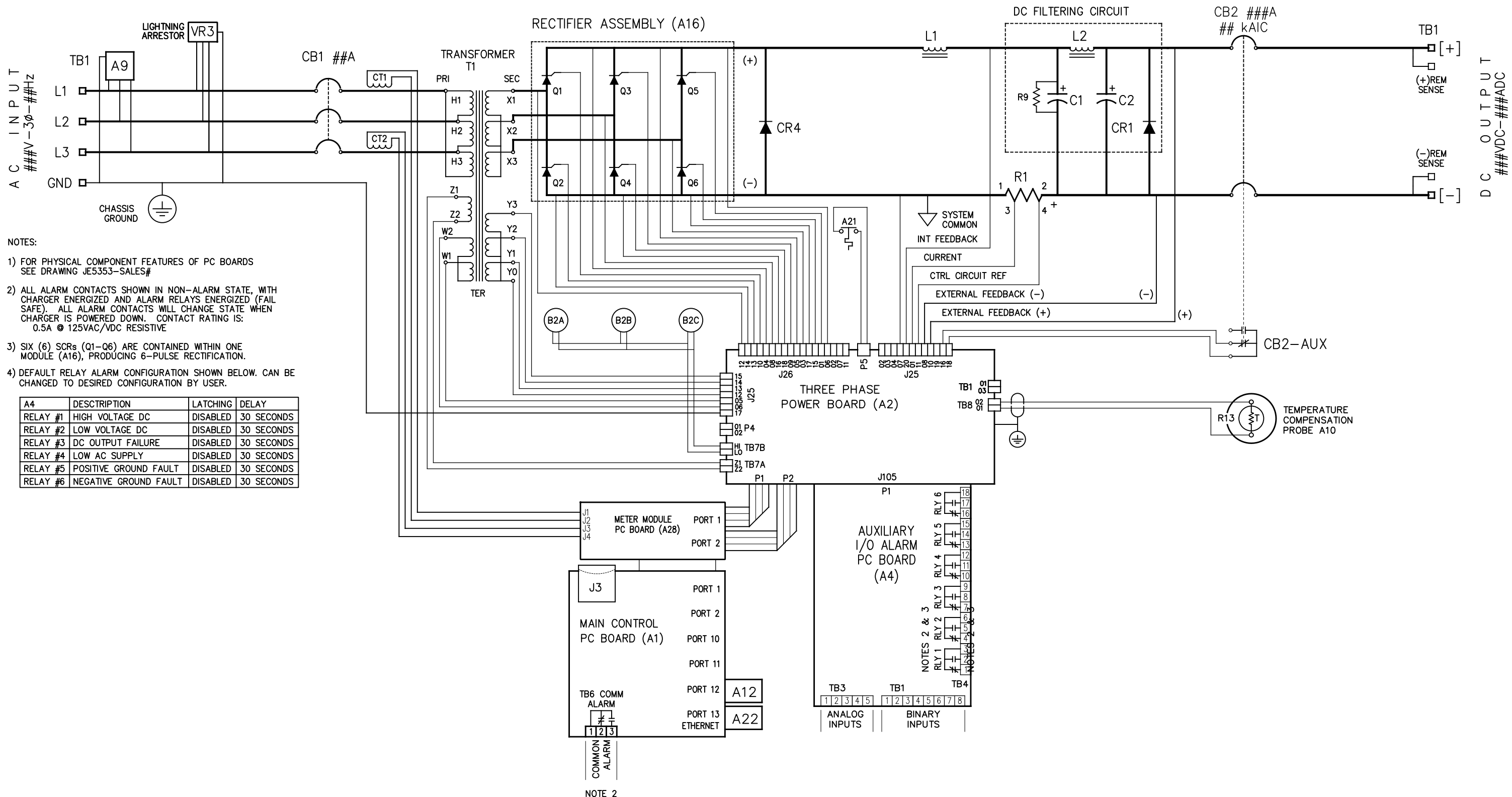
- JUMPERS & CONFIGURATION SWITCHES FOR AUX I/O BOARD (A4)**  
 J1 - AUXILIARY POWER INPUT  
 P1 - POWER BOARD (PRIMARY POWER & COMM SOURCE)  
 P5 - PROGRAMMING HEADER
- USER TERMINALS ON RELAY BOARD (A4):**  
 D1 - RED - RELAY #6 IN ALARM STATE  
 D3 - RED - RELAY #5 IN ALARM STATE  
 D5 - RED - RELAY #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  
 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		1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com
CHK BY MCR	DATE: 11/01/2021		
CHK BY MCR	DATE: 11/01/2021		
TITLE		<b>ATEVO BATTERY CHARGER          INSTRUMENT PANEL / PC BOARD DETAIL          3φ WITH COMMON OPTIONS 300-1000A</b>	
		<b>B</b> SCALE NTS	DWG No <b>JE5353-22</b>
		REV 0	SHEET 2 OF 2

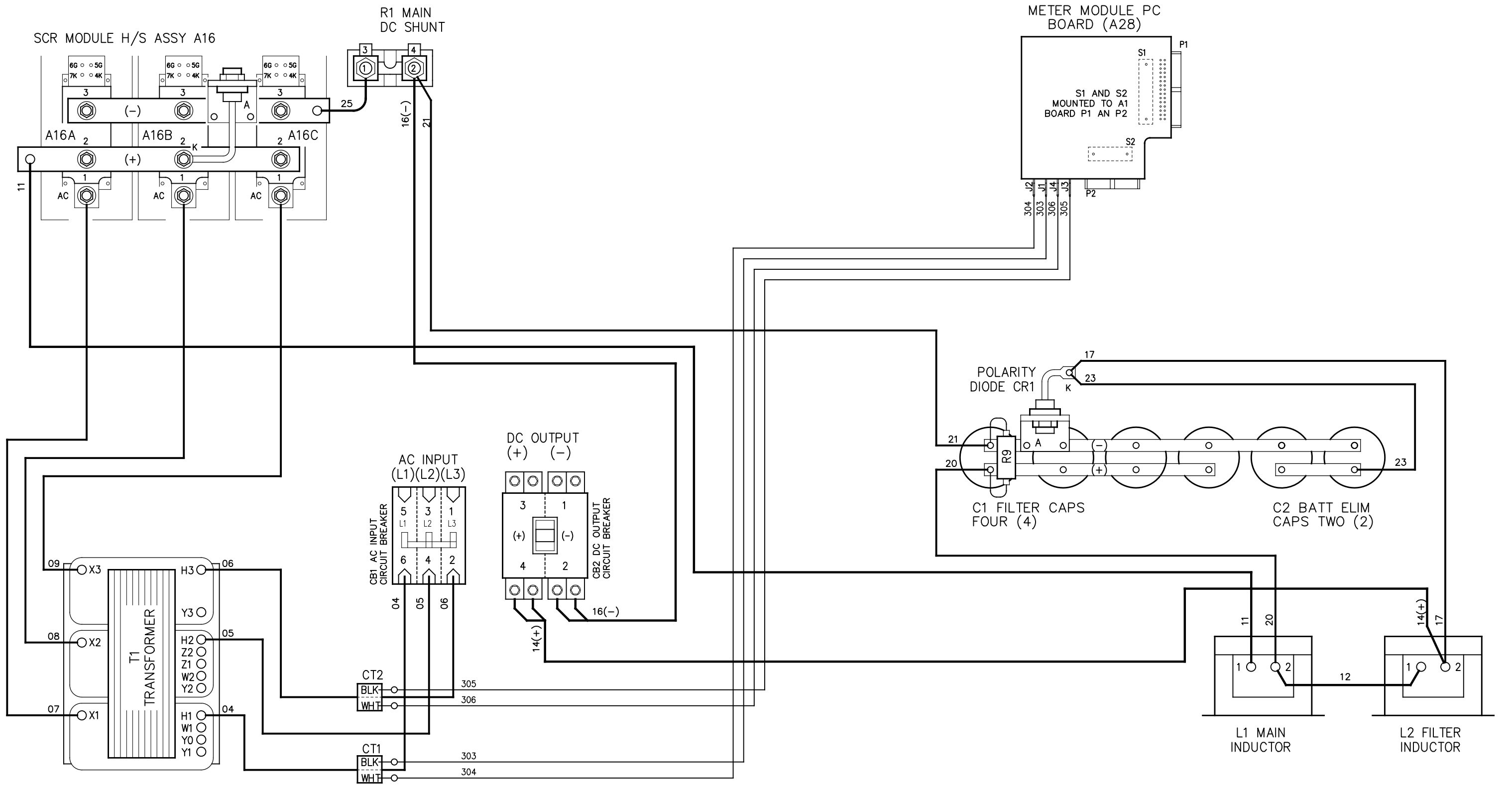


- NOTES:
- 1) FOR PHYSICAL COMPONENT FEATURES OF PC BOARDS SEE DRAWING JE5353-SALES#
  - 2) ALL ALARM CONTACTS SHOWN IN NON-ALARM STATE, WITH CHARGER ENERGIZED AND ALARM RELAYS ENERGIZED (FAIL SAFE). ALL ALARM CONTACTS WILL CHANGE STATE WHEN CHARGER IS POWERED DOWN. CONTACT RATING IS: 0.5A @ 125VAC/VDC 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

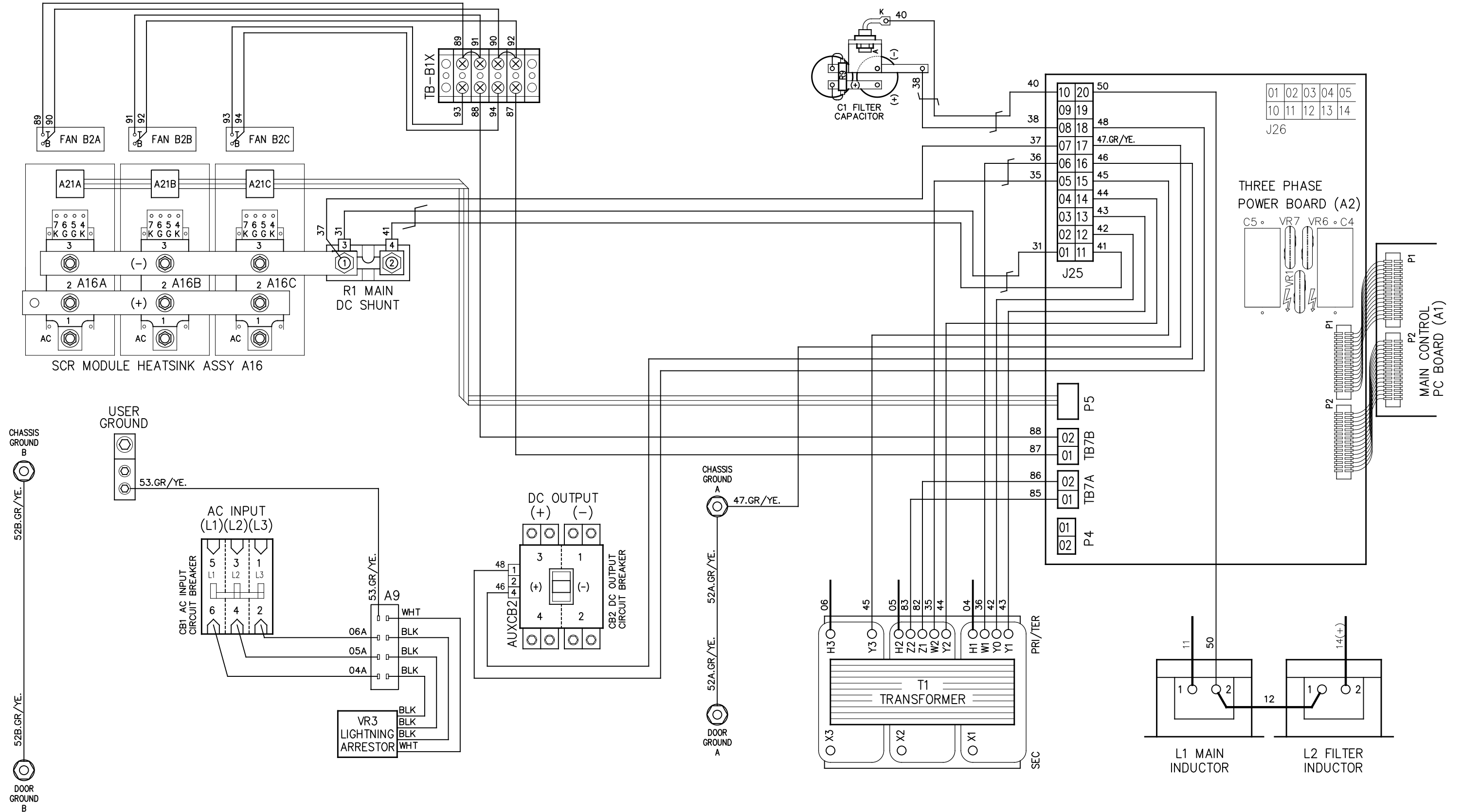
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DESCRIPTION STANDARD DRAWINGS.				CHK BY MCR	DATE 11/01/2021
ECN NO. #ECN#				CHK BY MCR	DATE 11/01/2021
<b>ATEVO BATTERY CHARGER</b> <b>SCHEMATIC: STYLE 198</b> <b>3φ WITH COMMON OPTIONS 300-1000A</b>					
				SCALE NTS	DWG No JE5354-22
				REV 0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



NOTES:

- 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.
- 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

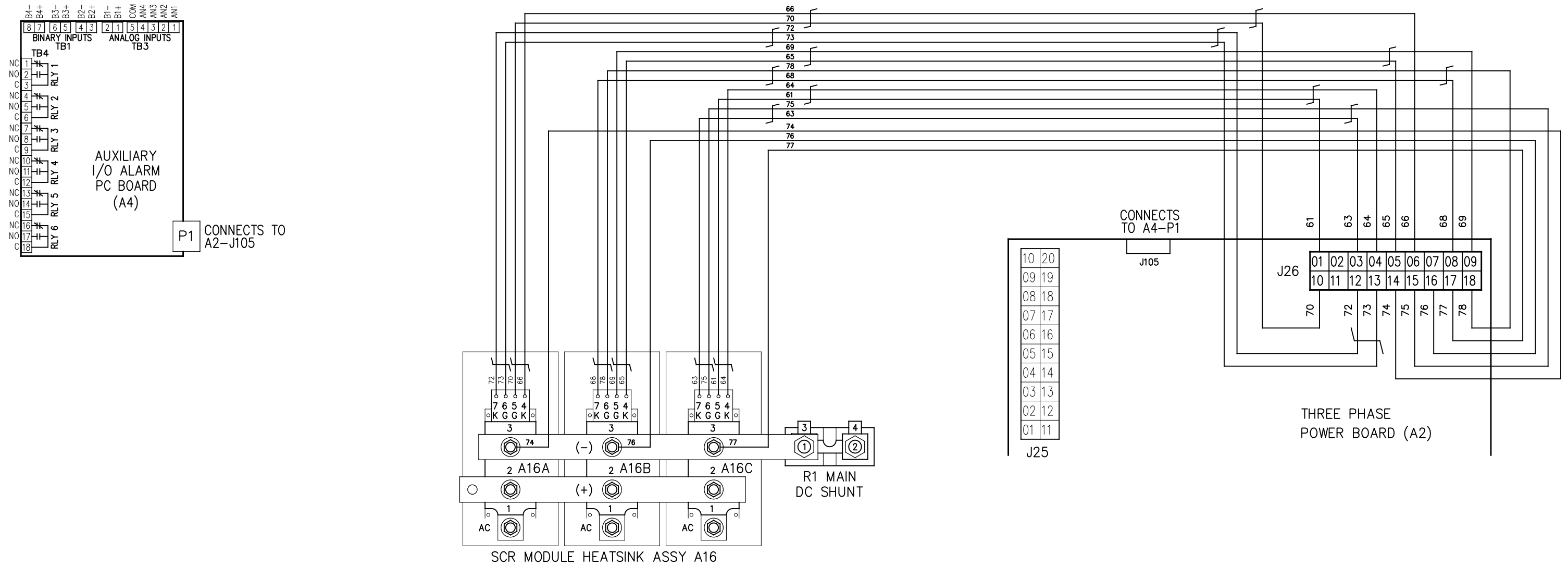
REV. DRN BY	CHK BY	APP BY	DATE	DRN BY	DATE	<b>HINDLEPOWER</b> 1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com
1	KJB	MCR	MCR	12/2/2021	11/01/2021	
DESCRIPTION				CHK BY	DATE	TITLE <b>ATEVO BATTERY CHARGER</b> <b>CONNECTION DIAGRAM: STYLE 198</b> <b>3φ WITH COMMON OPTIONS 300-1000A</b>
UPDATED CAP WIRING.				MCR	11/01/2021	
ECN NO. #ECN#				CHK BY	DATE	SCALE DWG No <b>B</b> NTS JE5355-22
				MCR	11/01/2021	
						REV SHEET
						1 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		1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com			
CHK BY MCR	DATE: 11/01/2021		<b>ATEVO BATTERY CHARGER</b> <b>CONNECTION DIAGRAM: STYLE 198</b> <b>3φ WITH COMMON OPTIONS 300-1000A</b>			
CHK BY MCR	DATE: 11/01/2021					
		<b>B</b>	SCALE NTS	DWG No JE5355-22	REV 1	SHEET 2 OF 3



NOTES:

- 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.
- 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		1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com			
CHK BY MCR	DATE: 11/01/2021		<b>ATEVO BATTERY CHARGER</b> <b>CONNECTION DIAGRAM: STYLE 198</b> <b>3φ WITH COMMON OPTIONS 300-1000A</b>			
CHK BY MCR	DATE: 11/01/2021					
		<b>B</b>	SCALE NTS	DWG No <b>JE5355-22</b>	REV 1	SHEET 3 OF 3