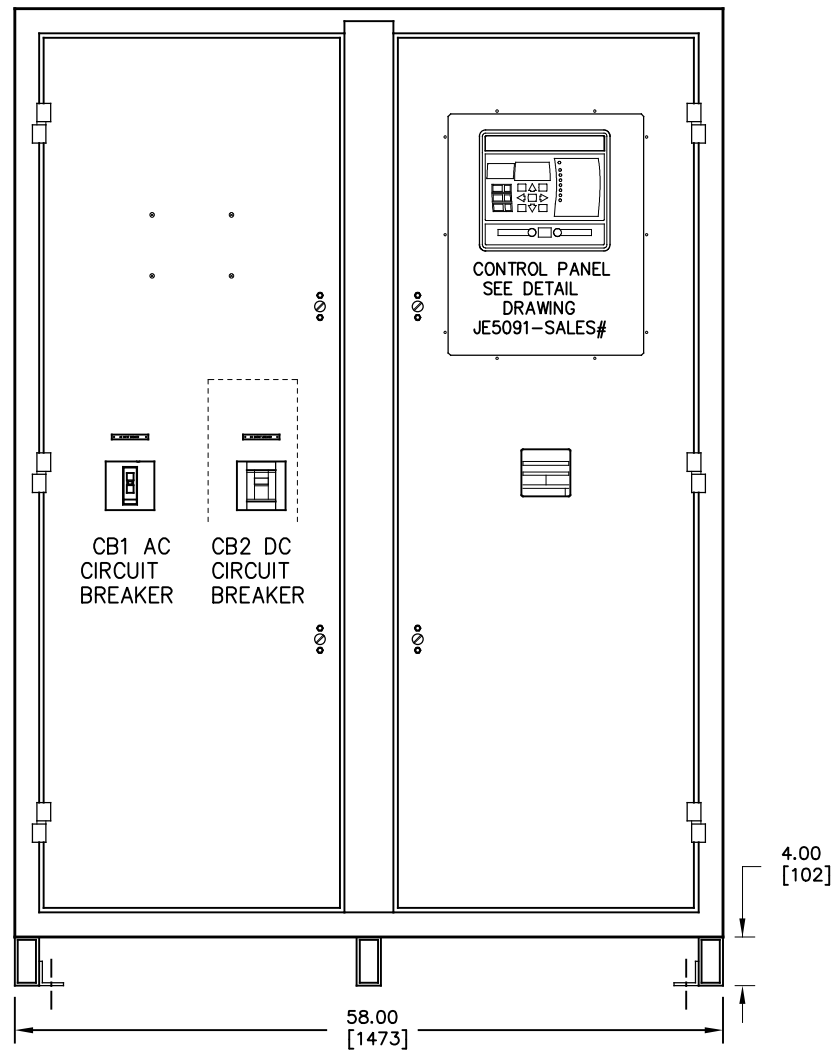
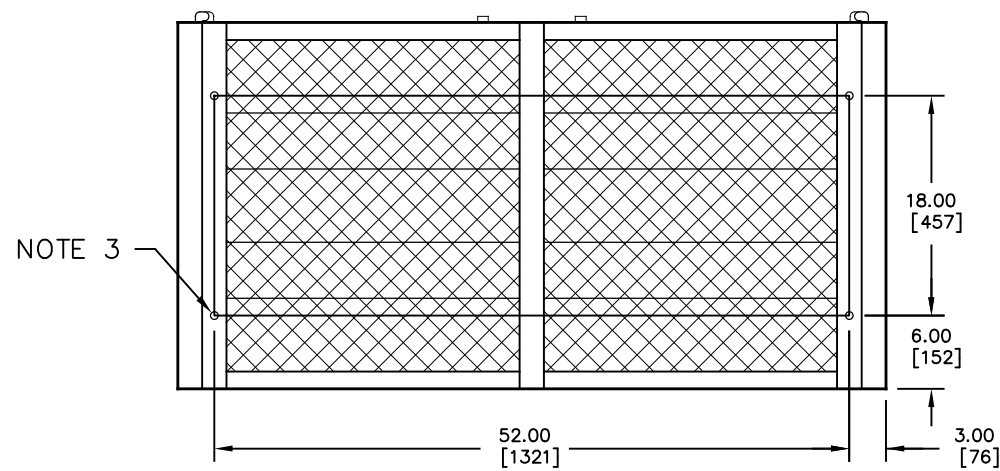
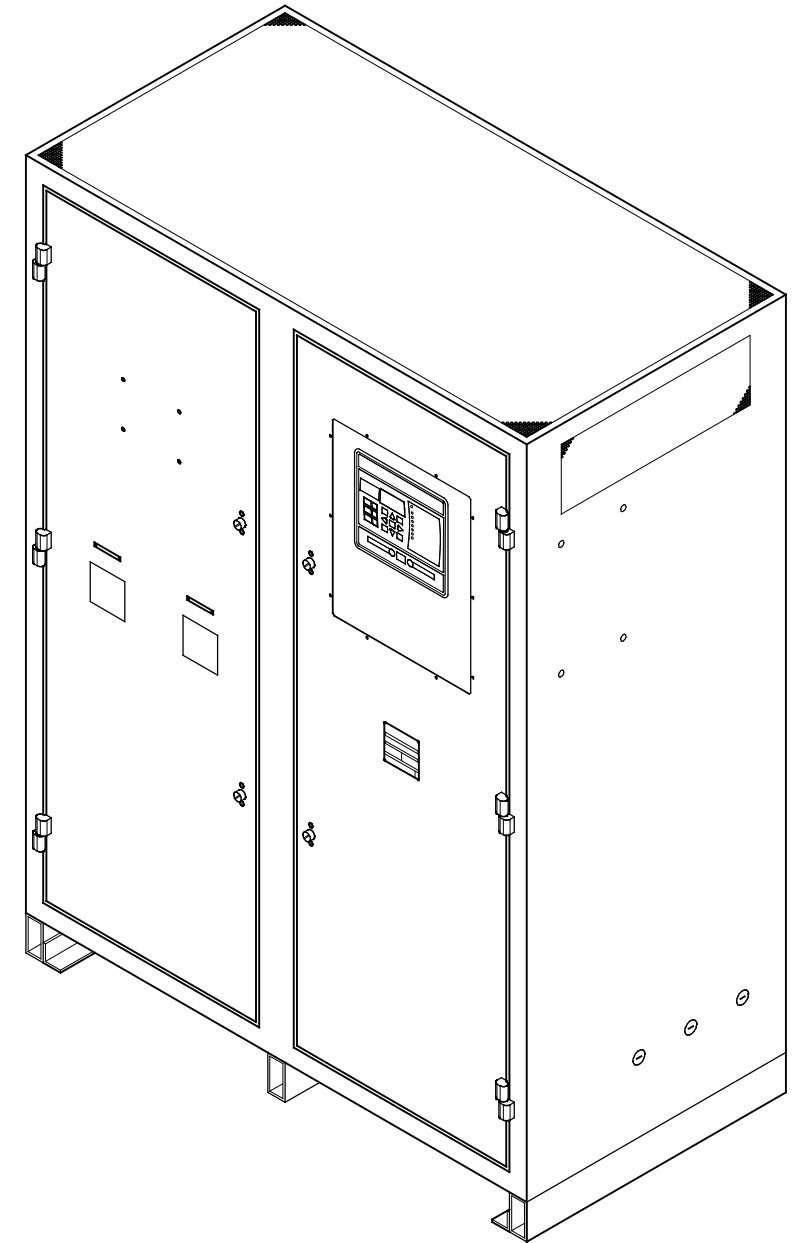
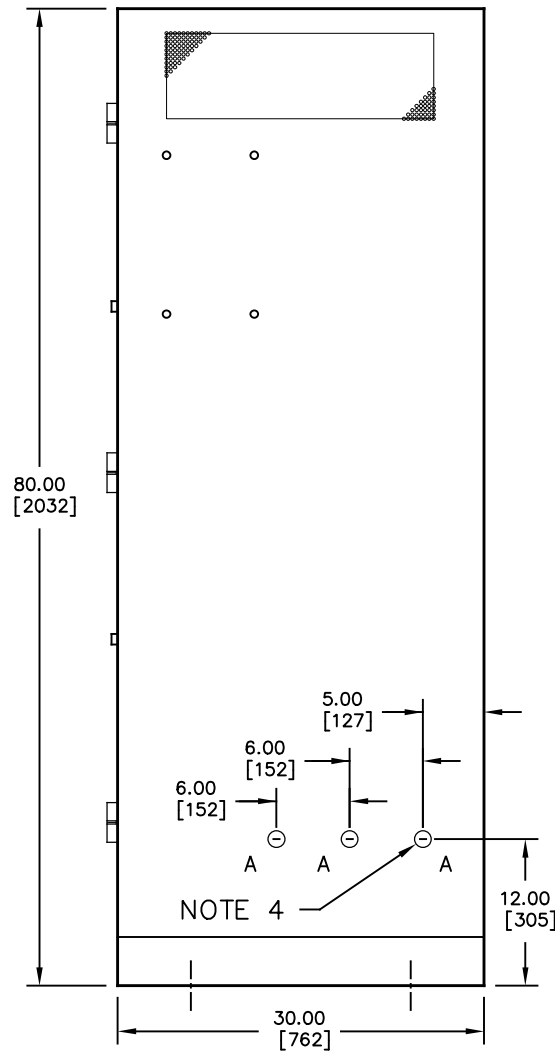


FRONT VIEW



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)

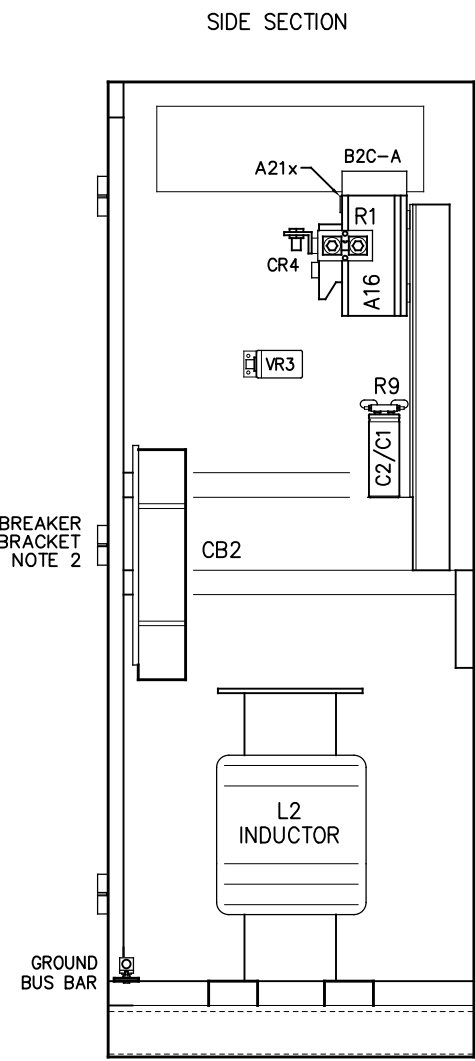
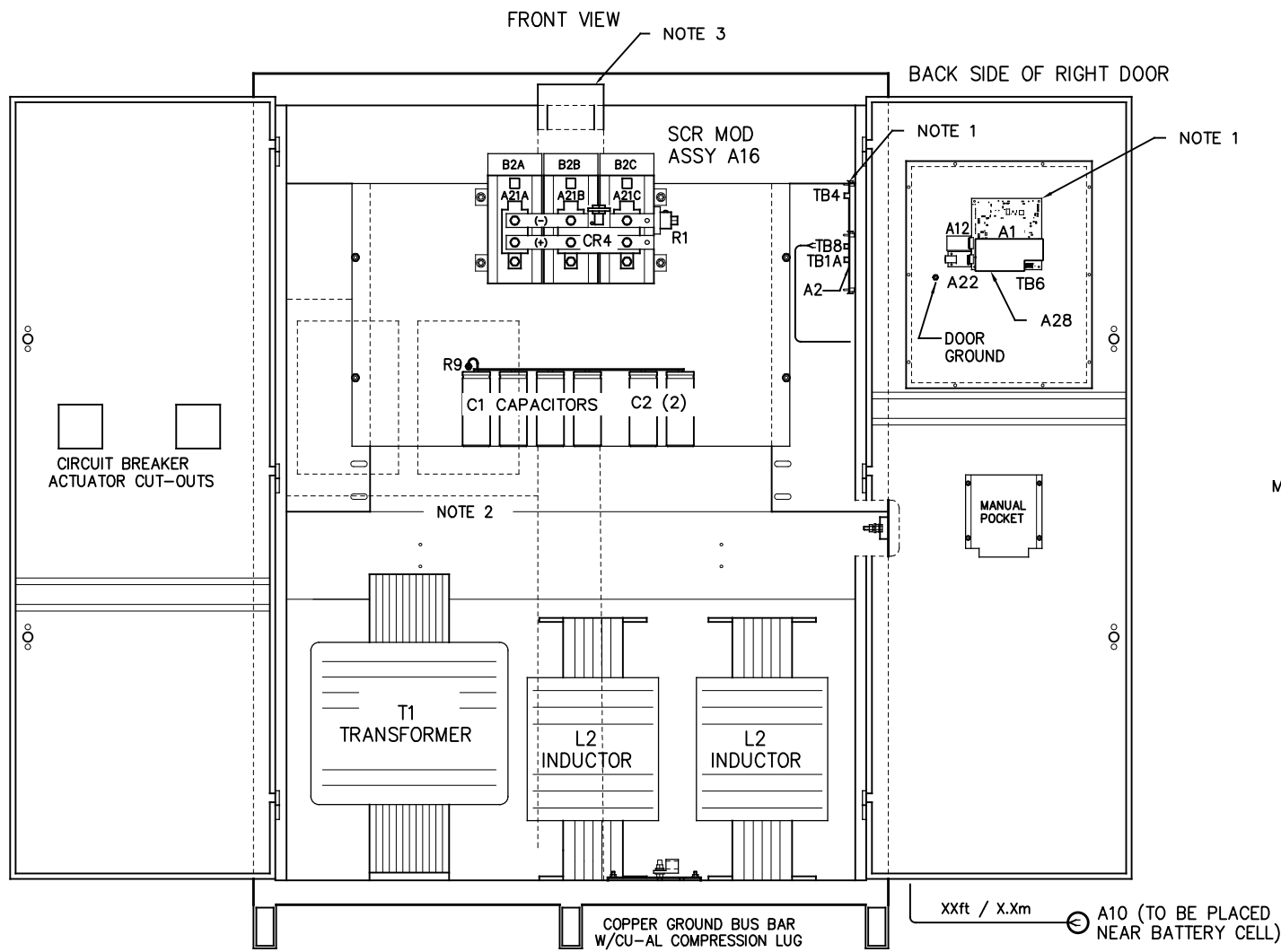
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0	KJB	MCR	MCR	11/01/2021	KJB	11/01/2021
DESCRIPTION				CHK BY	DATE	
STANDARD DRAWINGS.				MCR	11/01/2021	
ECN NO. #ECN#				CHK BY	DATE	
				MCR	11/01/2021	


HINDLEPOWER
 1075 Saint John Street
 Easton, PA 18042-6661
 PH 610-330-9000 FAX 610-330-8510
 www.hindlepowerinc.com

ATEVO BATTERY CHARGER
OUTLINE: NEMA-1 STYLE-198 ENCL
3Ø WITH COMMON OPTIONS 300-1000A

B	SCALE	NTS	DWG No	JE5351-22	REV	SHEET
					0	1 OF 1

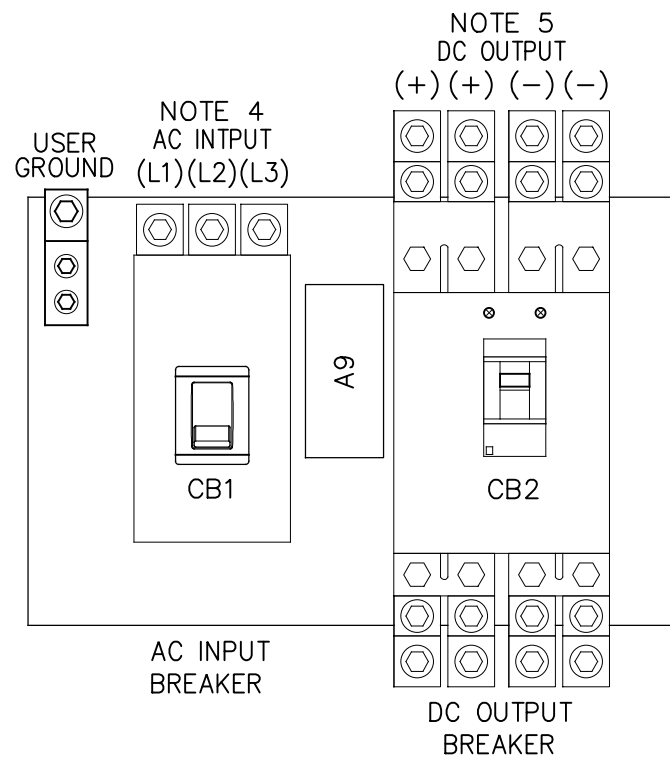
DUAL DIMENSIONS in mm



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

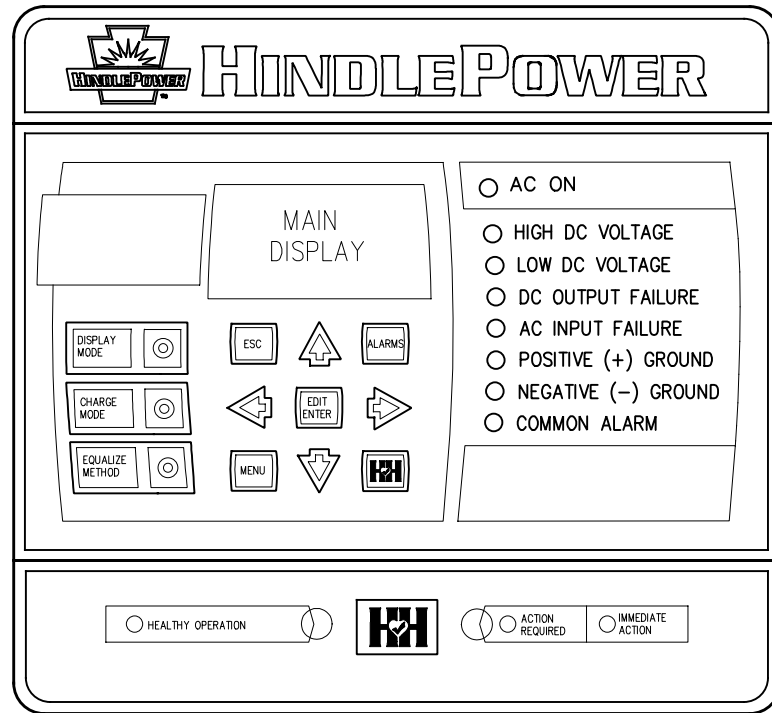
NOTES:

- 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



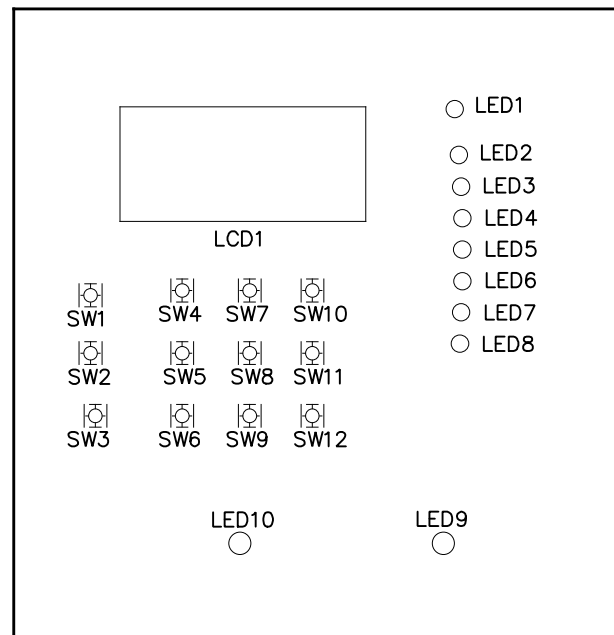
I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
CB2(+)	POS(+) OUTPUT TERMINAL - DC BREAKER TOP AL COMP LUGS	(4) 2/0-500 MCM
CB2(-)	NEG(-) OUTPUT TERMINAL - DC BREAKER TOP AL COMP LUGS	(4) 2/0-500 MCM
TB1-GND	USER GROUND TERMINAL - CU-ALUMINUM COMPRESSION LUG	#6 AWG-350 MCM
CB1(L1,L2,L3)	AC INPUT TERMINALS - 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. DRN BY 0 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	B SCALE DWG No NTS JE5352-22	
						REV 0	SHEET 1 OF 2

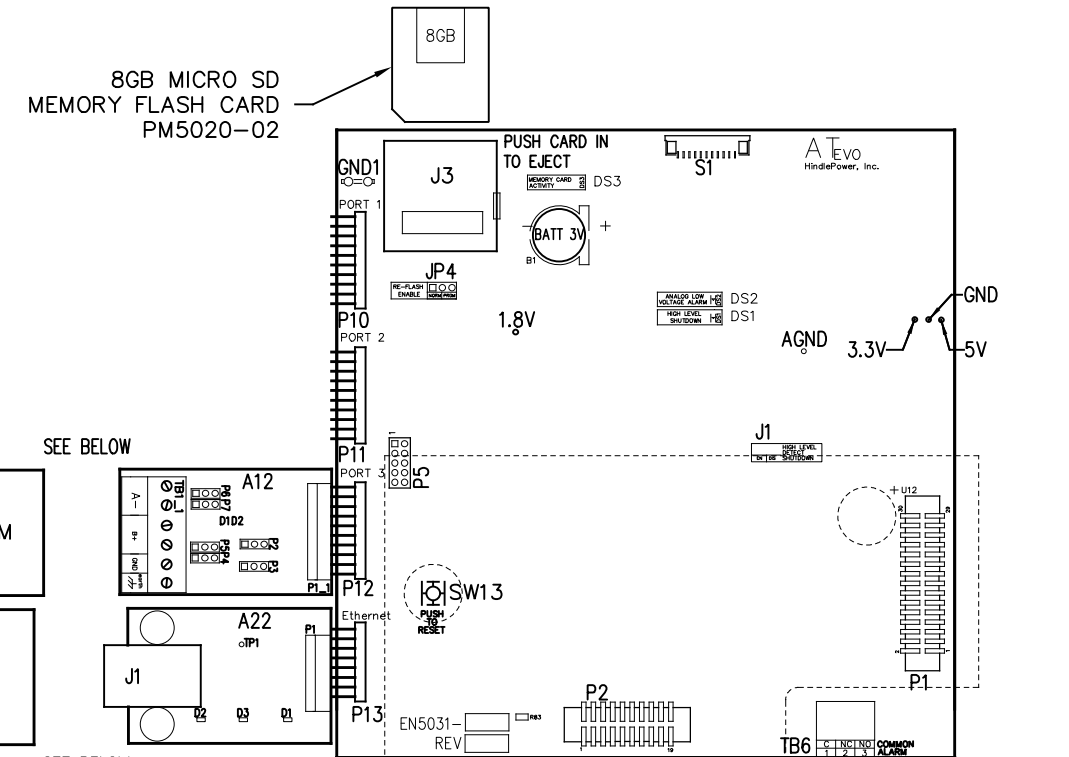


INSTRUMENT PANEL
(PART No. FK5047-00)

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.

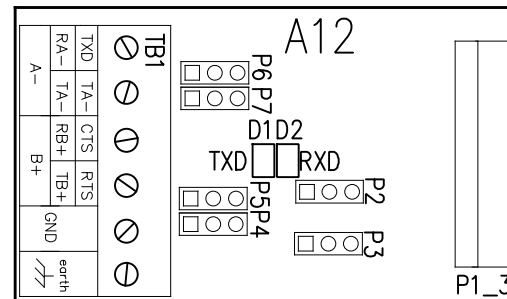


MAIN CONTROL PC BOARD (A1)
FRONT VIEW - FACING CHARGER DOOR WHEN INSTALLED



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

SERIAL COMMUNICATION ADAPTER (A12)



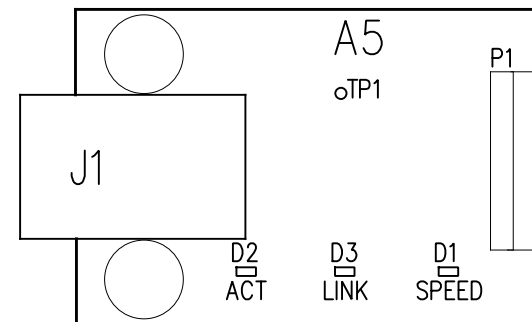
CONNECTORS (A12):
P1 - MAIN CONTROL BOARD

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)

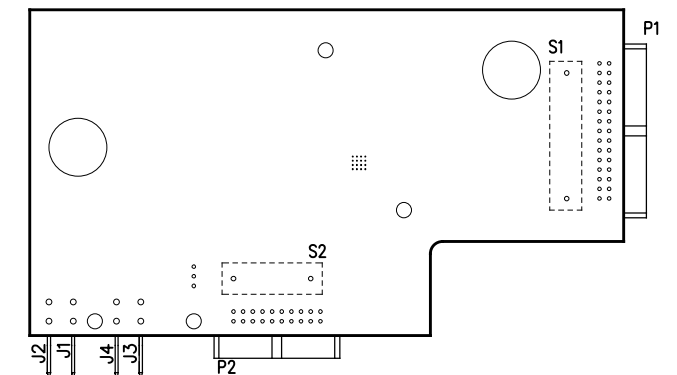


CONNECTORS (A5):
P1 - MAIN CONTROL BOARD
J1 - RJ-45 ETHERNET USER CONNECTION

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

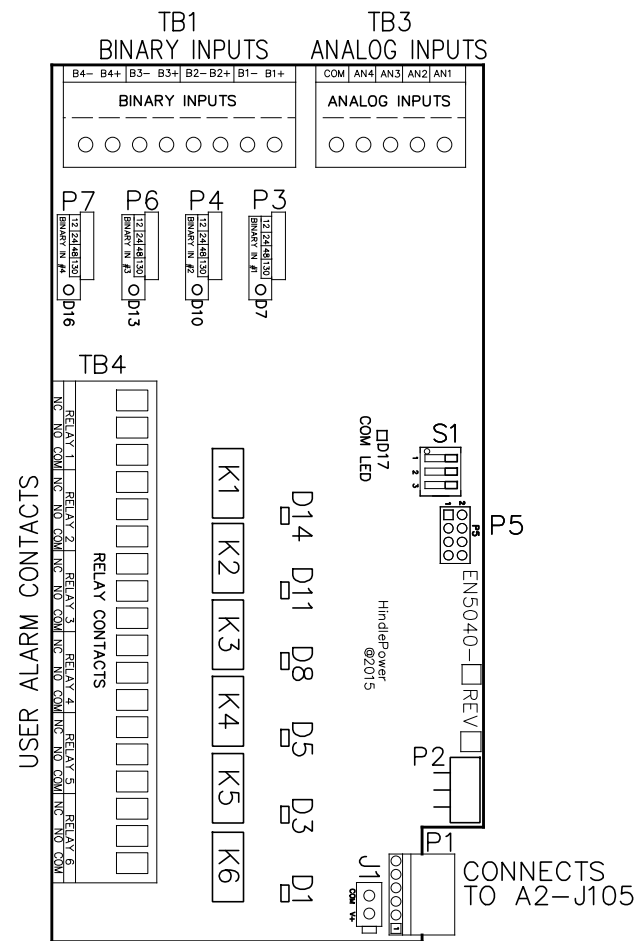


MAIN CONTROL PC BOARD (A1)

- | | | | |
|--|---|--|---|
| <p>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</p> | <p>JUMPERS:
J1 - ANALOG HIGH VOLTAGE SHUTDOWN JUMPER
J3 - SD CARD PORT
JP4 - RE-FLASH (FIELD PROGRAMMING) JUMPER</p> <p>TERMINAL BLOCKS:
TB6 - COMMON ALARM RELAY CONTACTS</p> <p>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</p> | <p>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
S13 - SYSTEM RESET BUTTON (BACK OF BOARD)</p> | <p>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</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>HINDLEPOWER 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 ATEVO BATTERY CHARGER INSTRUMENT PANEL / PC BOARD DETAIL 3Ø WITH COMMON OPTIONS 300-1000A</p>							
		SCALE: B		DWG No: JE5353-22		REV: 0	SHEET: 1 OF 2



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):

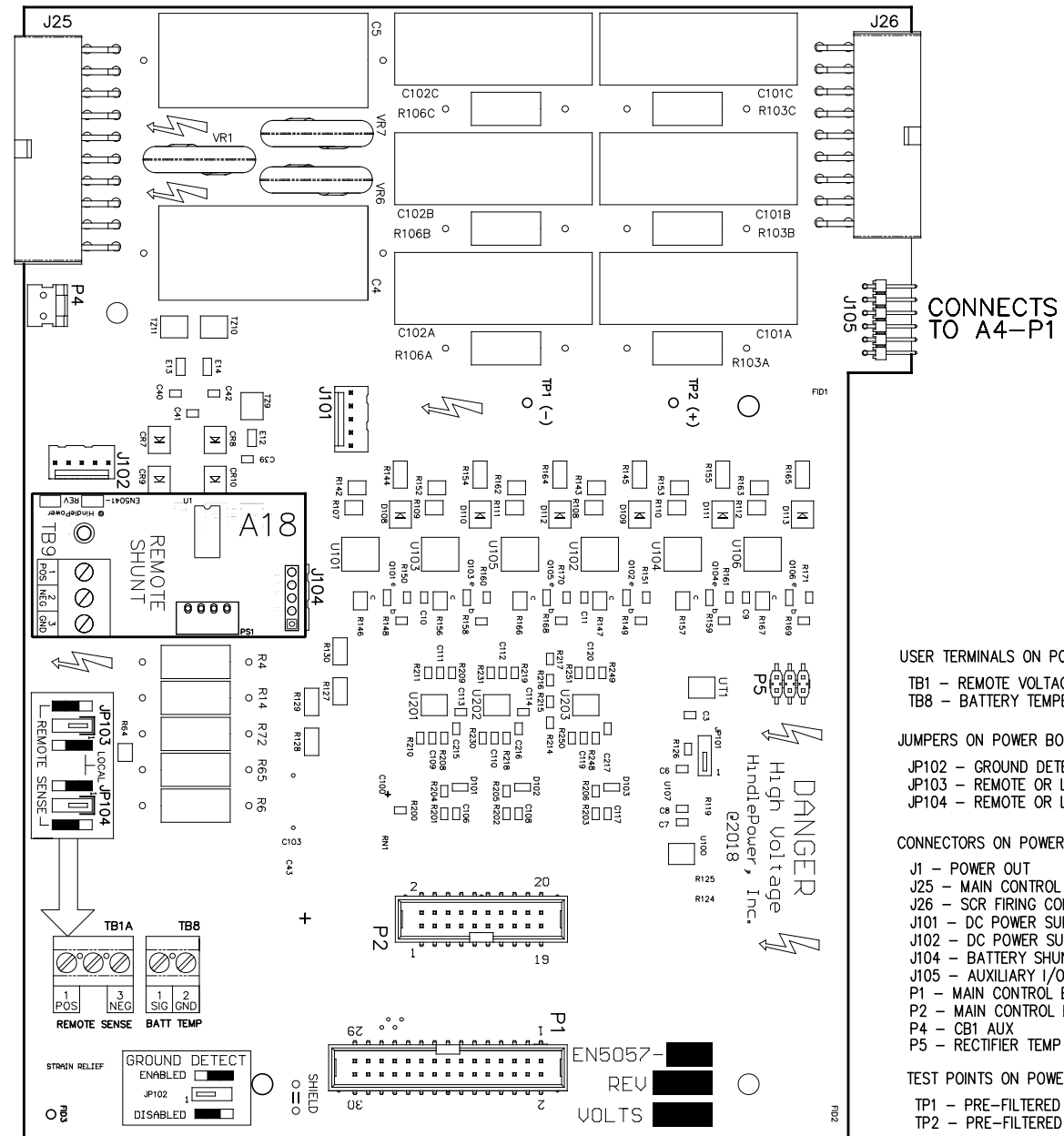
- D1 - RED - RELAY #6 IN ALARM STATE
- D3 - RED - RELAY #5 IN ALARM STATE
- D5 - RED - RELAY #4 IN ALARM STATE
- D7 - YELLOW - BINARY INPUT #1 IS ABOVE THRESHOLD
- D8 - RED - RELAY #3 IN ALARM STATE
- D10 - YELLOW - BINARY INPUT #2 IS ABOVE THRESHOLD
- D11 - RED - RELAY #2 IN ALARM STATE
- D13 - YELLOW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

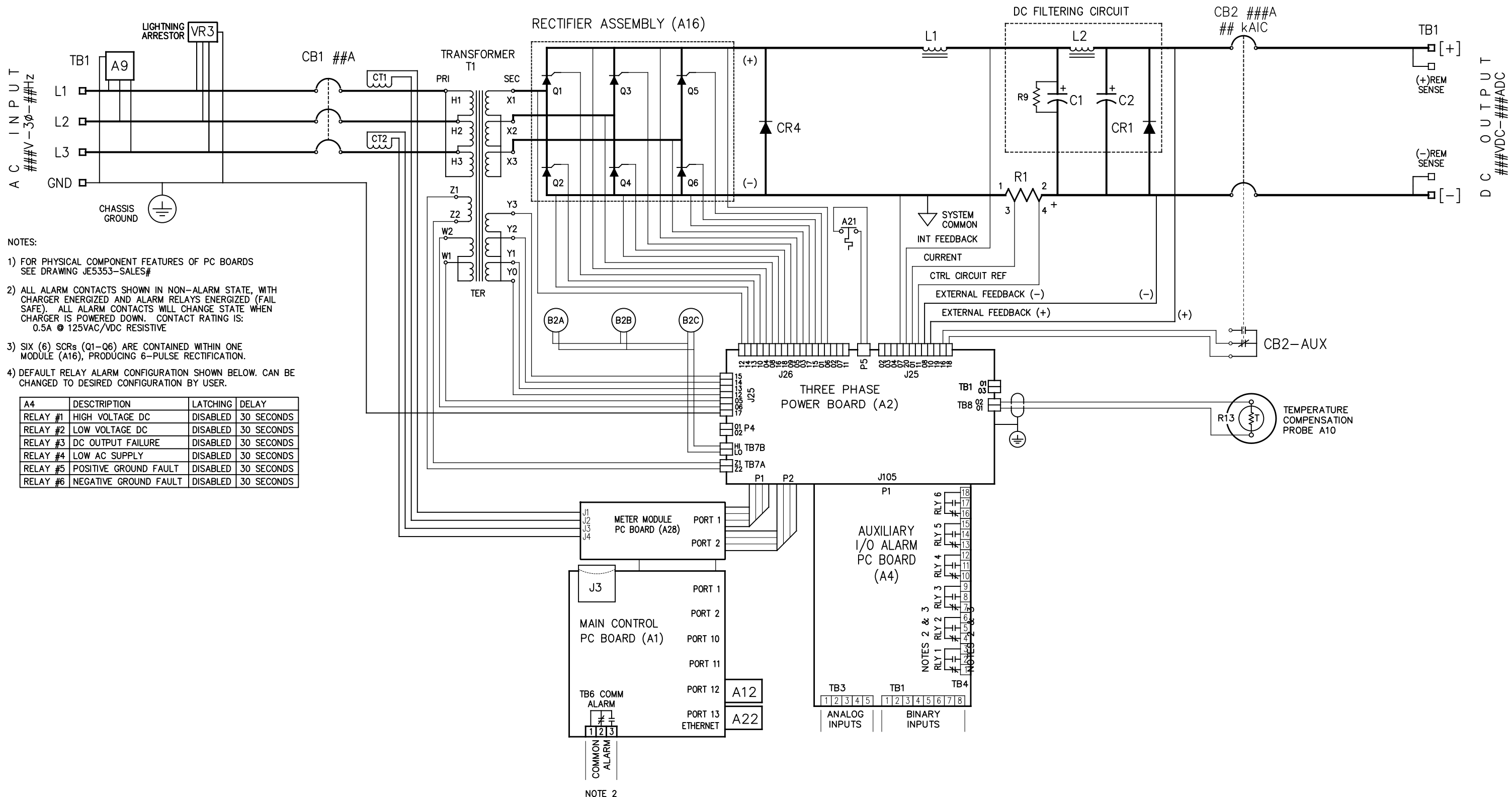
- JUMPERS ON POWER BOARD (A2):**
- JP102 - GROUND DETECT CIRCUIT ENABLE / DISABLE
 - JP103 - REMOTE OR LOCAL SENSE SELECTOR (+)
 - JP104 - REMOTE OR LOCAL SENSE SELECTOR (-)

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

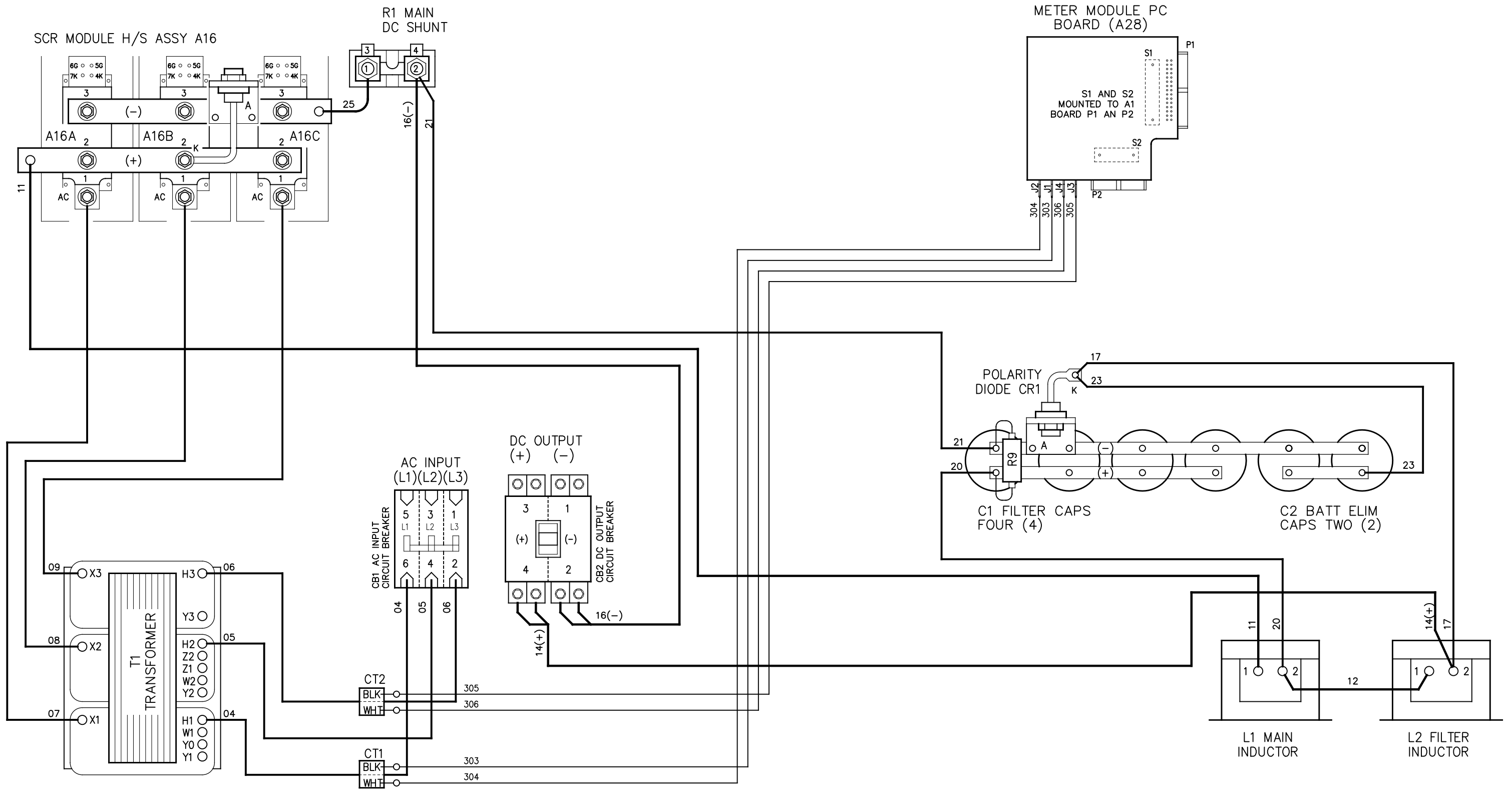


- NOTES:
- 1) FOR PHYSICAL COMPONENT FEATURES OF PC BOARDS SEE DRAWING JE5353-SALES#
 - 2) ALL ALARM CONTACTS SHOWN IN NON-ALARM STATE, WITH CHARGER ENERGIZED AND ALARM RELAYS ENERGIZED (FAIL SAFE). ALL ALARM CONTACTS WILL CHANGE STATE WHEN CHARGER IS POWERED DOWN. CONTACT RATING IS: 0.5A @ 125VAC/VDC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

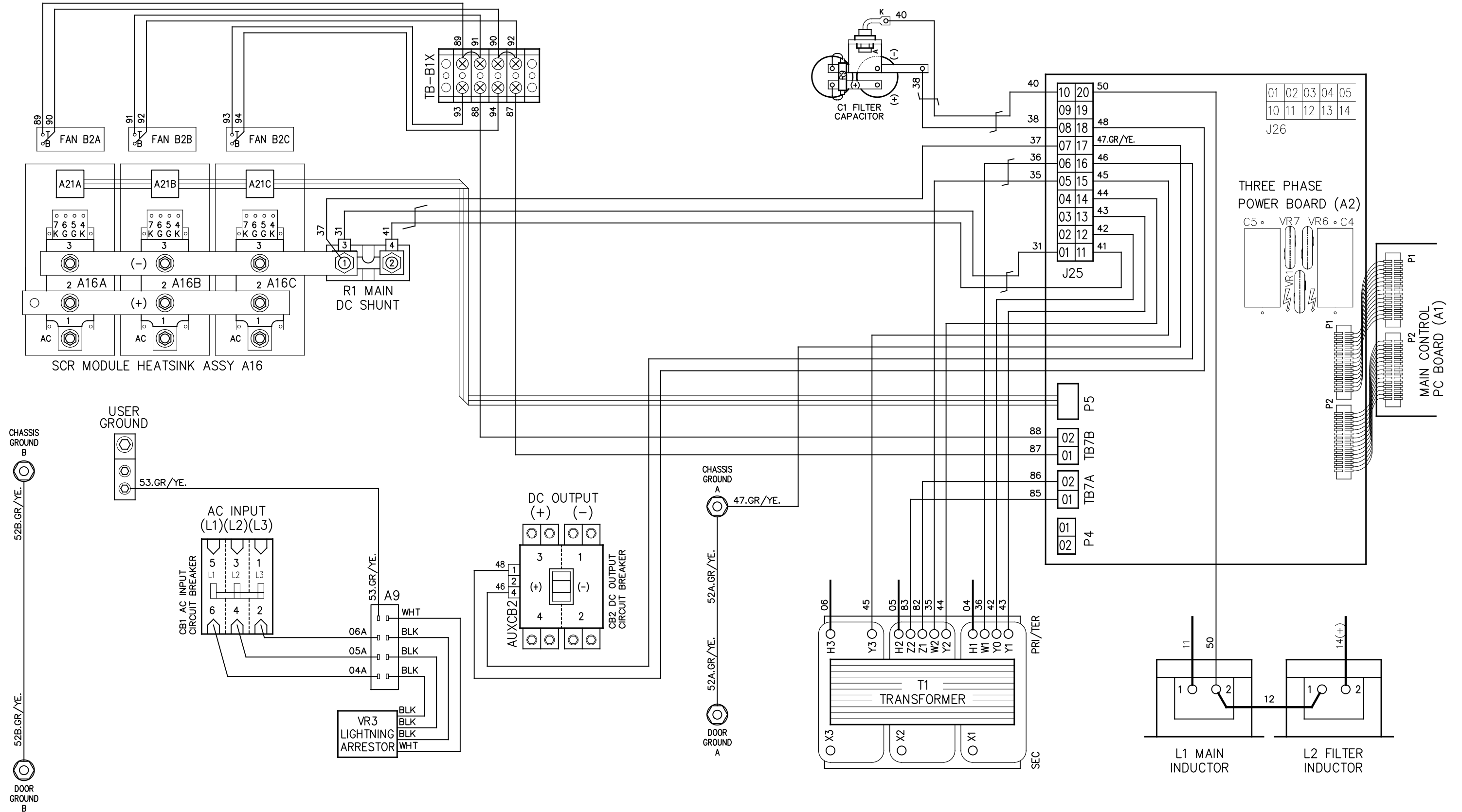
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DESCRIPTION STANDARD DRAWINGS.				CHK BY MCR	DATE 11/01/2021		
ECN NO. #ECN#				CHK BY MCR	DATE 11/01/2021	TITLE	ATEVO BATTERY CHARGER SCHEMATIC: STYLE 198 3φ WITH COMMON OPTIONS 300-1000A
				SCALE	DWG No	REV	SHEET
				B	NTS	JE5354-22	0 1 OF 1



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

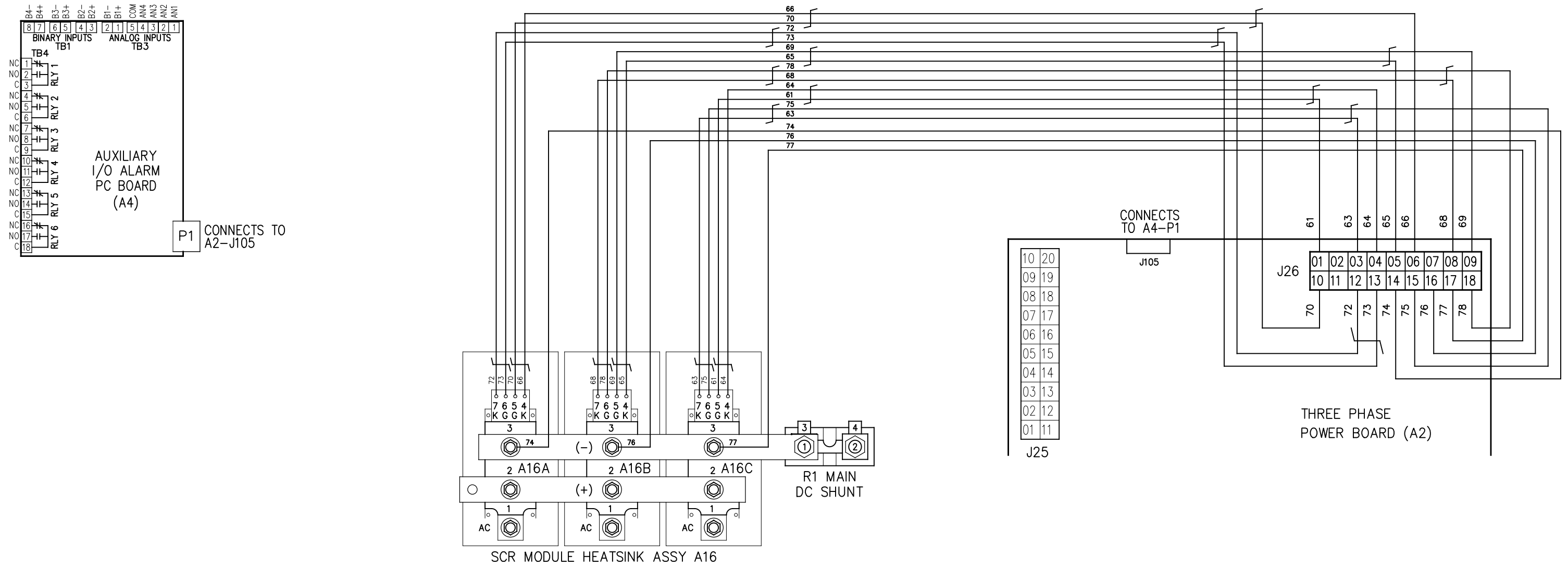
REV. DRN BY	CHK BY	APP BY	DATE	DRN BY	DATE	HINDLEPOWER 1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com
1	KJB	MCR	MCR	12/2/2021	11/01/2021	
DESCRIPTION				CHK BY	DATE	TITLE ATEVO BATTERY CHARGER CONNECTION DIAGRAM: STYLE 198 3φ WITH COMMON OPTIONS 300-1000A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