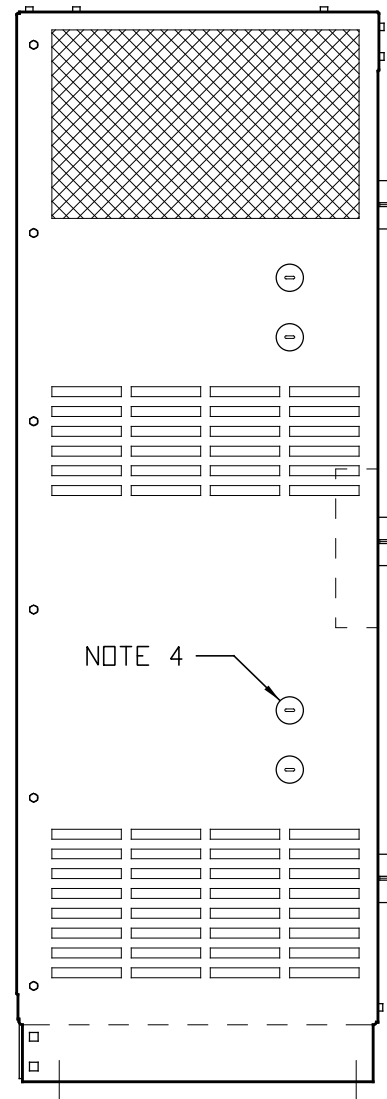
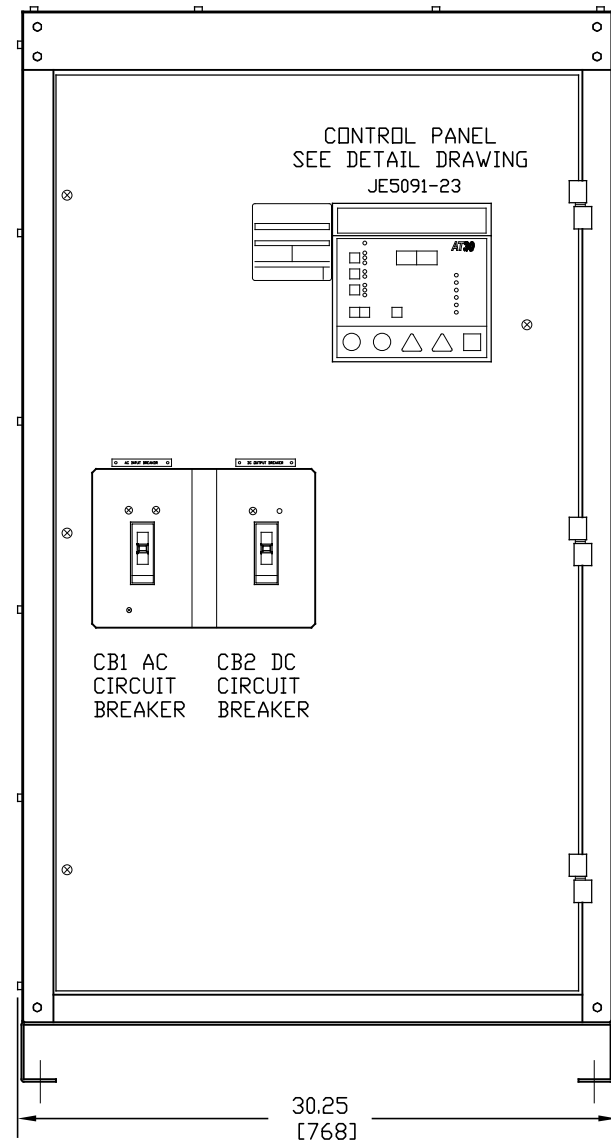


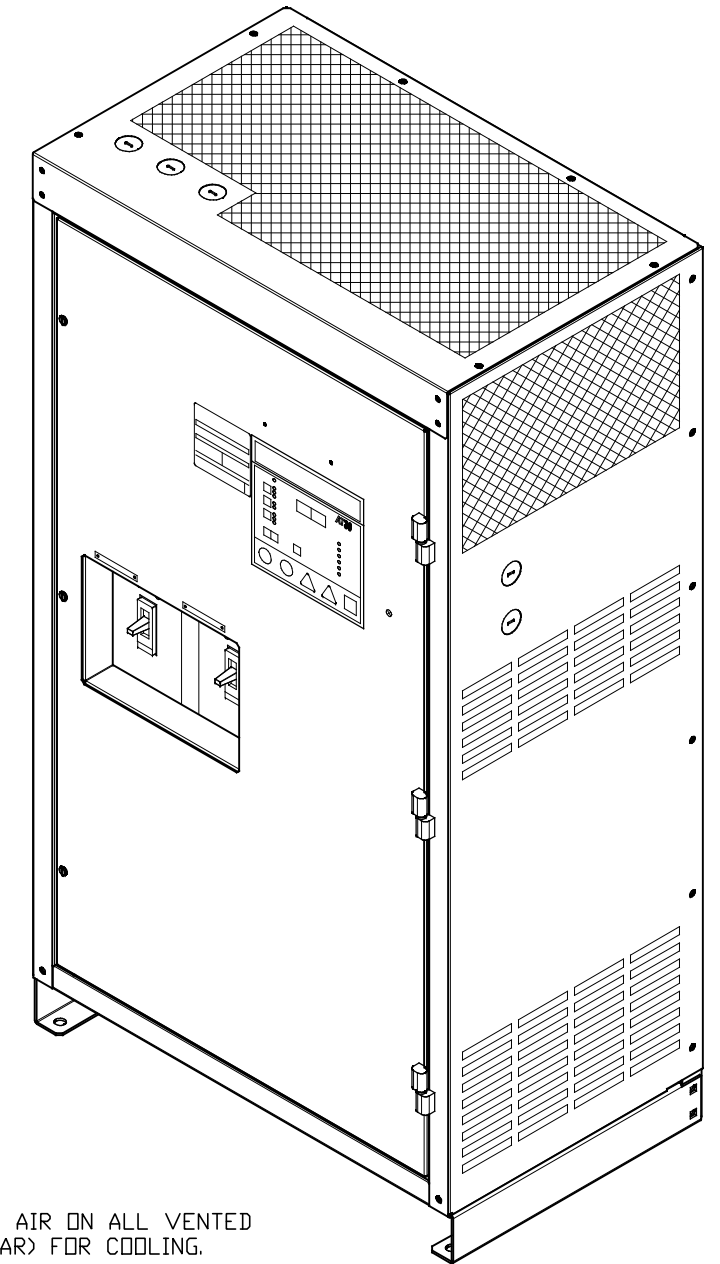
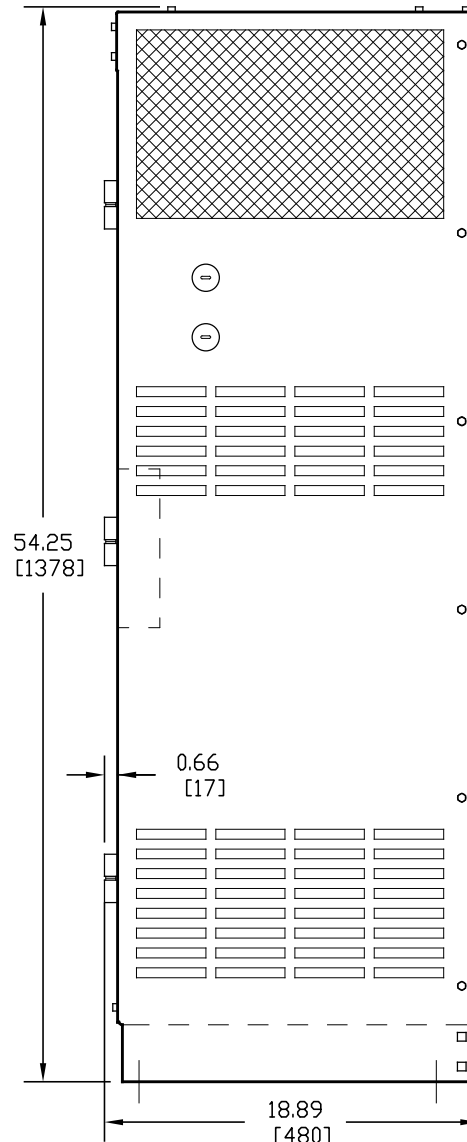
SIDE VIEW



FRONT VIEW

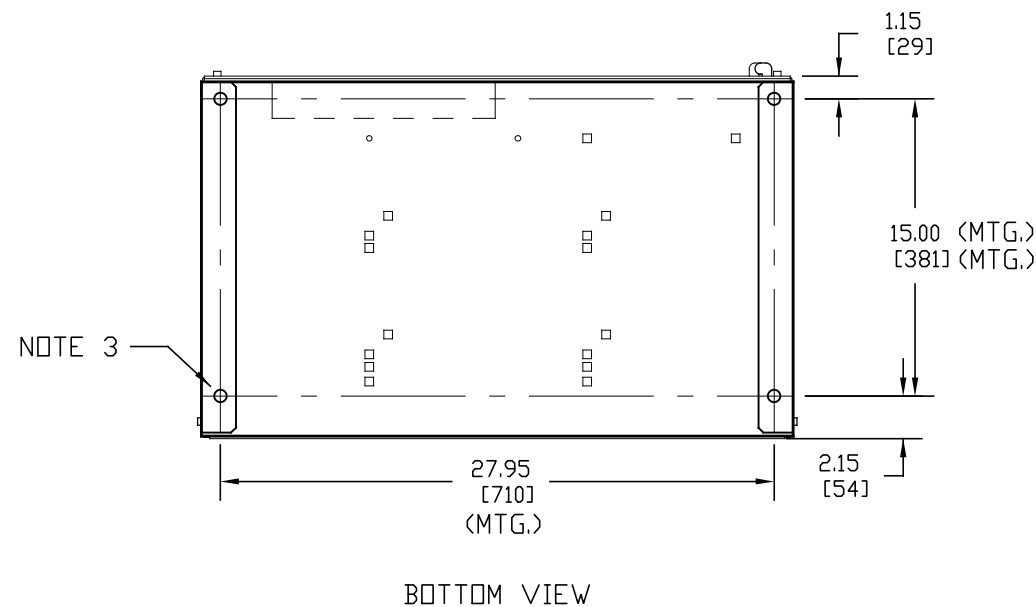


SIDE VIEW



NOTES:

- 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) NINE (9) 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.
- 5) BATTERY CHARGER SHIPPING WEIGHT: SEE PRODUCT LITERATURE.



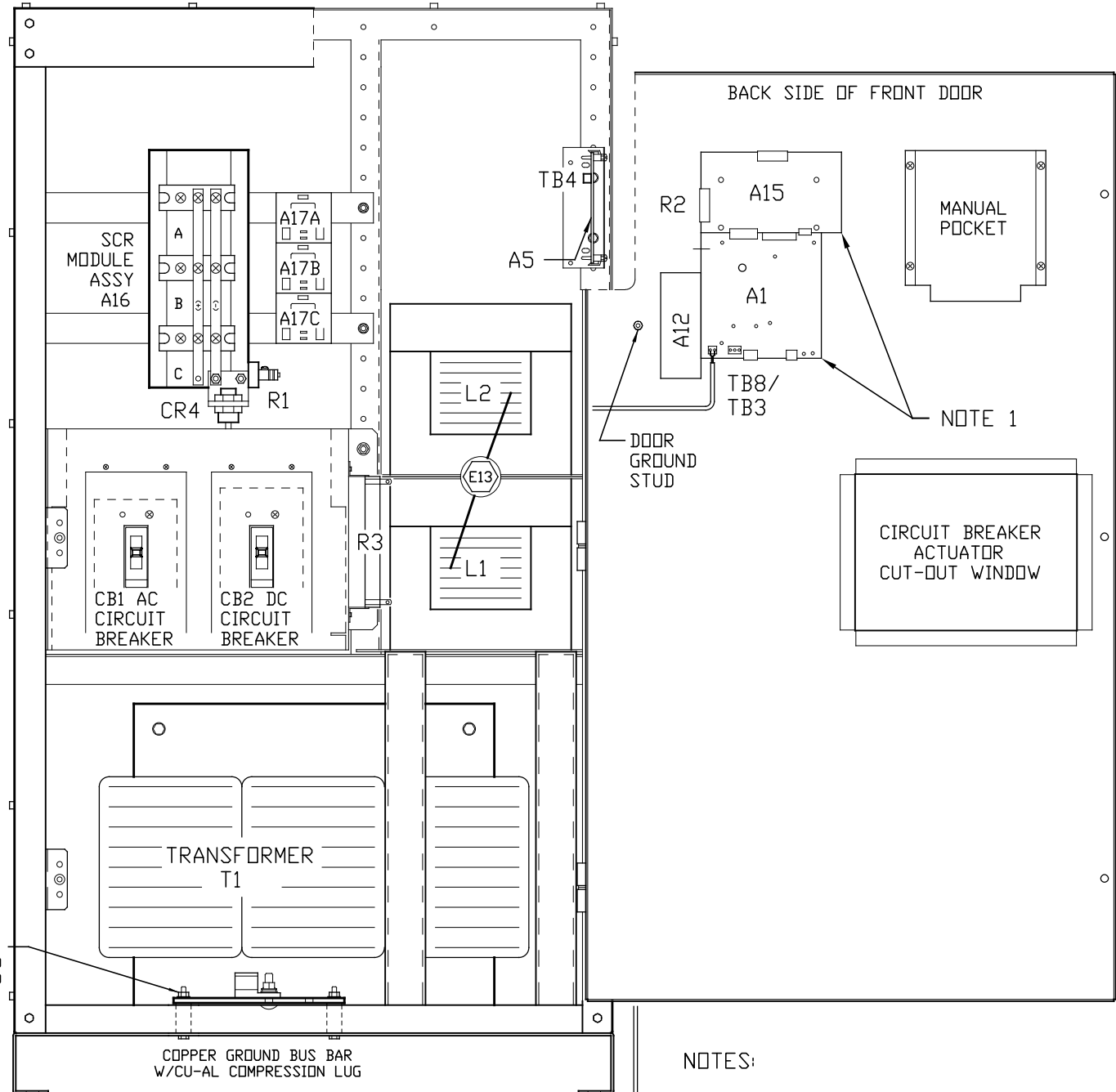
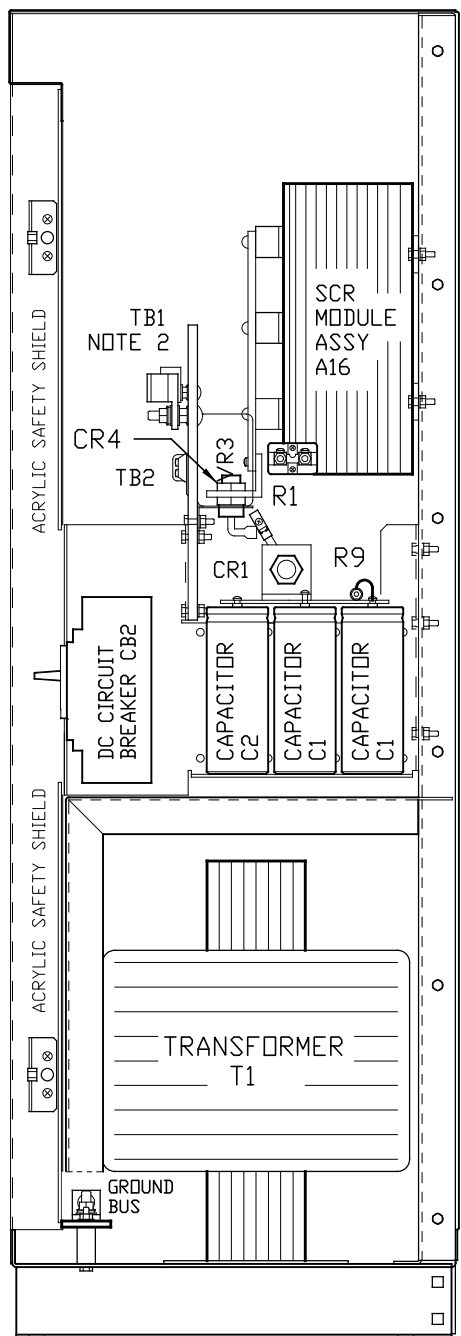
DUAL DIMENSIONS in mm

100ADC W/ COMMON OPTIONS

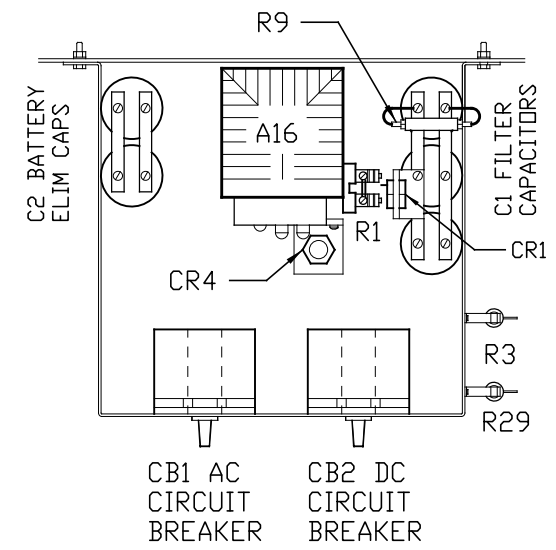
			<p>THIRD ANGLE PROJECTION</p>		<p>1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com</p>	
			DRAWN BY KMW 110921		TITLE AT30 SERIES BATTERY CHARGER OUTLINE: NEMA-1 STYLE-5030 ENCLOSURE	
			ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG		DRAWING No JE5086-23 REV 0 B	
0 N/A 110921			UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		SCALE NTS SALES No SHEET 1 OF 1	
REV	ECN No	DATE				

SIDE SECTION

FRONT VIEW



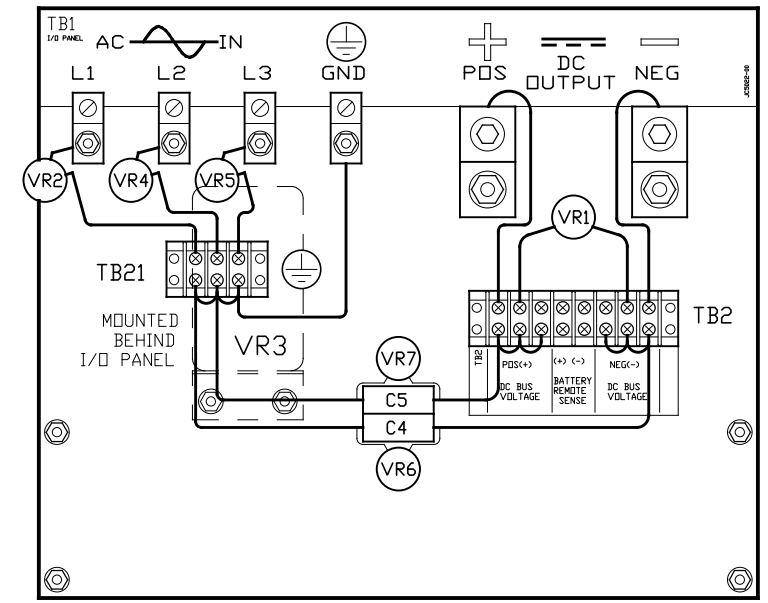
TOP VIEW OF CIRCUIT BREAKER MOUNTING BRACKET



SYM	STANDARD COMPONENT DESCRIPTION
A1	MAIN CONTROL PC BOARD
A15	THREE PHASE GATE DRIVER PCB
A16	6-PULSE SCR MODULE HEATSINK ASSY
A17x	SCR SNUBBER PC BOARD - QTY. (3)
C4	EMI OUTPUT FILTER CAP (NEG-GND)
C5	EMI OUTPUT FILTER CAP (POS-GND)
CB1	AC INPUT CIRCUIT BREAKER (Hx3)
CB2	DC OUTPUT CIRCUIT BREAKER (Hx2)
CR4	FREE-WHEELING DIODE
L1	MAIN INDUCTOR
R1	MAIN DC SHUNT, NEG(-) BUS
R2	CURRENT RATING RESISTOR
R3	PWR SUPPLY BALLAST RES (130VDC)
T1	POWER ISOLATION TRANSFORMER
TB1	I/O TERMINAL BOARD
TB2	INT DC VOLTAGE (+/-) CONTACTS
TB3	SUMMARY ALARM CONTACTS
TB8	TEMPCO PROBE TERMINAL BLOCK
TB21	INTERNAL GROUND (≡) CONTACTS
VR1	OUTPUT SURGE SUPPRESSOR (+TO-)
VR2	INPUT SURGE SUPPRESSOR (LINE 1)
VR4	INPUT SURGE SUPPRESSOR (LINE 2)
VR5	INPUT SURGE SUPPRESSOR (LINE 3)
VR6	OUTPUT SURGE SUPPRESSOR (-)
VR7	OUTPUT SURGE SUPPRESSOR (+)

SYM	FEATURED OPTION COMP DESCRIPTION
A5	AUXILIARY ALARM RELAY PC BOARD
A10	TEMPERATURE COMPENSATION PROBE
A12	COMMUNICATIONS MODULE PC BOARD
C2	BATTERY ELIMINATOR CAPACITOR
CR1	POLARITY DIODE
E13	INDUCTOR INTER-CONNECT POINT
L2	FILTER INDUCTOR
R9	FILTER CAP (C1) BLEED RESISTOR
R29	COMM MOD BALLAST RES (130VDC)
TB4	AUX ALARM PCB (A5) TERM BLOCK
VR3	AC INPUT LIGHTNING ARRESTOR

I/O TERMINAL BOARD (TB1) DETAIL



- NOTES:
- 1) FOR DETAIL VIEWS OF ALL PC BOARDS (A1, A5, A15, A17, etc.) SEE DRAWING JE5091-23.
 - 2) I/O PANEL TERMINAL BOARD (TB1) NOT SHOWN FOR CLARITY OF VIEW. SEE DETAIL TO RIGHT.

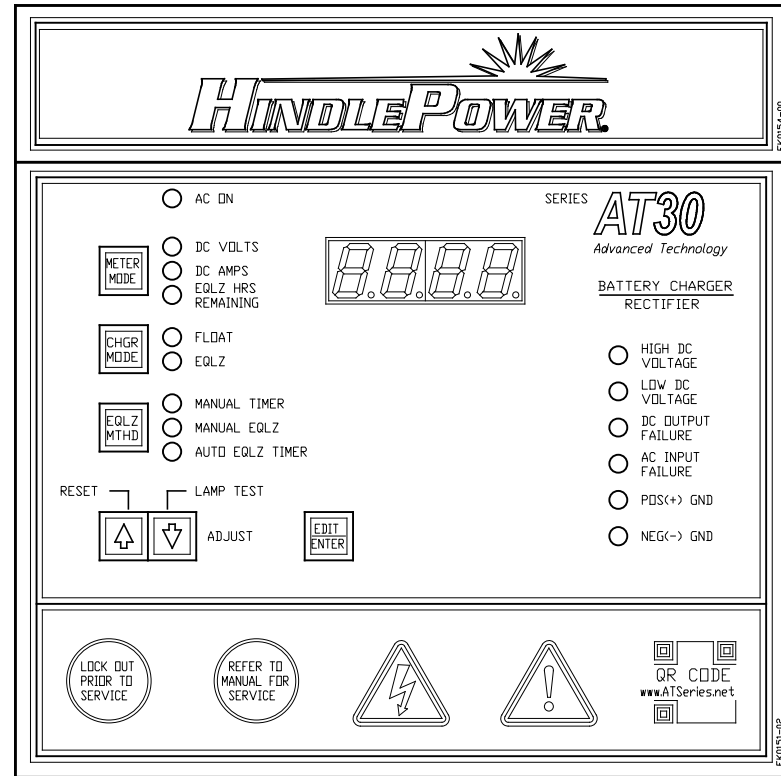
A10 25ft / 7.6m CABLE

I/O TERMINAL	DESCRIPTION - TYPE	CONNECTION
TB1(+/-)	POS/NEG DC OUTPUT TERMS - CU-ALUMINUM COMPRESSION LUG	#6 AWG-350 MCM
REM SENSE(+/-)	POS/NEG REMOTE SENSE TERMINALS - 6-32 COMP SCREW	#16-14 AWG
(2) TB1-GND	USER GROUND TERMINAL - CU-ALUMINUM COMPRESSION LUG	#14 AWG-350 MCM
TB1-L1/L2/L3	AC INPUT TERMINALS - CU-ALUMINUM COMPRESSION LUG	#14-1/0 AWG
TB3	SUMMARY ALARM TERMINAL BLOCK - SOLDERLESS COMP SCREW	#22-14 AWG
TB4	AUXILIARY ALARM TERM BLOCK - SOLDERLESS COMPRESSION	#22-14 AWG
TB8	TEMPCO PROBE (A10) INTERCONNECTION TERMINAL BLOCK	#22-14 AWG

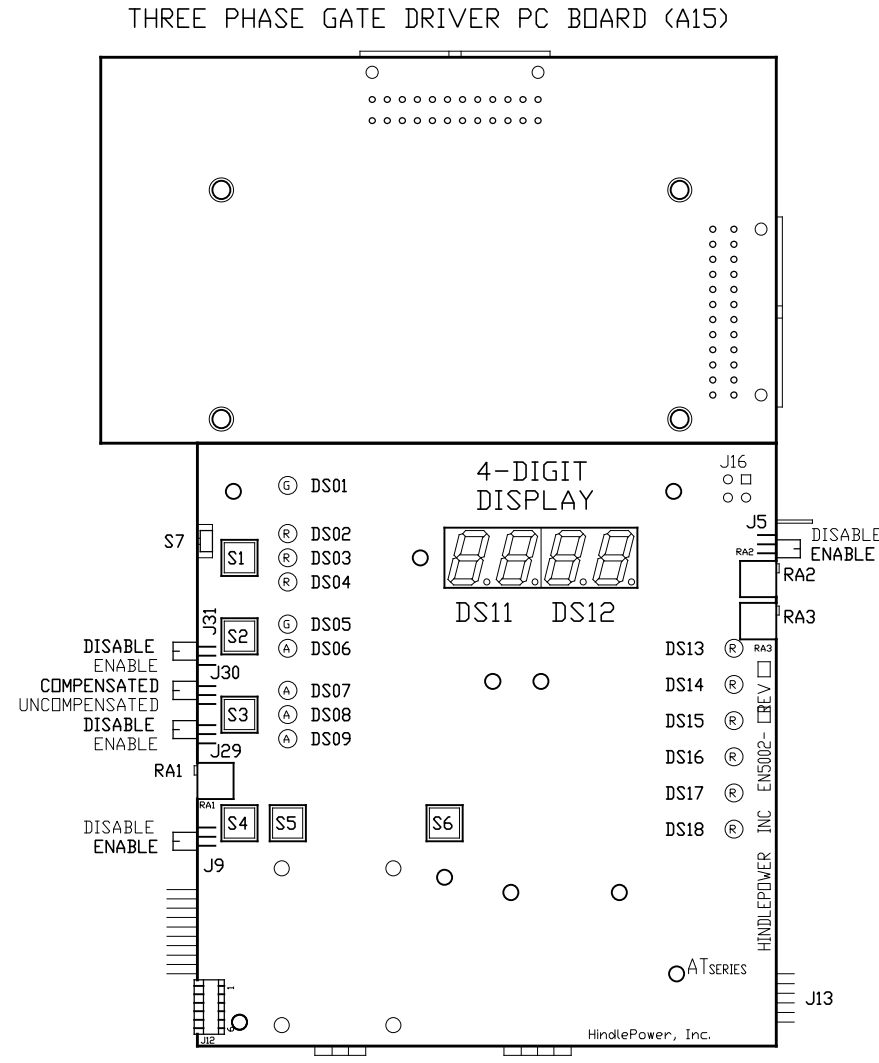
100ADC W/ COMMON OPTIONS

	THIRD ANGLE PROJECTION		1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com	
	DRAWN BY		KMW 110921	TITLE
ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG		AT30 SERIES BATTERY CHARGER		
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		INTERNAL COMPONENT LAYOUT: STYLE-5030		
REV	ECN No	DATE	DRAWING No	REV
0	N/A	110921	JE5089-23	0
SCALE		NTS	SALES No	SHEET 1 OF 1

- INDICATOR LIGHTS (LEDs):
- DS01 - GREEN - AC ON
 - DS02 - RED - DC VOLTS
 - DS03 - RED - DC AMPERES
 - DS04 - RED - EQUALIZE HRS REMAINING
 - DS05 - GREEN - FLOAT
 - DS06 - AMBER - EQUALIZE
 - DS07 - AMBER - MANUAL TIMER
 - DS08 - AMBER - MANUAL EQUALIZE
 - DS09 - AMBER - AUTO EQUALIZE TIMER
 - DS10 - RED - LOW LEVEL DETECT
 - DS11 - RED - (METER DISPLAY)
 - DS12 - RED - (METER DISPLAY)
 - DS13 - RED - HIGH DC VOLTAGE
 - DS14 - RED - LOW DC VOLTAGE
 - DS15 - RED - DC OUTPUT FAILURE
 - DS16 - RED - AC INPUT FAILURE
 - DS17 - RED - POS(+) GROUND FAULT
 - DS18 - RED - NEG(-) GROUND FAULT

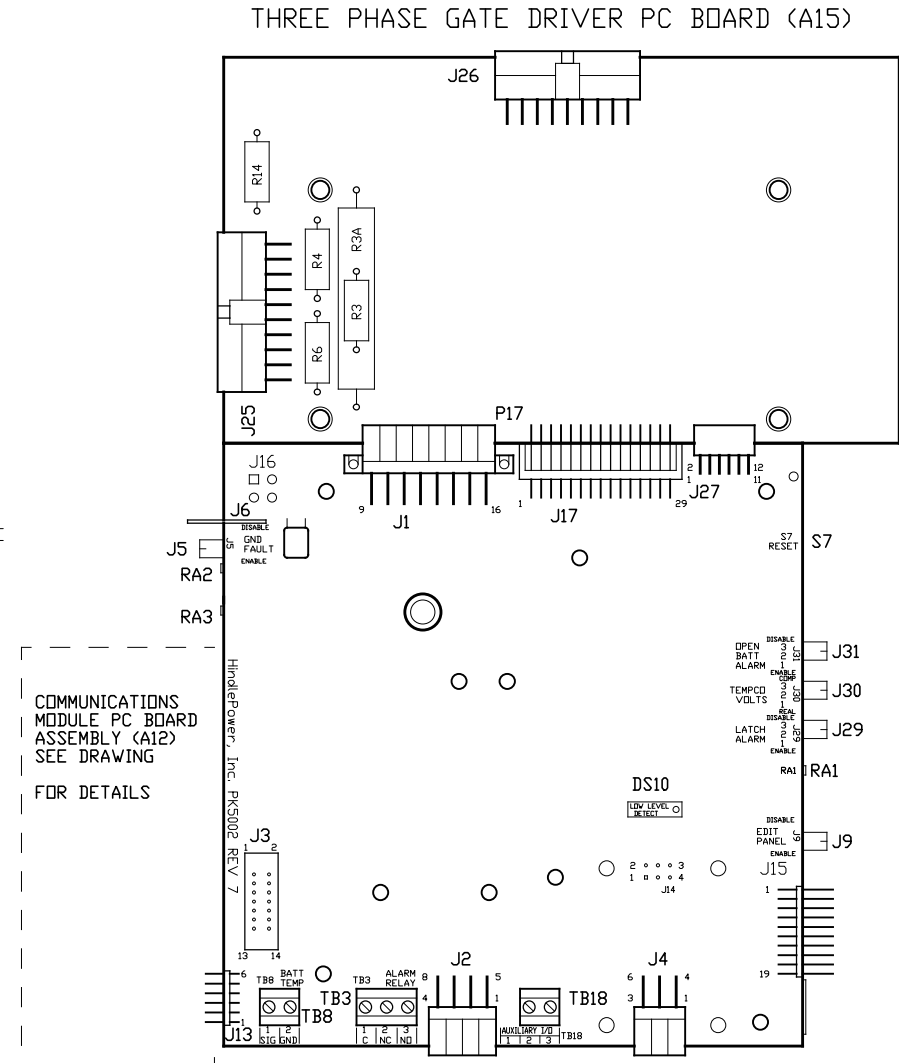


CONTROL PANEL
(PART No. FK0151-02)



MAIN CONTROL PC BOARD (A1)

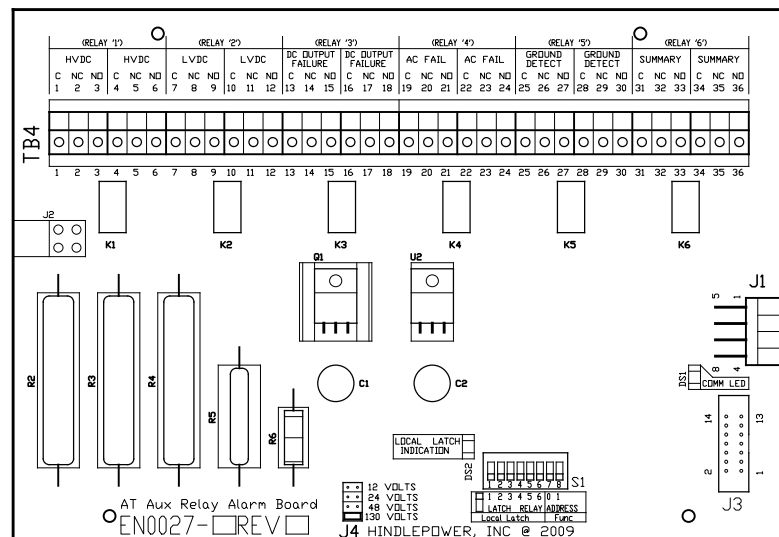
FRONT VIEW - FACING CHARGER DOOR WHEN INSTALLED



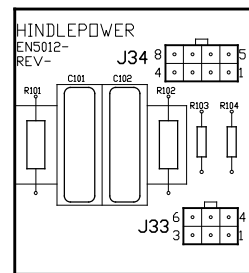
MAIN CONTROL PC BOARD (A1)

BACK VIEW - FACING CHARGER COMPONENTS WHEN INSTALLED

NOTE: UNLESS OTHERWISE SPECIFIED, ALL USER TERMINAL BLOCKS (TB3/TB4/TB8) ARE SOLDERLESS COMPRESSION TERMINALS, ACCEPTING #22-14 AWG WIRE. 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.



AUXILIARY ALARM RELAY PC BOARD (A5)



SCR SNUBBER
PC BOARD (A17x)
THREE (3) REQ'D
PER CHARGER

A5-J1 CONNECTED TO
A1-J2 VIA EHS045-0#
8-PIN SERIAL CABLE

OTHER CONTROLS:
RA1 - LOW LEVEL
DETECT ADJUST
RA2 - GROUND FAULT
BALANCE
RA3 - GROUND FAULT
SENSITIVITY

NON-USER ACCESSED JUMPERS:
J3 - OLD A5 RIBBON CONNECTOR
J12 - BOARD PROGRAMMING
J14 - OLD FORCED LOAD SHARING
J15 - MANUFACTURING TEST
J16 - OLD INTERNAL TEMP

USER JUMPERS:

- J1 - not used with 3PH (MAINFRAME SIGNAL HARNESS)
- J2 - AUX ALARM RELAY BOARD (A5) SERIAL CONNECTOR
- J4 - FORCED LOAD SHARING CABLE INTERCONNECTOR
- J5 - GROUND FAULT ENABLE/DISABLE
- J6 - EARTH GROUND CONNECTOR
- J9 - FRONT PANEL ENABLE/DISABLE (LOCKOUT)
- J13 - COMMUNICATIONS PC BOARD (A12) INTERCONNECTOR
- J17 - 3PH GATE DRIVER PC BOARD (A15) INTERCONNECTOR
- J25 - MAINFRAME CONTROL SIGNAL HARNESS
- J26 - SCR FIRING CONTROL HARNESS (3 PHASE/6 PULSE)
- J27 - 3PH GATE DRIVER PC BOARD (A15) INTERCONNECTOR
- J29 - LATCHING ALARMS ENABLE/DISABLE SELECTOR
- J30 - TEMPCO VOLTAGES (COMPENSATED/UNCOMP) SELECTOR
- J31 - BATTERY OPEN ALARM ENABLE/DISABLE SELECTOR

SWITCHES:

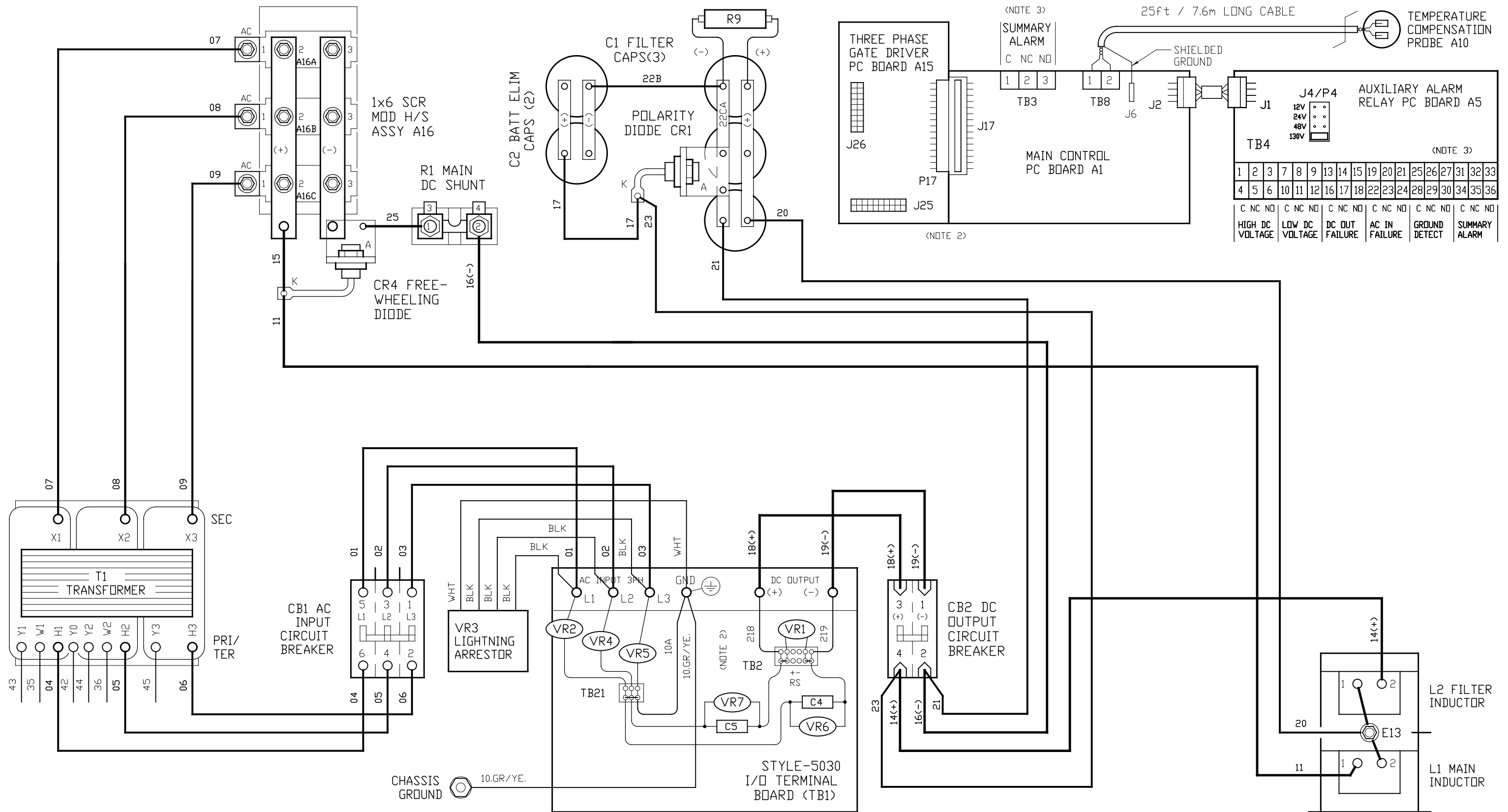
- S1 - METER MODE
- S2 - CHARGER MODE
- S3 - EQUALIZE METHOD
- S4 - ΔADJUST
- S5 - ▽ADJUST
- S6 - EDIT / ENTER
- S7 - PROCESSOR MANUAL RESET

TERMINAL BLOCKS:

- TB3 - SUMMARY ALARM RELAY CONTACTS
- TB4 - AUX ALARM RELAY CONTACTS
- TB8 - DPT TEMPCO PROBE (A10) CONN
- TB18 - REM SHUTDOWN INTERFACE

100ADC W/ COMMON OPTIONS

			THIRD ANGLE PROJECTION		 1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com	
			DRAWN BY KMW 110921		TITLE AT30 SERIES BATTERY CHARGER CONTROL PANEL / PC BOARD DETAIL	
			ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG		DRAWING No JE5091-23	
0 N/A 110921			UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		REV 0 B	
REV	ECN No	DATE	SCALE NTS		SALES No	SHEET 1 OF 1



NOTES:

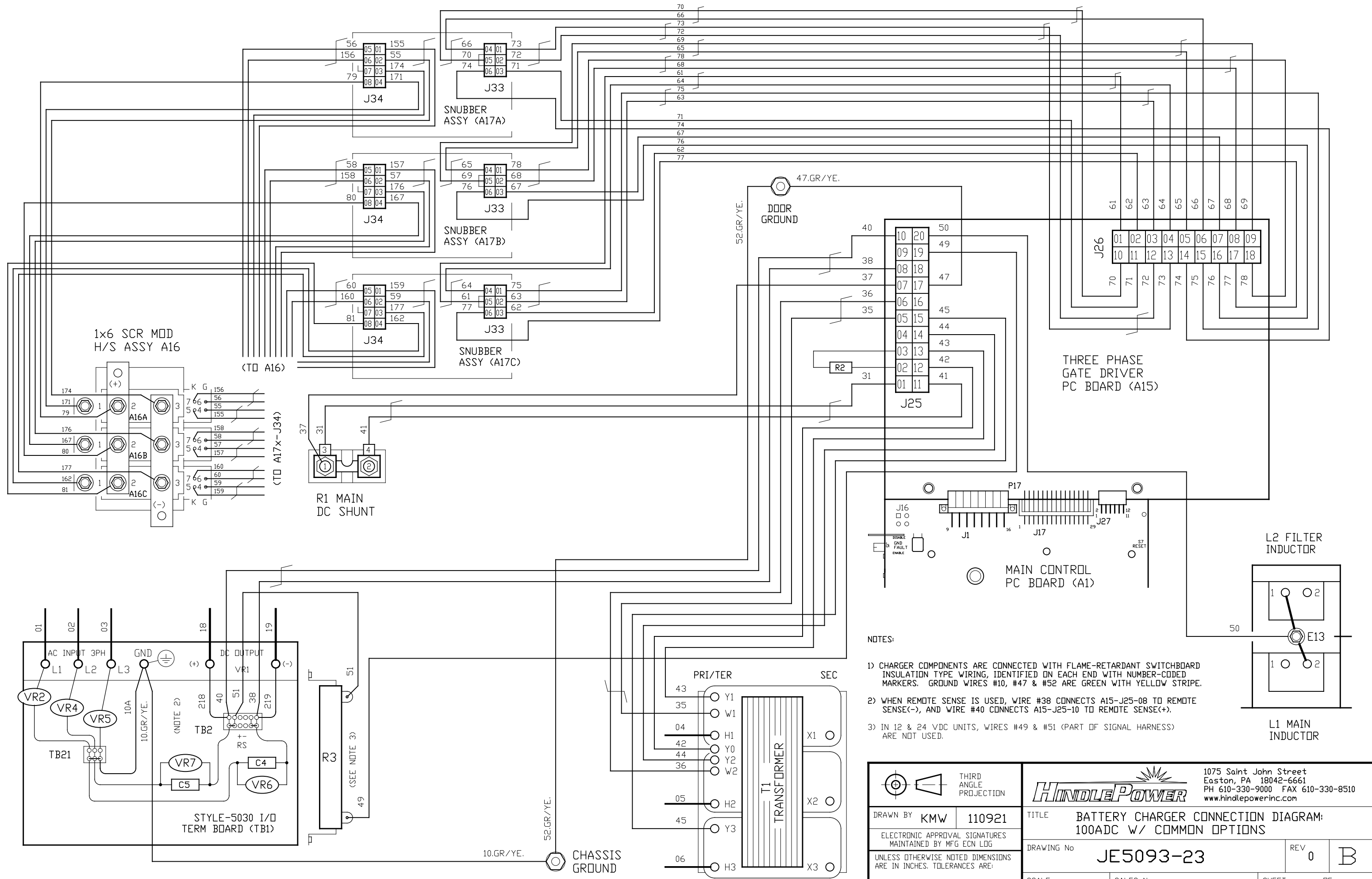
- 1) CHARGER COMPONENTS ARE CONNECTED WITH BLACK FLAME-RETARDANT SWITCHBOARD INSULATION SYSTEM (SIS) TYPE WIRING, IDENTIFIED ON EACH END WITH NUMBER-CODED WIRE MARKERS. GROUND WIRES ARE GREEN WITH YELLOW STRIPE. DIODES (CR1 & CR4) ARE ANODE-MOUNTED TYPE, WIRE TO CATHODE.
- 2) THIS DRAWING (SHEET 1) SHOWS THE MAINFRAME POWER WIRING AND USER CONNECTION CONTACTS TO CONTROL PC BOARDS (A1 & A5). SEE SHEET 2 FOR ALL CONTROL (SIGNAL) WIRING, INCLUDING REMOTE SENSE MODIFICATIONS, IF APPLICABLE.
- 3) STANDARD USER ALARM CONTACTS (TB3, TB4, etc.) ARE SOLDERLESS COMPRESSION SCREW TERMINALS, ACCEPTING #22-14 AWG WIRE.

FEATURED OPTIONS:

- STD DC OUTPUT FILTERING
- BATTERY ELIMINATOR FILTER CAP
- AC INPUT CIRCUIT BREAKER
- DC OUTPUT CIRCUIT BREAKER
- AUXILIARY ALARM RELAY PC BOARD
- AC INPUT LIGHTNING ARRESTOR
- EXTERNAL TEMPCO REMOTE PROBE

		THIRD ANGLE PROJECTION	
DRAWN BY		KMW	110921
ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG			
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:			
0	N/A	110921	
REV	ECN No	DATE	

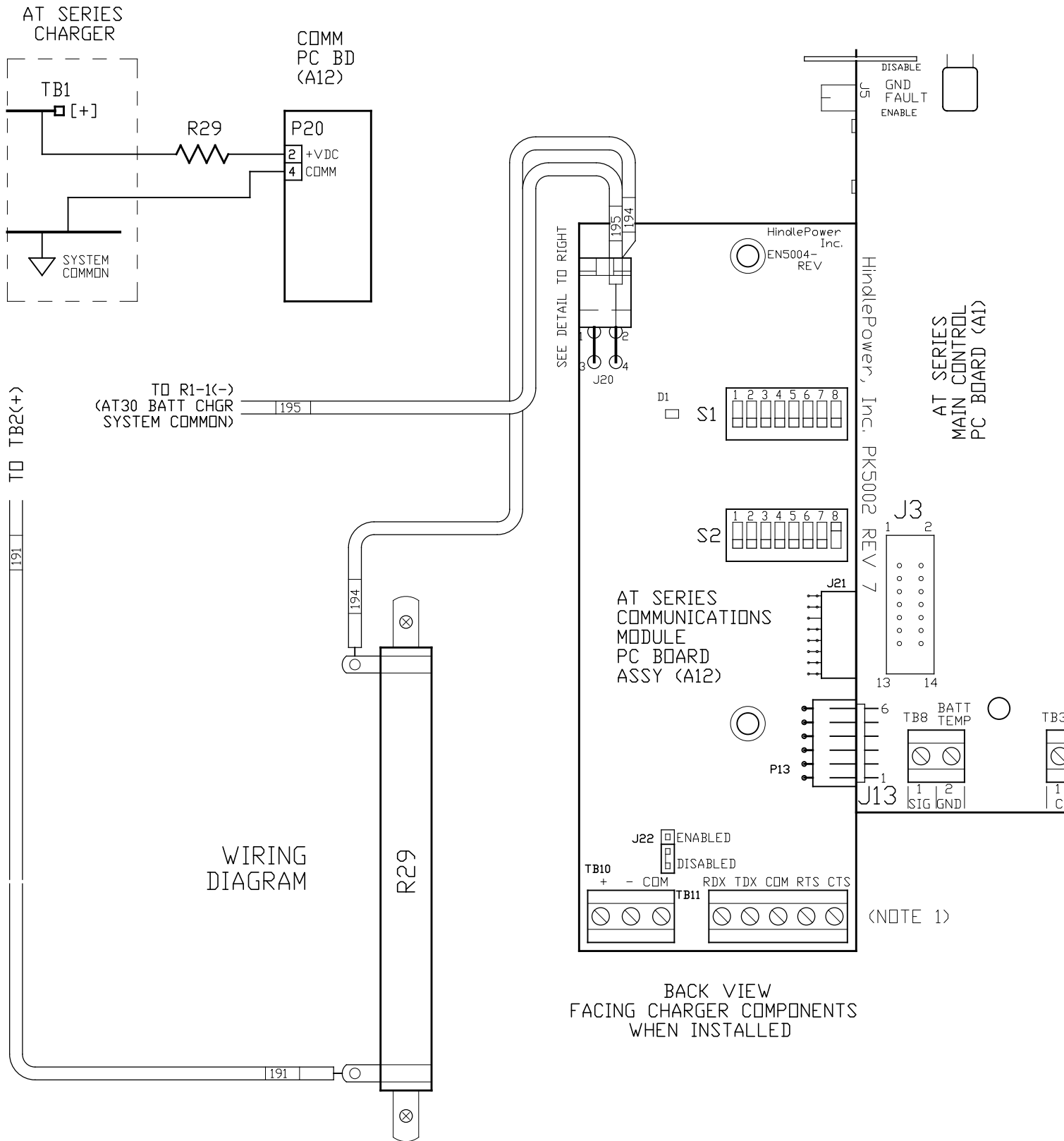
HINDLEPOWER		1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com	
TITLE BATTERY CHARGER CONNECTION DIAGRAM: 100ADC W/ COMMON OPTIONS			
DRAWING No		JE5093-23	REV 0 B
SCALE	NTS	SALES No	SHEET 1 OF 2



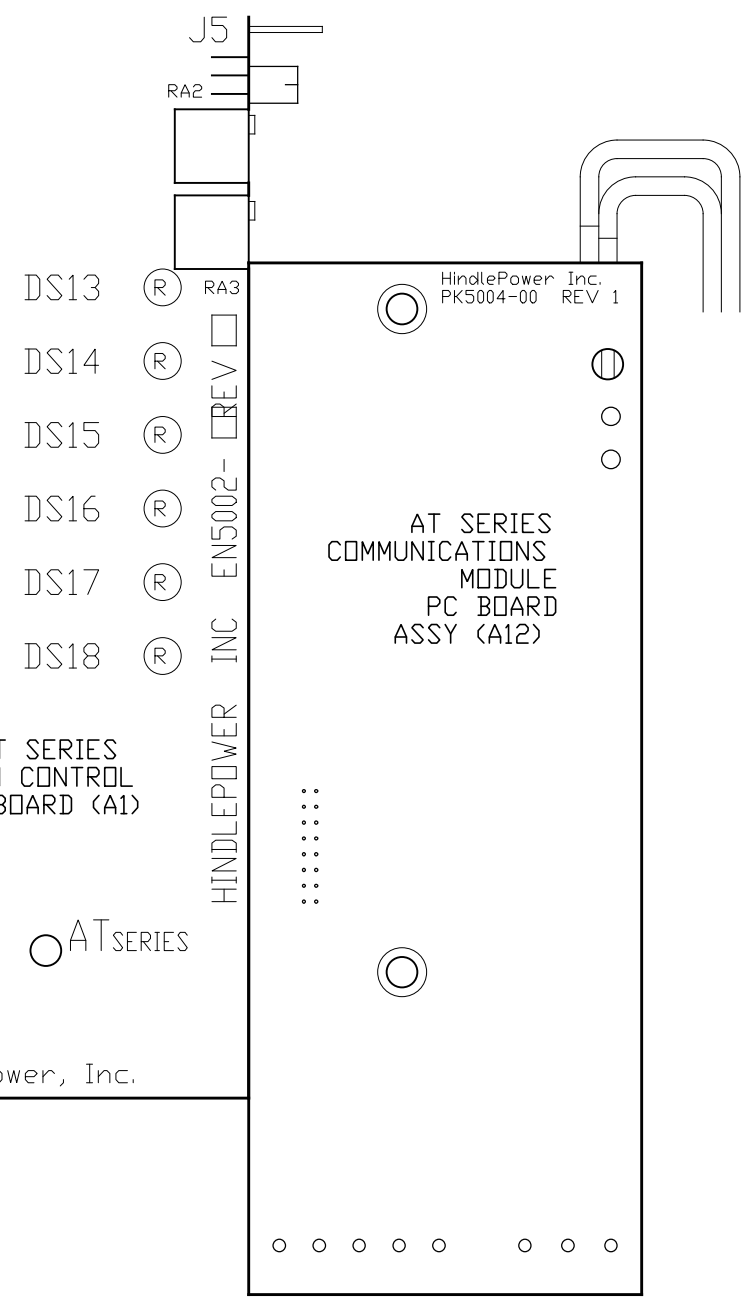
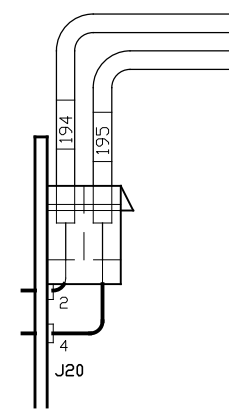
- NOTES:
- 1) CHARGER COMPONENTS ARE CONNECTED WITH FLAME-RETARDANT SWITCHBOARD INSULATION TYPE WIRING, IDENTIFIED ON EACH END WITH NUMBER-CODED MARKERS. GROUND WIRES #10, #47 & #52 ARE GREEN WITH YELLOW STRIPE.
 - 2) WHEN REMOTE SENSE IS USED, WIRE #38 CONNECTS A15-J25-08 TO REMOTE SENSE(-), AND WIRE #40 CONNECTS A15-J25-10 TO REMOTE SENSE(+).
 - 3) IN 12 & 24 VDC UNITS, WIRES #49 & #51 (PART OF SIGNAL HARNESS) ARE NOT USED.

 THIRD ANGLE PROJECTION			1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com	
	DRAWN BY KMW	110921	TITLE BATTERY CHARGER CONNECTION DIAGRAM: 100ADC W/ COMMON OPTIONS	
ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG		DRAWING No JE5093-23	REV 0	B
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		SCALE NTS	SALES No	SHEET 2 OF 2

SYSTEM SCHEMATIC

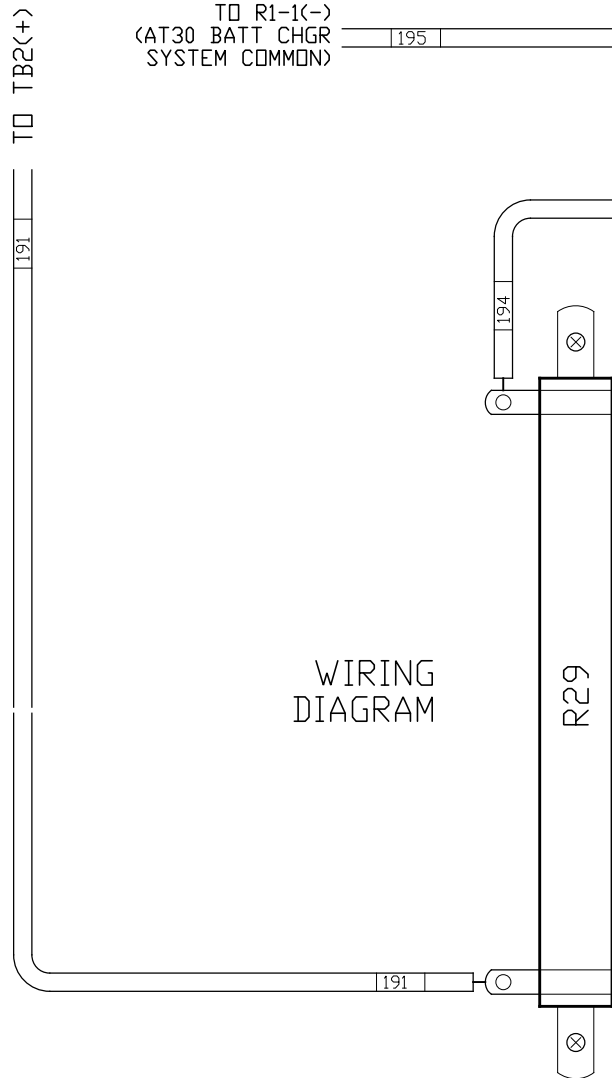


SIDE VIEW OF PC BOARD

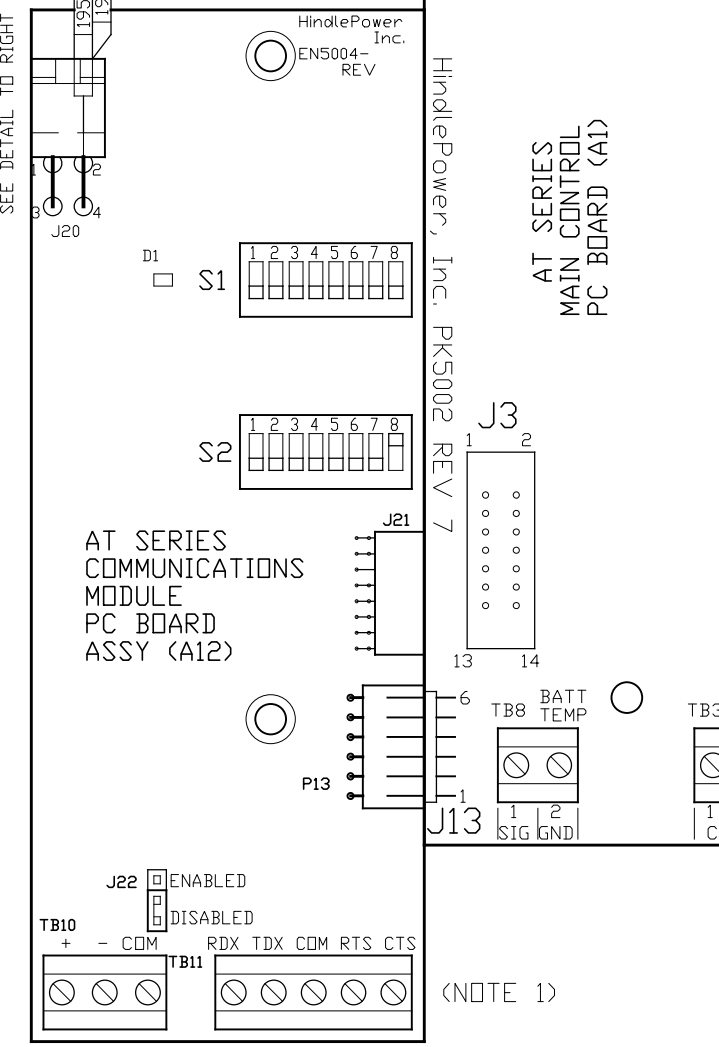


- INDICATOR LIGHTS:
 D1 - STATUS LED
- JUMPERS:
 J20 - POWER SUPPLY CONNECTION
 J21 - FACTORY CONNECTION
 J22 - RS-485 TERMINATING RESISTOR (ENABLE/DISABLE)
- CONNECTORS:
 P13 - PLUG FOR MAIN CONTROL PCB (A1)
 J13 CONNECTION
- SWITCHES:
 S1 - CONFIGURATION SWITCHES
 S2 - MODBUS ADDRESS
- TERMINAL BLOCKS:
 TB10 - RS-485 USER CONNECTION
 TB11 - RS-232 USER CONNECTION

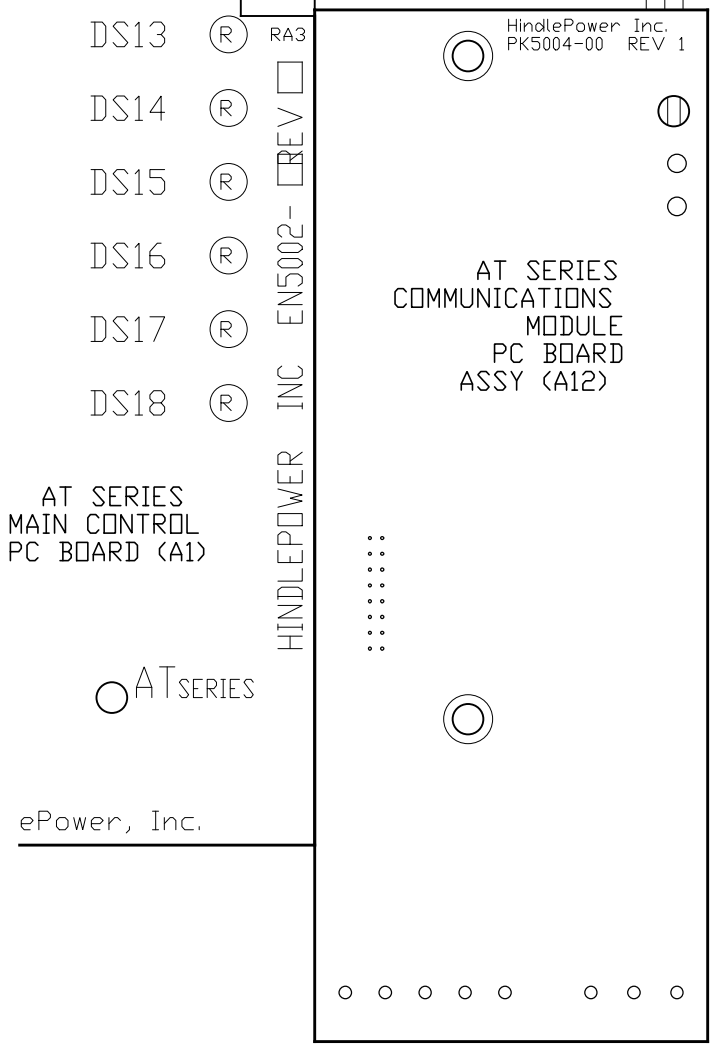
WIRING DIAGRAM



BACK VIEW FACING CHARGER COMPONENTS WHEN INSTALLED



FRONT VIEW FACING CHARGER DOOR WHEN INSTALLED



- NOTES:
- UNLESS OTHERWISE SPECIFIED, ALL USER TERMINAL BLOCKS (TB10/TB11) ARE SOLDERLESS COMPRESSION TERMINALS. CONTACT RATING IS 0.5A @ 125VAC/DC, ACCEPTING #22-14 AWG WIRE.
 - FOR COMPLETE MANUAL OF AT SERIES COMMUNICATIONS MODULE OPTION, SEE OPERATING INSTRUCTIONS: JA0102-04.pdf

- FEATURED OPTIONS:
- AT SERIES COMM MOD PCB (A12)
 - 130Vdc POWER SUPPLY RESISTOR (R29)

			THIRD ANGLE PROJECTION		100ADC W/ COMMON OPTIONS	
			DRAWN BY KMW 110921		1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com	
			ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG		TITLE AT SERIES BATTERY CHARGER COMMUNICATIONS MODULE OPTION DETAIL	
0	N/A	110921	UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		DRAWING No JE5107-23	REV 0 B
REV	ECN No	DATE	SCALE NTS	SALES No	SHEET 1 OF 1	