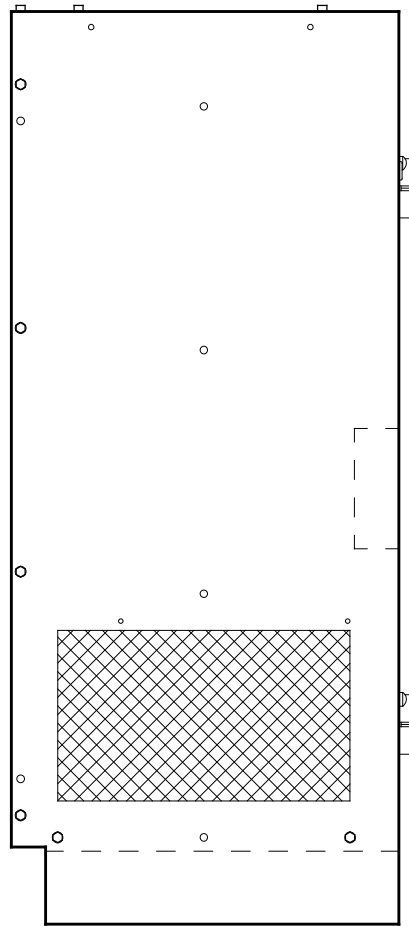
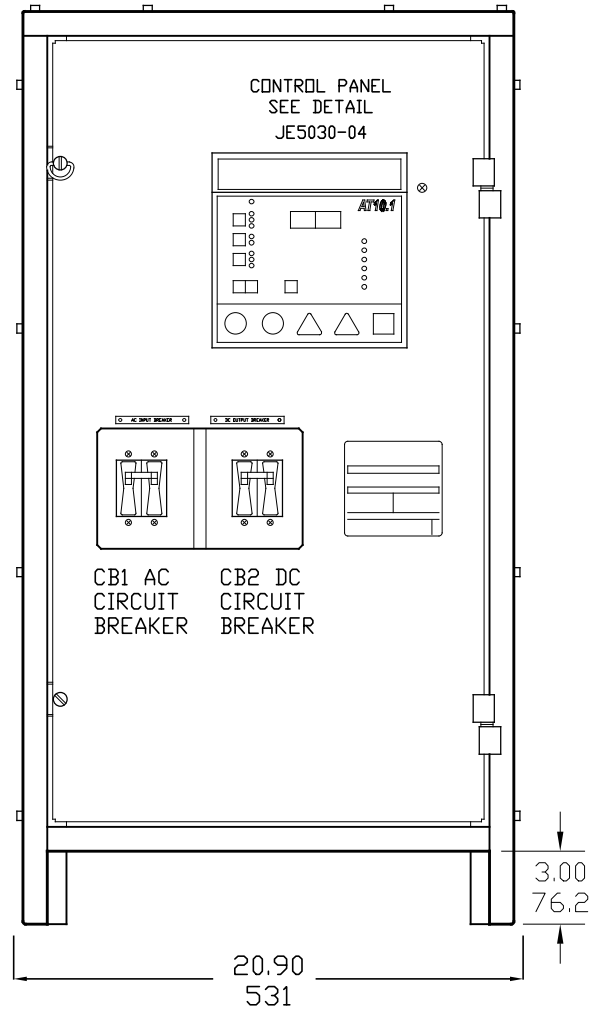


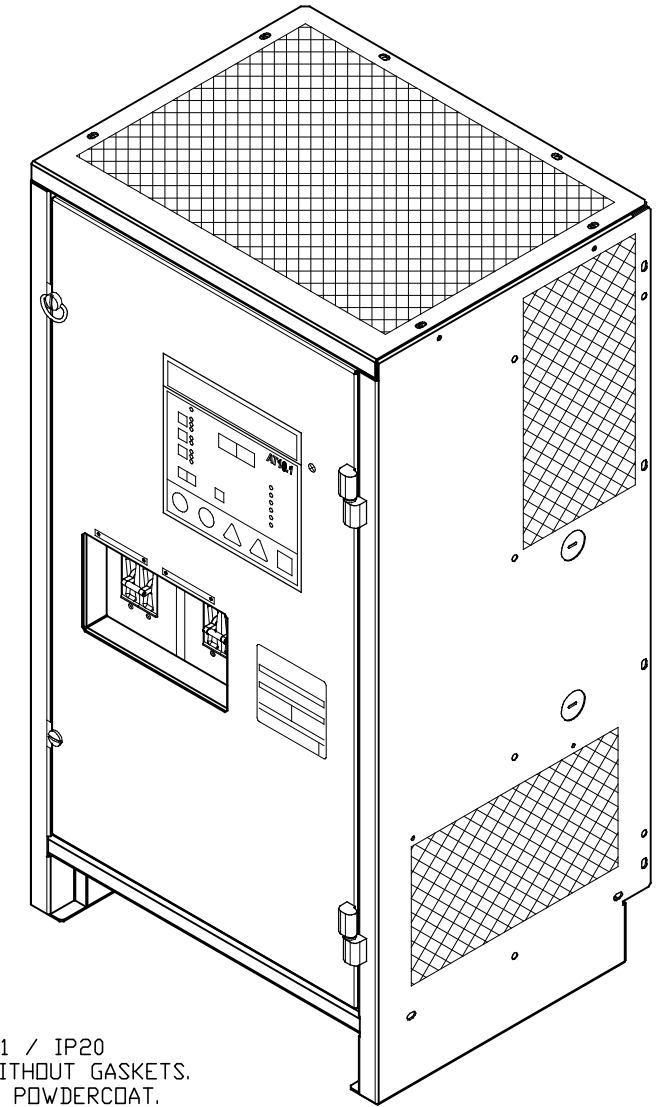
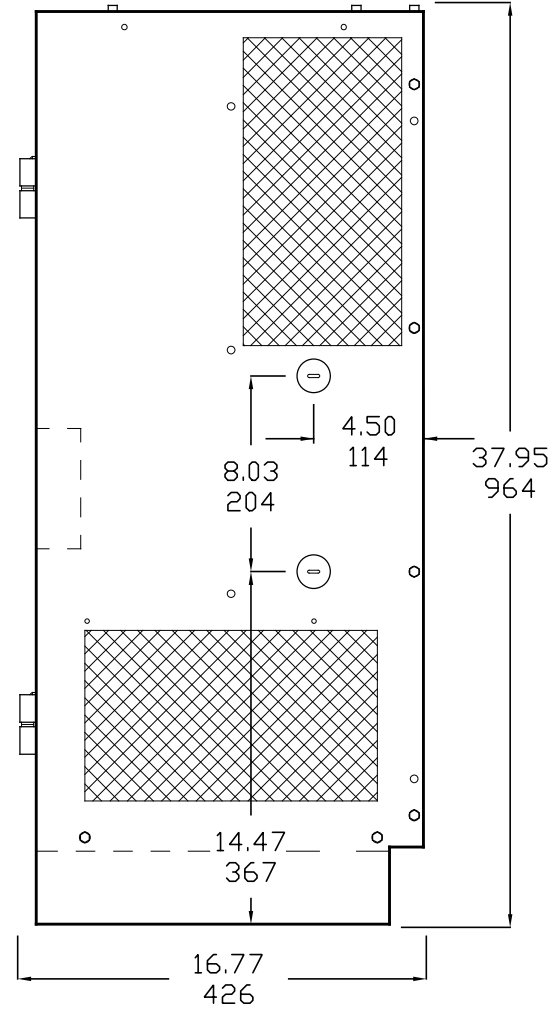
SIDE VIEW



FRONT VIEW



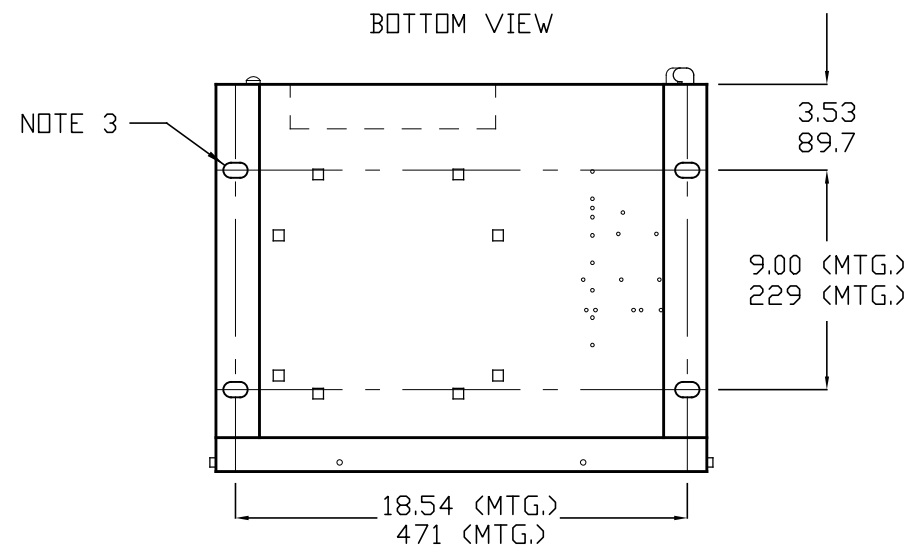
SIDE VIEW



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) 1in x 0.625in / 25mm x 16mm FLOOR-MOUNTING SLOTS ARE PROVIDED ON BOTTOM OF ENCLOSURE AS SHOWN.
- 4) TWO (2) 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

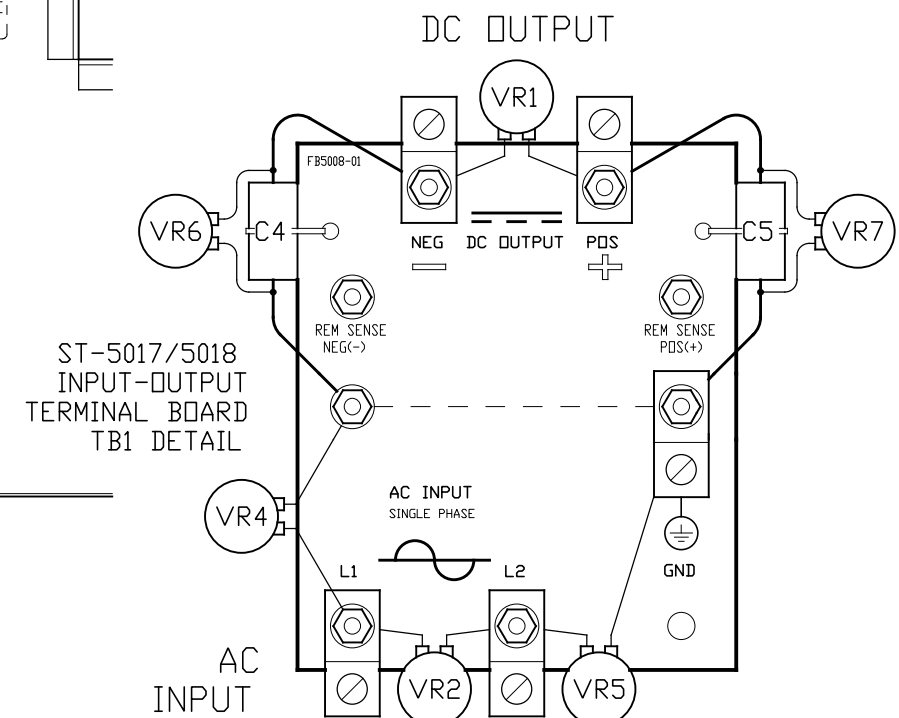
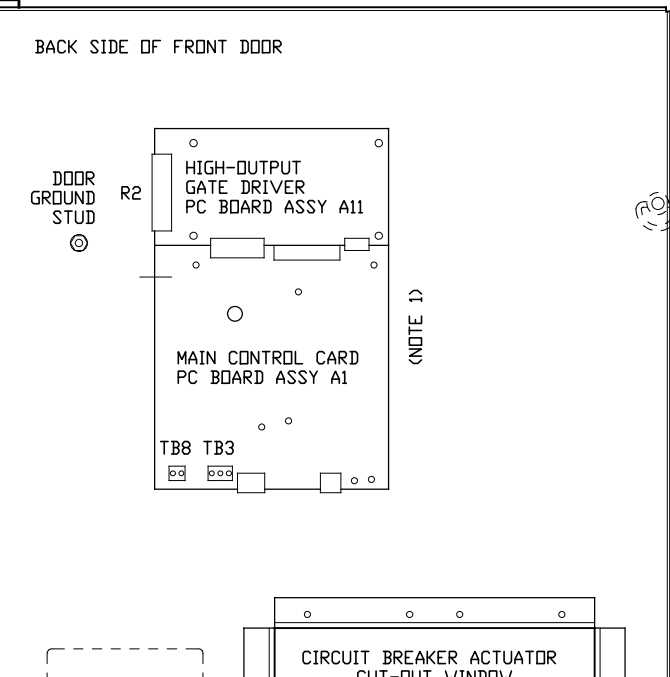
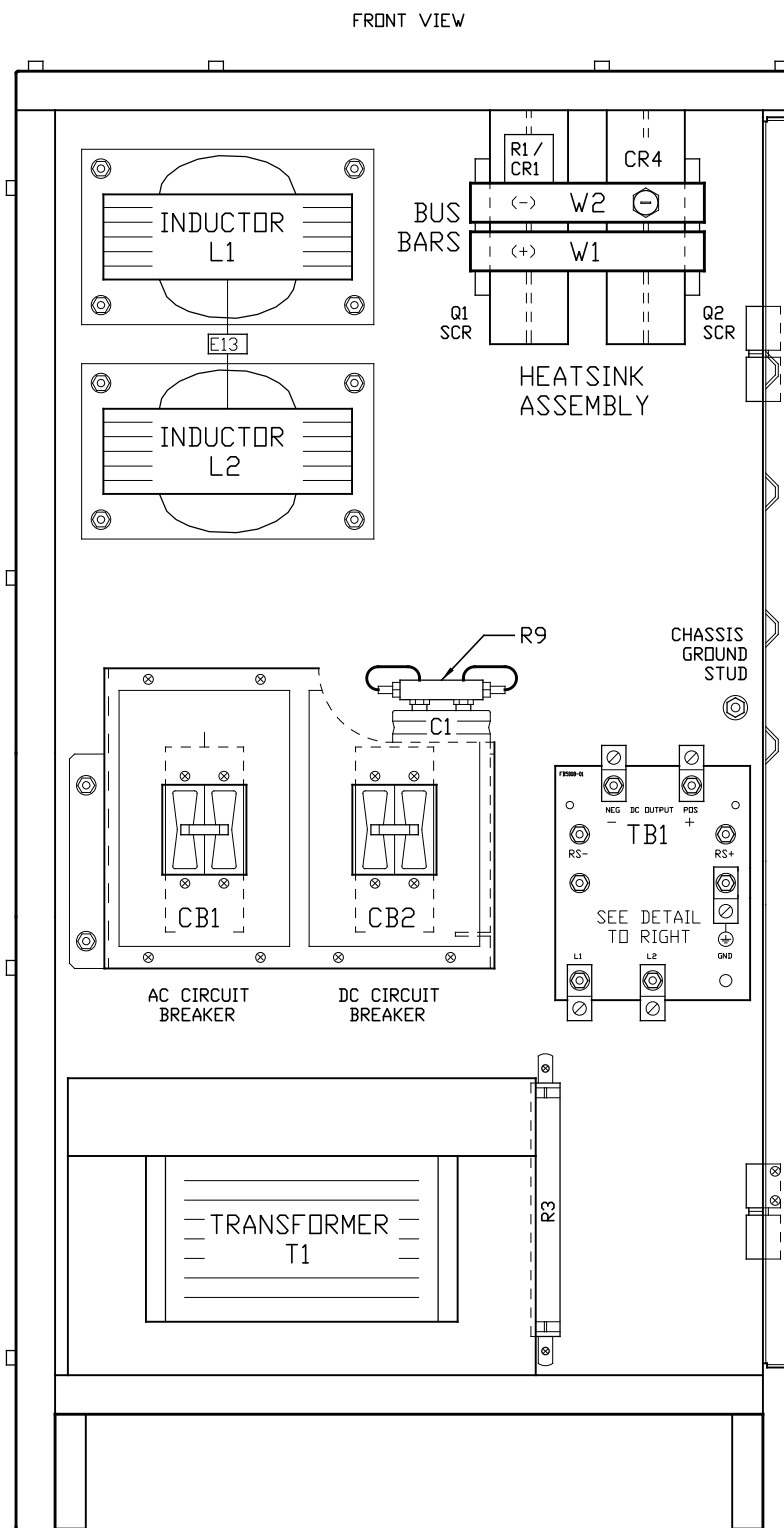
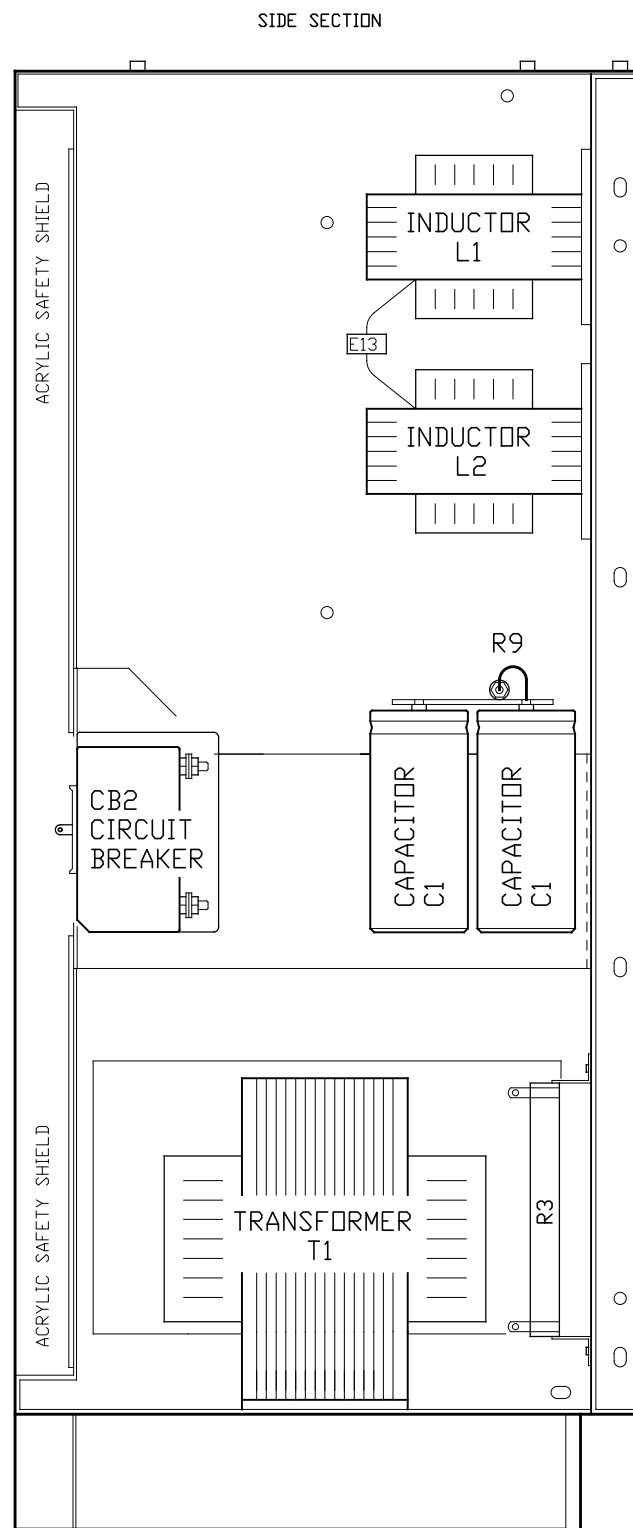
BOTTOM VIEW



DUAL DIMENSIONS in mm

40-100ADC W/O 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> | |
| | | | <p>DRAWN BY KMW 110821</p> | | <p>TITLE AT10.1 SERIES BATTERY CHARGER OUTLINE: NEMA-1 STYLE-5018 ENCLOSURE</p> | |
| | | | <p>ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG</p> | | <p>DRAWING No JE5026-04 REV 0 B</p> | |
| <p>0 N/A 110821</p> | | | <p>UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:</p> | | <p>SCALE NTS SALES No SHEET 1 OF 1</p> | |



| SYM | STANDARD COMPONENT DESCRIPTION |
|-----|---------------------------------|
| A1 | MAIN CONTROL PC BOARD |
| A11 | HIGH-OUTPUT GATE DRIVER PC BRD |
| C4 | EMI OUTPUT FILTER CAP (NEG) |
| C5 | EMI OUTPUT FILTER CAP (PDS) |
| CB1 | AC INPUT CIRCUIT BREAKER (CD2) |
| CB2 | DC OUTPUT CIRCUIT BREAKER (CD2) |
| CR4 | FREE-WHEELING DIODE |
| L1 | MAIN INDUCTOR |
| Q1 | SILICON-CONTROLLED RECTIFIER |
| Q2 | SILICON-CONTROLLED RECTIFIER |
| R1 | MAIN DC SHUNT, NEG(-) BUS |
| R2 | RATING RESISTOR |
| R3 | PWR SUPPLY BALLAST RES (130VDC) |
| T1 | POWER TRANSFORMER |
| TB1 | I/O TERMINAL BOARD |
| TB3 | SUMMARY ALARM CONTACTS |
| TB8 | TEMPCD PROBE TERMINAL BLOCK |
| VR1 | OUTPUT SURGE SUPPRESSOR |
| VR2 | INPUT SURGE SUPPRESSOR |
| VR4 | INPUT SURGE SUPPRESSOR |
| VR5 | INPUT SURGE SUPPRESSOR |
| VR6 | OUTPUT SURGE SUPPRESSOR |
| VR7 | OUTPUT SURGE SUPPRESSOR |
| W1 | COPPER BUS BAR (PDS LEG) |
| W2 | COPPER BUS BAR (NEG LEG) |

| SYM | FEATURED OPTION COMP DESCRIPTION |
|-----|----------------------------------|
| C1 | FILTER CAPACITOR |
| CR1 | POLARITY DIODE |
| E13 | INDUCTOR INTER-CONNECT POINT |
| L2 | FILTER INDUCTOR |
| R9 | FILTER CAP BLEED RESISTOR |

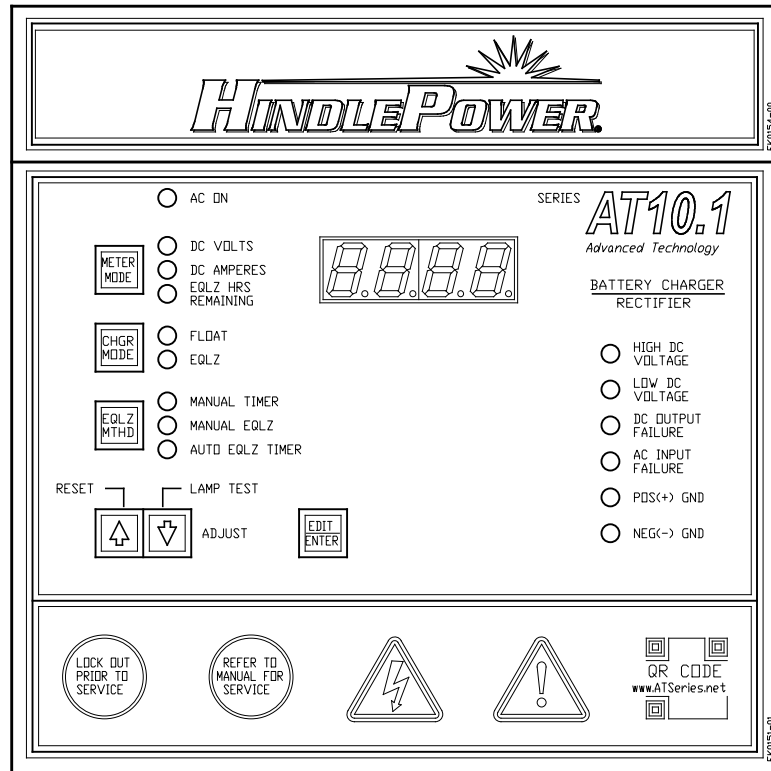
| I/O TERMINAL | DESCRIPTION - TYPE | CONNECTION |
|----------------|---|----------------|
| TB1(+/-) | POS/NEG DC OUTPUT TERMS - CU-ALUMINUM COMPRESSION LUG | #14-1/0 AWG |
| REM SENSE(+/-) | POS/NEG REMOTE SENSE TERMINALS - 1/4-20 ZPS STUDS | 1/4in RING LUG |
| TB1-GND | USER GROUND TERMINAL - CU-ALUMINUM COMPRESSION LUG | #14-1/0 AWG |
| TB1-L1/L2 | AC INPUT TERMINALS - CU-ALUMINUM COMPRESSION LUG | #14-1/0 AWG |
| TB3 | SUMMARY ALARM TERMINAL BLOCK - SOLDERLESS COMP SCREW | #22-14 AWG |
| TB8 | TEMPCD PROBE (A10) TERM BLK - SOLDERLESS COMP SCREW | #22-14 AWG |

NOTES:
 1) FOR DETAIL VIEWS OF ALL PC BOARDS (A1, A5, A11, etc.) SEE DETAIL DRAWING JE5030-04.

| | | | | | | |
|---|--------|------|--|--|---|--|
| | | | | | 1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com | |
| DRAWN BY KMW 110821 | | | TITLE AT10.1 SERIES BATTERY CHARGER INTERNAL COMPONENT LAYOUT; STYLE-5018 | | | |
| ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG | | | DRAWING No JE5029-04 | | REV 0 B | |
| 0 N/A 110821 | | | UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: | | SCALE NTS SALES No | |
| REV | ECN No | DATE | SHEET 1 OF 1 | | FILENAME [JH0014-04.DWG] | |

INDICATOR LIGHTS (LEDs):

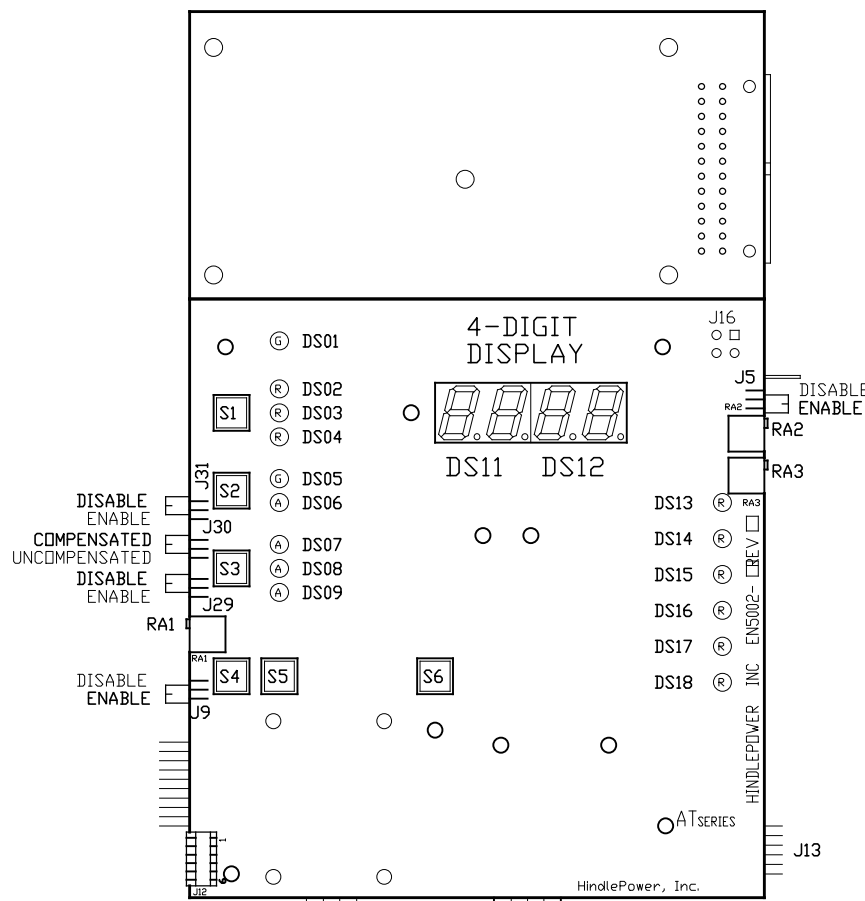
- | | |
|-------------------------------------|----------------------------------|
| DS01 - GREEN - AC ON | DS10 - RED - LOW LEVEL DETECT |
| DS02 - RED - DC VOLTS | DS11 - RED - (METER DISPLAY) |
| DS03 - RED - DC AMPERES | DS12 - RED - (METER DISPLAY) |
| DS04 - RED - EQUALIZE HRS REMAINING | DS13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



CONTROL PANEL
(PART No. FK0151-01)

NOTE: UNLESS OTHERWISE SPECIFIED, ALL ALARM 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.

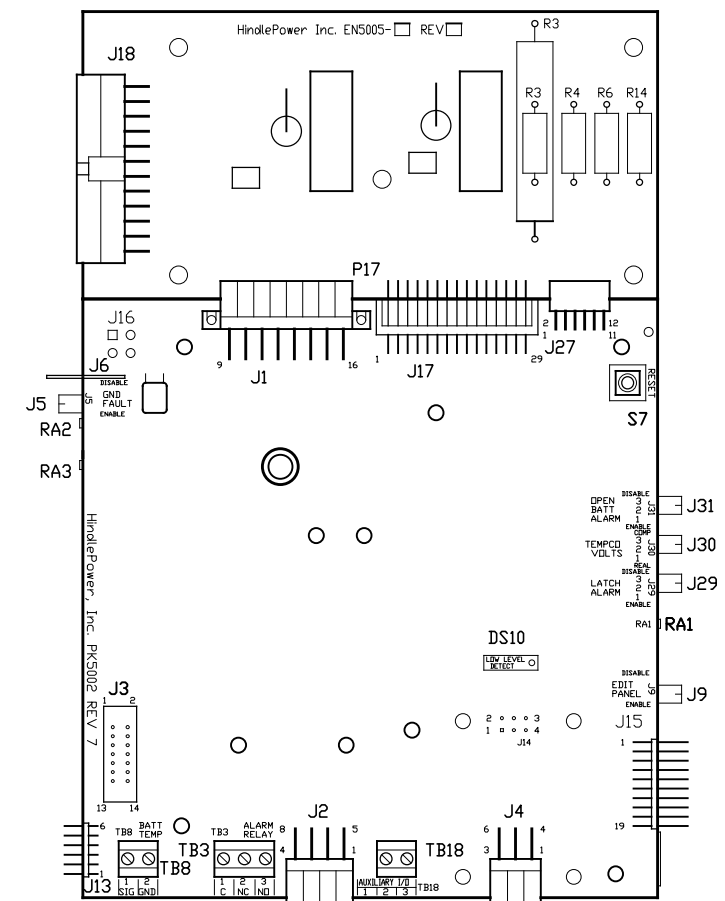
HIGH-OUTPUT GATE DRIVER PC BOARD (A11)



MAIN CONTROL PC BOARD (A1)

FRONT VIEW - FACING CHARGER DOOR WHEN INSTALLED

HIGH-OUTPUT GATE DRIVER PC BOARD (A11)



MAIN CONTROL PC BOARD (A1)

BACK VIEW - FACING CHARGER COMPONENTS WHEN INSTALLED

USER JUMPERS:

- J1 - MAINFRAME SIGNAL HARNESS (NOT USED IN 30-100A)
- 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 - HD GATE DRIVER PC BOARD (A11) INTERCONNECTOR
- J18 - MAINFRAME SIGNAL HARNESS (30-100A OUTPUT)
- J27 - not used (3PH GATE DRIVER INTERCONNECTOR)
- J29 - LATCHING ALARMS ENABLE/DISABLE SELECTOR
- J30 - TEMPCD VOLTAGES (COMPENSATED/UNCOMP) SELECTOR
- J31 - BATTERY OPEN ALARM ENABLE/DISABLE SELECTOR

SWITCHES:

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

TERMINAL BLOCKS:

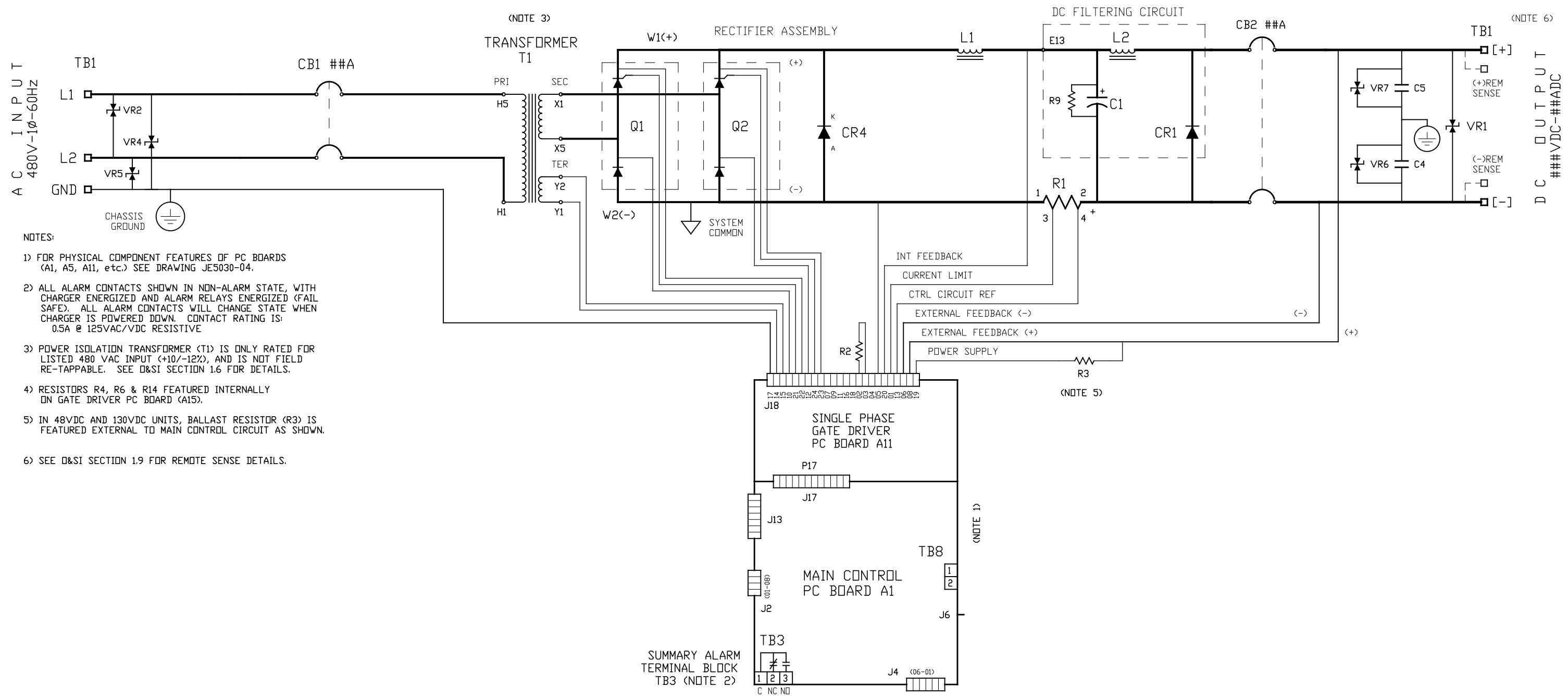
- TB3 - SUMMARY ALARM RELAY CONTACTS
- TB8 - OPT TEMPCD PROBE (A10) CONN
- TB18 - REM SHUTDOWN INTERFACE

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

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

40-100ADC W/O 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 110821 | | TITLE AT10.1 SERIES BATTERY CHARGER CONTROL PANEL / PC BOARD DETAIL | |
| | | | ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG | | DRAWING No JE5030-04 REV 0 B | |
| 0 | N/A | 110821 | UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: | | SCALE NTS SALES No SHEET 1 OF 1 | |
| REV | ECN No | DATE | | | | |



- NOTES:
- 1) FOR PHYSICAL COMPONENT FEATURES OF PC BOARDS (A1, A5, A11, etc.) SEE DRAWING JE5030-04.
 - 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) POWER ISOLATION TRANSFORMER (T1) IS ONLY RATED FOR LISTED 480 VAC INPUT (+10/-12%), AND IS NOT FIELD RE-TAPPABLE. SEE D&SI SECTION 1.6 FOR DETAILS.
 - 4) RESISTORS R4, R6 & R14 FEATURED INTERNALLY ON GATE DRIVER PC BOARD (A15).
 - 5) IN 48VDC AND 130VDC UNITS, BALLAST RESISTOR (R3) IS FEATURED EXTERNAL TO MAIN CONTROL CIRCUIT AS SHOWN.
 - 6) SEE D&SI SECTION 1.9 FOR REMOTE SENSE DETAILS.

STANDARD AT10.1 COMPONENTS:

| | | |
|-----|--|----------|
| A1 | MAIN CONTROL PC BOARD | (NOTE 1) |
| A11 | SINGLE PHASE 100A GATE DRIVER PCB | (NOTE 1) |
| C4 | DC OUTPUT EMI FILTER CAPACITOR (-) TO GROUND | |
| C5 | DC OUTPUT EMI FILTER CAPACITOR (+) TO GROUND | |
| CB1 | AC INPUT CIRCUIT BREAKER | |
| CB2 | DC OUTPUT CIRCUIT BREAKER | |
| CR4 | FREE-WHEELING DIODE | |
| L1 | MAIN INDUCTOR | |
| Q1 | SILICON-CONTROLLED RECTIFIER (SCR) MODULE | |
| Q2 | SILICON-CONTROLLED RECTIFIER (SCR) MODULE | |

STANDARD AT10.1 COMPONENTS:

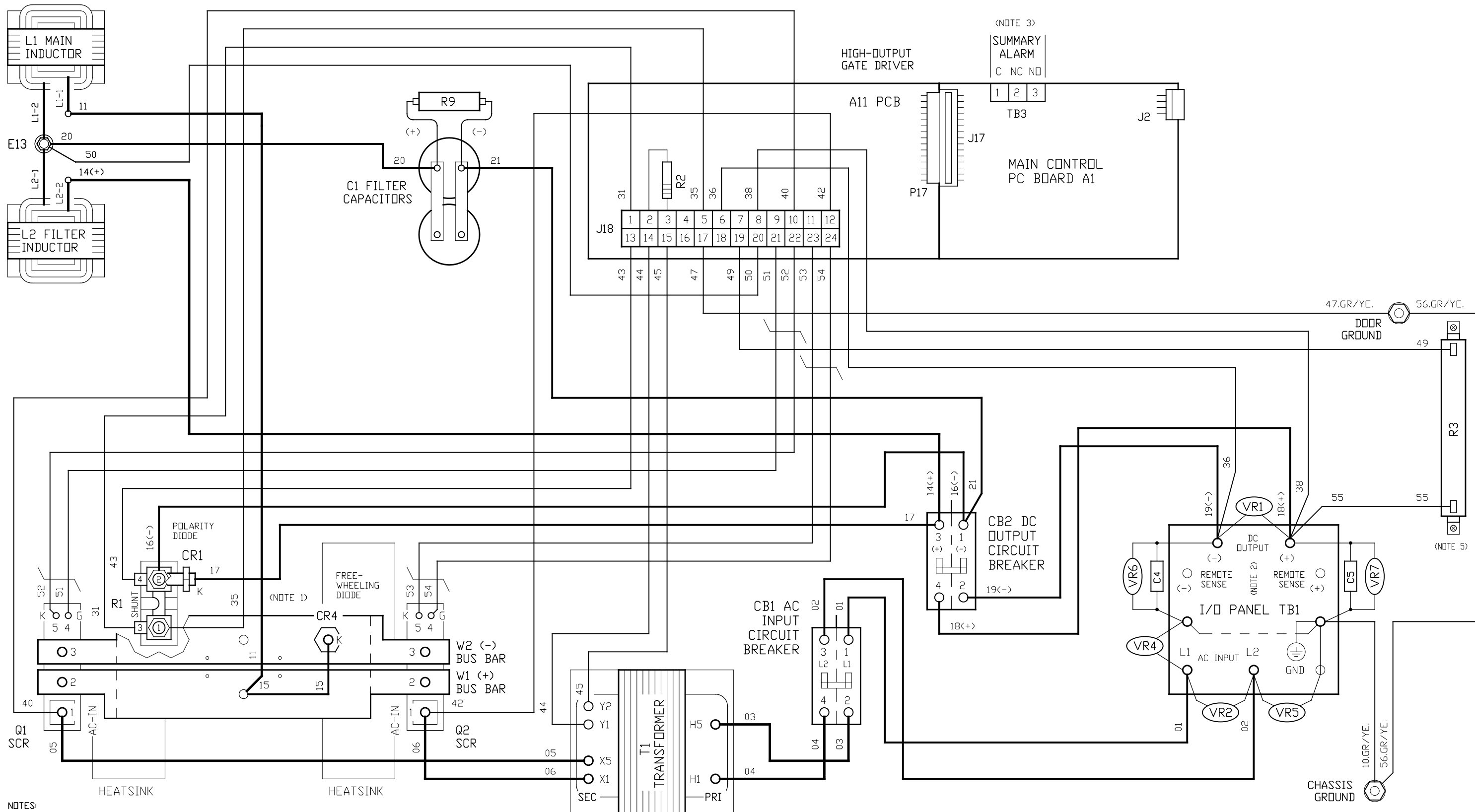
| | | |
|-----|--|----------|
| R1 | MAIN DC SHUNT, NEG(-) BUS | |
| R2 | CURRENT RATING RESISTOR | |
| R3 | POWER SUPPLY BALLAST RESISTOR | (NOTE 5) |
| R4 | EXTERNAL SCALING RESISTOR (+) | (NOTE 4) |
| R6 | INTERNAL SCALING RESISTOR | (NOTE 4) |
| R14 | EXTERNAL SCALING RESISTOR (-) | (NOTE 4) |
| T1 | POWER ISOLATION TRANSFORMER (+10/-12%) | |
| TB1 | INPUT/OUTPUT TERMINAL BLOCK | |
| TB3 | SUMMARY ALARM TERMINAL BLOCK | (NOTE 2) |
| TB8 | OPTIONAL TEMPCO PROBE (A10) INTERCONNECTOR | |
| VR1 | DC OUTPUT SURGE SUPPRESSOR (-) TO (+) | |
| VR2 | AC INPUT SURGE SUPPRESSOR (L1-L2) | |
| VR4 | AC INPUT SURGE SUPPRESSOR (L1-GND) | |
| VR5 | AC INPUT SURGE SUPPRESSOR (L2-GND) | |
| VR6 | DC OUTPUT SURGE SUPPRESSOR (-) TO GROUND | |
| VR7 | DC OUTPUT SURGE SUPPRESSOR (+) TO GROUND | |
| W1 | POSITIVE(+) DC BUS BAR | |
| W2 | NEGATIVE(-) DC BUS BAR | |

SUPPLIED AT10.1 OPTION COMPONENTS:

DC FILTERING ASSEMBLY:

| | |
|-----|--------------------------------|
| C1 | DC OUTPUT FILTERING CAPACITOR |
| CR1 | POLARITY DIODE |
| E13 | INDUCTOR INTERCONNECTION POINT |
| L2 | FILTERING INDUCTOR |
| R9 | FILTER CIRCUIT BLEED RESISTOR |

| | | | | | | | | |
|---|--------|--------|------------------------|--|---|--|---|--|
| | | | THIRD ANGLE PROJECTION | | HINDLEPOWER | | 1075 Saint John Street Easton, PA 18042-6661 PH 610-330-9000 FAX 610-330-8510 www.hindlepowerinc.com | |
| DRAWN BY KMW | | | 110821 | | TITLE BATTERY CHARGER SCHEMATIC: 40-100ADC W/O OPTIONS | | | |
| ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG | | | | | DRAWING No JE5032-04 | | REV 0 B | |
| UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: | | | | | SCALE NTS | | SALES No | |
| 0 | N/A | 110821 | | | SHEET 1 OF 1 | | | |
| REV | ECN No | DATE | | | | | | |



- NOTES:
- 1) CHARGER COMPONENTS ARE CONNECTED WITH BLACK FLAME-RETARDANT SWITCHBOARD INSULATION SYSTEM (SIS) TYPE WIRING, IDENTIFIED ON EACH END WITH NUMBER-CODED MARKERS. GROUND WIRES #10, #47 & #56 ARE GREEN WITH YELLOW STRIPE. DIODES (CR1 & CR4) ARE ANODE-MOUNTED TYPE, WIRE TO CATHODE.
 - 2) WHEN REMOTE SENSE IS USED, WIRE# 36 CONNECTS A11-J18-06 TO REMOTE SENSE(-), AND WIRE# 38 CONNECTS A11-J18-08 TO REMOTE SENSE(+).
 - 3) STANDARD USER ALARM CONTACTS (TB3, TB4, etc.) ARE SOLDERLESS COMPRESSION SCREW TERMINALS, ACCEPTING #22-14 AWG WIRE.
 - 4) (not used - reserved)
 - 5) IN 130 VDC UNITS, BALLAST RESISTOR (R3) IS SUPPLIED EXTERNALLY AS SHOWN.

- FEATURED OPTIONS:
- STANDARD DC OUTPUT FILTERING
 - AC INPUT CIRCUIT BREAKER
 - DC OUTPUT CIRCUIT BREAKER

| | | | | | | |
|----------|------------|---------------|---|---------------|---|----------------------------|
| | | | 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 | 110821 | TITLE BATTERY CHARGER CONNECTION DIAGRAM: 40-100ADC W/O OPTIONS | |
| | | | ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG | | DRAWING No JE5034-04 | |
| | | | UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: | | REV 0 | B |
| 0 | N/A | 110821 | | | SCALE NTS | SHEET 1 OF 1 |
| REV | ECN No | DATE | SALES No | | FILENAME [JH0014-04.DWG] | |