EAGLE EYE
POWER SOLUTIONS

NERC COMPLIANT
TPL-001-5

MADE IN
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Doghouse – High Efficiency Modular Stationary Charger

Doghouse Conceptual Drawing

Common Applications
- Doghouse
- Retail Station
- Stationary
- Substation Utility
- Switchgear
- Process Control
- Industrial Applications

CAD Drawing

DOGHOUSE *When Size Matters*

Product Description

The **Doghouse** is a stationary float Battery Charger based on a high efficiency modular, redundant platform design. It utilizes high availability with uptime architecture. Available in 480W or 400W with hot-swappable Intelligent Power Modules (iPMs) which are available at the following ratings:

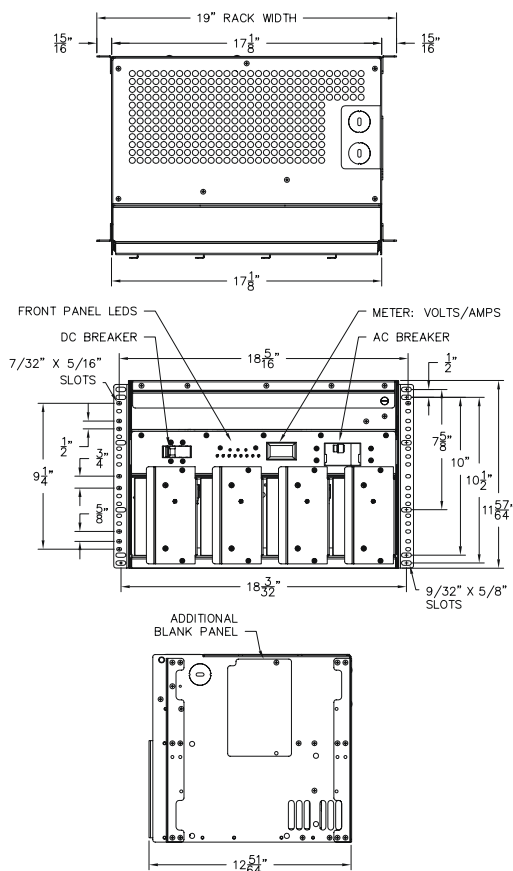- 24V, 10 – 40 Amps
- 48V, 10 – 40 Amps
- 130V, 4 – 16 Amps

Multiple iPMs in a single chassis provide redundancy (N+1, N+2, etc.) and will continue to operate independently if the user interface module (UIM) fails. This ensures maximum reliability for critical uptime applications. Our chargers are compatible with a range of battery types including VLA, VRLA, Ni-Cd with user defined alarms to suit each battery type.

Product Features
- Low DC output ripple - battery eliminator option standard
- AC/DC powered UIM for continued operation without AC
- Heavy-duty steel chassis with high quality conformal coated circuit boards for moisture protection
- Convection cooled with wide -40 – 70°C (-40 – 158°F) operating range and no fan failure points
- High energy efficiency of > 93% at 240 VAC and > 91% at 120 VAC and full load
- Battery temperature compensation with controlled limits
- Alarms can be individually enabled/disabled, assigned a delay
- SNMP alarming and NTP date/time sync via Ethernet
- Digital Amp/Volt meter standard
- Meets IEEE std 2405-2022

iPM (Intelligent Power Module)
- Modular & convection cooled
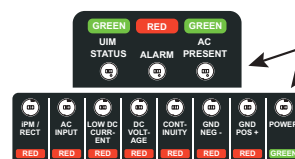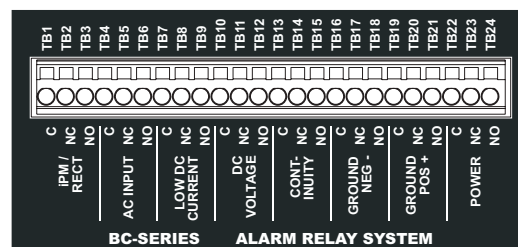- Multiple iPMs in a single charger offer redundancy
- Hot swappable

Web-Based Software
- Internal web server uses a modern, responsive framework for attractive display on smart phones and tablets
- Ethernet communication standard for field or remote monitoring
- Access on any desktop PC or laptop via web browser
- View all measured parameters in real-time
- Log up to 10,000 history records, downloadable to a CSV file

AC Input	
Voltage range, rated	100 – 240 VAC
Voltage range, operating	90 – 264 VAC; < 100 VAC: reduced power
Frequency, rated	50 – 200 Hz
Frequency, operating	45 – 205 Hz
Phase	Single-phase
Efficiency	> 91%, 120 VAC, full load; > 93%, 240 VAC, full load;
Power Factor	> 0.98, 120 VAC, full load; > 0.96, 240 VAC, full load
Protection	Current limit, surge, transient inrush, under voltage, over voltage

DC Output	
Voltage range	
24 VDC	10 – 40 VDC
48 VDC	30 – 61 VDC
130 VDC	75 – 150 VDC
Power, maximum, per iPM	
24 VDC	400 W
48 VDC	480 W
130 VDC	480 W
Current, maximum, per iPM	
24 VDC	10 A
48 VDC	10 A
130 VDC	4 A
Current, rated, per iPM	
24 VDC	10 A
48 VDC	8.1 A
130 VDC	3.3 A
Protection	Current limit, short circuit, reverse polarity, surge, transient (lightning)

Environmental	
24 VDC	-40 – 70°C (-40 – 158°F)
48 VDC, 130 VDC	-40 – 70°C (-40 – 158°F) > 50°C: reduced power mode
Storage Temperature	-55 – 85°C (-67 – 185°F)
Humidity Range	0 – 95%, non-condensing

Operations	
TPL Compliance Charging Operations	Automated/Manual Continuity Test
Load Testing	Manual Load Testing

Certifications	
UL/CSA/CEC certified Meets IEEE std 2405-2022	

User Interface	
Communication	Ethernet; 10/100BASE-TX; auto crossover, auto MDI-X; RJ45 connector; support for TCP/IP, NTP, and SNMP Traps; internal web server; ability to be used for networked comm or direct comm (direct connection to a laptop)
DC voltage switches	2 switches for Number of Cells 3 switches for Volts per Cell
Button	Confirm Local Presense
Battery temp comp	Yes (sensor optional)
Remote voltage sensing	Yes (sensor optional)

LEDs	
UIM	4 single-color; AC Present, Alarm UIM Status, Confirm Local Presense
Front Panel	3 single-color; AC Present, Alarm & UIM Status
iPM	1 tri-color; DC Output, Fault

Alarming	
Alarms	Individual critical Dry Contact Alarms
Summary alarm relay	Form C, dry contact
Ethernet alarming	SNMP Traps
Logging	Up to 10,000 events (alarms, faults, AC on/off)

Mechanical	
Cooling	Natural convection (no fans)
Protection	Conformal coated circuit boards
AC/DC terminals	Screw terminal block / Dead front
Mounting	Wall, shelf, floor, EIA 19-inch rack (front or rear)

Multiple Dry Contact Alarm Points, Standard.

Bright bi-color LED indicators for clear and easy status updates at a glance.

Ordering Information

Model No.	Description
BC-2500 Doghouse	Modular Float Battery Charger & Power Supply: 24, 48, or 130 VDC. **Includes Standard**: 10 ft temperature cable, 10 ft voltage sense cable, breakers, mounting assembly for 19. **Optional:** Ground fault detection, high interrupt, 30 / 10ft. cables, breakers