

BC-2500 Modular Float Battery Charger & Power Supply

Common Applications: Utility, switchgear, process control, & other industrial applications



BC-2500 4 & 8-Slot Chassis

Product Description

The **BC-2500** is a Float Battery Charger and Power Supply based on a 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:

- 24 VDC, 400 W, 10 A (Max), 10 A (Rated)
- 48 VDC, 480 W, 10 A (Max), 8.5 A (Rated)
- 130 VDC, 480 W, 4 A (Max), 3.5 A (Rated)

Multiple iPMs in a single chassis provide redundancy (N+1, N+2, etc.) and will continue to operate if the user interface module (UIM) fails. This ensures reliability for high availability/uptime applications. The BC-2500 features industrial construction and is available in 4 or 8-slot chassis options. The BC-2500 is compatible with vented lead-acid (VLA), valve regulated lead-acid, and nickel-cadmium (Ni-Cd) battery types.

Product Features

- Industrial switch mode (high frequency) technology
- AC/DC powered UIM for continued operation without AC
- Heavy-duty construction for ruggedness and reliability
- Natural convection cooled (no fans)
- Conformal coated circuit boards for moisture protection
- Optional ground fault detection with adjustable trigger level (130 and 48 VDC)
- High energy efficiency of > 93% at 240 VAC and > 91% at 120 VAC and full load
- Low DC output ripple - battery eliminator option standard
- Universal AC input: 100 – 240 VAC, 50 – 200 Hz
- Positive and negative ground fault alarms
- Battery temperature compensation with controlled limits
- Alarms can be individually enabled/disabled, assigned a delay, assigned a priority, and assigned to the Form C dry contact summary alarm relay
- AC input and DC output circuit breakers
- Ethernet for local access to logging data, and programming
- SNMP alarming and NTP date/time sync via Ethernet
- Full AC input and DC output protection
- UL 1012 and cUL/CSA equivalents (pending)
- CE certified (pending)
- Digital amp/volt meter included standard on all units
- Factory set, custom charger profiles available for large volume opportunities

iPM (Intelligent Power Module)

- Modular component of the BC-2500
- Multiple iPMs in a single charger offer redundancy
- Hot swappable



Name	Alarm	Trigger Level	Delay(m)	Priority	Manual Clearing	Relay	Action
AC Input Power Lost	Enabled	---	0	Major	Disabled	K1	🔗
AC Input Voltage High	Enabled	265 V	0	Major	Disabled	K1	🔗
Battery Voltage Low	Enabled	1.75 V/cell	0	Major	Disabled	K1	🔗
Battery Voltage High	Enabled	3.00 V/cell	0	Major	Disabled	K1	🔗
Battery Temperature Low	Enabled	32 °F	0	Major	Disabled	K1	🔗
Battery Temperature High	Enabled	140 °F	0	Major	Disabled	K1	🔗
Min DC Output Current	Enabled	0.20 A	1	Major	Disabled	K1	🔗
iPM Fault	Enabled	---	0	Major	Disabled	K1	🔗
iPM Communication Lost	Enabled	---	0	Major	Disabled	K1	🔗
iPM Incorrect DC Voltage	Enabled	---	0	Major	Disabled	K1	🔗
UIM Fault	Enabled	---	0	Major	Disabled	K1	🔗
Battery Temp Sensor Fault	Enabled	---	0	Major	Disabled	K1	🔗
Remote DC Voltage Sensing Fault	Enabled	---	0	Major	Disabled	K1	🔗

View in Browser or Mobile Device

Web-Based Software

- Internal web server uses a modern, responsive framework for attractive display on smart phones and tablets
- 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
- Ethernet communication standard for field or remote monitoring



To Order Call Toll Free:
1-877-805-3377

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, 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

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

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 presence
Battery temp comp	Yes (sensor optional)
Remote voltage sensing	Yes (sensor optional)
LEDs	
UIM	4 single-color; AC Present, Alarm/ UIM Status, Confirm Local Presence
Front Panel	3 single-color; AC Present, Alarm & UIM Status
iPM	1 tri-color; DC Output, Fault

Alarming	
Alarms	Individually enabled/disabled assigned a delay, assigned a priority, assigned to the summary alarm relay
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
Dimensions (WxHxD)	Including standard brackets
4-slot chassis	18.93 x 17.71 x 12.79 in.
8-slot chassis	18.93 x 30.5 x 14.31 in.
4-slot chassis weight	65 lbs. (30 kg)
8-slot chassis weight	125 lbs. (57 kg)
Mounting	Wall, shelf, floor, EIA 19-inch and 23-inch rack (front or rear)

Certifications (Pending)	
UL 1012 and cUL/CSA equivalent; NEMA PE5; FCC Part 15, Class A; CEC Appliance Efficiency Regulations, Title 20; EN emissions, immunity, safety; CE certified	

Ordering Information

No.	Model #	Description
1	BC-2500	Modular Float Battery Charger & Power Supply: 24, 48, or 130 VDC. Includes Standard: 30 ft remote temp. sense cable, 30 ft remote voltage sense cable, high interrupt breakers, mounting rack.