



# BC-2200 Modular Float Battery Charger and Power Supply

Generators

Switchgear

Process Control

Locomotive

Other Industrial



BC-2200 2-Bay Chassis

## Product Description

The BC-2200 is a Float Battery Charger and Power Supply based on a modular, redundant platform design. It utilizes convection switchmode technology available at the following ratings:

12V with ranges 1 – 20 VDC, 0-80 ADC  
24V with ranges 10 – 40 VDC, 0-40 ADC

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-2000 features industrial construction and is available in 2, 4-slot chassis options. The BC-2200 is compatible with vented lead-acid (VLA), valve regulated lead-acid, and nickel-cadmium (Ni-Cd) battery types.

## 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 data/time sync via Ethernet
- Optional digital amp/volt meter available on 4-bay units



## 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

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	

## iPM (Intelligent Power Module)

- Modular component of the BC-2200
- Multiple iPMs in a single charger offer redundancy
- Hot swappable

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

Alarming	
<b>Alarms</b>	Individually enabled/disabled assigned a delay, assigned a priority, assigned to the summary alarm relay
<b>Summary alarm relay</b>	Form C, dry contact
<b>Ethernet alarming</b>	SNMP Traps
<b>Logging</b>	Up to 10,000 events (alarms, faults, AC on/off)
Mechanical	
<b>Cooling</b>	Natural convection (no fans)
<b>Protection</b>	Conformal coated circuit boards
<b>AC/DC terminals</b>	Terminal posts
<b>Dimensions (WxHxD)</b>	Including standard brackets
<b>2-slot chassis</b>	10-1/4 x 10-5/16 x 11-13/16 in
<b>4-slot chassis</b>	18-15/16 x 10-5/16 x 11-13/16 in
<b>Mounting</b>	Wall, shelf, floor, EIA 19-inch and 23-inch rack (front or rear)

Environmental	
<b>Operating temperature</b>	-40 – 70°C (-40 – 158°F)
<b>Storage temperature</b>	-55 – 85°C (-67 – 185°F)
<b>Humidity range</b>	0 – 95%, non-condensing

DC Output	
Voltage range	
<b>12VDC</b>	1 – 20VDC
<b>24VDC</b>	10 – 40VDC
Power, maximum, per iPM	
<b>12VDC</b>	400W
<b>24VDC</b>	400W
Current, maximum, per iPM	
<b>12VDC</b>	20A
<b>24VDC</b>	10A
Current, rated, per iPM	
<b>12VDC</b>	20A
<b>24VDC</b>	10A
<b>Protection</b>	Current limit, short circuit, reverse polarity, surge, transient

User Interface	
<b>Communication</b>	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)
<b>DC voltage switches</b>	2 switches for Number of Cells 3 switches for Volts per Cell
<b>Button</b>	Confirm Local Presense
<b>Battery temp comp</b>	Yes (sensor optional)
<b>Remote voltage sensing</b>	Yes (sensor optional)
LEDs	
<b>UIM</b>	4 single-color; AC Present, Alarm UIM Status, Confirm Local Presense
<b>iPM</b>	1 tri-color; DC Output, Fault

## Certifications

UL 1012 and cUL/CSA equivalents (pending)  
CE certified (pending)

## Ordering Information

Model No.	Description
BC-2200	Modular Float Battery Charger & Power Supply: 12 or 24VDC <b>Includes Standard:</b> 30 ft temperature cable, 30 ft voltage sense cable and mounting assembly for 19 or 23 inch racks.