



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

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	Terminal posts
Dimensions (WxHxD)	Including standard brackets
2-slot chassis	10-1/4 x 10-5/16 x 11-13/16 in
4-slot chassis	18-15/16 x 10-5/16 x 11-13/16 in
Mounting	Wall, shelf, floor, EIA 19-inch and 23-inch rack (front or rear)

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

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

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
iPM	1 tri-color; DC Output, Fault

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

Ordering Information

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