

# BCA1000R Series AC Battery Charger



A product of:



## Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation
- Fast & Accurate Charging

## Applications

- Telecom Power Plants
- Marine & other rugged environments
- Electric Utilities and Substations
- Base Station Power (Radio & Telecommunications)
- OEM Applications
- Field Work / Construction Sites
- Solar Power Systems
- Emergency Power Backup (UPS)
- Security Systems
- Charge any 12, 24 or 48 Volt Battery System

# Battery Chargers

## BCA1000R Series

### Description

The BCA1000R Rackmount Battery Charger (Rectifier)'s current mode switching design offers increased power and reliability in a compact package. The low ripple charging profile and standard equalize cycle greatly increases the lifetime of expensive battery systems.

Extra input and output filtering reduce EMI to extremely low levels.

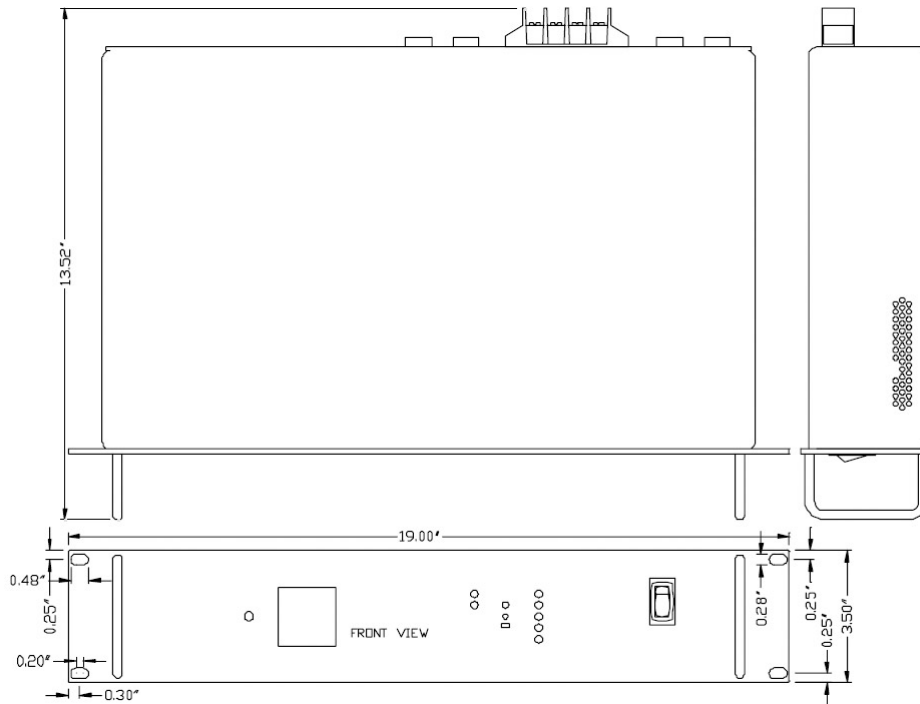
Reliability features include an input fuse, thermal shutdown, current limiting, reverse battery hookup protection and output short circuit shutdown with automatic recovery. The output voltage is easily adjusted 0.5 volts above or below the standard output voltage.

The model BCA1000R Battery Charger supplies either 12, 24, or 48 VDC from a 110 or 230 VAC power source (Field Convertible). A high quality Digital Volt/Ammeter allows the monitoring of charging current and charging voltage.

### Features

- Adjustable output voltage for charging standard or deep cycle lead-acid, VRLA or Gel cell type battery
- Extremely rugged and well suited for marine and other demanding environments
- Temperature compensated charging
- High tolerance for shock and vibration
- Ultra-quiet low EMI operation
- Can be left permanently connected
- Can function as a power supply
- User selectable 2 or 3 stage charging profile
- Charge 1 or 2 banks
- Equalize Function
- Audible & visual indicators for output overload, low input voltage, low output voltage & over-temperature
- Over-temperature shutdown
- Short circuit protection
- Output over-voltage crowbar
- Inrush Current Limiting with solid state bypass
- Dry contact output fail relay
- Thermostatically controlled fan
- 3 year parts and labour warranty

## Mechanical Diagram



## Specifications (Specifications Subject to Change Without Notice)

### Electrical (Input)

Nominal Vac (ip)	110	230
Actual (Vac)	105-125	210-250
Input Amps (max)	13.8	6.9
Input Fuse (MDA)	20A	10A
Input Frequency	45-65 Hz	
Noise on Input	< 50 mV	

### Environmental Specifications

Operating Temp. Range	-25° to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C extra wide-temp. operation avail.)
Humidity	0 - 95% Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE Ødb @ 3 ft
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Input-Case & Input-Output 1500VDC Output-Case 500VDC

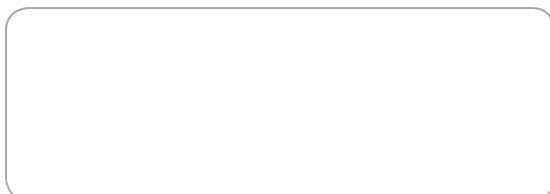
### Electrical (Output)

Output Nominal (op)	12	24	48
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05	54.4 ± 0.05
Absorption Voltage (Vdc)	14.4	28.8	57.6
Charging Amps	60	40	20
Absorption to Float	6 Amps	4 Amps	2 Amps
Output Adjustment (Vdc)	± 0.5V		
Output Fuses (ATC)	40 x 2	40 x 2	30 x 2
Battery Banks	1 or 2 (3 Bank Option Available)		
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	63.9 ± 2.0V
Transient Response	< 2V for a 50% Surge		
Battery Size (Amp Hrs.)	240 – 360	160 – 240	80 – 120
Output Ripple & Noise	< 50 mV		
Regulation (Line & Load)	< +/- 0.5%		
Temperature Comp.	-30 mV/°C	-60 mV/°C	-120 mV/°C
Duty Cycle	Continuous 100% for 24 hours per day		
Efficiency	> 75% @ Maximum Output		
Stages	2 or 3 (user selectable)		

### Mechanical Specifications

Length	13.5 in / 34.3 cm
Width	19"
Height	2U (3.5 in)
Clearance	1 inch (2.5 cm) all around
Material	Marine Grade Aluminium
Finish	Black Anodize / Powder Epoxy Coat
Fastenings	All 18-8 Stainless Steel
Weight	12.0 lb / 5.5 kg
Connections	Four contact output terminal
Warranty	3 years
Safety	cETLus to UL1012 & CSA22.2 Pending

Available from:



**RIPEnergy**<sup>®</sup>

The power conversion company

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