

BCA310 Series AC Battery Charger



A product of:



Benefits

- Ultra-Quiet
- Convection cooled, no noisy fan
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation
- Fast & Accurate Charging

Applications

- Marine & other Rugged Environments
- Automotive / RV
- 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, 32, or 48 Volt Battery System

Battery Chargers

BCA310 Series

Description

The BCA310 Battery Charger provides up to 300 watts to charge a 12, 24, 32, or 48-volt battery system (up to 3 battery banks) from a 110 or 230VAC source. The batteries must share a common ground.

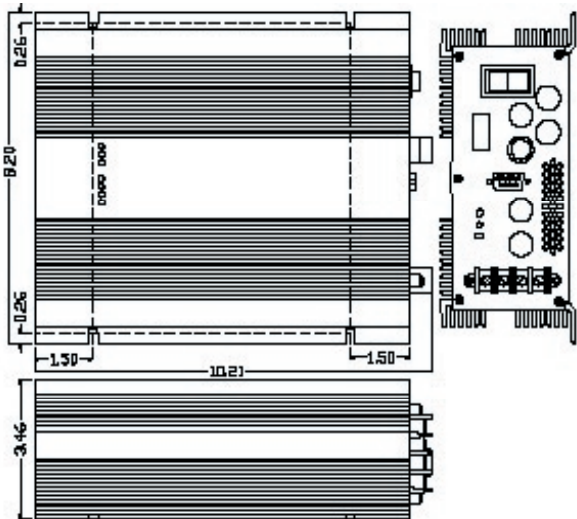
This all-new single board design incorporates state of the art switchmode technology for unmatched efficiency and ultra-quiet operation. Multiple stages of filtering reduce radiated or conducted noise to very low levels. Extra features include adjustable output voltage, audible and visual indicators for low input voltage, low output voltage, over temperature and an equalize charging cycle. Safety features include both charger and battery over-temperature shutdown, current limiting, short circuit protection with automatic recovery, input undervoltage shutdown, reverse battery hook-up protection, a dry contact alarm relay output and output overvoltage crowbar.

Optional features include a Digital Volt/Ammeter, a Remote Control Panel, and/or a second Battery Temperature Sensor. We are confident that you will get many years of reliable service from this AC Battery Charger.

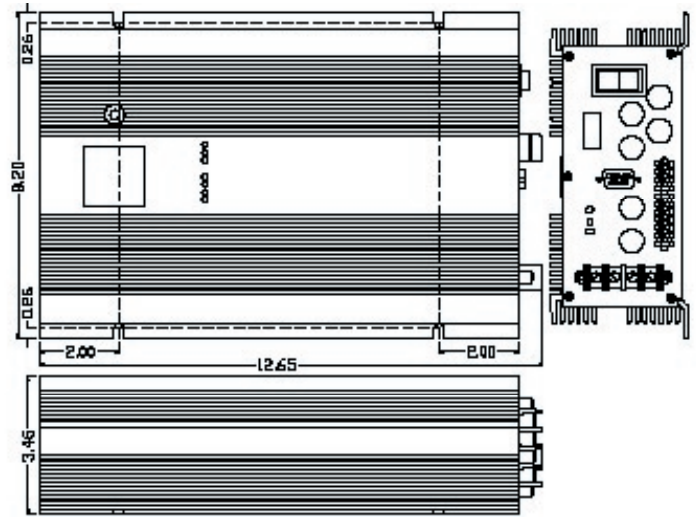
Features

- 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
- 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
- Audible & visual indicators for output overload, low input voltage, low output voltage & over-temperature
- Over-temperature shutdown
- Temperature compensated charging
- Short circuit protection
- Output over-voltage crowbar
- Inrush Current Limiting with solid state bypass
- Dry contact output fail relay
- 3 year parts and labour warranty

Mechanical Diagram



Shown without Digital Meter



Shown with Digital Meter

Specifications (Specifications Subject to Change Without Notice)

Electrical (Input)

Nominal (ip)	110	230
Actual (Vac)	105-125	210-250
Input Amps (max)	3.5	1.8
Input Fuse (MDA)	5A	3A
Input Frequency	45-65 Hz	
Noise on Input	< 25 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

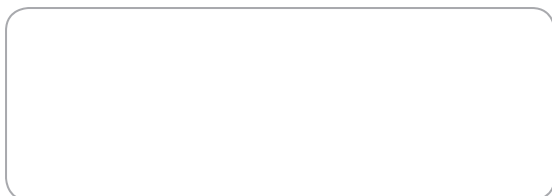
Electrical (Output)

Output Nominal (op)	12	24	32	48
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05	36.3 ± 0.05	54.4 ± 0.05
Absorption Voltage (Vdc)	14.4	28.8	38.4	57.6
Charging Amps	20	10	7.5	5
Absorption to Float (15%)	3.0 Amps	1.5 Amps	1.1 Amps	0.8 Amps
Output Adjustment (Vdc)	± 0.5V			
Output Fuses (ATC)	25 x 2	15 x 2	10 x 2	10 x 2
Battery Banks	up to 3			
Battery Size (Amp Hrs.)	80-120	40-60	30-45	20-30
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	42.7 ± 1.3V	63.9 ± 2.0V
Output Ripple & Noise	< 25 mV			
Regulation (Line & Load)	< +/- 0.5%			
Temperature Comp.	-30 mV/°C	-60 mV/°C	-80 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	9.6 in / 24.4 cm
Width	8.2 in / 20.8 cm
Height	3.5 in / 6.4 cm
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	7.5 lb / 3.4 kg
Connections	Four contact output terminals
Warranty	3 years
Safety	Approval to cETLus Standards Pending

Available from:



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The power conversion company

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