

PRODUCT OVERVIEW



BCA310 AC SOURCE BATTERY CHARGER

The BCA310 provides up to 300 watts of precision charging power to up to 3 connected battery banks at 12, 24, 32, 36, 48 or 72(rail) VDC. These models are available to operate from 110 or 220 VAC at 40-405 Hz.

Internally, the newly updated single-board design incorporates time-tested switch-mode technology for unmatched efficiency and ultra-quiet operation. Extra input and output filtering reduce EMI to extremely low levels to prevent interference with sensitive communications equipment.

The unit can be easily configured for charging standard lead-acid, deep cycle lead-acid, VRLA, or Gel cell type batteries through use of the output voltage adjust. User-selectable two-stage or three-stage charging profiles and temperature compensation also allow optimum charging of all battery types.

All models feature user-selectable 2-stage or 3-stage charging profiles, temperature compensation and user-initiated equalization for optimum charging and maximum battery life. Reliability features include an input fuse, thermal shutdown, current limiting, reverse battery hookup protection, and output short circuit shutdown with automatic recovery.

Available models

Input

110 VAC

220 VAC

Output

12V

24V

32V

48V

72V (rail)

Applications



INPUT

Nominal Voltage	110 VAC	220 VAC
Actual Voltage	90-133 VAC	180-265 VAC
Amps (max)	5.0 A	2.5 A
Input Fuse (MDA)	7 Amp	4 Amp
Frequency	45-65 Hz	
Noise on Input	< 100 mV	

OUTPUT

Nominal Voltage	12 VDC	24 VDC	32 VDC	48 VDC	72 (rail) VDC
Float Voltage (VDC)	13.6 ± 0.05	27.2 ± 0.05	36.3 ± 0.05	54.4 ± 0.05	72.6 ± 0.05
Absorption Voltage	14.4 VDC	28.8 VDC	38.4 VDC	57.6 VDC	76.8 VDC
Charging Amps	20 A	10 A	7.5 A	5 A	3.7 A
Absorption to Float (15%)	3.0 Amps	1.5 Amps	1.1 Amps	0.7 Amps	0.5 Amps
Output Adjustment	± 1.0 V	± 2.0 V	± 3.0 V	± 4.0 V	± 6.0 V
Output Fuses (AGC)	25 Amp x1	15 Amp x1	10 Amp x1	7 Amp x1	6 Amp x1
Battery Banks	1, 2 or 3 Banks				
Battery Size (Amp Hrs)	80 - 120	40 - 60	30 - 45	20 - 30	10 - 15
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	42.7 ± 1.3V	64.9 ± 2.0V	85.4 ± 4V
Temperature Comp.	-30 mV/°C	-60 mV/°C	-80 mV/°C	-120 mV/°C	-160 mV/°C
Output Ripple & Noise	< 100 mV				
Regulation (Line & Load)	< +/- 0.5%				
Duty Cycle	Continuous 100% for 24 hours per day				
Efficiency	> 75% @ Maximum Output				
Stages	2 or 3 (user selectable)				

MECHANICAL

Dimensions	9.6 in / 24.4 cm Long x 8.2 in / 20.8 cm Wide x 3.5 in / 8.8 cm High
Clearance	1.0 in / 2.5 cm all around
Weight	7 lb / 3.2 kg
Material and Finish	Marine Grade Black Anodized Aluminum
Mounting	Wall or Shelf Mount
Connections	Four contact output terminals

ENVIRONMENTAL AND SAFETY

Operating Temperature Range	-25°C to +40°C @ maximum output. Derate Linearly 2.5% per °C from 40°C (Optional -40°C wide temperature range available)
Humidity	0 - 95% Relative Humidity (non-condensing) with standard conformal coating
Audible Noise	NONE 0db @ 3ft
Typical Service Life	> 10 years (87,600 hrs)
Isolation	Input-Case, Input-Output and Output-Case 1500 VDC
Warranty	Five Years
Safety	Built to meet CSA 22.2.107.1 & UL458

Note: Specifications are subject to change without notice.

OPTIONS

COTS - MIL-STD-461F and MIL-STD-810G In-house test & report

MIL-STD-461F Stand alone test & report

MIL-STD-810G Stand alone test & report

European ROHS compliant (Lead Free Manufactured)

GMDSS - Digital Volt/Amp Meter & Remote control kit.

Military Rugged Package with MIL Connectors

Open frame (No chassis, just heat sink bars)

Portable (Carrying handle, rubber feet)

Safety Special Inspection (CSA/UL)

Integrated Digital Volt/Ammeter

IP66 or IP67 Water Resistant Chassis

Heavy duty ruggedization with wide temperature range

Custom input/output available