



300 watts of charging power

Low EMI

One, two or three bank charging

110 and 220 VAC inputs

Manual equalization mode

Adjustable float voltage

Temperature compensation



Two or three stage charging profiles

**3 YEAR WARRANTY**



## BCA 310 AC SOURCE BATTERY CHARGER

The traditional BCA310 series chargers feature 300 watts of precision charging power for 1, 2 or 3 banks of batteries at 12, 24, 32, 36, 48 or 72(rail) volts DC. Models are available to operate from 110 or 220 volts AC at 50, 60 or 400 Hz.

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.

### Certifications



### Available models

Input

110 VAC

220 VAC

Output

12V

24V

32V

48V

72V (rail)

### Applications



# BCA310 | AC SOURCE BATTERY CHARGER

## INPUT

|                     |          |         |
|---------------------|----------|---------|
| Input Volts Nominal | 110 VAC  | 220 VAC |
| Input Volts Actual  | 90-130   | 180-260 |
| Input Amps (max)    | 5.0      | 2.5     |
| Input Fuse (MDA)    | 7A       | 4A      |
| Input Frequency     | 45-65 Hz |         |
| Noise on Input      | < 100 mV |         |

## OUTPUT

|                           |                                      |             |             |             |             |
|---------------------------|--------------------------------------|-------------|-------------|-------------|-------------|
| Output Volts Nominal      | 12                                   | 24          | 32          | 48          | 72 (rail)   |
| Output Volts Actual (DC)  | 13.6 ± 0.05                          | 27.2 ± 0.05 | 36.3 ± 0.05 | 54.4 ± 0.05 | 72.6 ± 0.05 |
| Absorption Voltage (Vdc)  | 14.4                                 | 28.8        | 38.4        | 57.6        | 76.8        |
| Charging Amps             | 20                                   | 10          | 7.5         | 5           | 3.7         |
| 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   |
| Output Ripple & Noise     | < 100 mV                             |             |             |             |             |
| Regulation (Line & Load)  | < +/- 0.5%                           |             |             |             |             |
| Temperature Comp.         | -30 mV/°C                            | -60 mV/°C   | -80 mV/°C   | -120 mV/°C  | -160 mV/°C  |
| 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                    | Three Years Parts and Labor  |
| Safety                      | Built to meet CSA 22.2.107.1 & UL458   |

## 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



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