

#### **PRODUCT OVERVIEW**



The BCA1000 provides up to 1000 watts of precision charging power to up to two banks of batteries at 12, 24, 32, 36, 48 or 72(rail) volts DC from a 110 or 220 volts AC power source. The output voltage is easily adjusted 1.0 volts above or below the standard output voltage for standard or deep cycle lead-acid, VRLA or Gel cell type battery.

All models feature user selectable 2-stage or 3-stage charging profiles and temperature compensation for optimum charging. Additionally, user-initiated equalization and voltage temperature compensation greatly increases the lifetime of expensive battery systems.

Extra input and output filtering reduce EMI to extremely low levels and operation is monitored by a bright status indicator LED panel. 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

110V 220

Output

12V | 24V | 32V | 48V | 72V (rail)

# **Applications**















# **BCA1000 BATTERY CHARGER**

#### **INPUT**

Input Volts Nominal	110	220
Input Volts Actual	90-130	180-260
Input Amps (max)	13.2(12V)   17(24/32/48V)	6.6(12V)   8.5(24/32/48V)
Input Fuse (MDA)	20A(12V)   25A (24/32/48V)	10A(12V)   15A(24/32/48V)
Input Frequency	45-65 Hz	
Noise on Input	< 50 mV	

#### **OUTPUT**

Output Volts Nominal 12 24 32   Output Volts Actual (DC) 13.6 ± 0.05 27.2 ± 0.05 36.3	48 72(rail)		
Output Volts Actual (DC) $13.6 \pm 0.05$ $27.2 \pm 0.05$ $36.3$			
	$\pm 0.05$ 54.4 $\pm 0.05$ 72.6 $\pm 0.05$		
Absorption Voltage (Vdc) 14.4 28.8 38.4	57.6 76.8		
Charging Amps 60 40 30	20 15		
Absorption to Float (15%) 9.0 Amps 6.0 Amps 4.5 A	Amps 3.0 Amps 2.2 Amps		
Output Adjustment $\pm 1.0 \text{ V}$ $\pm 2.0 \text{ V}$ $\pm 3.0$	) V ± 4.0 V ± 6.0 V		
Output Fuses (ATC) 40 Amp x2 40 Amp x2 40 A	mp x2 25 Amp x2 15 Amp x2		
Battery Banks 1 or 2 (3 ban	ık option available)		
Battery Size (Amp Hrs) 240 - 360 160 - 240 120	- 180 80 - 120 60 - 90		
Output Crowbar $16.0 \pm 0.5 V$ $32.0 \pm 1.0 V$ 42.7	± 1.3V 63.9 ± 2.0V 85.4 ± 4.0V		
Output Ripple & Noise < 50 mV			
Regulation (Line & Load) < +/- 0.5%			
Temperature Comp30 mV/°C -60 mV/°C -80 m	mV/°C -120 mV/°C -160 mV/°C		
Duty Cycle Continuous 10	0% for 24 hours per day		
Efficiency > 75% @ Maxi	> 75% @ Maximum Output		
Stages 2 or 3 (user se	lectable)		

#### **MECHANICAL**

Dimensions	14.5 in / 36.8 cm Long x 9.9 in/ 25.1 cm Wide x 5.0 in / 12.7 cm High
Clearance	1.0 in / 2.5 cm all around
Weight	12 lb / 5.5 kg
Material and Finish	Marine Grade Black Anodized Aluminum with 18-8 Stainless Fasteners
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	Certified to CSA C22.2 No.107.1 and UL 1012

### **OPTIONS**

European ROHS compliant (Lead Free Manufactured)

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

Open frame (No chassis, just heat sink bars)

19" or 23" Rackmount Chassis c/w Digital Volt/Ammeter

3 Bank charging output

Safety Special Inspection (CSA/UL)

Integrated Digital Volt/Ammeter

Heavy duty ruggedization with wide temperature range

Custom input/output available

#### **DIMENSIONS**



