



## AC Battery Chargers

### BCA1505 Series Battery Charger

#### Benefits

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

#### Applications

- Commercial Marine
- Military and DHS
- Electric Utilities and Substations
- OEM Applications
- Field Work / Construction Sites
- Solar Power Systems
- Emergency Power Backup (UPS)
- Ideal as a Trade Show Power Supply
- Security Systems
- Charge any 12, 24, 32, 48 or 72 Volt (as well as custom voltage from 12-72VDC) Battery System

#### Description

The BCA1505 battery charger provides up to 1350 watts to charge a 12, 24, 36, 48 or 72 Volt battery system (2 bank) from a 110 or 220VAC source. The batteries must share a common ground. Auto-ranging input is an option.

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 visual indicators for low input voltage, charging and over-temperature.

Safety features include both charger and battery over-temperature shutdown, current limiting, short circuit protection with automatic recovery, input undervoltage shutdown and output over-voltage crowbar.

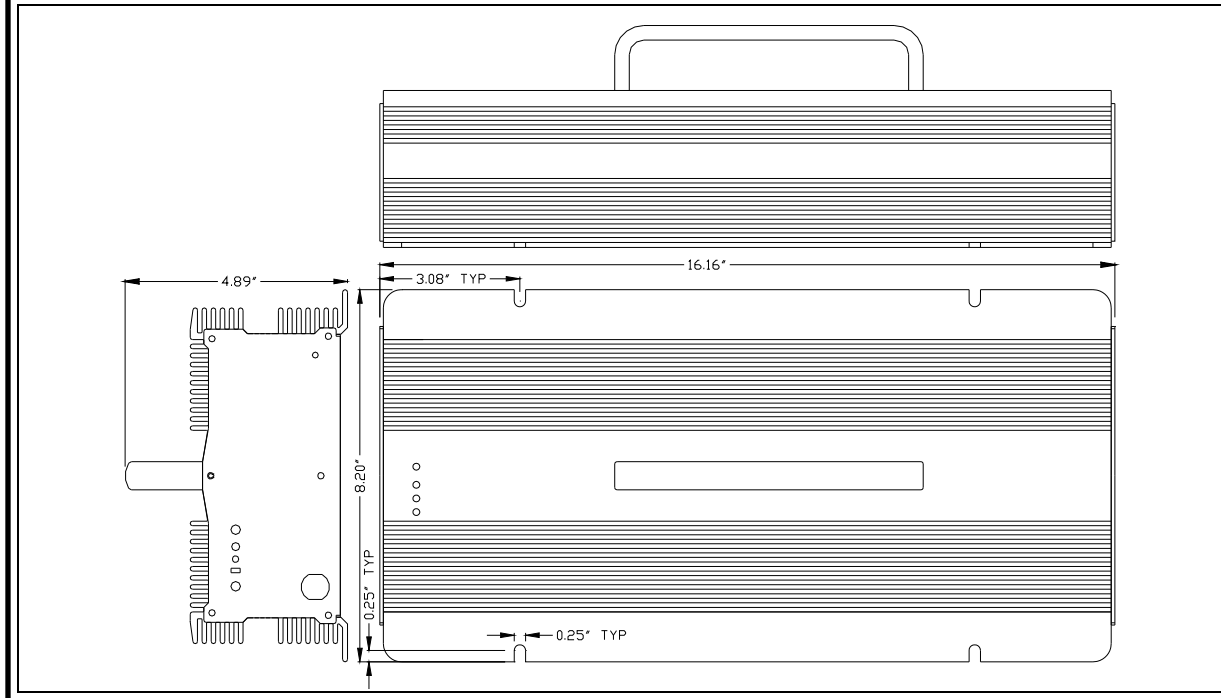
Optional features include a 3-Bank Load Splitter, voltage and current digital display, RCPI Remote Panel, and 120/220 Auto Ranging Input. We are confident that you will get many years of reliable service from this AC Battery Charger.

#### Features

- Military-Grade extrusion ensures a high tolerance for shock and vibration
- Ultra-quiet low EMI operation
- Can be left permanently connected
- Can function as a power supply
- Dry contact output fail relay
- User selectable 2 or 3 stage charging profile
- Temperature compensated charging
- Over-temperature shutdown
- 3 Bank Load Splitter Available
- Audible & visual indicators for low output voltage & over-temperature
- Short circuit protection
- Output over-voltage crowbar
- Inrush Current Limiting with solid state bypass
- 110/220 Vac auto-ranging input option
- Thermostatically controlled fan
- 3 year warranty

# BCA1505 Series Battery Charger

## Mechanical Diagram



## Specification

### Electrical (Input)

Nominal Vac (ip)	110	220
Actual (Vac)	90-140	180-284
Input Amps (max)	16.2	8.1
Input Breaker	25A	25A
Input Frequency	45-65 Hz	
Noise on Input	< 50 mV	

### Environmental Specification

Operating Temp. Range	-25° to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C to +55°C extra wide temp. operation avail.)
Humidity	0 - 95°C Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE Ødb @ 3 ft (34.5 dB when fan operating)
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Input-Case & Input-Output 1500VDC / Output-Case 500VDC
Vibration	Meets Loose Cargo Test

### Electrical (Output)

Output Nominal (op)	12	24	32	48	72
Output Volts (DC)	13.6	27.2	36.3	54.4	81.6
Absorption Voltage (VDC)	13.6	28.8	38.4	57.6	86.4
Charging Amps	75	50	37	25	16
Absorption to Float	15A	7.5A	5.6A	3.8A	2.4A
Battery Banks	2 (3 Bank Load Splitter Available)				
Battery Size (Amp Hours)*	400-600	200-300	150-230	100-150	70-100
Output Crowbar	17.0 ± 0.5V	34.0 ± 1.0V	45.4 ± 1.3V	68 ± 2.0V	102 ± 3.0V
Equalize Voltage (VDC)	15.5	31	41.3	62	93
Temperature Compensation Coefficient	-15mV/°C	-30mV/°C	-40mV/°C	-60mV/°C	-90mV/°C
Duty Cycle	Continuous 100% for 24 hours per day				
Efficiency	81-82% @ Maximum Output				
Stages	2 or 3 selectable				
Regulation	< +/- 0.5%				

### Mechanical Specification

Length	16.16 in / 41.14 cm
Width	8.35 in / 21.21 cm
Height	4 in / 10 cm (without carrying handle)
Clearance	1 inch (2.5 cm) all around
Material	Marine Grade Aluminum
Finish	Black
Fastenings	All 18-8 Stainless Steel
Weight	14.4 lb / 6.6 kg
Connections	Flying lead
Warranty	3 years
Safety	Built to meet UL458 & CSA 22.2.107.1 ABS 11-HS794404E-PDA

\*This is Analytic Systems' suggested range. Please consult your battery manufacturer for their recommendations

Available From:

**ANALYTIC SYSTEMS**  
INNOVATIVE POWER CONVERSION SOLUTIONS

ISO 9001:2008 Certified Quality System