

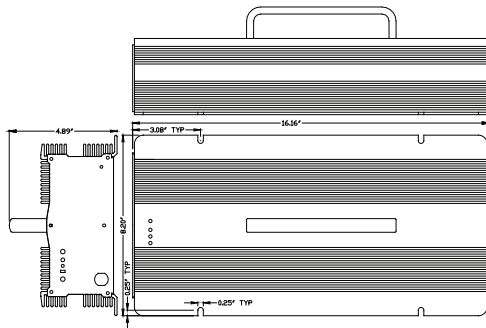
# ANALYTIC SYSTEMS

Power Conversion Solutions

## AC BATTERY CHARGER

### MODEL BCA1505MS SERIES

### COTS Battery Charger



### 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.

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 meet MIL-STD 461E. Extra features include audible and 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 under-voltage 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.

### Benefits

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

### Design Features

- Ideal as a COTS Power Supply for Military Applications
- 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
- Designed to meet MIL-STD 810F, Method 514-3, Cat-I Proc I for vibration

### Military Features

- Most of the products manufactured by Analytic Systems can be adapted for military use (Commercial Off The Shelf).
- We provide four different levels of ruggedization; most often, a product in military use will use the extra-wide temperature range components to allow operation to -40 degrees Celsius.
- The printed circuit boards are also protected against condensation and are enhanced with vibration protection that meets or exceeds
- MIL-STD810F, Method 514-3 and Cat-1 Proc 1.
- C.O.T.S. products are designed to meet various levels of EMC radiated and conducted emissions MIL-STD 461E.
- All C.O.T.S. products are manufactured in accordance with IPC-A-610.

An ISO9001 and AS9100 Registered Company Battery Chargers • Inverters • Power Supplies • Voltage Converters

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www.analysystems.com

# AC BATTERY CHARGER

# MODEL BCA1505MS SERIES COTS Battery Charger

Electrical (Input)		
Nominal Vac (ip)	110	220
Actual (Vac)	90-130	180-260
Input Amps (max)	16.2	8.1
Input Breaker	25A	25A
Input Frequency	45-65 Hz	
Noise on Input	< 50mV	

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)	14.4	28.8	38.4	57.6	86.4
Charging Amps	100	50	37	25	16
Absorption to Float	15A	7.5A	5.6A	3.8A	2.4A
Battery Banks	1 Bank	2 Banks (3 Bank Load Splitter Available)			
Battery Size (Amp Hrs.)*	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	-30mV/°C	-60mV/°C	-80mV/°C	-120mV/°C	-180mV/°C
Duty Cycle	Continuous 100% for 24 hours per day				
Efficiency	>80% @ Maximum Output				
Stages	2 or 3 selectable				
Regulation	< +/- 0.5%				

Environment Specification	
Operating Temp. Range	-40° to +50°C @ maximum output Derate Linearly 2.5% per °C from 50°C
Humidity	0 - 95% Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE 0db @ 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 (1500V @ 48V Output)

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	2 flying leads, 8AWG
Warranty	2 years
Safety	Designed to meet CSA 22.2.107.1 & UL458

Note: Specifications are subject to change without notice.



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