



AC Battery Chargers

BCA650-MS C.O.T.S. AC Charger

Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation
- Clean, Precise Power

Description

The BCA650-MS-26 Battery Charger provides up to 650 watts to charge a 24V military electrical system from a 110 and/or 220VAC source (autoranging). This design features a unique rainproof chassis that easily meets the MIL-STD 810D vibration standard.

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 to meet MIL461E. Extra features include visual indicators for output ON and output overload (single dual brightness LED). Safety features include over-temperature shutdown, current limiting, short circuit protection with automatic recovery, input undervoltage shutdown and output overvoltage crowbar.

This unit is built in a Full Battery Charger configuration with a 2-Stage charging profile designed for Military Lead Acid battery systems (Lithium- Ion available by special order). We are confident that you will get many years of reliable service from this AC Battery Charger.

Military Option

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 -55 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.

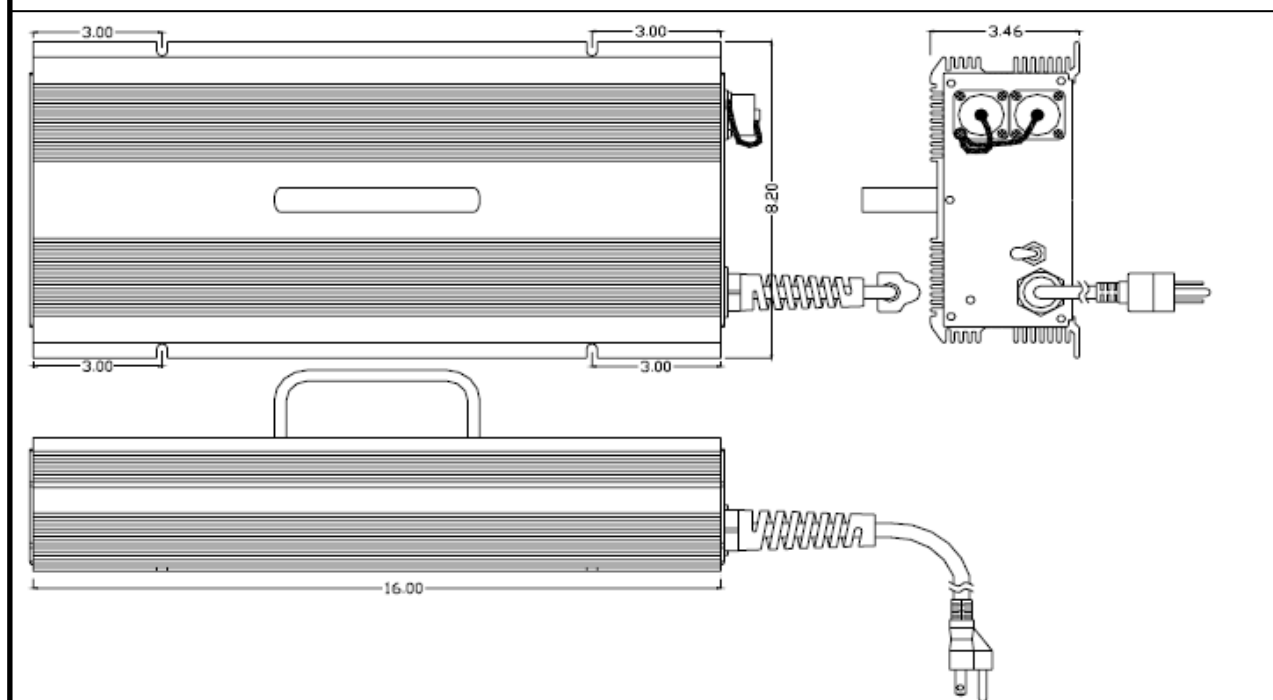
All C.O.T.S. products are manufactured in accordance with IPC-A-610.

Features

Ideal as a COTS Battery Charger for military applications	Output over-voltage crowbar
Military grade extrusion ensures a high tolerance for shock and vibration	Inrush current limiting with solid state bypass
Ultra-quiet, low EMI operation	110/220 VAC auto ranging input
Can be left permanently connected	3 year parts and labour warranty
Power supply version available	Meets MIL-STD810F
Optional carrying handle available	Method 514-3, Cat-I Proc I for vibration
Visual output current indicator	Built according to the Q-Base Quality System

BCA650-MS Series Battery Charger

Mechanical Diagram



Specification

Electrical (Input)

Nominal Vac (ip)	110 / 220 (Autoranging)
Actual (Vac)	90-140 - 180-284
Input Amps (max)	16.2 - 8.1
Input Circuit Breaker	25A Magnetic
Input Frequency	45-405 Hz
Noise on Input	< 50 mV

Environmental Specification

Operating Tem. Range	-40 to +50C @ maximum output (derate linearly 2.5% per C from 50C to 85C)
Humidity	0-95C 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 1500VDC / output – case 500VDC

Electrical (Output)

Output Nominal (op)	24
Output Volts (DC)	27.2 ± 0.05
Output Current (Cont. Amps)	26A
Charging Stages	2
Output Fuses (ATC)	40 x 2
Output Crowbar	32.0 ± 1.0V
Output Ripple & Noise	< 50 mV
Regulation (Line & Load)	< +/- 0.5%
Duty Cycle	Continuous 100% for 24 hours per day
EMC	Meets MIL461E
Efficiency	> 75% @ Maximum Output

Mechanical Specification

Length	16.0 in / 40.6 cm
Width	8.2 in / 20.8 cm
Height	3.5 in / 8.9 cm (without carrying handle)
Clearance	1 inch (2.5 cm) all around
Material	Marine Grade Aluminium
Finish	Clear Chromate
Fastenings	All 18-8 Stainless Steel
Weight	14.4 lb / 6.6 kg
Connections	Cannon Connectors # MS3102E16-11S
Warranty	3 years (2 yr. extension avail.)
Safety	Meets UL458 & CSA 22.2.107.1

Available from: