



Rugged and reliable

IP66-rated construction
(IP67 option also available)

Ultra-quiet low EMI operation

Bright LED indicators

Power factor corrected input stage

Adjustable charging voltage

BCA1550W
AC-SOURCE BATTERY CHARGER

The BCA1550W family of COTS AC-source battery chargers are designed to charge a battery at 12, 24, 32, 48, or 72 (Rail) VDC. This model is identical to the previous BCA1505 models respectively in form, fit, and function and are intended as a direct drop in replacement for their predecessors.

Internally, the recently updated design incorporates a Power Factor Corrected (PFC) input stage allowing the charger to run continuously from 85 – 264 VAC at 50 or 60 Hz with a Power Factor of 0.99 or better from 10% to 100% load. Heavy input and output filtering reduces EMI to extremely low levels to prevent radio interference.

These units are constructed from heavy-duty anodized extruded and billet machined aluminum with O-ring seals and all stainless-steel fasteners for rugged duty. These units are designed to meet the IP66 rating for water and dust resistance, optional IP67 testing with certification is also available.

Reliability features of this product line include LED status indicators, solid-state reverse polarity protection, thermal shutdown, current limiting, reverse polarity battery connection protection, output short circuit shutdown with automatic recovery and output over-voltage protection.

3 YEAR WARRANTY



Available models

Input

85-264 VAC

Output

12 VDC	24 VDC	32 VDC
36 VDC	48 VDC	72 VDC (Rail)

Applications



BCA1550W | AC-SOURCE BATTERY CHARGERS

INPUT

Actual Voltage	85-264 VAC, 45-65 Hz
Maximum Amps	20.0 A (@ 85 VAC In)
Input Fuse (Circuit Breaker)	25 A Slow Blow Part #MDA25A
Input Ripple and Noise	<50 mV Peak to Peak
Inrush Current	< 20 A @ 264 VAC In from fully discharged

OUTPUT

Nominal Voltage	12 VDC	24 VDC	32 VDC	36 VDC	48 VDC	72 (Rail) VDC	72 VDC
Float Voltage	13.6 VDC	27.2 VDC	36.3 VDC	40.8 VDC	54.4 VDC	72.5 VDC	81.6 VDC
Absorption Voltage	14.0 VDC	28.0 VDC	37.3 VDC	42.0 VDC	56.0VDC	74.7 VDC	84.0 VDC
Charging Amps	100 A	55 A	42 A	36 A	28 A	20 A	18 A
Absorption to Float Switch	15 Amps	9 Amps	6.8 Amps	6 Amps	4.5 Amps	3 Amp	3 Amp
Output Overvoltage Protection	17 ± 0.5V	34 ± 1V	45 ± 1.5V	51 ± 1.5V	68 ± 2V	90 ± 2.5V	102 ± 3V
Temperature Compensation	-30mV/°C	-60mV/°C	-80mV/°C	-90mV/°C	-120mV/°C	-160mV/°C	-180mV/°C
Equalize Voltage	15.5 VDC	31.0 VDC	41.3 VDC	46.5 VDC	62.0 VDC	82.7 VDC	93.0 VDC
Maximum Equalize Amps	8 A	4 A	3 A	3 A	2 A	1.5 A	1.0 A
Recommended Battery Size (Amp-hours)	200-800	100-400	75-300	60-270	50-200	35-150	33-130
Output Volt. Adjust Range (VDC)	12.0-15.0	24.0-30.0	32.0-40.0	36.0-45.0	48.0-60.0	64.0-80.0	72.0-90.0
Charging Stages (Selectable)	2 Stage (CC-Float) or 3 Stage (CC-Absorption-Float), User-selectable						
Output Ripple & Noise	<50 mV						
Transient Response	<1V for 50% Surge						
Regulation (Line & Load)	< +/- 0.5%						
Duty Cycle	Continuous: 100% for 24 hours per day						
Efficiency	> 90% @ Maximum Output						

MECHANICAL

Length	16.8 in / 42.7 cm
Width	8.2 in / 20.8 cm
Height	3.8 in / 9.7 cm
Clearance	1.0 in / 2.5 cm all around
Weight	20.0 lb / 9.9 kg (approximate)
Material and Finish	Black anodized extruded aluminum chassis and bottom plate. Black anodized billet machined aluminum end plates with O-ring seals.
Finish	Black anodize
Fasteners	18-8 stainless steel
Input Connection	1.0 m / 3.0ft 3xAWG14 power cord with NEMA 5-15 or CEE 7/VII compatible plug
Output Connection	4x color-coded flying input leads encased in a watertight Sealcon gland
Battery Temperature Sensor Connection	ConXall 17982-6SG-300 6-Position circular connector receptacle

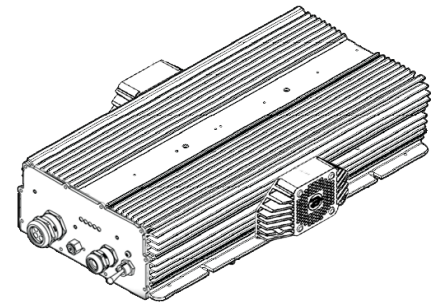
ENVIRONMENTAL AND SAFETY




Operating Temperature	-25°C to +40°C @ maximum output. Derate linearly 2.5% per °C from +40°C
Storage Temperature	-40°C to +100°C
Humidity	0 - 95% relative humidity (non-condensing) with standard conformal coating
Packaging	Sealed to meet IP66 rating (Optional IP67 certification available)
Isolation	Input-Case, Input-Output and Output-Case: 1500 VDC
Cooling	Two external side-mounted thermostatic cooling fans
Audible Noise	0 dB @ 1 meter when fan operating
Typical Service Life	> 10 years (87,600 hrs)
Warranty	Three Years Parts and Labor
Safety	Designed to meet UL458 & CSA 22.2.107.1


OPTIONS

- OPT-E:** RoHS Compliant
 - OPT-G:** GMDSS Digital Meter & Remote
 - OPT-P:** Portable (Folding Handle & Rubber Feet)
 - OPT-U:** Safety Special Inspection (CSA/SPE-1000)
 - OPT-V:** Digital Volt/Amp Meter
 - OPT-X:** Ruggedization & Wide-Temp
 - OPT-Y:** IP67 Certified, Ruggedization & Wide-Temp
- Custom Input/Output Available**

DIMENSIONS



 Analyticsystems.com
 Sales@Analyticsystems.com
 604.946.9981 800.668.3884

 101-8128 River Way
 Delta, B.C. V4G 1K5

Note: Specifications are subject to change without notice.