



Adjustable Float Voltage

Two Stage Charging

One or Two Bank Charging

Common Negative Design

Boost Topology

Economical



**3 YEAR WARRANTY**



## BCD305 DC SOURCE BATTERY CHARGER

The BCD305 battery charger outputs up to 300 watts to charge a 24V battery system (1 or 2 banks) from a 12 volt source. The source voltage must be less than or equal to the output voltage and the batteries under charge must share a common ground. Multiple stages of filtering reduce radiated or conducted noise to very low levels.

The two stage charging profile charges the batteries at a constant current until the battery voltage reaches the float voltage that the unit is set to and then the current into the batteries will taper off as necessary to maintain the batteries at the float voltage.

The unit can be left permanently connected without fear of overcharge or damage to the batteries. The adjustable float voltage feature allows the unit to be used for any type of lead-acid battery including lead acid and gel cell.

### Available models

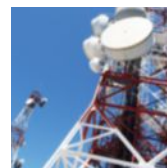
Input

12V

Output

24V

### Applications



# BCD305 | DC SOURCE BATTERY CHARGER

## INPUT

Input Volts Nominal	12 VDC
Input Volts Actual	10.5 - 14 VDC
Input Amps (max)	30
Input Fuse (AGC)	20 A x 2
Noise on Input	< 10 mV
Low Input Voltage Alarm	10.5 V

## OUTPUT

Output Volts Nominal	24
Output Volts Actual	27.2 ± 0.05
Charging Current (amps)	*13
Output Adjustment	± 1.0 V
Output Crowbar	Programmed O/P Volts x (1.3 ± 1%)
Output Fuse (AGC)	20 A
Output Ripple & Noise	< 10 mV
Battery Banks	1 or 2
Charging Stages	2
Battery Size (Amp Hours)	50 - 80
Regulation (Line & Load)	< +/- 0.5%
Duty Cycle	Continuous 100% for 24 hours per day

\*The actual charging rate depends upon the input/output voltage ratio. To obtain the charging capability at any given input voltage, use the following formula: Charging Current = Input Volts / Output Volts x 26. For example, at 11 VDC in and 13.6 VDC out, the charging current = 11 / 13.6 x 26 = 21.0 amps.

## MECHANICAL

Dimensions	9.1 in / 23.1 cm Long x 7.8 in / 19.8 cm Wide x 2.5 in / 6.4 cm High
Clearance	1.0 in / 2.5 cm all around
Weight	4.0 lb / 1.8 kg
Material and Finish	Marine Grade Black Anodized Aluminum Chassis c/w 18-8 Stainless Fasteners
Mounting	Wall or Shelf Mount
Connections	#10 AWG Input Wires (Positive & Negative). Four contact output terminal

## 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 - Output Common Negative, Input or Output - Case 500 VDC
Warranty	Three years parts and labor

## OPTIONS

European ROHS compliant  
(Lead Free Manufactured)

Electric Fork Lift  
(Filtering and Surge Suppression)

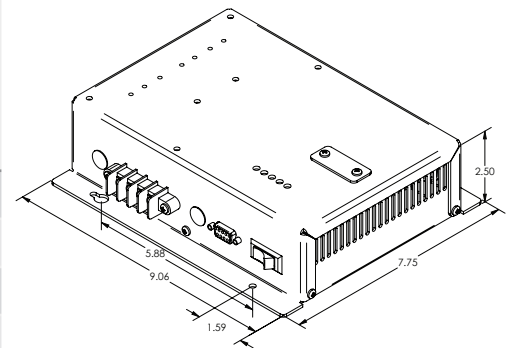
Open frame  
(No chassis, just heat sink bars)

Safety Special Inspection (CSA/UL)

Heavy duty ruggedization with wide  
temperature range

Custom input/output available

## DIMENSIONS



**ANALYTIC SYSTEMS**  
Power Conversion Solutions



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