



Benefits

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

Applications

- Designed for Transport Vehicle HVAC Systems (day cab configuration)

Description

DC Battery Chargers

BCD800 Series DC Battery Charger

The BCD800 battery charger provides up to 800 watts to charge a 12V or 24V battery system (1 bank) from a 12V source. Both the 12V source and the batteries under charge 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 very low levels. Extra features include audible and visual indicators for low input voltage, low output voltage and over temperature.

Safety features include reverse input protection, over-temperature shutdown, current limiting, short circuit protection with automatic recovery, input undervoltage shutdown, reverse battery protection and output overvoltage crowbar. There is a 60 amp current limit override available for straight through operation as well.

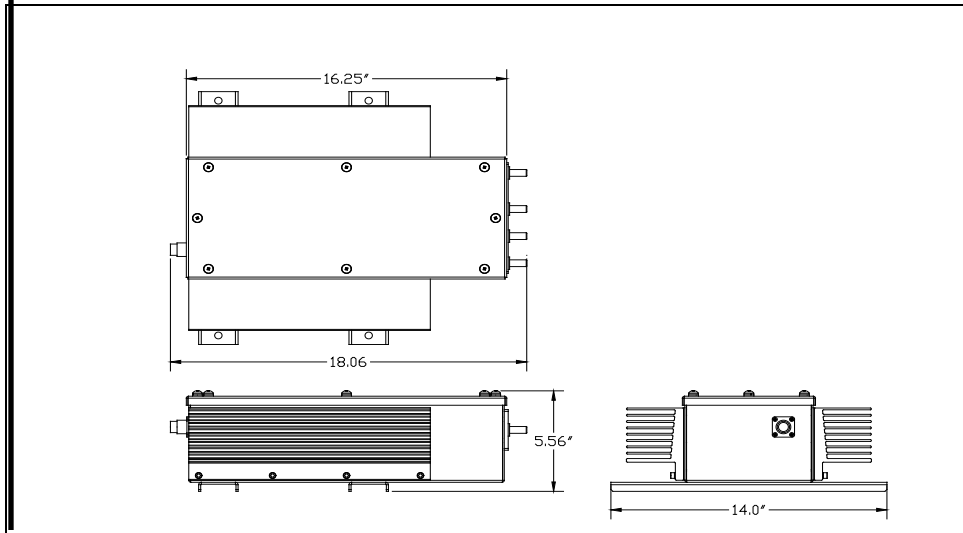
An optional remote control is also available. We are confident that you will get many years of reliable service from this Battery charger.

Features

- For charging standard or deep cycle lead-acid, VRLA or Gel cell type battery
- Audible & visual indicators for constant current, low input voltage, low output voltage & over-temperature
- Extremely rugged and well suited for marine and other demanding environments
- High tolerance for shock and vibration
- Ultra-quiet low EMI operation
- Current limit override protection
- Short circuit protection
- Reverse input protection
- Output over-voltage crowbar
- Dry contact output fail relay
- Over-temperature shutdown
- Spark-free connection
- Wide-Temperature -40°C to +55°C
- Conformal coating and/or harsh environment ruggedization available
- 3 year parts and labour warranty

BCD800 Series DC Battery Chargers

Mechanical Diagram



Specification

Electrical (Input)

Model Number	BCD800-12-12	BCD800-12-24
Input Volts (DC)	10.5 – 14	10.5 – 28
Input Amps (max)	60	
Input Fuse (AGC)	40A x 2	
Noise on Input	< 50 mV	
Low Input Voltage Alarm	10.5 V	

Environmental Specification

Operating Temp. Range	Wide Temperature -40°C to +55°C
Humidity	0 - 95°C Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE Ødb @ 3 ft
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Any Input or Output to Case 500 VDC Input to Output – Common Negative

Electrical (Output)

Output Nominal (op)	12	24
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05
Charging Current (Amps)	♦ 60	♦ 30
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V
Output Fuse (AGC)	40A x 2	
Output Ripple & Noise	< 50 mV	
Battery Banks	1	
Stages	2	
Battery Size (Amp Hours)	160-240	80-120
Regulation (Line & Load)	< +/- 0.5%	
Duty Cycle	Continuous 100% for 24 hours per day	
Efficiency	> 90% @ Maximum Output	

Mechanical Specification

Length	16.25 in / 41.28 cm (18.06 in. Overall)
Width	14.0 in / 35.56 cm
Height	5.56 in / 14.12 cm
Material	Steel
Finish	Black Chromate / Powder Epoxy Coat
Fastenings	All 18-8 Stainless Steel
Weight	29.5 lb / 13.38 Kg
Connections	4 – 3/8" Threaded steel stud
Warranty	3 years

♦ 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:

$$\text{Charging Current} = \text{Input Volts} / \text{Output Volts} \times 60$$

For example, at 11 VDC in and 13.6 VDC out, the charging current = $11.5 / 13.6 \times 60 = 50.7$ amps

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