

BCD610 Series Isolated DC Battery Charger



A product of:



Benefits

- Ultra-Quiet
- Convection cooled, no noisy fan
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation
- Fast & Accurate Charging

Applications

- Marine & other Rugged Environments
- Electric Utilities and Substations
- Manufacturing Plants
- Steel Mills
- Military Applications (COTS)
- Industrial Controls
- OEM Applications
- Solar / Alternative Power Systems
- Fuel Cells
- Charge any DC/DC System

Battery Chargers

BCD610 Series

Description

The model BCD610 DC Battery Charger charges either 12V, 24V or 48V batteries from a 110, 220 or 300VDC power source. Other battery voltages up to 72 volts are also available by special order.

The all-new Current Mode switching design offers increased power and reliability in a compact package. Extra input and output filtering reduce EMI to extremely low levels. Reliability features include an input fuse, thermal shutdown, current limiting, reverse battery hookup protection, output short circuit shutdown with automatic recovery, and equalize charging cycle.

The output voltage is easily adjusted 0.5 volts above or below the standard output voltage to accommodate special charging requirements.

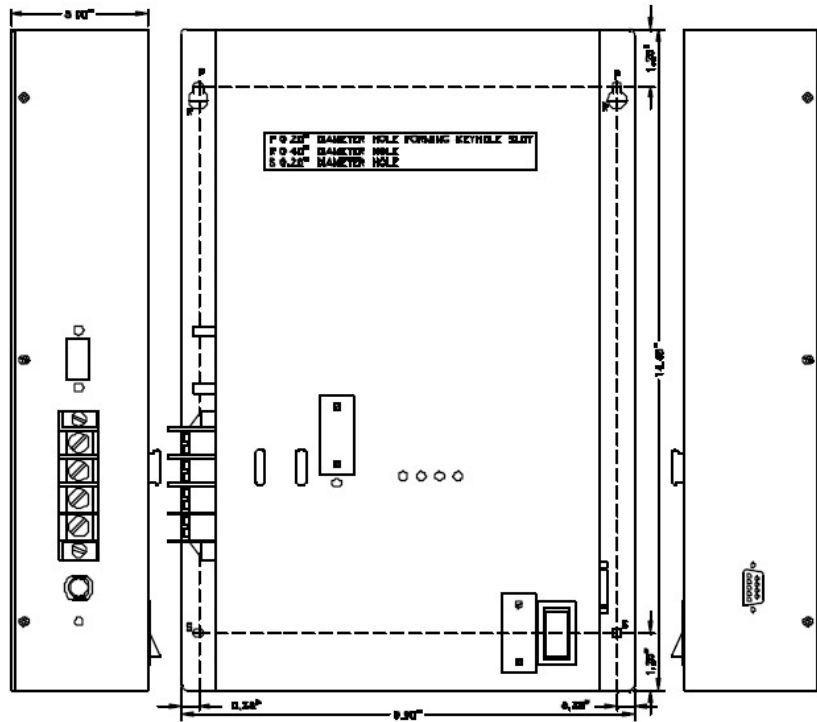
Optional features include a Digital Volt/Ammeter, 3-Bank Charging, a Remote Control Panel, and/or a second Battery Temperature Sensor.

We are confident that you will get many years of reliable service from this DC Battery Charger.

Features

- Fully Isolated Design
- Adjustable output voltage for charging standard or deep cycle lead-acid, VRLA or Gel cell type battery
- Transient Voltage Suppressor
- Extremely rugged and well suited for marine and other demanding environments
- High tolerance for shock and vibration
- Ultra-quiet low EMI operation
- Can be left permanently connected
- Spark free connection
- User selectable 2 or 3 stage charging profile
- Audible & visual indicators for output overload, low input voltage, low output voltage & over-temperature
- Over-temperature shutdown
- Short circuit protection
- Output over-voltage crowbar
- Inrush Current Limiting with solid state bypass
- Dry contact output fail relay
- 2 years parts and labour warranty

Mechanical Diagram



Specifications (Specifications Subject to Change Without Notice)

Electrical (Input)

Nominal (ip)	110	250	300
Actual (Vdc)	100-140	230-280	280-360
Input Amps (max)	7.2	3.1	2.6
Input Fuse (MDA)	10	4	3
Noise on Input	< 50 mV		

Environmental Specifications

Operating Temp. Range	-25° to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C extra wide-temp. operation avail.)
Humidity	0 - 95% Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE Ødb @ 3 ft
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Input-Case & Input-Output 1500VDC Output-Case 500VDC

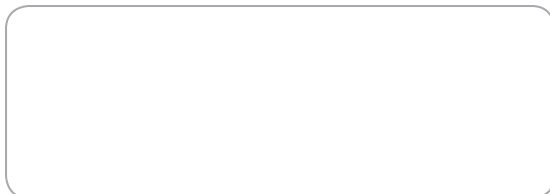
Electrical (Output)

Output Nominal (op)	12	24	48
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05	54.4 ± 0.05
Absorption Voltage (Vdc)	14.4	28.8	57.6
Charging Amps	40	20	10
Absorption to Float	4.0 Amps	2.0 Amps	1.0 Amps
Output Adjustment	± 0.5		
Output Fuses (AGC)	40 x 2	30 x 2	15 x 2
Battery Banks	1 or 2 (3 bank option available)		
Battery Size (Amp Hrs.)	160-240	80-120	40-60
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	63.9 ± 2.0V
Output Ripple & Noise	< 50 mV		
Regulation (Line & Load)	< +/- 0.5%		
Temperature Comp.	-30 mV/°C	-60 mV/°C	-120 mV/°C
Duty Cycle	Continuous 100% for 24 hours per day		
Efficiency	> 75% @ Maximum Output		
Stages	2 or 3 (user selectable)		

Mechanical Specifications

Length	14.5 in / 36.8 cm
Width	9.9 in / 25.1 cm
Height	3.0 in / 7.6 cm
Clearance	1 inch (2.5 cm) all around
Material	Marine Grade Aluminium
Finish	Black Anodize / Powder Epoxy Coat
Fastenings	All 18-8 Stainless Steel
Weight	7.6 lb / 3.3 kg
Connections	Four contact output terminals
Warranty	2 years
Safety	Approval to cETLus Standards Pending

Available from:



RIPEnergy®

The power conversion company

RIPEnergy AG
Wägitalstrasse 24
CH-8854 Siebnen
Switzerland

Ph +41-(0)43-818 53 85
Fax +41-(0)43-818 53 87
www.ripenergy.ch