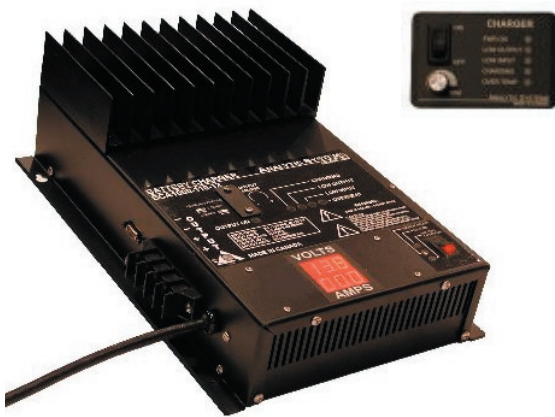


# BCD1000 Series DC Battery Charger



(Shown with Optional Digital Meter)

A product of:



## Benefits

- Ultra-Quiet
- 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

## BCD1000 Series

### Description

The model BCD1000 Battery Charger charges either 12V, 24V or 48V batteries from a 110, 230 or 300VDC power source. Other battery voltages up to 72 volts are also available by special order.

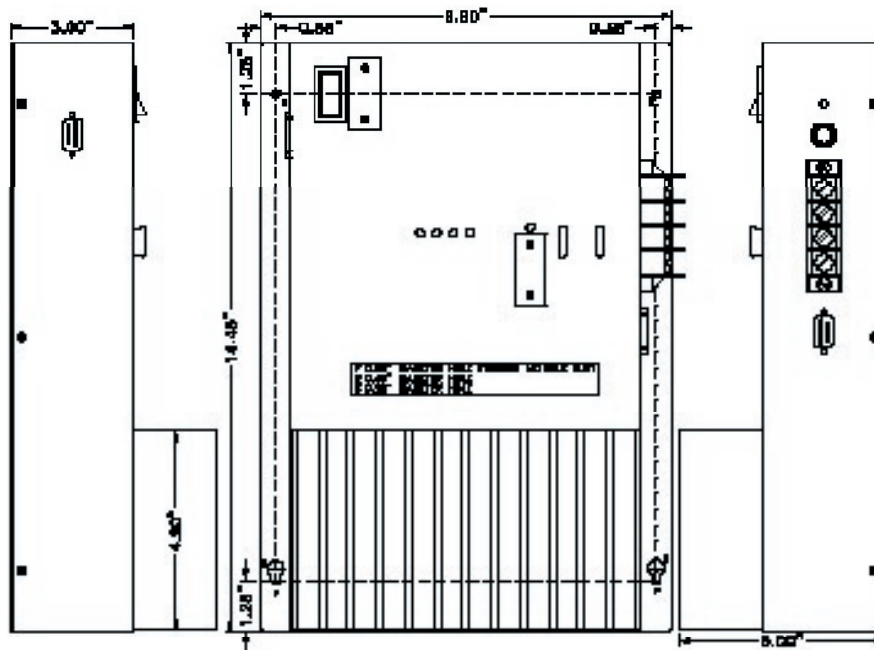
The all-new Current Mode switching design offers increased power and reliability in a compact package. Extra input and output filtering reduce EMI to extremely low levels. Reliability features include an input fuse, thermal shutdown, current limiting, reverse battery hookup protection, output short circuit shutdown with automatic recovery and an equalize charge mode. 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, Remote Control Panel, and/or 19" Rackmounting. 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
- 3 year parts and labour warranty

## Mechanical Diagram



## Specifications ( Specifications Subject to Change Without Notice )

### Electrical (Input)

|                  |         |         |         |
|------------------|---------|---------|---------|
| Nominal (ip)     | 110     | 230     | 300     |
| Actual (Vdc)     | 100-140 | 230-280 | 280-360 |
| Input Amps (max) | 14.4    | 6.3     | 5.1     |
| Input Fuse (MDA) | 15      | 7       | 6       |
| Noise on Input   | < 50 mV |         |         |

### Environmental Specifications

|                       |   |
|-----------------------|---|
| Operating Temp. Range | -25° to +40°C @ maximum output<br>Derate Linearly 2.5% per °C from 40°C<br>(Optional -40°C extra wide-temp. operation avail.) |
| Humidity              | 0 - 95% Relative Humidity<br>(non-condensing) with optional conformal coating   |
| Audible Noise         | NONE Ødb @ 3 ft (34.5 dB when fan operating)  |
| Typical Service Life  | > 10 yrs. (87,600 hrs)  |
| Isolation             | Input-Case & Input-Output 1500VDC<br>Output-Case 500VDC   |

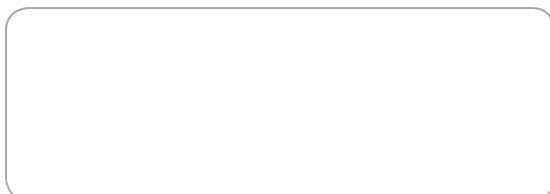
### Electrical (Output)

|                          |                                      |             |             |
|--------------------------|--------------------------------------|-------------|-------------|
| 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            | 60                                   | 40          | 20          |
| Absorption to Float      | 6.0 Amps                             | 4.0 Amps    | 2.0 Amps    |
| Output Adjustment (Vdc)  | ± 0.5V                               |             |             |
| Output Fuses (ATC)       | 40 x 2                               | 40 x 2      | 25 x 2      |
| Battery Banks            | 1 or 2 (3 Bank Option Available)     |             |             |
| Battery Size (Amp Hrs.)  | 240-360                              | 160-240     | 80-120      |
| 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               | > 80% @ 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      | 5.5 in / 14.0 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      | 12.0 lb / 5.5 kg                     |
| Connections | Four contact output terminals        |
| Warranty    | 3 years                              |
| Safety      | Approval to cETLus Standards Pending |

Available from:



# RIPEnergy®

The power conversion company

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