



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
- Telecommunications Equipment
- 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

DC Battery Chargers

BCD315 Isolated Battery Charger

Description

The BCD315 battery charger provides up to 300 watts to charge a 12 or 24 or 48 Volt battery system (1, 2 or 3 Banks) from a 24V, 48V or 72VDC source. The batteries must share a common ground but the source can be on a different positive or negative ground.

The all-new Current Mode switching design offers increased power and reliability in a compact package. The low ripple charging profile and standard equalize cycle greatly increases the lifetime of expensive battery systems. 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 and output short circuit shutdown with automatic recovery.

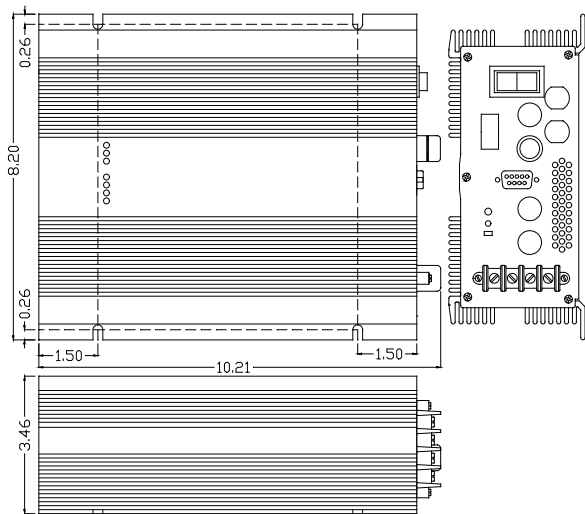
Optional features include a Digital Volt/Ammeter, a Remote Control Panel, and/or a second Battery Temperature Sensor. We are confident that you will get many years of reliable service from this DC Battery Charger.

Features

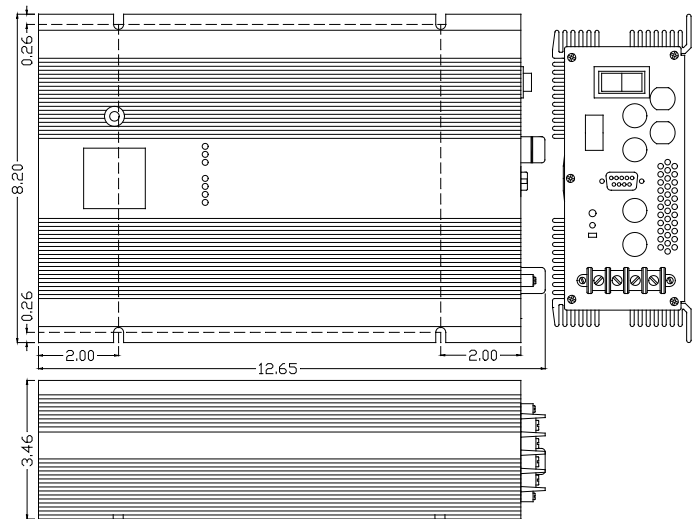
- Fully Isolated Design
- Adjustable output voltage for charging standard or deep cycle lead-acid, VRLA or Gel cell type battery
- Transient Voltage Suppressor
- Extremely rugged and well suited for marine and other demanding environments
- High tolerance for shock and vibration
- Ultra-quiet low EMI 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
- 3 year parts and labour warranty

BCD315 Series DC Battery Charger

Mechanical Diagram



Shown without Digital Meter



Shown with Digital Meter

Specification

Electrical (Input)

| | | | |
|------------------|---------|-------|--------|
| Nominal (ip) | 24 | 48 | 72 |
| Actual (Vdc) | 20-35 | 40-60 | 65-90 |
| Input Amps (max) | 18.7 | 9.4 | 5.7 |
| Input Fuse | MDA25 | MDA15 | MDA-10 |
| Noise on Input | < 25 mV | | |

Environmental Specification

| | |
|-----------------------|---|
| 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°C 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 (500VDC@24V I/P) 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 | 20 | 10 | 5 |
| Absorption to Float | 3.0 Amps | 1.5 Amps | 0.75 Amps |
| Output Adjustment (Vdc) | ± 1.0 V | | |
| Output Fuses (AGC) | 25A | 15A | 10A |
| Battery Banks | 1, 2 or 3 | | |
| Battery Size (Amp Hrs.) | 80 - 120 | 40 - 60 | 20 - 30 |
| Output Crowbar | 16.0 ± 0.5V | 32.0 ± 1.0V | 63.9 ± 2.0V |
| Output Ripple & Noise | < 25 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 Specification

| | |
|-------------|--------------------------------------|
| Length | 9.6 in / 24.4 cm |
| Width | 8.2 in / 20.8 cm |
| Height | 3.5 in / 6.4 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 | 7.5 lb / 3.4 kg |
| Connections | Four contact output terminals |
| Warranty | 3 years |
| Safety | Built to meet UL458 & CSA 22.2.107.1 |

Available From: