

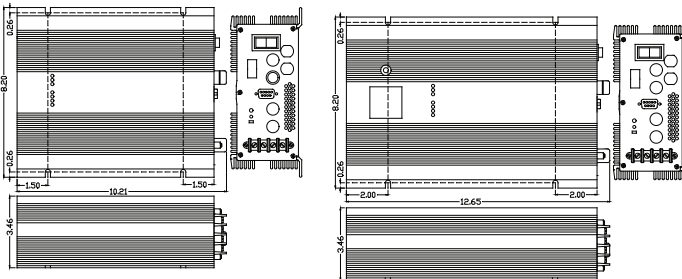


# ANALYTIC SYSTEMS

Power Conversion Solutions

## DC BATTERY CHARGER

### MODEL BCD315 SERIES



## Description

The BCD315 Series 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 12, 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.

## Benefits

- Ultra-quiet
- Power sensitive electronics without interference
- Rugged and reliable to ensure years of safe and trouble free operation
- Fast and accurate charging

## Design 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 and 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
- Three year parts and labour warranty

## Applications

- Marine and 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

An ISO9001 and AS9100 Registered Company Battery Chargers • Inverters • Power Supplies • Voltage Converters

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[www.analysystems.com](http://www.analysystems.com)

# DC BATTERY CHARGER

# MODEL BCD315 SERIES

Electrical Input					
Nominal (ip)	12	24	36	48	72
Actual (Vac)	11-16	20-35	30-45	40-60	65-90
Input Amps (max)	30	18.7	12.5	9.4	5.7
Input Fuse	MDA-25	MDA-25	MDA-20	MDA-15	MDA-10
Noise on Input	<25mV				

Electrical (Output)					
Nominal (op)	12	24	36	48	
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05	40.8	54.4 ± 0.05	
Absorption Voltage (Vdc)	14.4	28.8	43.2	57.6	
Charging Amps	20	10	6.7	5	
Absorption to Float	3.0 Amps	1.5 Amps	1 Amps	0.75 Amps	
Output Adjustment (Vdc)	± 1.0 V				
Output Fuses (AGC)	AGC 25	AGC 15	AGC 10	AGC 7	
Battery Banks	1 or 2				
Battery Size (Amp Hrs.) *	80 - 120	40 - 60	50 - 80	20 - 30	
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	48 ± 2.0V	64.0 ± 2.0V	
Output Ripple & Noise	< 25mV				
Regulation (Line & Load)	< ± 0.5%				
Temperature Compensation Coefficient	- 30V / °C	- 45V / °C	- 60V / °C	- 120V / °C	
Duty Cycle	Continuous 100% for 24 hours per day				
Efficiency	> 75% @ Maximum Output				
Stages	2 or 3 (user selectable)				

Environment Specification	
Operating Temp. Range	-25°C to +40°C @ maximum output
Humidity	0 - 95% Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE 0db @ 3 ft
Typical Service Life	> 10 yrs (87,600 hrs)
Isolation	Input-Case & Input-Output 1500VDC (500VDC@24V I/P)   Output-Case 500VDC

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	Powder Epoxy Coat
Fastenings	All 18-8 Stainless Steel
Weight	7.0 lb / 3.2 kg
Connections	Four contact output terminals
Warranty	Three years
Safety	Designed to meet CSA 22.2.107.1 & UL458

Note: Specifications are subject to change without notice.



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