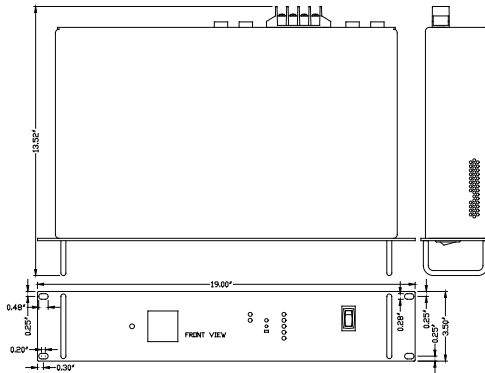


# ANALYTIC SYSTEMS

Power Conversion Solutions

## DC BATTERY CHARGER

### MODEL BCD610R Series



## Description

The model BCD610R Rackmount DC Battery Charger charges either 12V, 24V or 48V batteries from a 110, 220 or 300VDC power source. Other battery voltages up to 360 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 1.0 volts above or below the standard output voltage to accommodate special charging requirements.

A high quality Digital Volt/Ammeter allows the monitoring of charging current and charging voltage. 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 & 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 & 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

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

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

# DC BATTERY CHARGER

# MODEL BCD610R Series

Electrical (Input)			
Nominal (ip)	110	250	300
Actual (Vac)	100-140	230-280	280-360
Input Amps (max)	8.2	3.6	2.9
Input Fuse (MDA)	10	4	3
Noise on Input	< 50mV		
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	14.4	28.8	57.6
Charging Amps	40	22	11
Absorption to Float	6.0 Amps	3.3 Amps	1.65 Amps
Output Adjustment (Vdc)	± 1.0V		
Output Fuses (ATC)	20 x 4	30 x 2	15 x 2
Battery Banks	1 or 2 (Optional 3-bank)		
Battery Size (Amp Hrs.)	160 - 240	88 - 132	44 - 66
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)		
Environment Specification			
Operating Temp. Range	-25°C to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C - +55°C extra wide temp. operation avail.)		
Humidity	0 - 95% Relative Humidity (non-condensing) with standard 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 (1500V @ 48V Output)		
Mechanical Specification			
Depth	13.5 in/ 34.3 cm		
Width	19.0 in/ 48.3 cm		
Height	2u (3.5 in.)/ 8.9 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	Three years parts and labour		
Safety	Designed to meet CSA 22.2.107.1 & UL458		

Note: Specifications are subject to change without notice.



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