

MajorBCD1000 Watt DC Charger

MajorBCD1000

MajorBCD1000 Battery Chargers supply either 12, 24, 32 or 48 VDC from a 48, 72, 110, 220, 250 or 300 VDC power source.

1 or 2 high quality analog meters can be added (factory option) to allow monitoring of charging current and charging voltage.

The output voltage is easily adjusted 0.5 volts above or below the standard output voltage.



Product Features

- **Transient Voltage Suppressor**
- **Fully Isolated Design**
- **Adjustable Output Voltage**
 - ▶ For charging standard or deep cycle lead-acid, VRLA or Gel cell type battery
- **Audible & Visual Indicators**
 - ▶ For constant current, low input voltage, low output voltage & over-temperature
- **Extremely Rugged**
 - ▶ Well suited for marine and other demanding environments
- **Short Circuit Shutdown**
- **User-Selectable 2 or 3 Stage Charging Profile**
- **High Tolerance**
 - ▶ For shock and vibration
- **Ultra-Quiet**
 - ▶ Low EMI operation
- **Protection**
 - ▶ Current limiting protection
 - ▶ Short circuit protection
 - ▶ Reverse input protection
 - ▶ Output over-voltage crowbar
 - ▶ Over temperature shutdown
- **Spark-Free Connection**
- **Can be left Permanently Connected**
- **Dry Contact Output Fail Relay**
- **Warranty**
 - ▶ 3 years parts and labour

Product Specifications

Mechanical & Environmental	
Operating Temperature Range	0 - 40°C @ Maximum Output; Derate linearly 2.5% per °C from 40°C
Humidity	0 - 95°C @ Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	34.5 dB
Typical Service Life	>10 years (87,600 hours)
Isolation	Input-Case & Input-Output 1500 VDC; Output-Case 500 VDC
Dimensions (L x W x H)	14.5 x 9.9 x 5.5 in / 36.8 x 25.1 x 14.0 cm
Clearance	1 inch (2.5 cm) all around
Physical	Marine-grade aluminum material, Black anodize / powder epoxy coat finish; 18-8 stainless steel fastenings; 4 contact output terminals
Weight	12.0 lbs / 5.5 kg
Warranty	3 years
Safety	CSA/UL Pending

Model Selection Guide

MajorBCD	1000-48	1000-72	1000-100	1000-220	1000-250	1000-300
Nominal Input	48	72	100	220	250	300
Input Voltage	40 - 65	65 - 100	100 - 140	200 - 250	230 - 280	280 - 360
Input Amps	34	31	13.6	7.3	6.0	4.9
Input Fuse (MDA)	20 x 2	25	15	7	7	6
Noise on Input	< 50 mV	< 50 mV	< 50 mV	< 50 mV	< 50 mV	< 50 mV

Nominal Output Voltage	12	24	32	48
Output Voltage	13.6 ± 0.05	27.2 ± 0.05	36.3 ± 0.05	54.4 ± 0.05
Absorption Voltage	14.4	28.8	38.4	57.6
Charging Amps	60	40	30	20
Absorption to Float	6 Amps	4 Amps	3 Amps	2 Amps
Output Fuses (ATC)	ATC 40 x 2	ATC 40 x 2	ATC 40 x 2	ATC 25 x 2
Battery Banks	1	1 or 2	1 or 2	1 or 2
Battery Size (AH)	240 - 360	160 - 240	120 - 180	80 - 120
Output Crowbar	16.0 ± 0.5 V	32.0 ± 1.0 V	42.7 ± 1.3 V	63.9 ± 2.0 V
Output Ripple & Noise	< 50 mV	< 50 mV	< 50 mV	< 50 mV
Transient Response	< 2 V for 50% Surge	< 2 V for 50% Surge	< 2 V for 50% Surge	< 2 V for 50% Surge
Line Load Regulation	< ± 0.5%	< ± 0.5%	< ± 0.5%	< ± 0.5%
Duty Cycle	Peak 20% for 10 min max; Continuous 100% for 24 hours/day	Peak 20% for 10 min max; Continuous 100% for 24 hours/day	Peak 20% for 10 min max; Continuous 100% for 24 hours/day	Peak 20% for 10 min max; Continuous 100% for 24 hours/day
Efficiency	> 75% @ Maximum Output	> 75% @ Maximum Output	> 75% @ Maximum Output	> 75% @ Maximum Output
Stages	2 or 3	2 or 3	2 or 3	2 or 3