

## MajorBCD300 Watt DC Charger

The **MajorBCD300** battery charger is capable of charging up to two independent banks of batteries at 12 VDC or 24 VDC. The two stage charging profile charges the batteries at a constant current equal to the maximum continuous output of the unit. When the battery voltages come up to the float voltage that the unit is set to, the current into the batteries will taper off as necessary to maintain the batteries at the float voltage.

The **MajorBCD300** can be left permanently connected without fear of overcharge or damage to the batteries. The adjustable float voltage feature allows the unit to be used for any type of battery including lead acid and gel cell.



### Product Features

- **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
- **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   |
| Humidity                    | 0 - 95°C @ Relative Humidity (non-condensing) with optional conformal coating   |
| Audible Noise               | None Ødb @ 3 feet   |
| 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)      | 9.1 x 7.8 x 2.5 in / 23.1 x 19.8 x 6.4 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                      | 4.0 lbs / 1.8 kg  |
| Warranty                    | 3 years   |
| Safety                      | CSA/UL Pending  |

## Model Selection Guide

| Model                    | MajorBCD300-32-12  | MajorBCD300-32-24  |
|--------------------------|--|--|
| Input Volts              | 20 - 45  | 30 - 45  |
| Input Amps               | 20   | 22   |
| Output Volts             | 13.6 ± 0.5 VDC   | 27.2 ± 0.5 VDC   |
| Charging Amps            | 25   | 20   |
| Output Crowbar           | 16.0 ± 0.5 VDC   | 32.0 ± 1.0 VDC   |
| Input Fuses              | AGC 25 Amp   | AGC 25 Amp   |
| Output Fuses             | AGC 30 Amp x 2   | AGC 25 Amp x 2   |
| Low Input Voltage Alarm  | 10.5 VDC   | 10.5 VDC   |
| Battery Banks            | 1 or 2   | 1 or 2   |
| Stages                   | 2  | 2  |
| Noise on Input           | < 10 mV  | < 10 mV  |
| Noise on Output          | < 10 mV  | < 10 mV  |
| Battery Size (Amp Hours) | 100 - 150  | 80 - 120   |
| Transient Response       | < 1V for 15 Amp Surge  | < 1V for 15 Amp Surge  |
| Efficiency               | > 85% @ Maximum Output                                       | > 85% @ Maximum Output                                       |
| Duty Cycle               | Peak 20% for 10 min max;<br>Continuous 100% for 24 hours/day | Peak 20% for 10 min max;<br>Continuous 100% for 24 hours/day |
| Line Load Regulation     | < ± 0.5%   | < ± 0.5%   |