

## MajorVTC300 DC/DC Voltage Converter

The **MajorVTC300** Voltage Converter has a single board design which incorporates state-of-the-art switchmode technology for unmatched efficiency and ultra-quiet operation.

Multiple stages of filtering reduce radiated or conducted noise to very low levels. Extra features include adjustable output voltage, audible and visual indicators for low input voltage, low output voltage, over-temperature and overload. Safety features include reverse input protection, over-temperature shutdown, current limiting, short circuit shutdown, a dry contact alarm relay output and output overvoltage crowbar.

Optional features include a remote panel monitoring with ON/OFF control.



### Product Features

- **Adjustable Output Voltage**
- **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
  - ▶ Output over-voltage crowbar
  - ▶ Reverse input protection
  - ▶ Dry contact output fail relay
- **Warranty**
  - ▶ 3 year parts and labour
- **Options**
  - ▶ Ruggedization against shock and vibration
  - ▶ Conformal coating
  - ▶ Parallel output diodes allows connection between two or more identical units
  - ▶ Can be built to Class 1, Division 2 Standards for Hazardous Duty
  - ▶ Extra wide Temperature Range -40°C to +70 °C

## Product Specifications

Mechanical & Environmental	
<b>Operating Temperature Range</b>	0 to 40°C @ Maximum Output; Derate Linearly 2.5% per °C from 40°C
<b>Humidity</b>	0-95°C @ Relative Humidity (non-condensing) with optional conformal coating
<b>Audible Noise</b>	None Ødb @ 3 feet
<b>Typical Service Life</b>	>10 years (87,600 hours)
<b>Isolation Input or Output to Case</b>	Any Input or Output to Case 500 VDC; Input to Output - Common Negative
<b>Dimensions (L x W x H)</b>	9.1 x 7.8 x 2.5 in / 23.1 x 19.8 x 6.4 cm
<b>Physical</b>	1 inch (2.5 cm) clearance all around; Marine grade aluminum; Black powder epoxy coat, 18-8 Stainless steel fastenings
<b>Weight</b>	2.5 lbs / 1.1 kg
<b>Connections</b>	4 contact output terminals
<b>Warranty</b>	3 years
<b>Safety</b>	CSA/UL Pending

## Model Selection Guide

Model	MajorVTC300-32-12	MajorVTC300-32-24
<b>Input Voltage</b>	20-45	30-45
<b>Input Amps (Maximum)</b>	20	22
<b>Input Fuse</b>	AGC 25 Amp	AGC 25 Amp
<b>Noise on Input</b>	< 25 mV	< 25 mV
<b>Output Volts</b>	13.6 ± 0.05 VDC	27.2 ± 0.05
<b>Output Adjustment</b>	± 0.5 V	± 0.5 V
<b>Output Amps</b>	25 continuous / 35 peak	20 continuous / 25 peak
<b>Output Crowbar</b>	16.0± 0.5 V	32.0± 1.0 V
<b>Ripple &amp; Noise</b>	<25 mV	<25 mV
<b>Transient Response</b>	< 1 V for 50% Surge	< 1 V for 50% Surge
<b>Line &amp; Load Regulation</b>	< ±0.5%	< ±0.5%
<b>Duty Cycle</b>	Peak 20% for 10 min max; Continuous 100% for 24 hours/day	Peak 20% for 10 min max; Continuous 100% for 24 hours/day
<b>Efficiency</b>	> 90% @ Maximum Output	> 90% @ Maximum Output

**Mechanical Drawing**

