

## MajorVTC600 DC/DC Voltage Converter

The **MajorVTC600** Series Voltage Converter is the high output version of the MajorVTC300 Series Voltage Converter using more powerful components, and a generously sized external heatsink for additional cooling.

This all new single board design 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, and output overvoltage crowbar. Optional features include a dry contact alarm relay output, and 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
- **High Efficiency**
- **Protection**
  - ▶ Current limiting protection
  - ▶ Output over-voltage crowbar
  - ▶ Reverse input protection
  - ▶ Dry contact output fail relay
- **Warranty**
  - ▶ 3 year parts and labour
- **Options**
  - ▶ Remote Control
  - ▶ Ruggedization against shock and vibration
  - ▶ Conformal coating
  - ▶ Parallel output diodes to allow connection between 2 or more identical units
  - ▶ 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</b>	Input-Case & Input-Output 1500 VDC; Output-Case 500 VDC
<b>Dimensions (L x W x H)</b>	9.1 x 7.8 x 4.3 in / 23.1 x 19.8 x 10.9 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>	6.0 lbs / 2.7 kg
<b>Connections</b>	4 contact output terminals
<b>Warranty</b>	3 years
<b>Safety</b>	CSA/UL Pending

## Model Selection Guide

MajorVTC	MajorVTC600-32-12	MajorVTC600-32-24
<b>Input Voltage</b>	20-45	30-45
<b>Input Amps (Maximum)</b>	40	40
<b>Input Fuse</b>	AGC 25 Amp x 2	AGC 25 Amp x 2
<b>Noise on Input</b>	< 50 mV	< 50 mV

<b>Nominal Output Volts</b>	12	24
<b>Output Volts</b>	13.6 ± 0.05 VDC	27.2 ± 0.05 VDC
<b>Output Adjustment</b>	± 0.5 V	± 0.5 V
<b>Output Amps</b>	50 Continuous / 55 Peak	35 Continuous / 40 Peak
<b>Output Crowbar</b>	16.0 ± 0.5 V	32.0 ± 1.0 V
<b>Ripple &amp; Noise</b>	<50 mV	<50 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

