

MajorVTC310 DC/DC Voltage Converter

The **MajorVTC310** Voltage Converter supplies 12, 24 or 32 VDC from a 110, 220, or 300 VDC power source. Other output voltages up to 72 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 and short circuit shutdown with automatic recovery.

The output voltage is easily adjusted 0.5 Volts above or below the standard output voltage to accommodate special requirements.



Product Features

- **Custom Input Voltages**
 - ▶ From 100 to 360 VDC
- **Custom Output Voltages**
 - ▶ From 8 to 55 VDC
- **Fully Isolated Design**
- **Transient Voltage Suppressor**
- **Adjustable Output Voltage**
- **Audible & Visual Indicators**
 - ▶ For constant current, low input voltage, low output voltage & over-temperature
- **Extremely Rugged**
 - ▶ Well suited for marine, industrial and other harsh environments
- **Protection**
 - ▶ Short circuit shutdown
 - ▶ Current limiting protection
 - ▶ Output over-voltage crowbar
 - ▶ Reverse input protection
 - ▶ Dry contact output fail relay
- **High Tolerance**
 - ▶ For shock and vibration
- **Ultra-Quiet**
 - ▶ Low EMI operation
- **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
 - ▶ 19" Panel Rackmount
 - ▶ Extra wide Temperature Range -40°C to +70 °C

Product Specifications

Mechanical & Environmental	
Operating Temperature Range	0 to -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	None Ødb @ 3 feet
Typical Service Life	>10 years (87,600 hours)
Isolation	Any Input or Output to Case 500 VDC; Input to Output - Common Negative
Dimensions (L x W x H)	9.1 x 7.8 x 2.5 in / 23.1 x 19.8 x 6.4 cm
Physical	1 inch (2.5 cm) clearance all around; Marine grade aluminum; Black powder epoxy coat, 18-8 Stainless steel fastenings
Weight	4.0 lbs / 1.8 kg
Connections	4 contact output terminals
Warranty	3 years
Safety	CSA/UL Pending

Model Selection Guide

Model	MajorVTC310-110	MajorVTC310-250	MajorVTC310-300
Nominal Input Voltage	110	250	300
Input Voltage	100-140	230-280	280-360
Input Amps	4.8	2.1	1.5
Input Fuse	4	3	2
Noise on Input	< 25 mV	< 25 mV	< 25 mV

Nominal Output Voltage	12	24	32
Output Voltage	13.6 ± 0.05	27.2 ± 0.05	36.3 ± 0.05
Output Adjustment	±0.5	±0.5	±0.5
Output Amps Continuous	20	10	7.5
Output Amps Peak	25	13	10
Output Crowbar	16.0 ± 0.05 V	32.0 ± 1.0 V	42.7 ± 1.3 V
Output Ripple & Noise	< 25 mV	< 25 mV	< 25 mV
Transient Response	< 1 V for 50% Surge	< 1 V for 50% Surge	< 1 V for 50% Surge
Line & Load Regulation	< ±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
Efficiency	> 85% @ Max Output	> 85% @ Max Output	> 85% @ Max Output

