

## VCH10 DC/DC VOLTAGE CONVERTER

The VCH10 Step Down series of Voltage Converters supplies up to 10 amps of output current at 12, 24, 36 or 48 volts from any higher voltage between 20 and 80 volts DC for use in automotive, heavy equipment, marine, industrial, rail or alternative energy environments.

All surface mount high frequency design offers higher reliability, higher efficiency (more than 92%), more power (up to 544 watts at 48 VDC Out) and minimum size.

The unit has reverse input protection, output current limiting and output over-voltage protection.



#### Available models

#### Input (VDC)

20 - 80	30 - 80	40 - 80	45 - 80	60 - 80
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#### Output | Nominal (VDC)

12	24	32	36	48

#### Output | Actual (VDC)

<b>  13.6   27.2   36.3   40.8   5</b>	54.4
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### **Applications**











# VCH10 | DC/DC VOLTAGE CONVERTER

#### **INPUT**

Model	VCH10-12	VCH10-24	VCH10-32	VCH10-36	VCH10-48
Input Volts	20 - 80 VDC	30 - 80 VDC	40 - 80 VDC	45 - 80 VDC	60 - 80 VDC

#### **OUTPUT VOLTS**

Nominal	12 VDC	24 VDC	32 VDC	36 VDC	48 VDC
Actual	13.6 VDC	27.2 VDC	36.3 VDC	40.8 VDC	54.4 VDC

#### **OUTPUT**

Output Amps			10 Amps		
Dissipation			12 Watts		
Efficiency	91.9%	95.8%	96.8%	97.1%	97.8%

#### **ELECTRICAL**

Input Ripple & Noise	< 100 mV Peak to Peak
Output Ripple & Noise	< 50 mV Peak to Peak
Transient Response	< 300 mV for 50% Load Step Change
Regulation (Line & Load)	< +/- 0.5%

#### **MECHANICAL**

Dimensions	4.85 in / 12.3 cm Long x 4.13 in / 10.5 cm Wide (incl. mounting flanges) x 1.03 in / 2.6 cm High
Clearance	1.0 in / 2.5 cm all around
Weight	0.62 lb / 0.28 kg
Material and Finish	Marine grade aluminum with red anodize cover / black anodize chassis
Mounting	Wall or shelf mount
Connections	Pluggable Phoenix Combi-Com four position terminals

#### **OPTIONS**

Heavy duty ruggedization with wide temperature range

Paralleling diodes

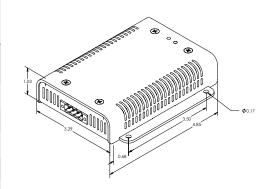
Custom output voltages available

#### **FEATURES**



Simple plug in wiring

#### **DIMENSIONS**



#### **ENVIRONMENTAL AND SAFETY**

Operating Temperature Range	-25°C to +40°C @ maximum output. Derate Linearly 2.5% per °C from 40°C (Optional -40°C wide temperature range available)
Humidity	0 - 95% Relative Humidity (non-condensing) with standard conformal coating
Audible Noise	NONE 0db @ 3ft
Typical Service Life	> 10 years (87,600 hrs)
Isolation	>1500 VDC Input-Output, Input-Case, Output-Case
Warranty	Three years parts and labor
Safety	Built to meet CSA 22.2.107.1 & UL458



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