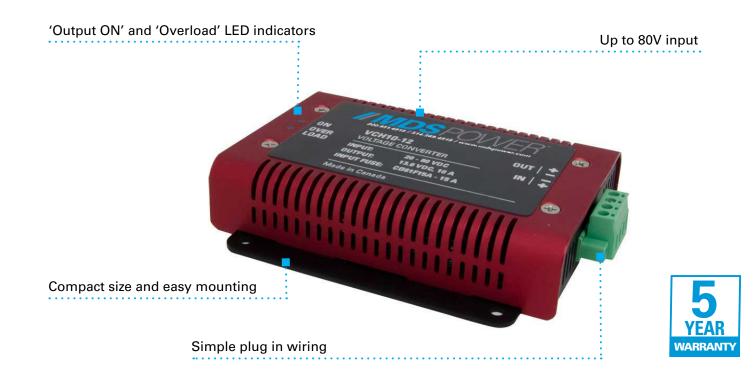




### **PRODUCT OVERVIEW**



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
Output   Nominal (VDC)				
12	24	32	36	48
Output   Actual (VDC)				
13.6	27.2	36.3	40.8	54.4
Applications:				





# **MDS**POVVER<sup>®</sup>



## **TECHNICAL SPECIFICATIONS**

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%

< 100 mV Peak to Peak < 50 mV Peak to Peak

< +/- 0.5%

## OPTIONS:

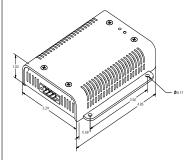
- Heavy duty ruggedization with
  wide temperature range
- Paralleling diodes
- Custom output voltages
  available

#### FEATURES:



· Simple plug in wiring

#### DIMENSIONS:



#### MECHANICAL

Efficiency

**ELECTRICAL** 

**Input Ripple & Noise** 

**Output Ripple & Noise** 

**Regulation (Line & Load)** 

MECHANOAL		
Dimensions	4.85 in / 12.3 cm Long x 4.13 in / 10.5 cm Wide (incl. mounting flange 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 & Finish	Marine grade aluminum with red anodize cover / black anodize chassis	
Mounting	Wall or shelf mount	
Connections	Pluggable Phoenix Combi-Com four position terminals	

< 300 mV for 50% Load Step Change

#### **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	Five years	
Safety	Built to meet CSA 22.2.107.1 & UL458	

