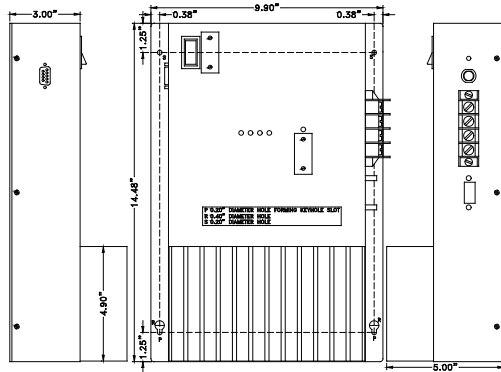


FULLY ISOLATED DC/DC CONVERTER

MODEL VTC1015 Series



Description

The model VTC1015 Voltage Converter supplies either 12V, 24V, or 48 VDC from a 24V, 36V, 48V, or 72VDC power source.

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, reverse battery hookup protection and output short circuit shutdown with automatic recovery.

The output voltage is easily adjusted 1.0 volts above or below the standard output voltage. Devices connected to the converter are protected by an output overvoltage crowbar circuit.

Optional features include a Remote Control, a 19" Rack Mount version, and/or a Digital Volt Ammeter to allow monitoring of output current and output voltage.

Benefits

- Ultra-quiet
- Power sensitive electronics without interference
- Rugged and reliable to ensure years of safe and trouble free operation

Design Features

- Fully Isolated Design
- Transient Voltage Suppressor
- Adjustable output voltage
- Audible and visual indicators for constant current, low input voltage, low output voltage and over-temperature
- Over-temperature shutdown
- Short circuit protection
- Output overvoltage crowbar
- Cycle by cycle current limiting
- Reverse input protection
- Ultra-quiet low EMI operation
- Dry contact output fail relay
- Thermostatically controlled fan
- Custom input / output voltages from 12 to 55 VDC
- Remote control option
- 19" Rackmount option
- Wide-Temperature operation Available
- Conformal Coating and/or Harsh Environment Ruggedization Available
- Three year parts and labour warranty

Applications

- Telecom Power Plants
- Electric Utilities and Substations
- Marine & other rugged environments
- Base Station Power (Radio & Telecommunications)
- Industrial Controls (OEM Applications)
- Solar / Alternative Power Systems
- Emergency Power Backup (UPS)

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Electrical (Input)				
Nominal (ip)	24	36V	48	72
Actual (Vdc)	22-35	30 - 50	40-60	65-90
Input Amps (max)	72.6	45	36.3	23
Input Fuse (MDA)	3 x 25A	2 x 30A	2 x 20A	1 x 30A
Noise on Input	< 50 mV			
Electrical (Output)				
Output Nominal (op)	12		24	48
Output Volts (DC)	13.6 ± 0.05		27.2 ± 0.05	54.4 ± 0.05
Output Amps	60 cont. / 70 peak		40 cont. / 45 peak	20 cont. / 22.5 peak
Output Crowbar	16.0 ± 0.5V		32.0 ± 1.0V	63.9 ± 2.0V
Output Adjustment (Vdc)	± 1.0 V			
Switching Frequency	60 ± 2.0 KHz			
Idle Power	< 10 Watts			
Output Ripple & Noise	< 50 mV			
Transient Response	< 2V for 50% Surge (Output Amps/2)			
Regulation (Line & Load)	< +/- 0.5%			
Duty Cycle	Peak 20% for 10 min max Continuous 100% for 24 hours per day			
Efficiency	> 82.6% @ Maximum Output			
Environment Specification				
Operating Temp. Range	-25°C to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C - +55°C extra wide temp. operation avail.)			
Humidity	0 - 95% Relative Humidity (non-condensing) with standard conformal coating			
Audible Noise	NONE Ødb @ 3 ft (34.5 dB when fan operating)			
Typical Service Life	> 10 yrs. (87,600 hrs)			
Isolation	Input-Case & Input-Output 1500VDC (500VDC @ 24V I/P) Output-Case 500VDC (1500VDC @ 48V O/P)			
Mechanical Specification				
Length	14.5 in / 36.8 cm			
Width	9.9 in / 25.1 cm			
Height	5.5 in / 14.0 cm			
Material	Marine Grade Aluminium			
Finish	Black Anodize / Powder Epoxy Coat			
Fastenings	All 18-8 Stainless Steel			
Weight	12.0 lb / 5.5 kg			
Connections	Four contact output terminals			
Warranty	Three years parts and labour			
Safety	Designed to meet CSA 22.2.107.1 & UL458			

Note: Specifications are subject to change without notice.