

PRODUCT OVERVIEW



The VTC610R & VTC1000R Rackmount Voltage Converters supply 12, 24 or 48VDC from a 130VDC battery or 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.

All rackmount units come standard with high quality digital output meters to allow monitoring of output current and output voltage.

Available models

12V	24V	48V
600W		1000W

Applications

- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Plants
- Base Station Power (Radio & Telecommunications)
- Industrial Controls (OEM Applications)
- Solar / Alternative Power Systems

TECHNICAL SPECIFICATIONS

INPUT	VTC610R			VTC1000R		
Nominal	130 VDC			130 VDC		
Actual (Vdc)	100-150			100-150		
Input Amps (max)	8.0			14.5		
Input Fuse (MDA)	10			20		
Noise in Input	< 50 mV			< 50 mV		
OUTPUT						
Output Nominal	12 VDC	24 VDC	48 VDC	12 VDC	24 VDC	48 VDC
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05	54.4 ± 0.05	13.6 ± 0.05	27.2 ± 0.05	54.4 ± 0.05
Output Amps	40 cont. / 45 peak	20 cont. / 25 peak	10 cont. / 13.5 peak	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	16.0 ± 0.5V	32.0 ± 1.0V	63.9 ± 2.0V
Output Adjustment (Vdc)	± 1.0 Vdc					
Switching Frequency	60 ± 2.0 KHz					
Idle Power	< 10 Watts					
Output Ripple & Noise	< 50 mV					
Transient Response	< 2V for 50% Surge					
Regulation (Line & Load)	< +/- 0.5%					
Duty Cycle	Peak 20% for 10 min max Continuous 100% for 24 hours per day					
Efficiency	> 85% @ Maximum					
MECHANICAL						
Dimensions	19.0 in / 48.3 cm Long x 13.5 in / 34.3 cm Wide x 3.5 in.(2U) / 8.3 cm High					
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					
ENVIRONMENTAL AND SAFETY						
Operating Temp. Range	-25° to +40°C @ maximum output. Derate Linearly 2.5% per °C from 40°C. (Optional -40°C extra wide temp. operation)					
Humidity	0 - 95% relative humidity (non-condensing) with optional 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 Output-Case 500VDC (1500VDC @ 48V O/P)					
Warranty	3 years					
Safety	Designed to meet CSA 22.2.107.1 & UL458					

FEATURES

- Fully Isolated Design
- Adjustable output voltage
- Audible & visual indicators for constant current, low input voltage, low output voltage & over-temperature
- Over-temperature shutdown
- Short circuit protection
- Reverse input protection
- Ultra-quiet low EMI operation
- Dry contact output fail relay

OPTIONS

- Ruggedization
- Wide-Temperature operation
- Battery Back-up option

DIMENSIONS

