

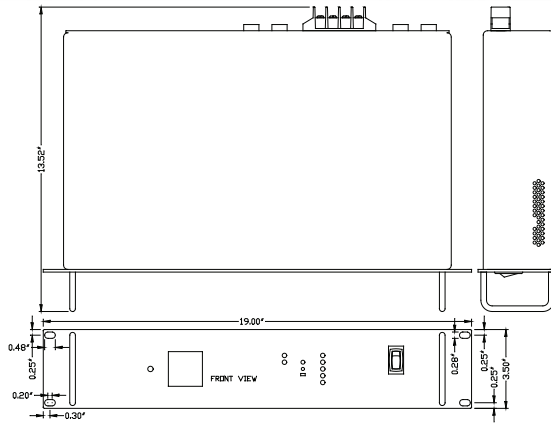


ANALYTIC SYSTEMS

Power Conversion Solutions

DC/DC ISOLATED VOLTAGE CONVERTERS

MODEL VTC1000R



Description

The model VTC1000R Rackmount Voltage Converter supplies 12V, 24V or 48 VDC from a 110V, 250V or 300 VDC power source. Other input or output voltages up to 72 volts are also available by special order.

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. An optional Battery Back-up is also available.

Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation

Design Features

- Fully Isolated Design
- Transient Voltage Suppressor
- Adjustable output voltage
- Audible & visual indicators for constant current, low input voltage, low output voltage & over-temperature
- Over-temperature shutdown
- Short circuit protection
- Output overvoltage crowbar
- Cycle by cycle current limiting
- Reverse input protection
- Ultra-quiet low EMI operation
- Thermostatically controlled cooling fan
- Dry contact output fail relay
- Custom input voltages from 105 to 360 VDC
- Wide-Temperature operation Available
- Battery Back-up option
- Conformal Coating and/or Harsh Environment Ruggedization Available
- 3 year parts and labour warranty

Applications

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

An ISO9001 and AS9100 Registered Company Battery Chargers • Inverters • Power Supplies • Voltage Converters

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www.analyticsystems.com

DC/DC ISOLATED VOLTAGE CONVERTERS

MODEL VTC1000R

Electrical (Input)			
Nominal (ip)	110	250	300
Actual (Vdc)	100-140	230-280	280-360
Input Amps (max)	14.5	6.3	5.2
Input Fuse (MDA)	20	10	6
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 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 Output		
Environment Specification			
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 avail.)		
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)		
Mechanical Specification			
Depth	13.5 in/ 34.3 cm		
Width	19.0 in/ 48.3 cm		
Height	2u (3.5 in.)		
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	3 years		
Safety	Designed to meet CSA 22.2.107.1 & UL458		

Note: Specifications are subject to change without notice.



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