ANALYTIC SYSTEMS
Power Conversion Solutions

#207 12448 82nd Ave.
Surrey, BC V3W 3E9 CANADA

+1 (604) 543-7378 • phone
1-800-668-3884 • toll free
+1 (604) 543-7354 • fax

www.analyticsystems.com

DC/DC Converters

VTC1015R Isolated DC/DC Converters

Description

The model VTC1015R Rackmount Voltage Converter supplies either 12V, 24V, or 48 VDC from a 24V or 48VDC 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 0.5 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

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)

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
- Dry contact output fail relay
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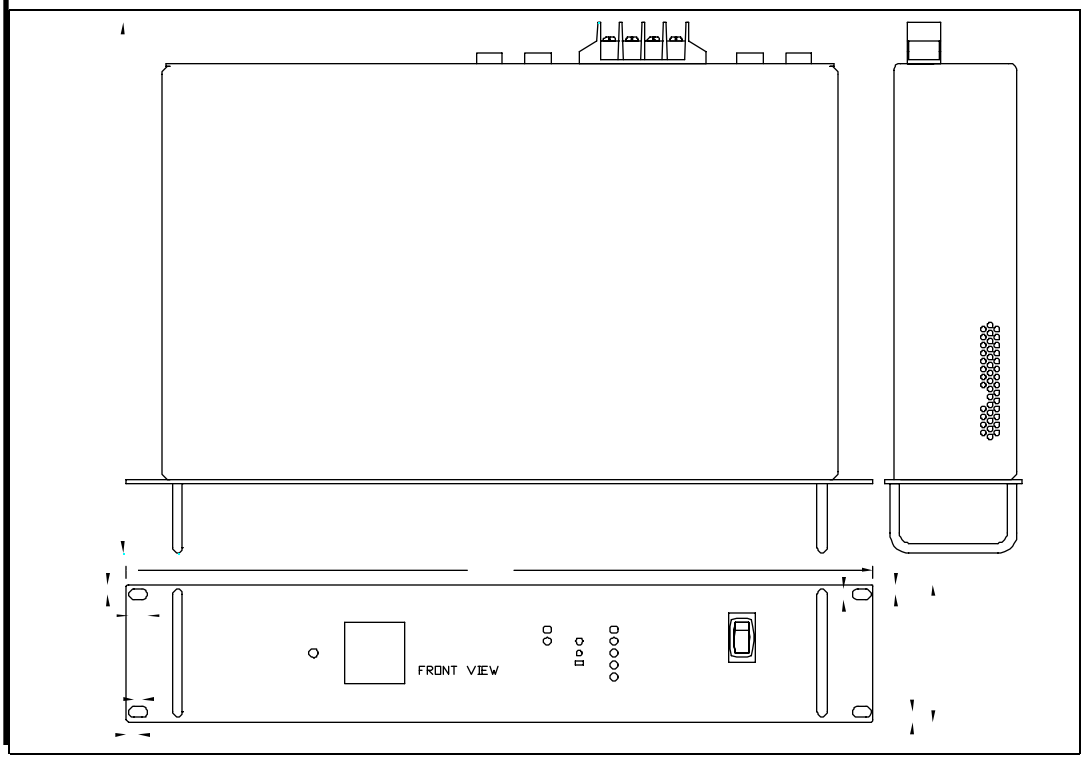
- Thermostatically controlled cooling fan
- Standard Digital Volt/Ammeter
- Custom input / output voltages from 8 to 55 VDC
- Battery Back-up option
- Wide-Temperature operation Available
- Conformal Coating and/or Harsh Environment Ruggedization Available
- 3 year parts and labour warranty

VTC1015R Series DC/DC Voltage Converter

Mechanical Diagram



Specifications

Electrical (Input)

Nominal (ip)	24	48
Actual (Vdc)	22-35	44-60
Input Amps (max)	56 or 66	28 or 33
Input Fuse (ATC)	2 x 30 or 3 x 25	1 x 30 or 2 x 20
Noise on Input	< 50 mV	

Environmental Specifications

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°C 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

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 Adjustment (Vdc)	± 0.5V		
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	63.9 ± 2.0V
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 maximum Continuous 100% for 24 hours per day		
Efficiency	> 85% @ Maximum Output		

Mechanical Specifications

Depth	13.5 in
Width	19”
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	cETLus to UL1012 & CSA22.2 Pending

Available From:

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Quality since 1976

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