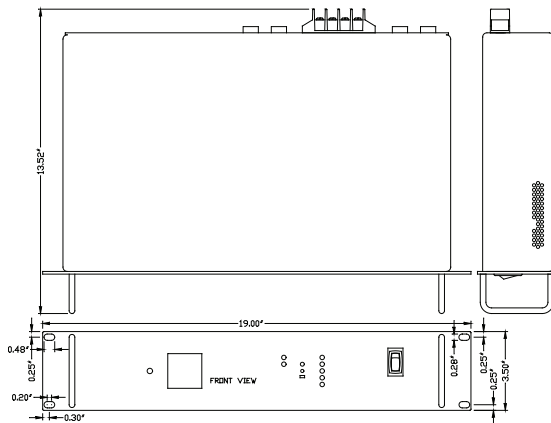


# ANALYTIC SYSTEMS

Power Conversion Solutions

## DC/DC ISOLATED VOLTAGE CONVERTER

### MODEL VTC615R SERIES



## Description

The model VTC615R Rackmount Voltage Converter supplies either 12V, 24V, or 48 VDC from a 24V, 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.

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
- Dry contact output fail relay
- Thermostatically controlled cooling fan
- Custom input / output voltages from 8 to 55 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
- Base Station Power Radio & Telecommunications)
- Military Applications (COTS)
- Industrial Controls (OEM Applications)
- Solar / Alternative Power Systems
- Emergency Power Backup (UPS)

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

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# DC/DC ISOLATED VOLTAGE CONVERTERS

# MODEL VTC615R SERIES

Electrical (Input)				
Nominal (ip)	24	36	48	72
Actual (Vdc)	20-35	**30-45	40-60	65-90
Input Amps (max)	39.5	27.1	20.3	12.6
Input Fuse (ATC)	3 x 15	2 x ATC-15	1 x 25	1 x 20
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	40 cont. / 45 peak		20 cont. / 25 peak	10 cont. / 12.5 peak
Output Crowbar	16.0 ± 0.5V		32.0 ± 1.0V	63.9 ± 2.0V
Output Adjustment	± 1.0 V			
Switching Frequency	60 ± 2.0 KHz			
Idle Power	< 10 Watts			
Output Ripple & Noise	< 10 Watts			
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	> 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 (500V @ 24V I/P) 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			
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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