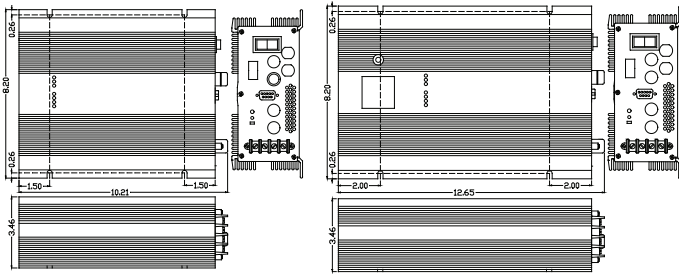


ANALYTIC SYSTEMS

Power Conversion Solutions

DC/DC VOLTAGE CONVERTERS MODEL VTC315



Description

The model VTC315 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 1.0 volts above or below the standard output voltage. Devices connected to the converter are protected by an output overvoltage crowbar circuit.

Available options include a Remote Control and/or a Digital Volt Ammeter to monitor output current and voltage.

Benefits

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

Design 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
- Output over voltage crowbar
- Cycle by cycle current limiting
- Reverse input protection
- Transient Voltage Suppression
- Ultra-quiet low EMI operation
- Dry contact output fail relay
- Custom input / output voltages from 8 to 55 VDC
- Remote control option
- Digital Volt/Ammeter option
- Wide Temperature operation Available
- Conformal Coating and/or Harsh Environment Ruggedization available

Applications

- ◆ Telecom Power Plants
- ◆ Marine & other Rugged Environments
- ◆ Electric Utilities and Substations
- ◆ Base Station Power
- ◆ Solar / Alternative Power Systems
- ◆ Emergency Power Backup (UPS)
- ◆ Military Applications (COTS)
- ◆ Industrial Controls
- ◆ Solar / Alternative Power Systems
- ◆ Fuel Cells



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

8128 River Way, Delta B.C. V4G 1K5 Canada T. 604.946.9981 F. 604.946.9983 TF. 800.668.3884 (US/CANADA)

www.analysystems.com

DC/DC VOLTAGE CONVERTERS

MODEL VTC315

Electrical (Input)			
Nominal (ip)	24	48	72
Actual (Vdc)	20-35	40-60	65-90
Input Amps (max)	22.1	11.1	6.8
Input Fuse	MDA25	MDA15	MDA10
Noise on Input	< 25 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	20 cont. / 22.5 peak	10 cont. / 12.5 peak	5.0 cont. / 6.0 peak
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	63.9 ± 2.0V
Output Adjustment	± 1.0		
Switching Frequency	60 ± 2 KHz		
Idle Power	< 10 Watts		
Output Ripple & Noise	< 25 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	> 80% @ 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		
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			
Length	9.6 in / 24.4 cm		
Width	8.2 in / 20.8 cm		
Height	3.5 in / 6.4 cm		
Clearance	1 inch (2.5 cm) all around		
Material	Marine Grade Aluminium		
Finish	Black Anodize / Powder Epoxy Coat		
Fastenings	All 18-8 Stainless Steel		
Weight	7.5 lb / 3.4 kg		
Connections	Four contact output terminal		
Warranty	3 years		
Safety	Designed to meet CSA 22.2.107.1 & UL458. Certified to meet ABS 11-HS794404B-PDA		

Note: Specifications are subject to change without notice.



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