

ANALYTIC SYSTEMS

Power Conversion Solutions

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Benefits

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

Applications

- Marine & other rugged environments
- Mobile Offices (TV and Radio Vans)
- Automotive / RV
- Electric Utilities and Substations
- Base Station Power (Radio & Telecommunications)
- Industrial Controls (OEM Applications)
- Field Work / Construction Sites
- Solar / Alternative Power Systems
- Emergency Backup Power (UPS)

DC/DC Converters

VTC180 Series DC/DC Converters

Description

The VTC180 Series of voltage converters are variable duty cycle switching power supplies. They can be configured to run from a 32V, 48V or 72 VDC power systems to provide output voltages as shown below.

The VTC180 Series Voltage Converter features reverse input protection, current limiting, output over-voltage protection, ultra quiet low EMI operation and a wide operating temperature range. Optional features include a remote panel monitoring with On-Off control.

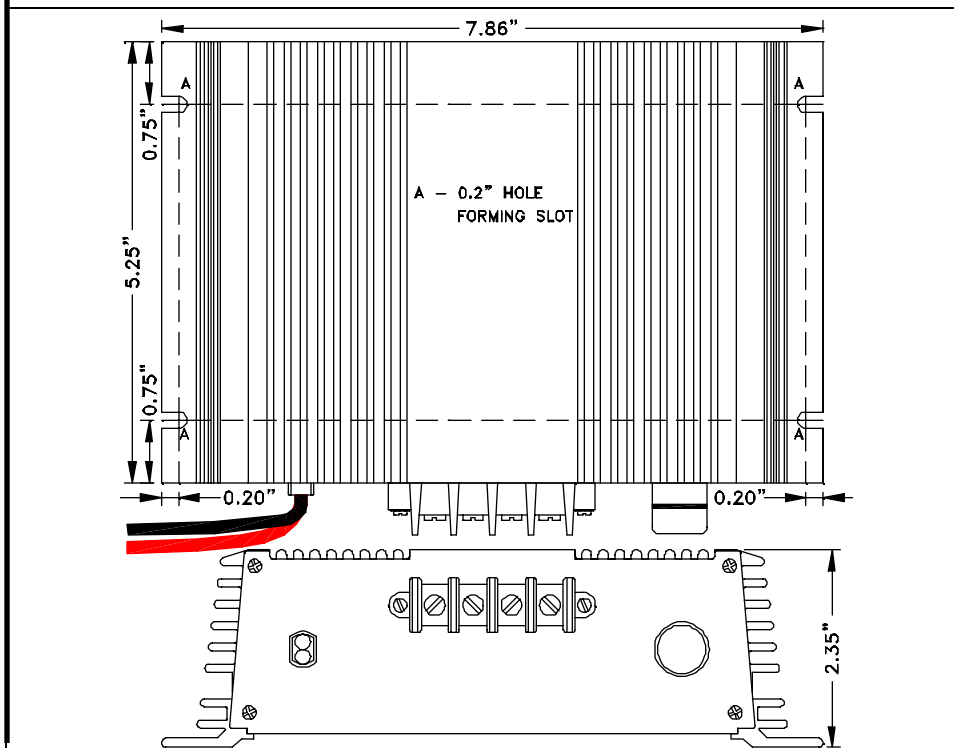
We are confident that you will get many years of reliable service from this Voltage Converter.

Features

- Input voltage range allows operation from 32, 48, or 72VDC power systems
- Audible & visual indicators for constant current, low input voltage, low output voltage & over-temperature
- Extremely rugged and well suited for marine and other demanding environments
- High tolerance for shock and vibration
- Ultra-quiet low EMI operation
- Inrush protection
- Current limiting protection
- Reverse input protection
- High Efficiency
- Output over-voltage crowbar
- Remote control option
- Wide-Temperature operation Available
- Conformal Coating and/or Harsh Environment Ruggedization Available
- 3 year parts and labour warranty

VTC180 Series DC/DC Voltage Converter

Mechanical Diagram



Specifications

Electrical (Input)

Input Volts (ip)	32	48	72
Actual (Vdc)	♦ 20 – 45	40 – 65	65 – 100
Input Amps (max)	13.6	6.8	4.3
Input Fuse (MDA)	15	10	5
Noise on Input	< 10 mV		

♦ 30 - 45 Vdc input range for a 24Vdc output

Environmental Specifications

Operating Temp. Range	-25° - +50°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
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Any Input or Output to Case 500 VDC Input to Output – Common Negative

Electrical (Output)

Output Nominal (op)	12	24
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05
Output Amps	15 cont. / 18 peak	7.5 cont. / 9.0 peak
Output Adjustment	± 0.5	
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V
Output Ripple & Noise	< 10 mV	
Transient Response	< 1V for 50% Surge	
Regulation (Line & Load)	< +/- 0.5%	
Duty Cycle	Peak 20% for 10 min maximum Continuous 100% for 24 hours per day	
Efficiency	> 90% @ Maximum Output	

Mechanical Specifications

Length	7.9 in / 20.1 cm
Width	6.0 in / 15.2 cm
Height	2.4 in / 6.1 cm
Material	Marine Grade Aluminium
Finish	Black Anodize / Powder Epoxy Coat
Fastenings	All 18-8 Stainless Steel
Weight	4.0 lb / 1.8 kg
Connections	Four contact output terminals
Warranty	3 years

Available From:



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Quality since 1976

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