

# VTC1000i Series DC/DC Voltage Converter



(Shown with Optional Digital Meter)

A product of:



## Benefits

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

## Applications

- Steel Mills
- Marine & other rugged environments
- Electric Utilities and Substations
- Base Station Power (Radio & Telecommunications)
- Industrial Controls (OEM Applications)
- Solar / Alternative Power Systems
- Emergency Power Backup (UPS)
- Fuel Cells

## DC/DC Converters

### VTC1000i Series (isolated)

#### Description

The model VTC1000i Voltage Converter supplies 12V, 24V or 48 VDC from a 110V, 220V or 300VDC power source. Other input or output voltages up to 360 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.

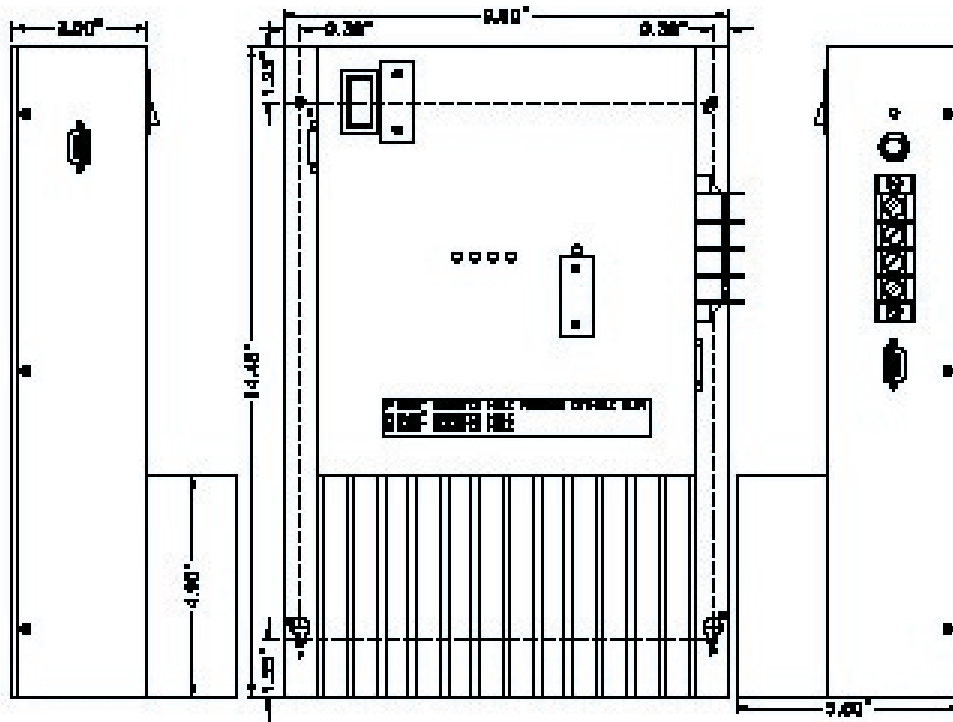
The output voltage is easily adjusted 1.0 volts above or below the standard output voltage to accommodate special requirements.

Optional features include a Remote Control, a 19" Rack Mount version, and/or a Digital Volt Ammeter to allow monitoring of output current and output voltage.

#### 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 overvoltage crowbar
- Cycle by cycle current limiting
- Reverse input protection
- Transient Voltage Suppression
- Ultra-quiet low EMI operation
- Dry contact output fail relay
- Thermostatically controlled fan
- Custom input / output voltages
- Remote control option
- Digital Volt/Ammeter option
- Wide-Temperature operation Available
- Conformal Coating and/or Harsh Environment Ruggedization Available
- 19" Rackmount Option (VTC1000iR)
- 3 year parts and labour warranty

## Mechanical Diagram



## Specifications (Specifications Subject to Change Without Notice)

### Electrical (Input)

Nominal (ip)	100	250	300
Actual (Vdc)	100-140	230-280	280-380
Input Amps (max)	14.5	6.3	5.2
Input Fuse (MDA)	20	10	6
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% 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)

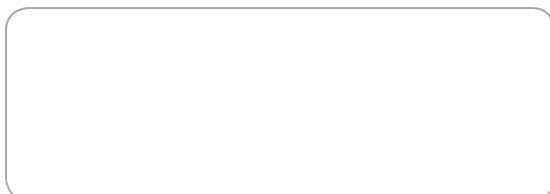
### Electrical (Output)

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	± 1		
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	63.9 ± 2.0V
Output Ripple & Noise	< 50 mV		
Transient Response	< 2V for 50% Surge		
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

Length	14.5 in / 36.8 cm
Width	9.9 in / 25.1 cm
Height	5.5 in / 14.0 cm
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	Approval to cETLus standards pending

Available from:



# RIPEnergy®

The power conversion company

RIPEnergy AG  
Talstrasse 2  
CH-8702 Zollikon  
Switzerland

Ph +41-(0)43-818 53 85  
Fax +41-(0)43-818 53 87  
www.ripenergy.ch