

DCC2500 Series DC/DC Voltage Converter



Benefits

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

Applications

- Marine / Automotive / RV
- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Locations
- Steel Mills
- Military Applications (COTS)
- Industrial Controls
- OEM Applications
- Solar / Alternative Power Systems
- Fuel Cells

DC/DC Converters

DCC2500 Series (isolated)

Description

The DCC2500 Series rugged, industrial quality DC/DC converter uses a field proven technology to generate up to 2500W, depending on input/output combination. It is a mature design with a track record in numerous applications. The unit is built with internal modules. Built-in fans provide sufficient airflow for operation without de-rating to the specified temperature.

Full electronic protection eliminates failure due to abnormal operational conditions, including application errors.

The input and output are filtered for low noise.

Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF.

Options include a Form C output fail alarm and remote shutdown.

Additional ruggedizing and conformal coating are available for applications that require high immunity to shock, vibration and humidity.

The unit is manufactured at our plant under strict quality control.

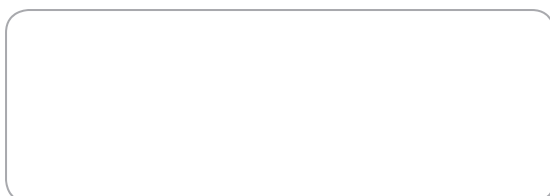
Features

- Compact size
- Competitive price
- Full electronic protection
- Rugged industrial quality
- Field-proven design in a wide range of applications
- Single low noise output
- Fan cooling
- Modular

Specifications (Specifications Subject to Change Without Notice)

Input Voltage range	24Vdc (21-30V) 48Vdc (42-60V) 125Vd (105-145V) Other inputs on request
Input Protection	Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Input Isolation	Depends on the required input/output combination, at minimum: 1000VDC input to chassis 1000VDC input to output 500VDC output to chassis
Output Voltages	24V/104A, 36V/69A, 48V/52A, 72V/34A, 96V/26A or 125V/20A are standard Output is floating, either terminal can be grounded Other outputs on request
Redundancy diode	Optional
Line / Load Regulation	+/- 1% combined from 10% load to full load including output diode
Dynamic Response	Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time
Output Overvoltage Protection	Second regulator loop. Second loop completely stable and independent of main regulator loop
Overload Protection	Rectangular current limiting with short-circuit protection.(no hiccup) Thermal shutdown in case of insufficient cooling (self resetting)
Efficiency	Typically 85% at full load depending on input/output combination
EMI	EN 55022 Class A, as minimum
Switching Frequency	55kHz +/- 3kHz
Output Ripple/Noise	Better than 1% of output voltage peak to peak or 0.2% rms of the output voltage (20MHZ BW)
Operating Temperature	0°C to +50°C for full specification Extended temperature range available
Temperature Drift	0.03% per °C over operating temperature range
Connections	Copper studs with nuts or terminal block
Cooling	Forced air by two built-in fans and conduction to customer heatsink or chassis
Environmental Protection	Basic ruggedizing Optional heavy ruggedizing and conformal coating is available
Shock/Vibration	IEC 61373 Cat 1 A&B
Humidity	5 - 95% non-condensing
MTBF	130,000 hours @ 45°C (fans not included) Demonstrated MTBF is significantly higher
Indicators	None
Control Input	Optional
Alarm Outputs	None on standard version. Output Fail Alarm (Form C) as option
Dimensions LxWxH	Chassis, depending on input/output combination 3U3 407 x 187 x 132mm or 3U4 407 x 244 x 132mm
Weight	3U3: 6 kg 3U4: 8 kg
Connections	Depends on input/output combination
Standards	Designed to meet EN60950 and related UL & CSA standards
RoHS Compliance	Fully compliant
Warranty	2 years

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