

# 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.

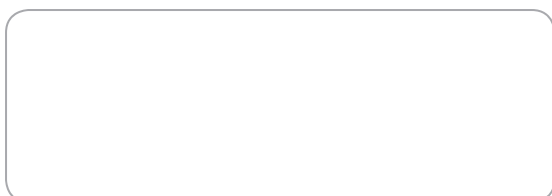
### Features

- 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)

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

Available from:



## RIPEnergy®

The power conversion company



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