

# DCC5000 Series DC/DC Voltage Converter



Chassis-mount



Rack-mount

## Benefits

- 19" Rack- or chassis-mount, 3U
- 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

DCC5000 Series (isolated)

### Description

The DCC5000 Series is a modular, industrial quality DC/DC converter system that uses a field technology to deliver up to 5000W output power, depending on the input/output configuration.

It is a mature design with a track record in numerous applications. The fully loaded shelf can hold up to seven internal modules, which also provide inherent redundancy; the failure of one module would only cause a minor loss in output power.

Several shelves can be paralleled for higher output power. Multiple output versions can also be achieved by combining various internal modules.

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

The system has input and output filtering in compliance with EN 55022 EMI standards. Built-in fans provide sufficient airflow for operation without de-rating to the specified temperature.

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

Additional ruggedizing and conformal coating are available for operation in humid environments. Other options include module fail alarm, extended temperature ranges and remote shut down. The unit is manufactured at our plant under strict quality control.

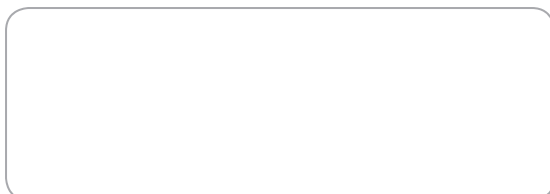
### Features

- Redundant, modular
- Full electronic protection
- Telecom quality
- Field-proven design
- Single or multiple output
- Up to 5000W output power
- 2 years parts and labour warranty

# Specifications ( Specifications Subject to Change Without Notice)

<b>Input Voltage range</b>	24V, 48V, 125V $\pm$ 15% are standard. Consult factory for other inputs
<b>Input Protection</b>	Inrush current limiting. Reverse polarity protection Varistor Internal safety fuse Lower voltage than specified minimum input will not damage unit
<b>Input Isolation</b>	Depends on the required input/output Combination. At minimum: 1000Vdc input to chassis 1500Vdc input to output 500Vdc output to chassis
<b>Output Voltages</b>	Any DC output from 12V to 300VDC, Consult factory for other outputs
<b>Redundancy diodes</b>	Installed on each internal module for separation and redundancy
<b>Line / Load Regulation</b>	$\pm$ 1% to $\pm$ 2% combined depending on output voltage
<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>	Double regulator loop
<b>Overload Protection</b>	Current limiting with short circuit protection Self-resetting thermostat for thermal protection
<b>Efficiency</b>	75 - 94% depending on Input/Output combination
<b>EMI</b>	EN 55022 Class A with margins, Class B filtering as option
<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>Output Fail Alarm</b>	Not on standard version Optional module fail alarm or output fail alarm
<b>Operating Temperature</b>	0°C to +50°C with built-in fan cooling. Extended temperature range available
<b>Temperature Drift</b>	0.03% per °C over operating temperature range
<b>Cooling</b>	Forced air by built in fans
<b>Environmental Protection</b>	Basic ruggedizing, Optional heavy ruggedizing and conformal coating is available
<b>Shock/Vibration</b>	IEC61371 Cat 1 A&B
<b>Humidity</b>	5 - 95% non-condensing
<b>MTBF</b>	150,000 hours @ 45°C per internal module Demonstrated MTBF is significantly higher
<b>Indicators</b>	None, Available as option
<b>Control Input</b>	None, Available as option
<b>Connections</b>	Terminal blocks or threaded studs. Other connectors according to customer requirements
<b>Dimensions</b>	Chassis-mount: 3U7: 132 x 432 x 407mm including connectors Rack-mount: 3U7: 132 x 483 x 407mm including connectors
<b>Weight</b>	Approximately 14kg
<b>Safety</b>	EN 55022 Class A with margins Class B filtering as option
<b>RoHS Compliance</b>	Fully compliant
<b>Warranty</b>	Two years subject to application within good engineering practice

Available from:



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