

# DCC319 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

### DCC319 Single-Output DC Converter

#### Description

The DCC319 Series rugged, industrial quality DC/DC converter uses field-proven topology to generate 500W output power, or 600W if forced air is available.

This is a mature design with a track record in hundreds of applications.

Cooling is via baseplate to a heatsinking surface and by natural convection.

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

An optional built-in redundancy diode allows for parallel and N+1 operation.

Additional ruggedizing and conformal coating are available for applications requiring higher immunity to shock, vibration and humidity.

It is manufactured at our plant under strict quality control.

#### Features

- Compact size
- Single regulated and adjustable output
- 500W output power
- Full electronic protection
- Rugged industrial quality
- Field-proven design
- Also available as plugin module
- N+1 redundancy available
- 2 years parts and labour warranty

# Specifications ( Specifications Subject to Change Without Notice)

<b>Input Voltage range</b>	Any single DC input from 12V to 125Vdc (12Vdc input with reduced power) Consult factory for other voltages
<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>	According to input voltage minimum of: 1000VDC input to chassis, 1500VDC input to output, 500VDC output to chassis
<b>Output Voltages</b>	Any single DC output from 12V to 125Vdc (500W) Consult factory for other voltages
<b>Redundancy diode</b>	Available as option
<b>Line / Load Regulation</b>	± 1% combined from zero load to full load
<b>Output Overvoltage Protection</b>	Double regulator loop completely stable and independent of main loop
<b>Output Overload Protection</b>	Rectangular current limiting with hiccup mode short-circuit protection. Thermal shutdown in case of insufficient cooling (self resetting)
<b>Efficiency</b>	Typically 80% at full load depending on input/output combination
<b>EMI</b>	EN 55022 Class A as a minimum
<b>Switching Frequency</b>	80kHz +/- 5kHz
<b>Dynamic Response</b>	Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time
<b>Output Ripple/Noise</b>	Better than 1% of output voltage peak to peak or 0.2% Vrms (20MHz BW)
<b>Operating Temperature</b>	0 to + 60°C cold plate temperature for full specification Extended temperature ranges available
<b>Temperature Drift</b>	0.03% per °C over operating temperature range
<b>Cooling</b>	Conduction cooling via base plate and convection
<b>MTBF</b>	160,000 hours at 45°C Demonstrated MTBF is significantly higher
<b>Indicators</b>	Optional
<b>Control Input</b>	Optional
<b>Alarm Outputs</b>	None on standard version
<b>Environmental Protection</b>	Basic ruggedizing Heavy ruggedizing and conformal coating as option
<b>Connections</b>	9 pole barrier type terminal block with 3/8" spacing
<b>Dimensions</b>	F4: 130 x 62 x 353 mm including terminal block and flanges. Mounting holes are clear
<b>Weight</b>	2.2 kg
<b>Standards</b>	Designed to meet EN60950 and related standards
<b>RoHS Compliance</b>	Fully compliant
<b>Warranty</b>	2 years

Available from:



## RIPEnergy®

The power conversion company

RIPEnergy AG  
Wägitalstrasse 24  
CH-8854 Siebnen  
Switzerland

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