

DCCE765 Series DC/DC Voltage Converter



Benefits

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

Applications

- Railway / Transportation
- Mining
- Oil Rigs
- Military Applications
- Marine / Automotive / RV
- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Locations
- Steel Mills
- Industrial Controls
- OEM Applications

DC/DC Converters

DCCE765 Series (isolated)

Description

The DCCE765 Series fully encapsulated single output DC/DC converter uses field-proven technology to generate up to 1000W output power.

It is conduction cooled via a base plate and is rated for full operation in the specified temperature range. The unit is entirely potted with a thermally conductive MIL-spec. silicon rubber compound for resistance against shock, vibration and humidity.

The use of components with many years of established reliability and generous headroom results in a high MTBF.

The unit is suitable for transportation, mining, oil rigs, military and other harsh environments.

Versions to meet EN 50155 railway specifications are also available. Extra options including alarms and a redundancy diode are available on custom versions.

The DCCE765 series is manufactured at our plant under strict quality control.

Features

- Compact case
- Rugged construction
- Fully encapsulation
- Conduction cooling
- Wide input ranges
- 1000W output power
- Meets EN60950
- Full electronic protection
- Telecom quality
- Field-proven design
- 2 years parts and labour warranty

Specifications (Specifications Subject to Change Without Notice)

Input Voltage range	48V (42 – 60Vdc) 125V (95 – 145Vdc) Other inputs upon request
Input Protection	Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified input min. will not damage the unit
Isolation	1500Vdc input to chassis 2250Vdc input to output, 500Vdc output to chassis as a minimum
Output Voltages	12Vdc/83A, 24Vdc/41A, 48Vdc/21A or 110Vdc/9A Output is floating; either terminal can be grounded. Consult factory for other voltages
Switching Frequency	55kHz \pm 3kHz
Redundancy Diode	Not installed. Available on custom versions
Line / Load Regulation	+/- 1% combined from zero load to full load
Dynamic Response	Max 5% voltage deviation for 10% to 50% load step, with better than 1ms recovery time
Output Overvoltage Protection	Double regulator loop
Output Overload Protection	Rectangular current limiting with short-circuit protection (no hiccup) Thermal shutdown in case of insufficient cooling (self resetting)
Efficiency	Typically 82% at full load
EMI	EN 55022 Class A with wide margins
Output Ripple/Noise	Better than 0.2%Vrms or 1%Vpp of the output voltage (20MHz BW)
MTBF	130,000 hours @ 45°C Demonstrated MTBF is significantly higher
Indicators	None, Optional "Output ON" LED available
Control Input	None
Alarm Output	None, Available on custom versions
Environmental Protection	Fully encapsulated with thermally conductive silicon compound
Shock/Vibration	Meets requirements of IEC 61373 Cat 1 A&B and Cat 2 as a minimum.
Humidity	5 - 95% non-condensing
Operating Temperature	-40 to +60°C cold-plate temperature for full specification Extended temperature range available
Temperature Drift	0.03% per °C over operating temperature range
Cooling	Conduction cooling via base plate to customer chassis or heat-sink (cold plate)
Connections	12-pole barrier type terminal block with 3/8" spacing
Dimensions	26.9cm x 15.5cm x 7.2cm including terminal block and flanges. Mounting holes are clear
Weight	4 Kg
Standards	Designed to meet EN60950 and related standards
RoHS Compliance	Fully compliant
Warranty	2 years

Available from:



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The power conversion company

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