DCC65 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

DCC65-5F, 5 Individually Fused Output

Description

The DCC65-5F-24-12 Series rugged, DC/DC converter uses field proven topology to generate 300W output power. The output is distributed via five individually fused output terminals. These fuses are located externally below the terminal block and are therefore easily accessible.

The unit is cooled by conduction via baseplate to a heatsinking surface and by natural convection. Designed for mobile applications, these models are fully ruggedized and conformal coated for immunity to shock, vibration, humidity, moisture, dust and insects. This chassis-mount design is optimized for low component count and high efficiency.

The use of components with established reliability results in a very high demonstrated MTBF. The DCC65-5F-24-12 is manufactured at our plant under strict quality control.

Versions to meet EN 50155 railway specifications and customized versions are also available.

Features

- Compact size
- 300W output power
- Full electronic protection
- Field-proven rugged design
- Mobile Applications
- 5 individually fused output terminals
- Conduction/convection cooled
- 2 years parts and labour warranty

Specifications *(Specifications Subject to Change Without Notice)*

Input Voltage	24VDC Operating range 21 – 30V Maximum input current: 15A Other inputs available
Input Protection	Reverse polarity protection by Crossbar diode Internal safety fuse Inrush current limiting Varistor Low input voltages will not damage the unit
Input Isolation	1000VDC input to chassis 1000VDC input to output 500VDC output to chassis
Output Voltages	12VDC ±0.1V / 25A total distributed to five fused terminals which can be protected with fuse values up to 10A Other outputs available
Switching Frequency	47KHz +/- 2KHz
Redundancy Diode	None
Dynamic Response	Max 5% voltage deviation for 10% to 50% load step; better than 1msec recovery time
Output Overvoltage Protection	Double regulator loop. Second loop is completely stable and independent of main regulator loop OVP setting: 15V ±1V
Output Overload Protection	Rectangular current limiting with short circuit protection (no hiccup) Outputs are fused with any fuse value up to 10A Current limit is set sufficiently high to allow the fuses to blow
Efficiency	82% for the 24V/12 version
EMI	EN 55022 Class B
Output Ripple/Noise	Better than 30mVrms or 100mVpp (20MHz BW)
Operating Temperature	-20 to +50°C for full specification
Temperature Drift	0.03% per °C over operating temperature range
Cooling	Conduction to customer heatsink or chassis and natural convection
Environmental Protection	Ruggedizing, Conformal coating
Shock/Vibration	Designed to meet IEC 61373 Cat 1 A&B
MTBF	Min. 140,000 hours @45°C calculated according to MIL-HDBK-217F Demonstrated MTBF is significantly higher
Indicators	None
Control Input	None
Alarm Outputs	None
Connections	12-pole barrier-type terminal block, 3/8” spacing as follows: 2 for input (+ & -) 5 for output returns 5 for fused outputs
Dimensions	F3: 132.1mm x 62.5mm x 289.6mm including terminal block and mounting flanges. Mounting holes are clear
Weight	1.8kg
RoHS Compliance	Fully compliant
Safety	Designed to meet EN60950 and related standards
Warranty	2 years

Available from:

RIPEnergy®

The power conversion company

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