



DCCW100 DC/DC CONVERTER

SERIES DCCW100

The DCCW100 Series rugged, industrial quality DC/DC converter uses a field proven technology to generate 100W output power.

It is a mature design with a track record in numerous applications.

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

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

Optional heavy ruggedizing and conformal coating provide additional immunity to shock, vibration and moisture.

This chassis-mount design is also optimized for cost efficiency.

Open-frame versions with a 3" x 5" printed circuit board and 1.5" heatsink block height are also available on request.

It is manufactured at our plant under strict quality control. Customized versions are also available.

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

FEATURES

- Field-proven converter topology
- Wide input range: 20-60Vdc or 65-160Vdc
- Custom inputs available upon request
- Designed to meet EN60950 safety
- Double regulator overvoltage protection
- Overload protection
- Inrush current limiting
- Convection / conduction cooled no fan
- Single output
- Custom outputs available
- Designed for heavy industrial and other harsh environment applications



High frequency technology



Light weight, compact size



Full electronic protection



Conduction Cooling (no Fan)



Optional Extended temperature range

SPECIFICATIONS

Input Voltage	Two standard input ranges are available: 20 - 60Vdc or 65 - 160Vdc Consult factory for other input voltages and ranges
Input Protection	Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Isolation	1500VDC input to chassis 1500VDC input to output 500VDC output to chassis
Switching Frequency	47kHz +/- 2kHz
Output Voltage	12V/8A, 24V/4A, 48V/2A or 125V/0.8A are standard Consult factory for other voltages
Redundancy Diode	None
Load/Line Regulation	±1% combined from zero load to full load
Dynamic Response	Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time
Output Ripple Noise	Less than 1% peak-to-peak or 0.2% RMS of the output voltage (20MHz BW)
Efficiency	Output voltage dependent. Typically 80% at full load
Output Overload Protection	Current limiting with short circuit protection (hiccup)
Output Overvoltage Protection	Double regulator loop and transzorb clamp
Standards	Designed to meet corresponding UL and CSA standards, EN 60950, EN 62368-1 and CE
EMI	EN55032 Class A with margins

Operating Temperature	0°C to 50°C for full specification Wider temperature ranges available
Humidity	5 - 95% non-condensing
Temperature Drift	0.03% per °C over operating temperature range
Cooling	Conduction via base plate to customer heatsink or chassis and / or natural convection
Environmental Protection	Basic ruggedizing Heavy ruggedizing and conformal coating as option
Shock/Vibration	IEC 61373 Cat 1 A&B
Dimensions	F0: 94 x 48 x 160 mm including terminal block and flanges. Mounting holes are clear
Weight	0.55 Kg
Connections	6-pole barrier-type terminal block or 900 header pins with 0.156" spacing Open PCB versions are also available with header pins with 0.156 spacing, or terminal block PCB size: 3"x 5"
MTBF	150,000 hours at 45°C Demonstrated MTBF is significantly higher
Indicators	None
Control Input	None
Alarm output	None
RoHS Compliance	Fully compliant
Warranty	2 years

