

## 150W, Rugged, Industrial Quality DC/DC Converter with Wide Input Range DCW 150-FT Series

- Rugged industrial quality
- Field-proven design
- Conduction/convection cooled
- Full electronic protection
- Wide input ranges



This rugged, industrial quality DC/DC converter uses field proven topology to generate 150W output power. It is a mature design with a track record in hundreds of applications. This chassis-mount design is also optimized for cost efficiency. Cooling is via baseplate to a heat-sinking surface and by natural convection. Additional ruggedizing and conformal coating are available for applications that require higher immunity to shock, vibration and humidity. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. The DCW 150 is manufactured at our plant under strict quality control.

### 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

#### Standards

Designed to meet EN 60950 and related standards

#### EMI

EN55022 Class A with margins

#### Switching Frequency

55kHz +/- 3kHz

#### Output Voltage

12V, 24V, 48V or 125Vdc  
Consult factory for other voltages

#### Redundancy diode

Not installed  
Available as option

#### Line/Load Regulation

+/-1% combined

#### Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

#### Output Ripple/Noise

Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHz BW)

#### Overload Protection

Current limiting with short circuit protection (hiccup type)  
Thermal shut-down with automatic recovery in case of insufficient cooling.

#### Output Overvoltage Protection

Double regulator loop

#### Efficiency

Output voltage dependent  
Typically 80% at full load

#### Operating Temperature

0°C to 50°C for full specification  
Wider temperature ranges available

#### Temperature Drift

0.03% per °C over operating temperature range

#### Cooling

Conduction to customer heatsink or chassis and natural convection

#### Environmental Protection

Basic ruggedizing  
Optional heavy ruggedizing and conformal coating is available

#### Shock/Vibration

IEC 61373 Cat 1 A&B

#### Humidity

5 – 95% non-condensing

#### MTBF

140,000 hours @ 45°C  
Demonstrated MTBF is significantly higher

#### Indicators

Green "Power ON" LED, visible through the cooling slots

#### Control Input

None

#### Alarm Outputs

Optional Form C alarm

#### Package/Dimensions (W x H x L)

F1: 114 x 51 x 201mm  
(4.5" x 2" x 7.9") including terminal block and flanges  
Mounting holes are clear

#### Weight

0.8kg (1.8 lbs)

#### Connections

9-pole barrier-type terminal block, 3/8" spacing

#### RoHS

Fully compliant

#### Warranty

Two years subject to application within good engineering practice



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