

**Model:** DCW50-110/24F0TD-U4776

**COSD:** XXXX

**Summary description:** 50W Industrial Quality, DC/DC Converter  
110V to 24Vdc/2A

**Customer Name:** Ampttron/Singapore

**Customer Part Number:** Same as above



**Product description:**

This rugged, industrial quality DC/DC converter uses field-proven technology to generate the required output power. It is a mature design with a track record in numerous applications. Cooling is via baseplate to a heatsinking surface and by natural convection. Ruggedizing and conformal coating provide added 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. It is manufactured at our plant under strict quality control.

**Special Features:** Conformal coating, DIN rail mount

**SPECIFICATIONS**

**Input Voltage**

110Vdc nominal  
90-130Vdc operating range  
Input Current: 0.7A max

**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  
2250Vdc input to output  
500Vdc output to chassis

**Standards**

Designed to meet EN62368-1 and corresponding related standards

**EMI**

EN55032 Class A with margins

**Switching Frequency**

47kHz ± 3kHz

**Output Voltage/Current**

24Vdc ± 0.3V/2A  
Output is floating, either terminal can be grounded

**Redundancy Diode**

None

**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 1msec recovery time

**Output Ripple/Noise**

Better than 70mVrms or 350mVpp (@ 20MHz BW)

**Output Overload Protection**

Rectangular current limiting with hiccup type short-circuit protection  
Current Limit: 2.3A ± 0.2A

**Output Overvoltage Protection**

Transorb installed across the output

**Efficiency**

85% at full load

**Operating Temperature Range**

0°C to +50°C for full specification

**Temperature Drift**

0.03% per °C over operating temperature range

**Cooling**

Natural air convection

**Environmental Protection**

Basic Ruggedizing  
Conformal coating

IEC61373 Cat 1 A&B

**Humidity**

5-95% non-condensing

**MTBF**

150,000 hours @ 45°C  
Demonstrated MTBF is significantly higher

**Indicators**

None

**Control Input**

None

**Alarm Outputs**

None

**Package/Dimensions (WxHxL)**

F0: 86 x 48 x 155mm  
(3.4" x 1.9" x 6.1")  
DIN rail mounting

**Weight**

0.55kg (1.2 lbs.)

**Connections**

6-pole barrier-type terminal block with 3/8" spacing

**RoHS Compliance**

Compliant

**Warranty**

Two years subject to application within good engineering practice

**Terminal Block Pin-Out**

OUTPUT			INPUT		
+	-	NOT USED	GND	+	-
1	2	3	4	5	6

**Shock/Vibration**

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