

## Source Control Document.

**Model:** DCW 25-24/125FT-S5594  
**OSD:** XXXX      **COSD:** XXXX  
**Summary description:** 25W, Industrial Quality DC/DC Converter  
 24Vdc to 125V/0.2A  
**Customer Name:** Amtron/Singapore  
**Customer Part Number:** Same as above



### Product description:

This rugged, industrial quality DC/DC converter uses the field proven topology. It is customized for this application. Cooling is 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. The unit is manufactured at our plant under strict quality control.

**Special Features:** Conformal coating

## SPECIFICATIONS

### Input Voltage

24Vdc nominal  
 21-32Vdc operating range  
 Input current: 1.4A max

### Input Protection

Varistor  
 Reverse polarity protection by crossbar diode  
 Internal safety fuse  
 Lower voltage than the specified minimum input will not damage the unit.

### Isolation

500Vdc input to chassis  
 1500Vdc input to output  
 1000Vdc output to chassis

### Standards

Designed to meet EN60950 and corresponding standards

### EMI

EN55022 Class A with margins

### Switching Frequency

47kHz  $\pm$  2kHz

### Output Voltage/Current

125Vdc  $\pm$  0.5V/0.2A  
 Output is floating, either terminal can be grounded

### Redundancy Diode

None

### Line/Load Regulation

$\pm$ 1% combined from no 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 100mVrms or 500mVpp (20MHz BW)

### Output Overload Protection

Rectangular current limiting with hiccup-type short-circuit protection  
 Current Limit set to: 0.22  $\pm$  0.02A

### Output Overvoltage Protection

Double regulator loop and transzorb across the output.  
 OVP setting 140V  $\pm$  5V

### Efficiency

80% minimum at full load

### Operating Temperature Range

0°C to +50°C temperature

### Temperature Drift

0.03% per °C over operating temperature range

### Cooling

Conduction via base plate and natural air convection

### Environmental Protection

Basic ruggedizing  
 Conformal coating

### MTBF

150,000 hours @ 45°C

### Indicators

None

### Control Input

None

### Alarm Output

None

### Package / Dimensions

F0: 86 x 48 x 155mm  
 (3.4" x 1.9" x 6.1")  
 Mounting holes are clear

### Weight

0.55kg (1.2 lbs)

### Connections

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

### RoHS Compliance

Not required, but accepted

### Warranty

Two years subject to application within good engineering practice

### Terminal Block Pin Out

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

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