

## Source Control Document.

**Model:** MIM 105-48/12FTND (Standard ND Stock Version)

**OSD:** 1532 2377 SPND

**Summary description:** 50W, Single Output DC/DC Converter  
48V to 12V



### Product description:

The unit is a standard version of the MIM105 series forward converter. It is cooled by convection and conduction via base plate. The mounting holes are clear.

**Special Features:** These stock units are individually packed and ready for immediate delivery

## SPECIFICATIONS

### Input Voltage

48Vdc nominal  
42-56Vdc operating range  
Input is floating versus chassis  
Input current: 1.5A max.

### Input Protection

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

### Isolation

1000VDC input to chassis  
1000V input to output  
500V output to chassis

### Standards / Approvals

Designed to meet EN60950 and corresponding UL and CSA standards

### EMI

EN55022 Class A

### Switching Frequency

115KHz +/- 5KHz

### Output Voltage/Current

12VDC +/- 0.1V / 4A  
Output is floating, either terminal can be grounded

### Redundancy Diode

None

### Line/Load Regulation

+/- 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 40mVrms or 100mVpp (20MHz BW)

### Output Overload Protection

Rectangular current limiting with hiccup-type short-circuit protection  
Current Limit set to: 4.6A +/- 0.4A

### Output Overvoltage Protection

18V Transorb across the output

### Efficiency

80% minimum 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 convection and conduction via base plate

### Environmental Protection

Basic ruggedizing

### MTBF

Min. 150,000 hours @ 45°C

### Indicators

None

### Control Input

None

### Alarm Output

None

### Package / Dimensions (WxHxL)

FM package:  
66 x 38.1 x 162.6mm  
(2.6" x 1.5" x 6.4")  
Mounting holes are clear

### Weight

350g (0.8 lbs.)

### Connections


5-pole terminal block (3/8" spacing)

### RoHS Compliance

Fully compliant

### Warranty

Twelve months subject to application within good engineering practice

Drawn by SS/bh	Date Nov. 13, 2008
Checked by	Drawing No./ Rev. SCD 1532 2377NDA
Approved by	

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