

## Source Control Document.

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

**OSD:** 1532 2377 SPND

**Summary description:** 50W, Industrial Quality DC/DC Converter  
48V to 12V/4A

**Customer Name:** ABS FG Stock

**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 product with a track record in numerous applications. Cooling is via baseplate to a heatsinking surface and by natural convection. 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:** These stock units are individually packed and ready for immediate delivery



## SPECIFICATIONS

### Input Voltage

48Vdc nominal  
42-56Vdc operating range  
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  
1000Vdc input to output  
500Vdc output to chassis

### Standards

Designed to meet EN60950 and corresponding UL and CSA standards

### EMI

EN55022 Class B

### Switching Frequency

120kHz +/- 10kHz

### 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 30mVrms or 150mVpp (20MHz BW)

### Output Overload Protection

Rectangular current limiting with hiccup-type short-circuit protection  
Current Limit set to: 4.5A +/- 0.3A

### Output Overvoltage Protection

15V Transzorb 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

### Shock/Vibration

Meets IEC 61373 Cat 1 A&B

### Humidity

5-95% non-condensing

### MTBF

Min. 150,000 hours @ 45°C

### Indicators

None

### Control Input

None

### Alarm Output

None

### Package / Dimensions (WxHxL)

FM package: 66 x 38 x 163mm  
(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

Two years subject to application within good engineering practice

### Terminal Block Pin-out

DC OUTPUT		DC INPUT		
-	+	GND	+	-
1	2	3	4	5

Drawn by TS/ar	Date April. 8, 2011
Checked by TS	Drawing No./ Rev. SCD 1532 2377SPNDA2
Approved by TS	

This document is the property of Absopulse Electronics Ltd. Its contents are proprietary and may neither be copied, reproduced, nor its contents disclosed to others without prior written agreement from Absopulse Electronics Ltd.