

## 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	

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