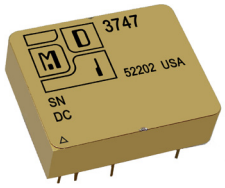
Model 3747 EMI Filter

For MIL-STD-461C CE03, CE102 Requirements



MDI model 3747 hermetic power line EMI filters compliment MDI DC-DC converters without internal filters to meet the latest MIL-STD-461C CE03, CS01 and MIL-STD-461D-G CE102, CS101 test method requirements.

In applications where low reflected noise currents are needed to meet MIL-STD-461, power line filtering provides attenuation to reduce common mode (line to ground) and differential mode (line to line) currents. MDI's model 3747 provides such filtration in both modes to provide compliance whether measured in dBuA or dBuV test modes.

The filters are rated as completely compatible with all normal, abnormal, emergency, over/under voltage and transient conditions listed in MIL-STD-704 A-F. A single filter can serve several DC-DC converters up to the rated maximums.

Several grade and screening levels are available to suit any reliability requirement

Features/Benefits

- Compliant with MIL-STD-461C, CE03 and CS01.
- Compliant with MIL-STD-461D-G, CE102 and CS101
- Common and differential mode filtering for low reflected input power line ripple currents
- Operates over all normal, abnormal, transient and OV conditions listed in relevant MIL-STD-704 systems applications
- Compact 0.980 x 0.805 x 0.275 inch (LWH) package; rugged full hermetic construction

Specifications

Environment:

Temperature range, storage non-operating (Tcase): -60°C to +150°C

Shock: MIL-STD-810, Method 516.5 Procedure III (50Gs 11mS pulse, all axis)

Random Vibration: MIL-STD-883, Method 2026, Test Condition 2H (32.3G, all axis)

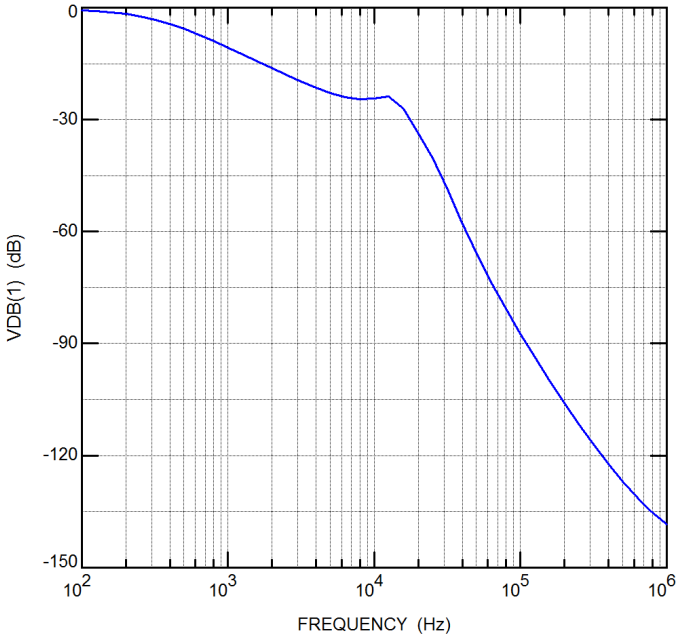
Acceleration: MIL-STD-883, Method 2001, Test Condition A1, Y1 direction, 500Gs

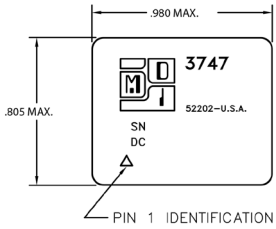
Grade: E -55°C to +125°C, derates Pout to zero at 135°C
Grades: M, I -55°C to +85°C, derate Pout to zero at 115°C

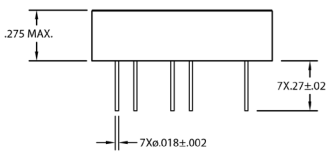
Weight: 20 grams typical

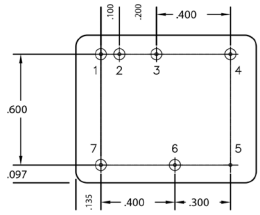
Models 3747 Power Line EMI Filters Specifications

Model No.	Nominal Input Voltage (VDC)	Input Voltage Range (VDC)	Absolute Maximum Input Voltage (VDC)	Input Transient Rating (V)	Compatible With	Rated Current (A)	Maximum Power Dissipation at Rated Current (W)	Typical Attenuation (dB at 200kHz)
3747	12 - 28	0 – 50	100	80	12VDC CubeSat or 28VDC Systems	1.2	1.4	-80









Pin Out Chart	
Pin 1	+28VDC Input
Pin 2	N/C
Pin 3	+28VDC Input Return
Pin 4	N/C
Pin 5	Case Gnd
Pin 6	+28VDC Output Return
Pin7	+28VDC Output

Model No.	Case Style	Pin Count	Mountung
3747	16	7	Seam Weld Flangeless PCB Mount

Case Dimensions
Units: inches | millimerters

Case Style	A	B	C	D	E
1	0.980 | 24.892	0.805 | 20.447	0.275 | 6.985	0.600 | 15.240	0.700 | 17.78

TOLERANCES: Drawings in Inches. All dimensions ±0.01 except F = max, C = +0.01/-0.020. For Custom Packages, Contact MDI Engineering

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