High Current DC Feedthrough Filter
100Amp

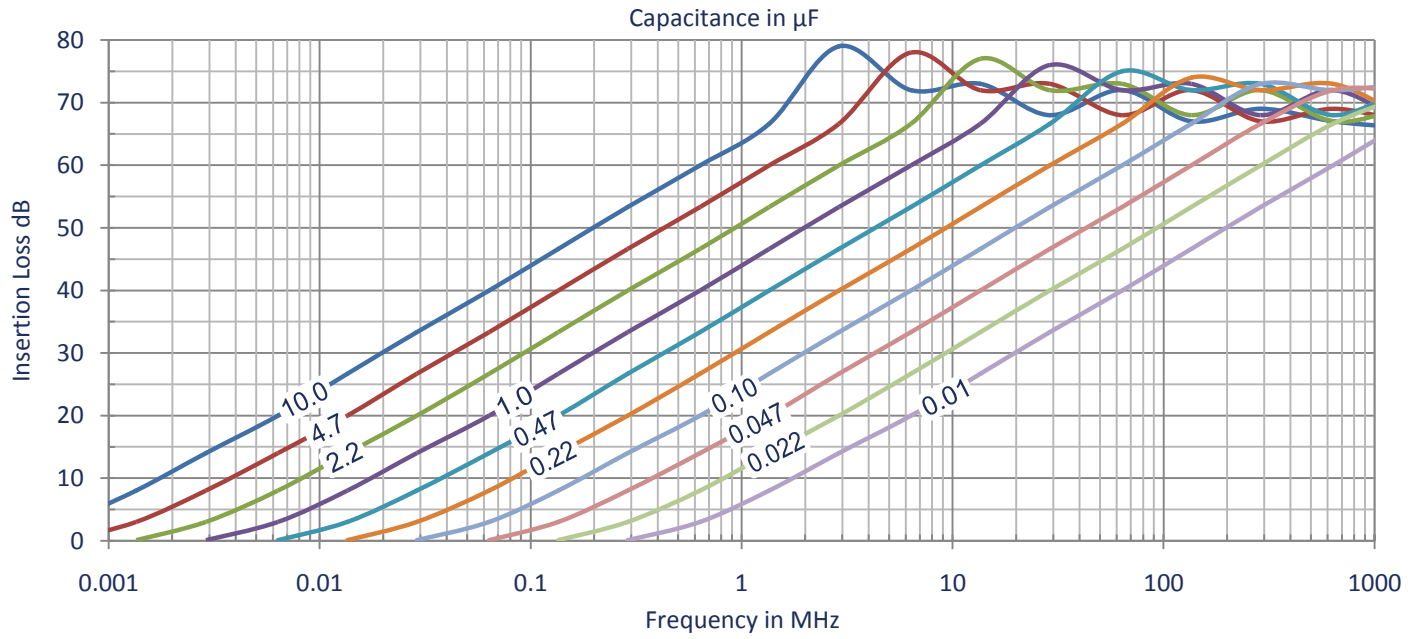
- ✓ Excellent EMI filtering
- ✓ Compact and lightweight
- ✓ "C" Type Filter
- ✓ Bolt-in style
- ✓ High Shock & Vibration
- ✓ CDR and JAN Reliability levels available

Voltage & Capacitance

100A		Capacitance µF																			
		.01	.015	.022	.033	.047	.068	.1	.15	.22	.33	.47	.68	1.0	1.5	2.2	3.3	4.7	6.8	10	15	22
Rated Voltage Vdc	50							✦				✦				✦		✦				
	100							✦				✦				✦		✦				
	200							✦				✦				✦						
	500							✦				✦										

✦ Standard Values

Insertion Loss



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Westford, MA 01886
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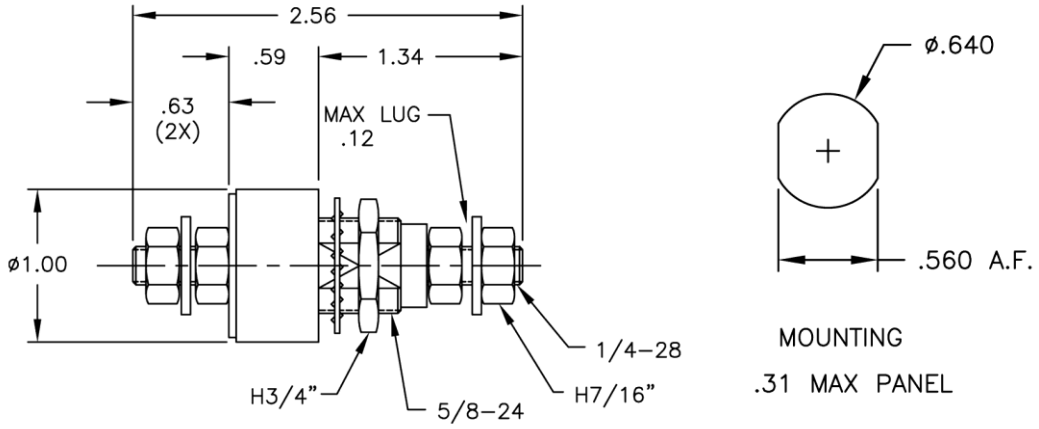
Specifications(Units to MIL-C-49467, MIL-C-55681, MIL-C-123 or customer SCD available in E-Series)

Parameter	Value	Description / Specification/ Method
Current	100 Amperes	50, 55, 140, 175, 250, & 400 Amps available
Insertion Loss	See Performance Curve on page 1	Per Capacitor Value
RF Current	$10A_{rms}$	
Insulation Resistance	100ΩF (100MΩ Maximum) at 25°C	MIL-STD-202 Method 302
Dielectric Withstand Voltage	250% Rated Voltage (50mA 5s)	MIL-STD-202 Method 301
Dissipation Factor	3% Maximum	MIL-STD-202 Method 306
Voltage Drop	20mV	Wire to Wire
Operating Temp	-55°C to +125°C	5A@125°C to 100A@90°C
Temperature Rise	22°C Typical at 100A	
Heat Rise Constant	6.1 to 12	C_1in formula $\Delta T=C_1 \times W^{0.85}$
Storage Temperature	-55°C to +105°C	
Fungus	Non-Nutrient	MIL-HDBK-454A
Corrosion (metal finish)	5% NaCl / 35°C / 48 hrs	MIL-STD-202 Method 101D / Cond B
Humidity	98%RH 25°C-65°C	MIL-STD-202 Method 106E
Shock	30g – 11ms	MIL-STD-202 Method 213B / Cond A
Terminal Strength	Torque: 45 in-lbs (5Nm) Pull: 75lbs (34kg)	MIL-STD-202 Method 211A / Cond A & E
Reliability(MTBF)	500,000 hrs	MIL-HDBK-217F Cond - N2 A(IF) 70°C 50%V

Mechanical Specifications



Component	Material	Finish
Metal Parts	Copper Alloy	Nickel
Insulator	FR4 or Nylon	-

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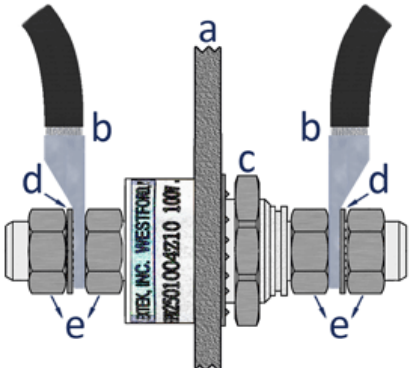
Mounting



a. Mounting Panel
b. Lug / Wire
c. Mounting Panel Nut
d. Lock Washer
e. Electrode Lug Nut

Installation Torque Recommendations

NOTE: Electrode Nuts (e) must be tightened using the Two-Wrench Method…Place an open end wrench on the electrode nut closest to the mounting panel (a) and a calibrated torque wrench on the outer electrode nut on the same side…Tighten nuts against one another.

The "two wrench method" will prevent any torque from developing between the electrode and the HPR body.

Electrode Lug Nut (e) Torque: 45 in-lbs (5 N·m)
Mounting Panel Nut (c)Torque: 100 in-lbs (11 N·m)

Part Number

Device	Current	Capacitance	Tolerance	Voltage	Series
HPR	100	XXXX	X	XX	X

Device HPR High Current Feedthrough Filter

Current Current rating in amperes

Capacitance in picofarads, first two digits are significant, last two digits are number of zeros e.g. 2203 = 22,000pF / 4704 = .47µF

Tolerance Capacitor Code:Z= +80%/-20% (Standard), M= +/-20%, K= +/-10%, J=+/-5%

Voltage Rating Code: 05=50V, 10=100V, 20=200V, 50=500V

Series Optional series designator

Example:
HPR1001004Z10 = Feedthrough Filter / 100A / 0.10uF / +80%/-20% / 100Vdc

Safety Tips

- ✓ The filter should be mounted in a grounded shielding panel
- ✓ Tighten the electrode nuts to the torque specified with the two wrench method (see note above)
- ✓ Cover exposed electrode nuts
- ✓ Observe temperature, current, & voltage limits

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