

Power Line Filters Dual Stage



12-MMF & 12-MMB Series

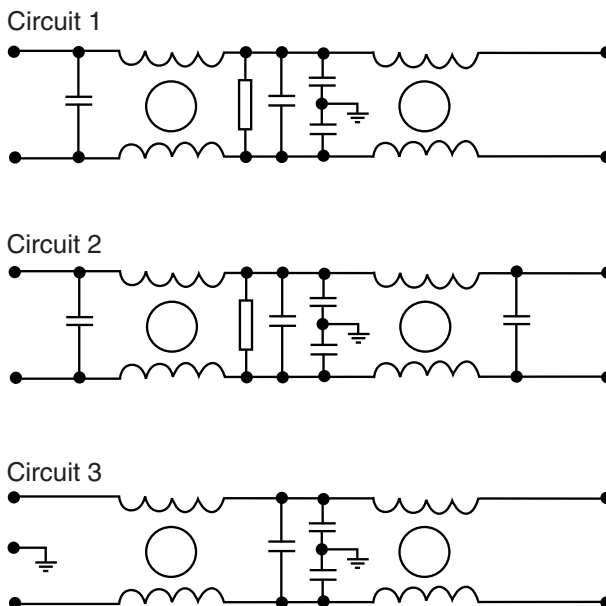
Features

- Suitable for products that must conform to FCC regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective EMI shielding
- Two stages for excellent filtering characteristics
- Structure provides effective shielding for noise generated both externally and internally
- Operating temperature: -40°C to +85°C
- High performance
- Low leakage current

Applications

- Digital equipment
- Switching power supplies
- Personal computers and peripherals
- Measuring instruments and medical equipment
- Telecommunications equipment
- Equipment requiring very high noise attenuation

Circuit Diagram



Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Circuit Diagram	Figure	Temperature Rise (Max.)
12-MMF-002-5-F	120/250VAC	2A	0.25mA@120VAC/ 0.5mA@250VAC	1	A	30°C
12-MMF-003-5-F		3A			A	
12-MMF-003-5-A					B	
12-MMF-006-5-F		6A		A		
12-MMF-006-5-G				C		
12-MMF-008-5-B		8A				
12-MMF-010-5-F		10A		A		
12-MMF-010-5-G				A1		
12-MMF-010-5-B				C		
12-MMF-012-5-B		12A				
12-MMB-015-5-E		15A				
12-MMB-020-5-F		20A				
12-MMB-030-5-D		30A				
12-MMB-050-5-C		50A				

Note: All types are designed to meet the requirement of UL 1283, CSA 22.2, VDE 0565-3
 Test voltage: 1500VAC one minute, line to ground
 Insulation resistance: 300 Mohm min. at 500VDC
 Voltage drop: 1V max.
 Discharge time: 0.4 sec. max.

Power Line Filters Dual Stage

12-MMF & 12-MMB Series

Figure B

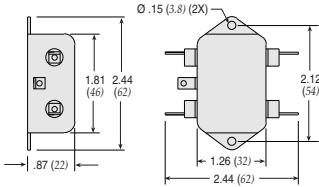


Figure C

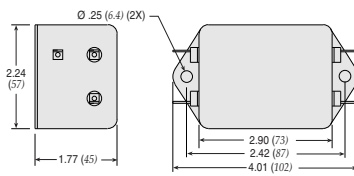


Figure E

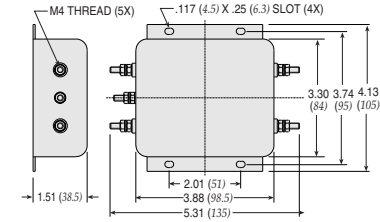


Figure F

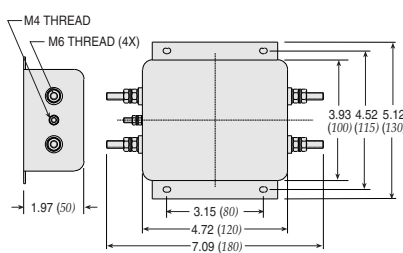


Figure A

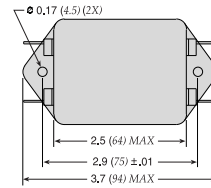


Figure A1

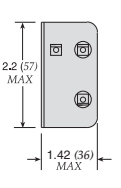


Figure D

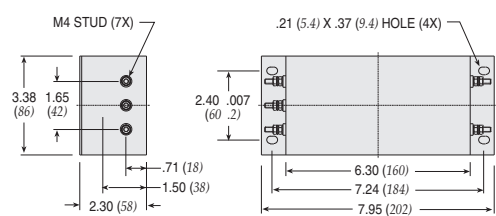
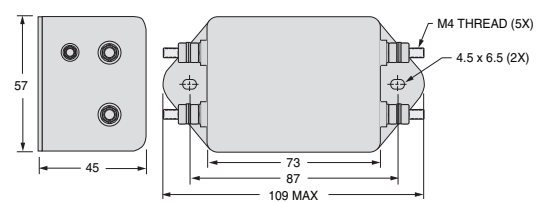
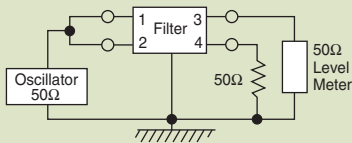


Figure G

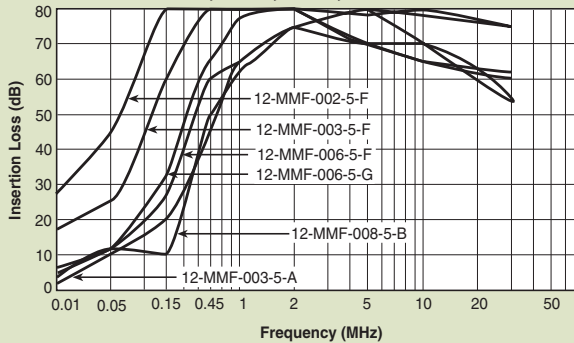


Dimensions in inches (mm)

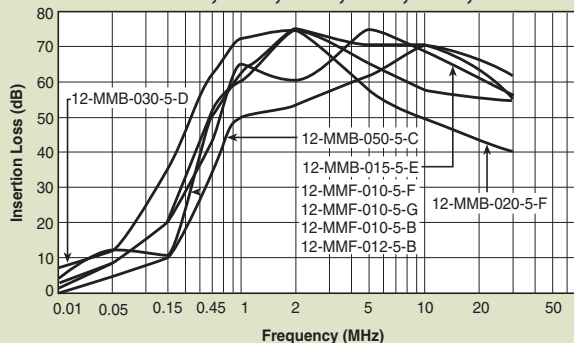
Common Mode



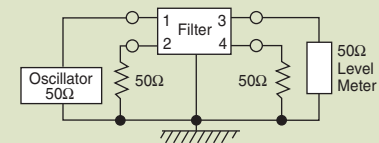
12-MMF-002;-003;-006;-008



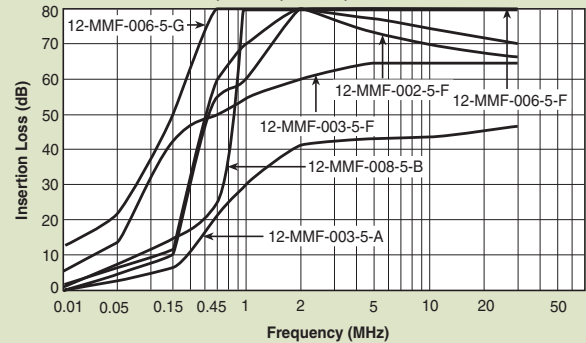
12-MMF-010;-012;-015;-020;-030;-050



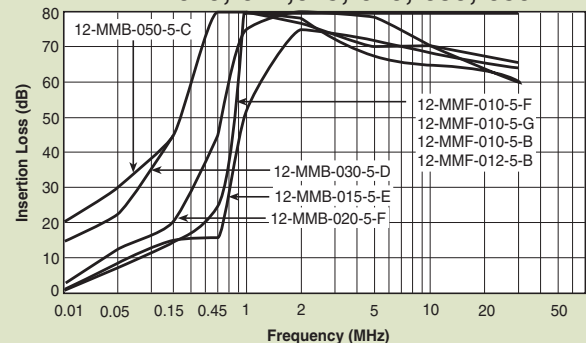
Normal Mode



12-MMF-002;-003;-006;-008



12-MMF-010;-012;-015;-020;-030;-050



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Features

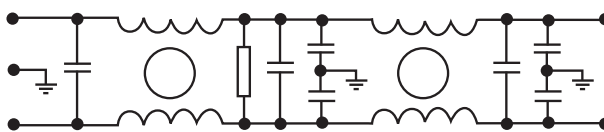
- Suitable for products that must conform to FCC regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective EMI shielding
- Two stages for excellent filtering characteristics
- Structure provides effective shielding for noise generated both externally and internally
- Operating temperature: -40°C to +85°C
- High performance

Applications

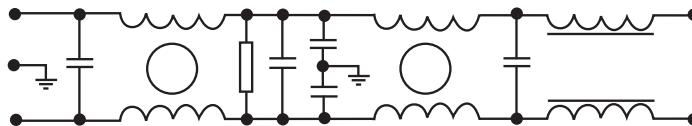
- Digital equipment
- Personal computers and peripherals
- Measuring instruments and medical equipment
- Telecommunications equipment
- Equipment requiring very high noise attenuation

Circuit Diagram

Circuit 1



Circuit 2



Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Circuit Diagram	Figure	Temperature Rise (Max.)
12-MMF-003-11-F	120/250VAC	3A	1.5mA	1	A	30°C
12-MMF-006-11-F		6A			C	
12-MMF-010-11-F		10A			B	
12-MMB-015-11-G		15A		2	D	
12-MMB-020-11-D		20A			E	
12-MMB-030-11-D		30A			F	
12-MMB-040-11-B		40A		1		
12-MMB-040-11-E						
12-MMB-050-11-H		50A				

Note: All types are designed to meet the requirement of UL 1283, CSA 22.2. VDE 0565-3
 Test voltage: 1500VAC one minute, line to ground
 Insulation resistance: 300 Mohm min. at 500VDC
 Leakage current: 0.7 mA max.
 Voltage drop: 1V max.
 Discharge time: 0.4 sec. max.
 Weight: 6.0 ounces (170 grams)

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12-MMF & 12-MMB Series

Figure A

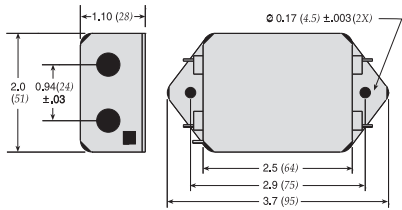


Figure B

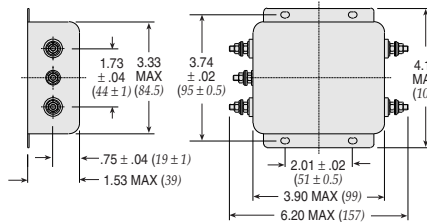


Figure C

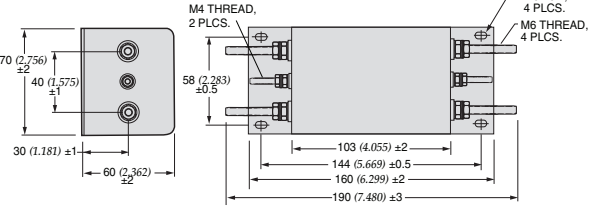


Figure D

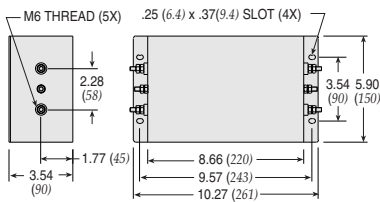


Figure E

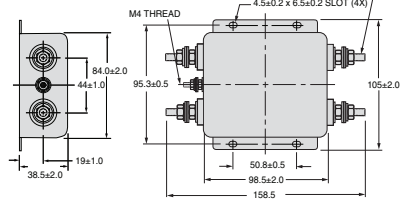
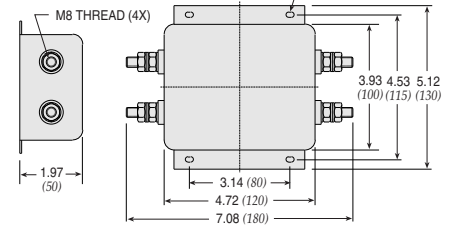
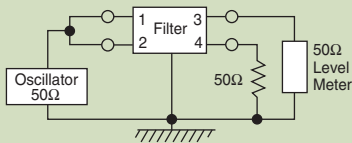


Figure F

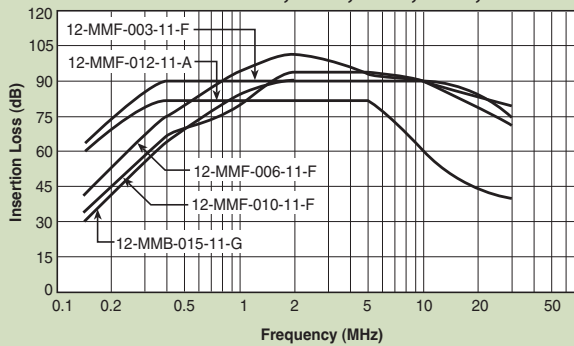


Dimensions in inches (mm)

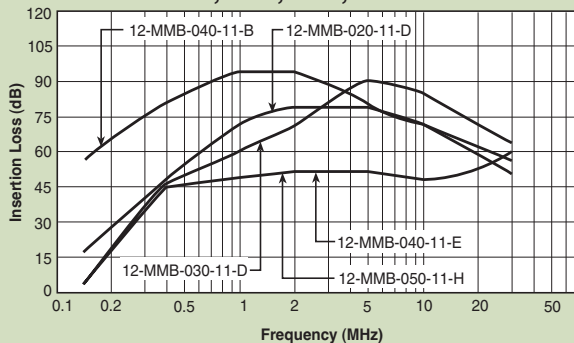
Common Mode



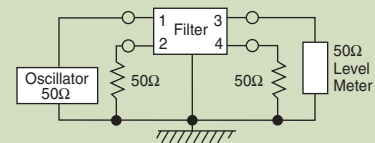
12-MMF/MMB-003;-006;-010;-012;-015



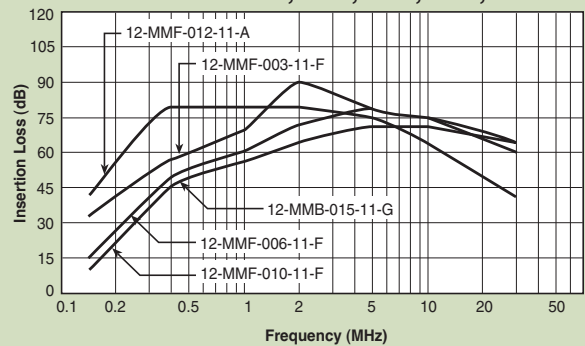
12-MMB-020;-030;-040;-050



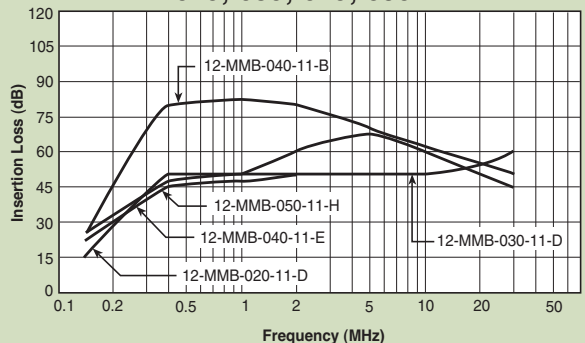
Normal Mode



12-MMF/MMB-003;-006;-010;-012;-015



12-MMB-020;-030;-040;-050



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Features

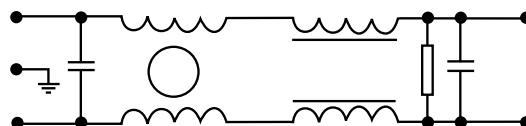
- Suitable for products that must conform to FCC regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective EMI shielding
- Two stages for excellent filtering characteristics
- Epoxy molded for reliability
- Structure provides effective shielding for noise generated both externally and internally
- Operating temperature: -25°C to +85°C

Applications

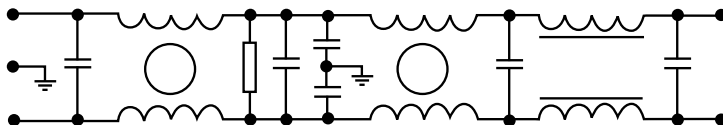
- Digital equipment
- Personal computers and peripherals
- Measuring instruments and medical equipment
- Telecommunications equipment
- Equipment requiring very high noise attenuation

Circuit Diagram

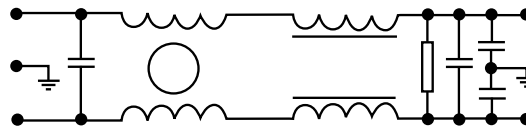
Circuit 1



Circuit 2



Circuit 3



Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Circuit Diagram	Figure	Temperature Rise (Max.)	
12-MMF-001-5-F	120/250VAC	1A	0.5mA	3	A	30°C	
12-MMF-003-5-G		3A			5uA		1
12-MMF-003-2-G			6A				
12-MMF-006-5-G		10A	0.5mA	2	D		
12-MMB-010-5-D		15A					
12-MMB-015-5-E		20A					
12-MMB-020-5-E		30A					
12-MMB-030-5-E							

Note: All types are designed to meet the requirement of UL 1283, CSA 22.2. VDE 0565-3
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Figure A

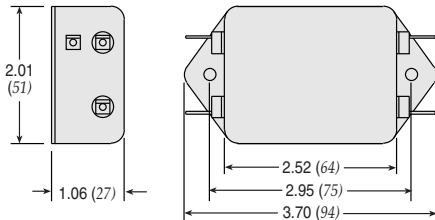


Figure B

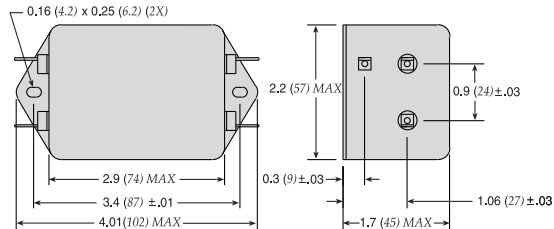


Figure C

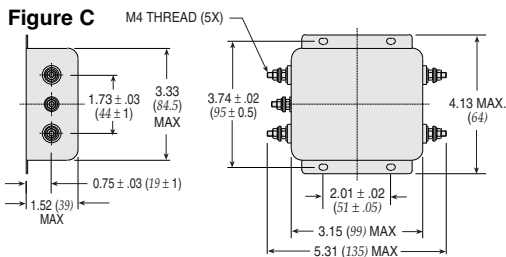
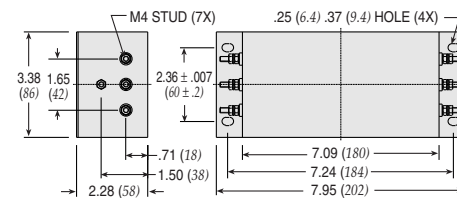


Figure D



Dimensions in inches (mm)

