

Power Line Filters

Compact design requires minimal real estate and delivers excellent filtering characteristics for both differential and common mode. RoHS compliant, easily installed for a broad array of applications.

2 - 6 Appliance Filters
 2 - 3 11-MPC Series
 4 - 6 62-AL/62-AC Series

7 - 22 Single Stage
 7 - 8 62-PPF/PQF/PRF Series

Single Stage Wires Leads
 9 - 10 62-PML Series

Single Stage With Wire Leads for Medical Applications
 11 - 12 12-PML & 12-PMF Series

13 - 14 62-LMF & LMB Series

15 - 16 62-PMF & PMB Series

17 - 18 12-PMF Series

Higher Current
 19 - 20 62-PMB Series
 21 - 22 12-PMB Series

23 - 25 DC - Higher Current
 23 - 25 12-PMF & PMB DC Series

26 - 33 Dual Stage
 26 - 27 62-MMF Series
 28 - 29 12-MMF & 12-MMB Series
 30 - 31 12-MMF & 12-MMB Series
 32 - 33 12-MMF & 12-MMB Series



Power Line Filters | Appliance Filters

11-MPC Series

Features

- Miniature general purpose PCB mounted filter
- Requires minimal PCB real estate space
- Low cost
- Operating temperature: -25°C to +70°C
- Two forms of cases are available: metal case and plastic case

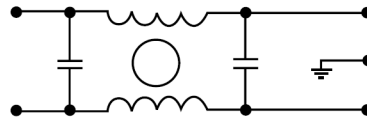
Applications

- Personal computers and peripherals
- Digital AV equipment
- Measuring instruments
- Medical equipment
- Monitors and display units
- Home appliances

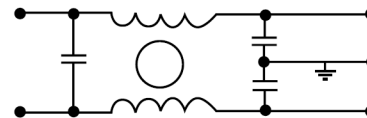


Circuit Diagram

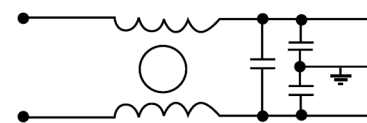
Circuit 1



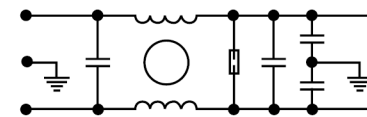
Circuit 2



Circuit 3



Circuit 4



Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Circuit Diagram	Figure	Temperature Rise (Max.)
11-MPC-001-5-A	120/250VAC	1A	0.50mA	2	A	30°C
11-MPC-003-5-E		3A		3	E	
11-MPC-006-5-B		6A	2	A1		
11-MPC-006-5-C			C			
11-MPC-016-5-B		16A	0.2mA	4	B	

Note: Test voltage: 1500VAC one minute, line to ground
 Insulation resistance: 300 Mohm min. at 500VDC
 Voltage drop: 1V max. at rated current
 Weight: 17.5g

Power Line Filters | Miniature Printed Circuit Board

11-MPC Series

Figure A

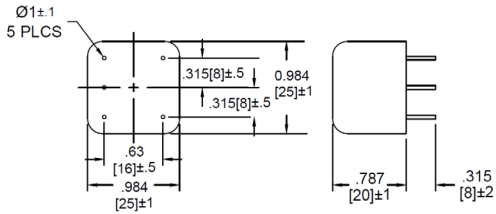


Figure A1

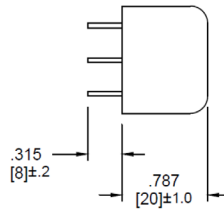


Figure B

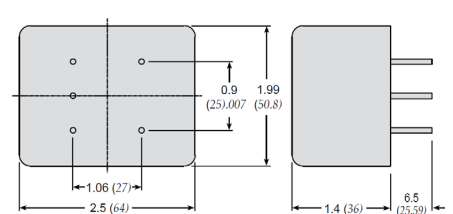


Figure C

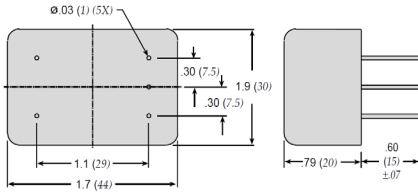


Figure D

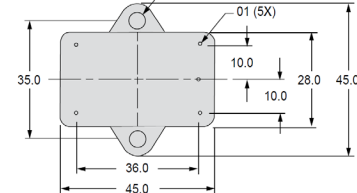
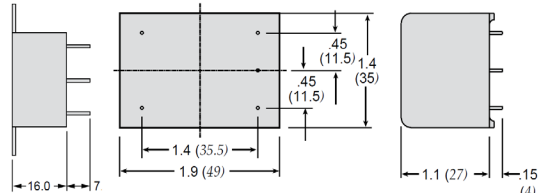
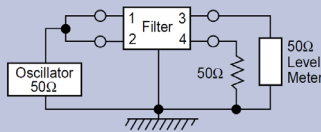


Figure E

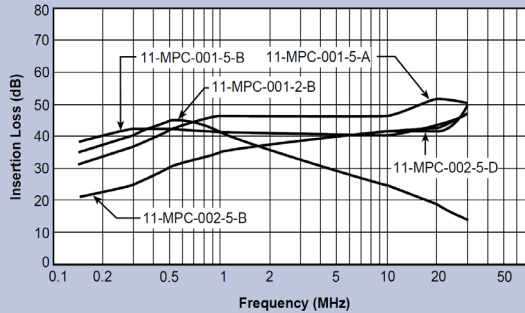


Dimensions in inches (mm)

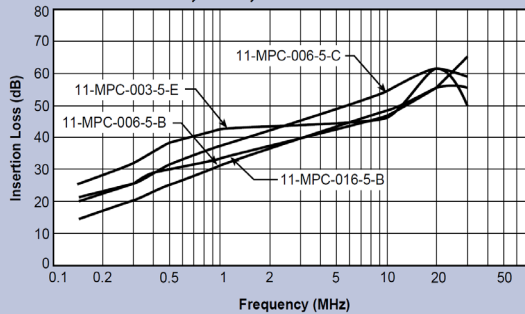
Common Mode



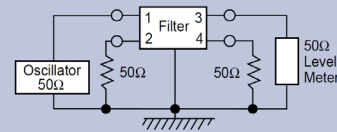
11-MPC-001



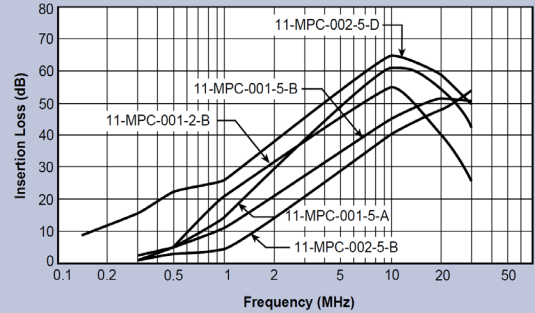
11-MPC-003;-006;-016



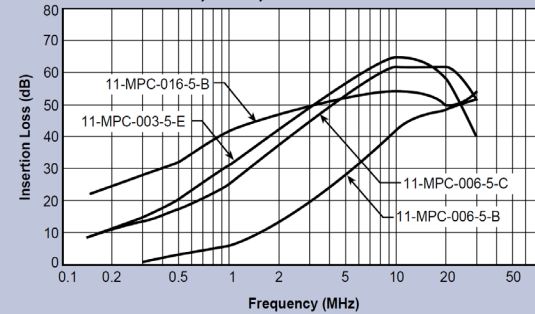
Normal Mode



11-MPC-001



11-MPC-003;-006;-016



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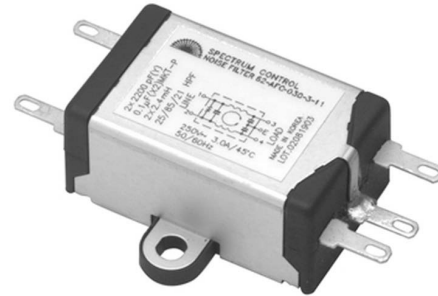
62-AL/62-AC Series



Tested and found to be IAW VDE 0565 Part 3

Features

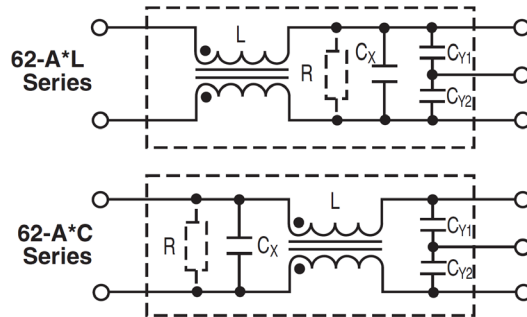
- Low-cost plastic case
- Compact design requires minimal real estate space
- Suitable for products that must conform to FCC regulations
- Wide variety of circuit and filtering options
- Excellent filtering characteristics for both normal mode and common mode
- Epoxy molded for reliability
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 5)



Applications

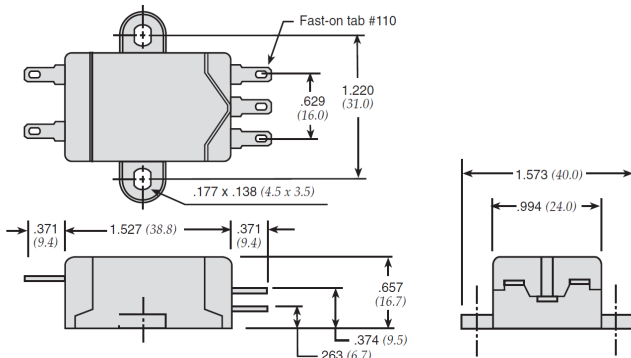
- Personal computers and peripherals
- Digital equipment
- Industrial equipment
- Vending machines
- Home appliances
- Office equipment

Circuit Diagrams



*R = w/ Bleeder Resistor

F = w/o Bleeder Resistor



Dimensions in inches (mm)

Power Line Filters | Appliance Filters

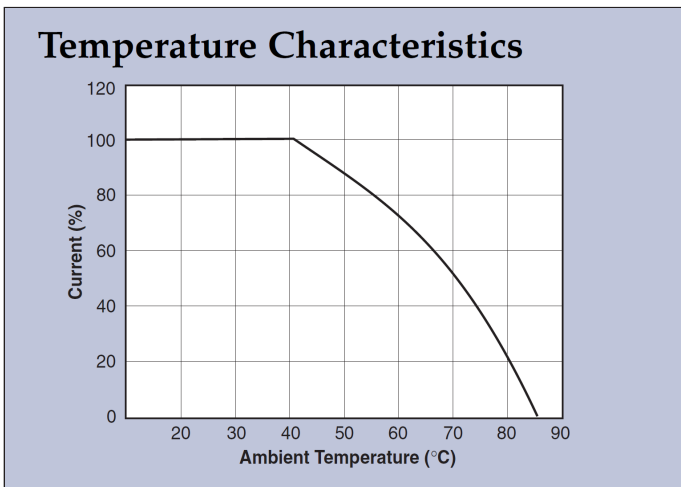
62-AL/62-AC Series

Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L _r)	Temperature Rise (Max.)
				C _y	C _x		
62-AFL-010-3-11	250VAC	1.0A	0.35mA	2200pF	0.1uF	11.0mH	40°C
62-AFC-010-3-11				3300pF			
62-AFL-010-5-11			0.50mA	2200pF			
62-AFC-010-5-11				3300pF			
62-AFL-016-3-11		1.6A	0.35mA	2200pF		6.0mH	
62-AFC-016-3-11				3300pF			
62-AFL-016-5-11			0.50mA	2200pF			
62-AFC-016-5-11				3300pF			
62-AFL-030-3-11		3.0A	0.35mA	2200pF		2.4mH	
62-AFC-030-3-11				3300pF			
62-AFL-030-5-11			0.50mA	2200pF			
62-AFC-030-5-11				3300pF			
62-AFL-045-3-11		4.5A	0.35mA	2200pF		1.0mH	
62-AFC-045-3-11				3300pF			
62-AFL-045-5-11			0.50mA	2200pF			
62-AFC-045-5-11				3300pF			
62-AFL-060-3-11		3.0A	0.35mA	2200pF		0.53mH	
62-AFC-060-3-11				3300pF			
62-AFL-060-5-11	0.50mA		2200pF				
62-AFC-060-5-11			3300pF				

*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.*

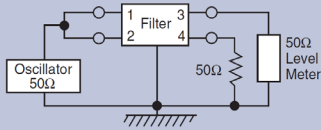
** Available with bleeder resistor
 Replace F with R for part number*



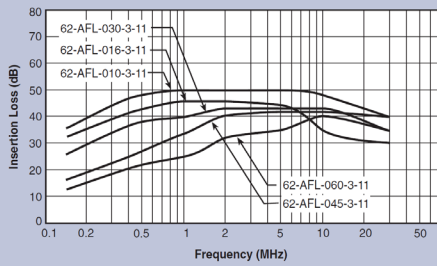
Power Line Filters | Appliance Filters

62-AL/62-AC Series

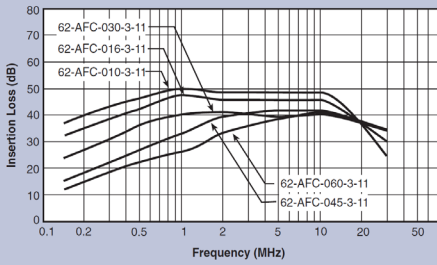
Common Mode



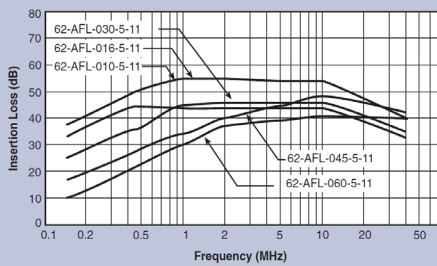
62-AFL-xxx-3-11



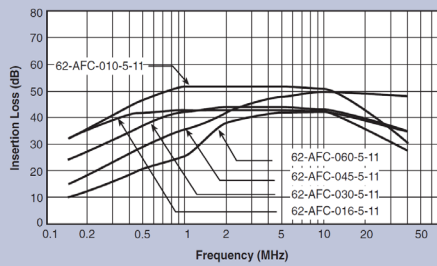
62-AFC-XXX-3-11



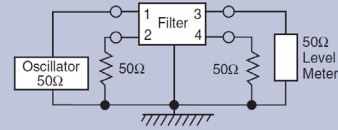
62-AFL-xxx-5-11



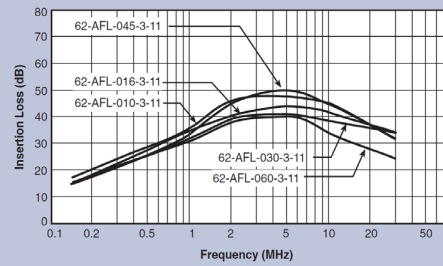
62-AFC-xxx-5-11



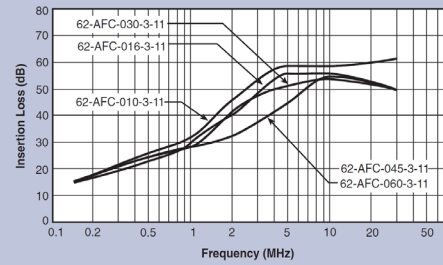
Normal Mode



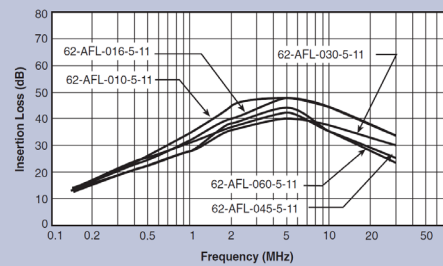
62-AFL-XXX-3-11



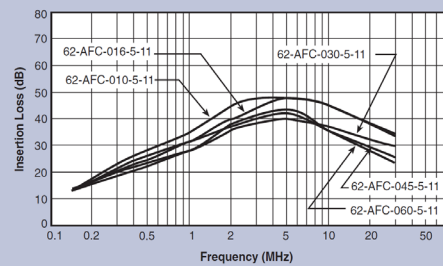
62-AFC-XXX-3-11



62-AFL-xxx-5-11



62-AFC-xxx-5-11



Power Line Filters | Single Stage

62-PPF/PQF/PRF Series



Tested and found to be IAW VDE 0565 Part 3

Features

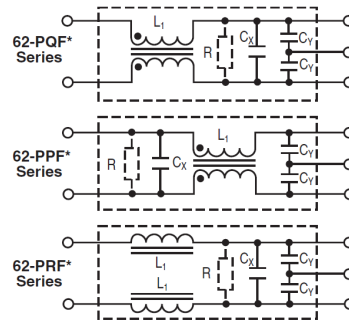
- Low-cost plastic case
- Compact design requires minimal real estate space
- Suitable for products that must conform to FCC and FTZ regulations
- Wide variety of circuit and filtering options
- Excellent filtering characteristics for both normal mode and common mode
- Epoxy molded for reliability
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 8)

Applications

- Personal computers and peripherals
- Digital equipment
- Industrial equipment
- Vending machines
- Office equipment



Circuit Diagrams



*Bleeder Resistor is available only for 62-P(Q/R/P)F-XXX-X-12w

Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)		
				C _Y	C _X				
62-PQF-020-5-11	250VAC	2A	0.50mA	3300pF	0.1 uF	15mH	30°C		
62-PQF-020-5-12					.22uF				
62-PPF-020-5-11					0.1 uF				
62-PPF-020-5-12					.22uF				
62-PQF-030-5-11		3A			0.1 uF	8mH			
62-PQF-030-5-12					.22uF				
62-PPF-030-5-11					0.1 uF				
62-PPF-030-5-12					.22uF				
62-PQF-060-5-11		6A			0.1 uF	2.1mH			
62-PQF-060-5-12					.22uF				
62-PPF-060-5-11					0.1 uF				
62-PPF-060-5-12					.22uF				
62-PRF-010-5-11		1A			0.1 uF	486uH			
62-PRF-010-5-12					.22uF				
62-PRF-020-5-11					0.1 uF			181uH	
62-PRF-020-5-12					.22uF				
62-PRF-030-5-11					0.1 uF				97uH
62-PRF-030-5-12					.22uF				

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

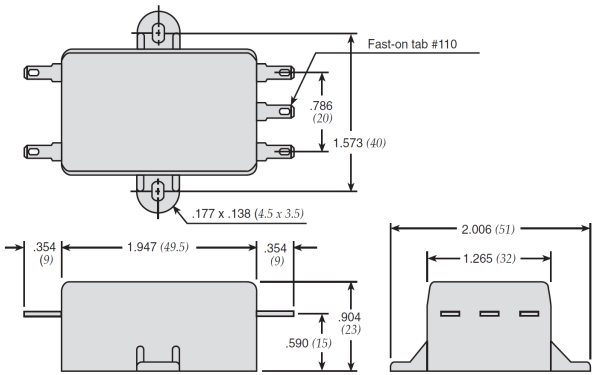
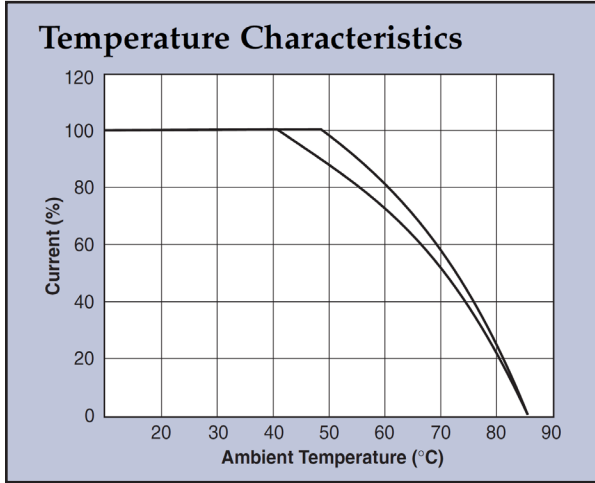
Test voltage: 1500VAC one minute, line to ground
Insulation resistance: 300 Mohm min. at 500VDC

Voltage drop: 1V max. (except 62-PRF-010-5-11) at rated current
62-PRF-010-5-11: 1.5V max. at rated current

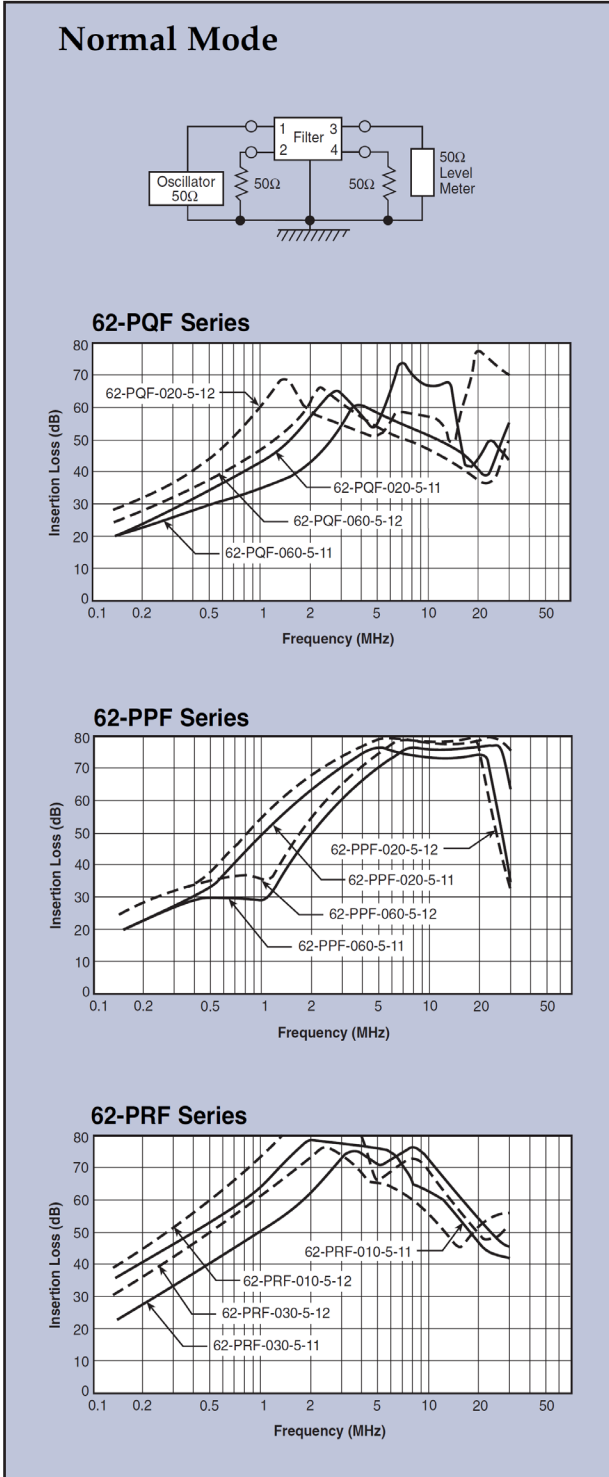
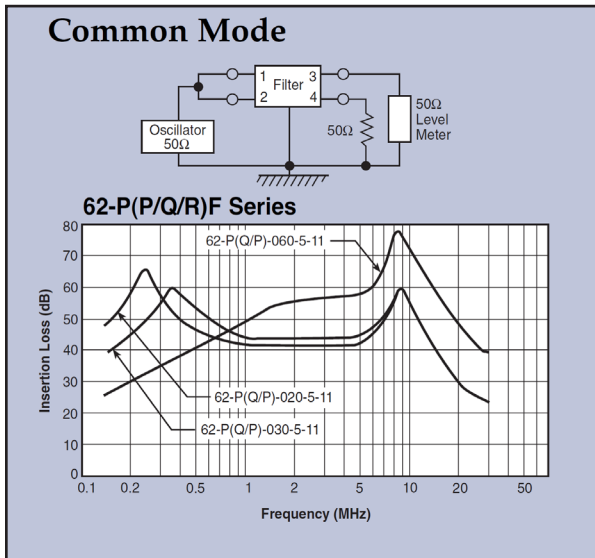
Weight: 62-PPF & PQF Series: 2.11 ounces (60 grams)
62-PRF Series: 1.76 ounces (50 grams)

Power Line Filters | Single Stage

62-PPF/PQF/PRF Series



Also available with .250 Fast-ons Dimensions in inches (mm)



Power Line Filters | Single Stage Wire Leads

62-PML Series



Tested and found to be IAW VDE 0565 Part 3

Features

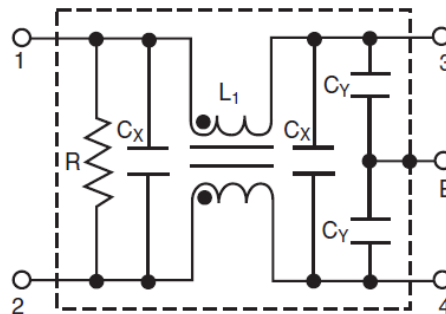
- Compact design requires minimal real estate space
- Suitable for products that must conform to FCC and FTZ regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective shielding
- Excellent filtering characteristics for both normal mode and common mode
- Structure provides effective shielding for noise generated externally and internally
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 10)



Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Medical equipment
- Factory automation equipment

Circuit Diagrams



Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)
				C _y	C _x		
62-PML-015-3-11	250VAC	1.5A	0.35mA	2200pF	0.1uF	10.0mH	30°C
62-PML-015-5-11			0.50mA	3300pF			
62-PML-030-3-11		3A	0.35mA	2200pF			
62-PML-030-5-11			0.50mA	3300pF			
62-PML-050-3-11		5A	0.35mA	2200pF			
62-PML-050-5-11			0.50mA	3300pF			

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. at rated current

Weight: 62-PML-015 Series: 3.06 ounces (87 grams)

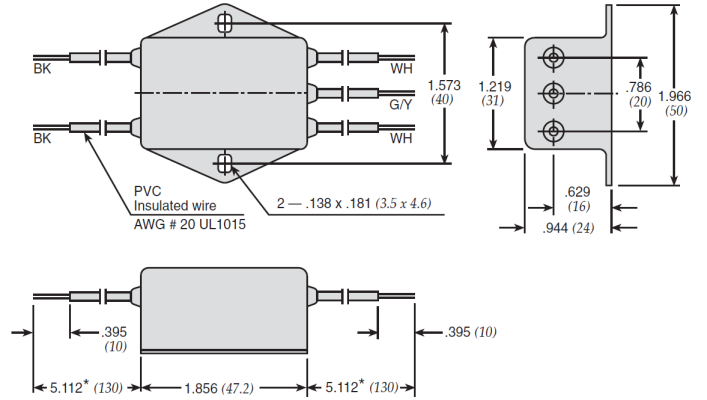
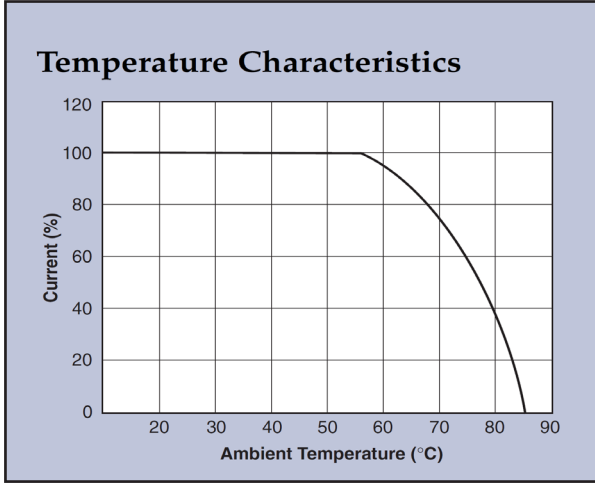
62-PML-030 Series: 3.17 ounces (90 grams)

62-PML-050 Series: 3.28 ounces (93 grams)

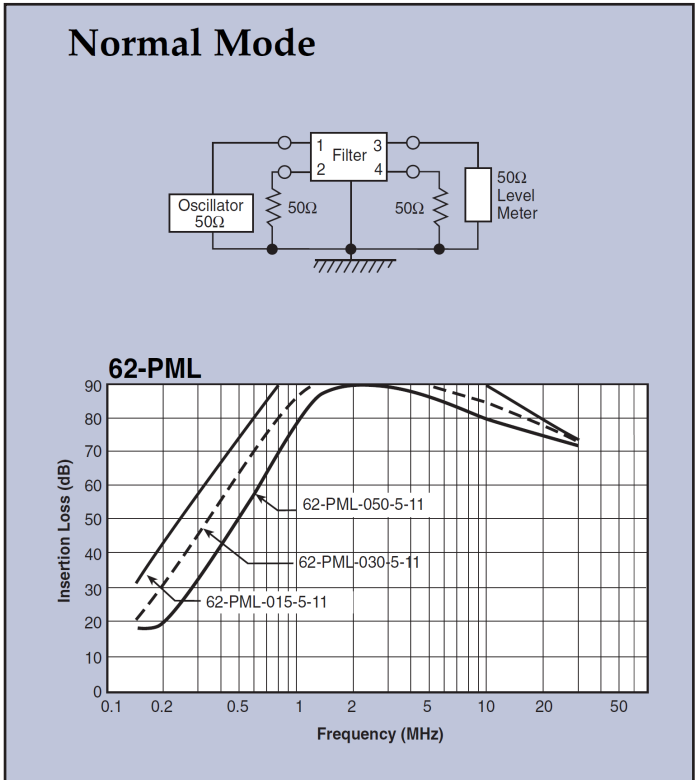
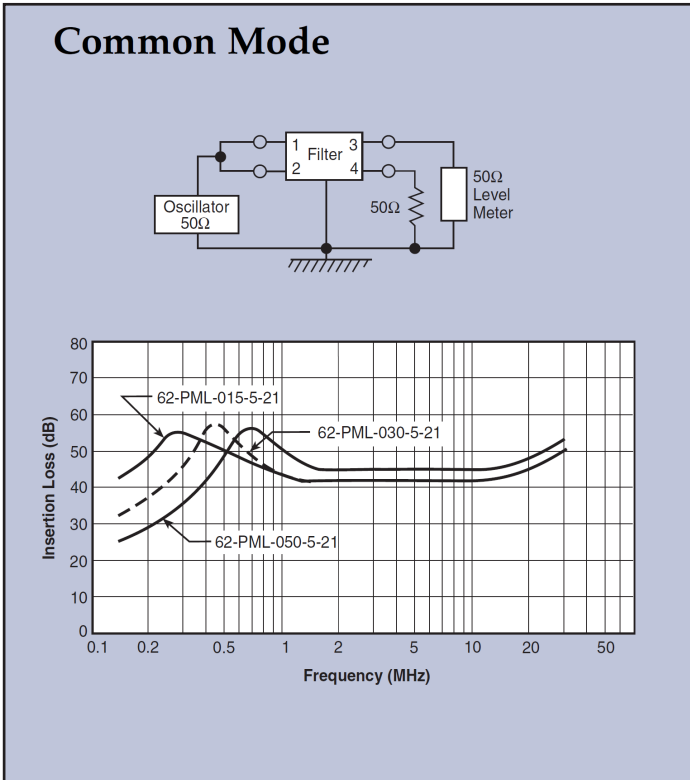
Discharge time: 0.4 sec. max.

Power Line Filters | Single Stage Wire Leads

62-PML Series



* Custom lengths available upon request. Dimensions in inches (mm)



Power Line Filters | Single Stage Wire Leads



for Medical Purpose Applications; 12-PML & 12-PMF Series

Features

- Compact design requires minimal real estate space
- Suitable for products that must conform to FCC and FTZ regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective shielding
- Excellent filtering characteristics for both normal mode and common mode
- Structure provides effective shielding for noise generated externally and internally
- Operating temperature: -25°C to +85°C
- Low leakage current

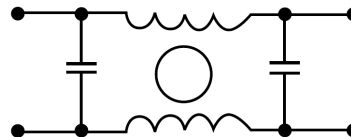


Applications

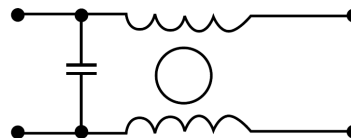
- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Medical equipment
- Factory automation equipment

Circuit Diagram

Circuit 1



Circuit 2



Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Circuit Diagram	Figure	Temperature Rise (Max.)
12-PML-001-2-A	120/250VAC	1A	5uA	1	A	30°C
12-PML-002-2-A		2A				
12-PML-006-2-A		6A				
12-PML-010-2-A		10A				
12-PMF-001-2-B		1A		2	B	
12-PMF-002-2-B		2A				
12-PMF-006-2-B		6A				
12-PML-001-2-C		1A		1	C	

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. at rated current

Discharge time: 0.4 sec. max.

Power Line Filters | Single Stage Wire Leads

for Medical Purpose Applications; 12-PML & 12-PMF Series

Figure A

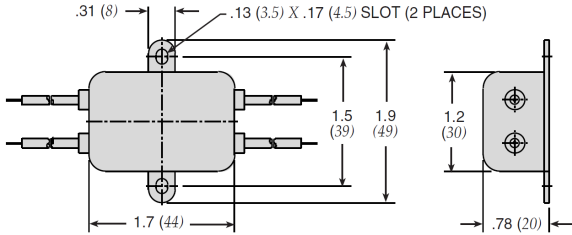


Figure C

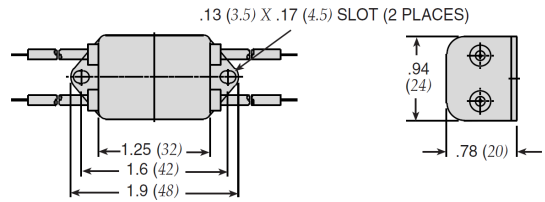
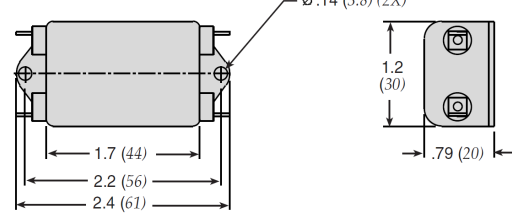
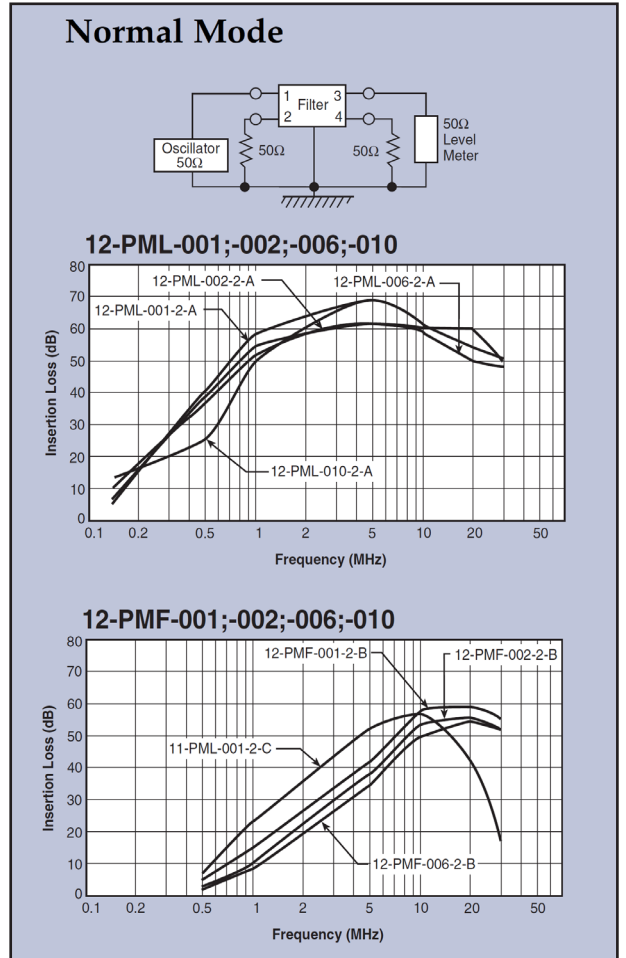
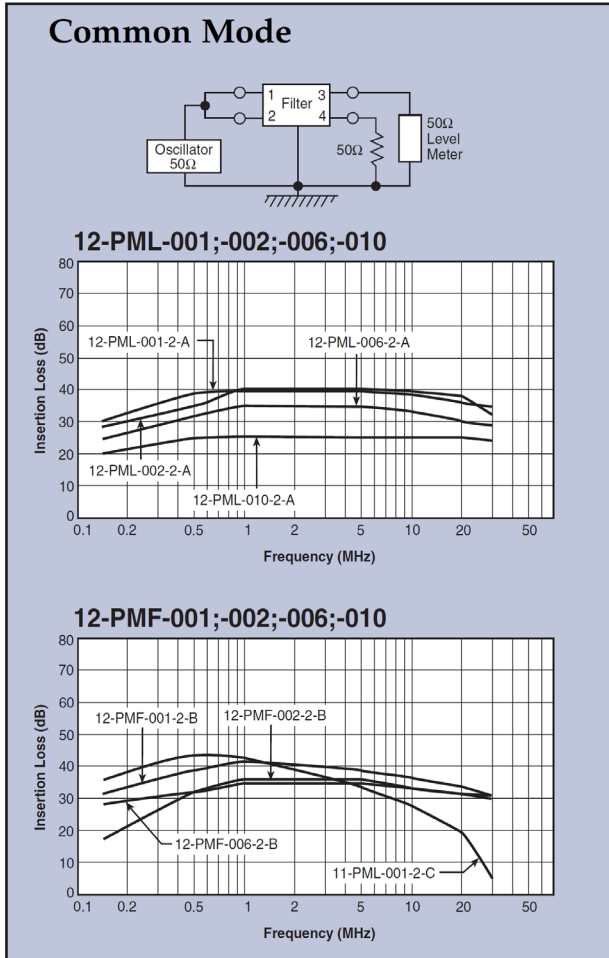


Figure B



Dimensions in inches (mm)



Power Line Filters | Single Stage

62-LMF & LMB Series



Tested and found to be IAW VDE 0565 Part 3

Features

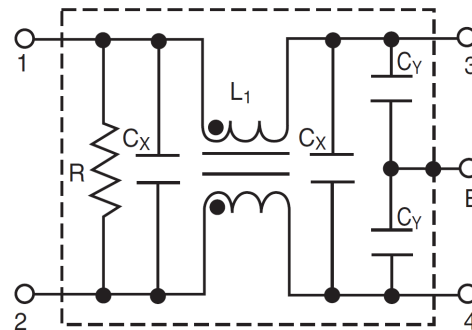
- Space saving, compact designs
- Suitable for products that must conform to FCC and FTZ regulations
- Excellent filtering characteristics for both normal mode and common mode
- Structure provides effective shielding for noise generated externally and internally
- Metal case provides effective shielding
- Rugged construction
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 14)



Applications

- Digital equipment
- Office automation equipment
- Computers and peripherals
- Instrumentation and controls

Circuit Diagram



Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)	
				C _Y	C _X			
62-LMB-030-5-11	250VAC	3A	0.50mA	0.50mA	0.1uF	14mH	45°C	
62-LMF-030-5-11		5A			0.1uF & .22uF	7.0mH		
62-LMB-050-5-11		8A			.22uF	4.2mH		
62-LMF-050-5-11		10A			.33uF	2.2mH		
62-LMB-080-5-11								
62-LMF-080-5-11								
62-LMB-100-5-11								
62-LMF-100-5-11								

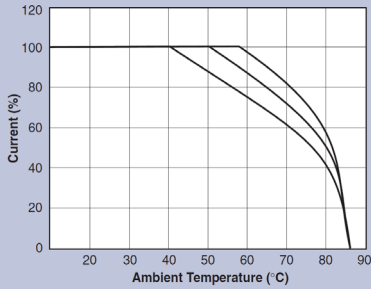
Note: Test voltage: 1500VAC one minute, line to ground
 Insulation resistance: 300 Mohm min. at 500VDC
 Voltage drop: 1V max. at rated current
 Discharge time: 0.4 sec. max.
 Weight: 5.3 ounces (150 grams)

* 62-LMF - designates Fast-on terminals
 62-LMB - designates Bolt-in terminals
 62-LML - wire lead in/outputs also available

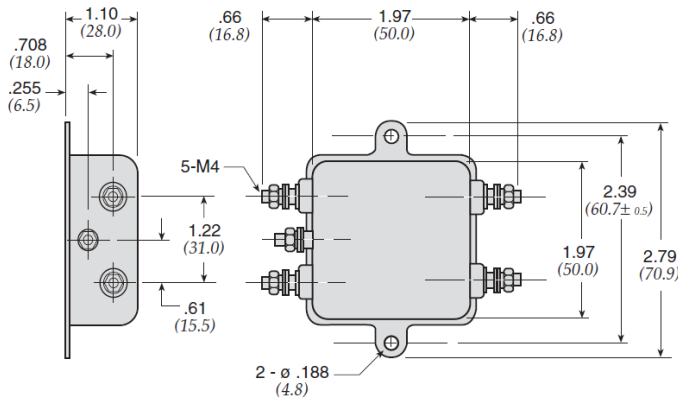
Power Line Filters | Single Stage

62-LMF & LMB Series

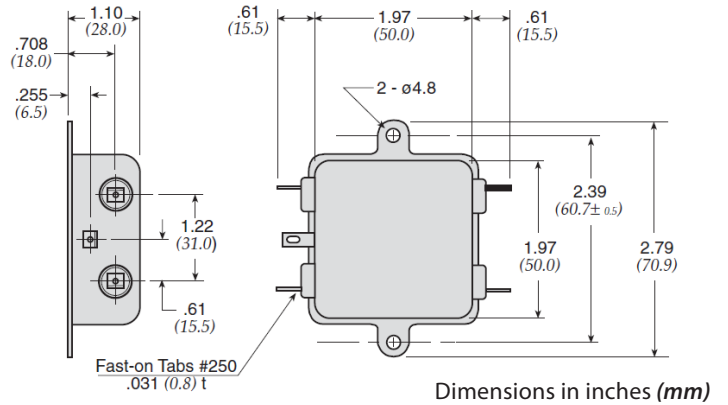
Temperature Characteristics



62-LMB

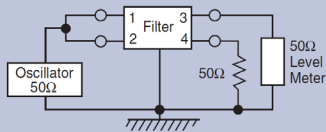


62-LMF

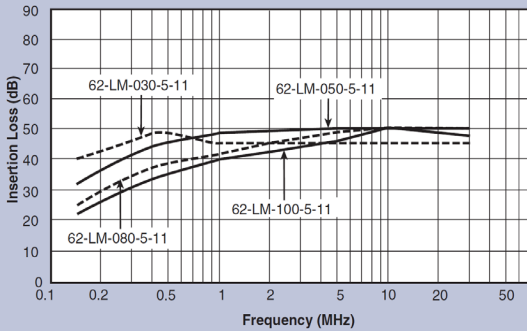


Dimensions in inches (mm)

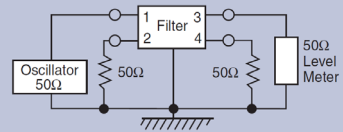
Common Mode



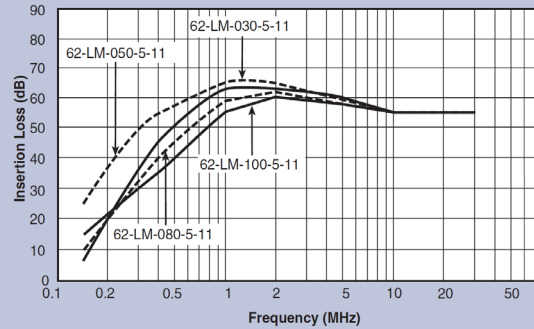
62-LMF & LMB



Normal Mode



62-LMF & LMB



Power Line Filters | Single Stage

62-PMF & PMB Series



Tested and found to be IAW VDE 0565 Part 3

Features

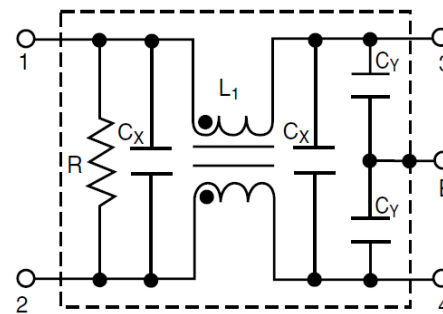
- Space saving, compact designs
- Suitable for products that must conform to FCC regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective EMI shielding
- Excellent filtering characteristics for both normal mode and common mode
- Epoxy molded for internal component reliability
- Structure provides effective shielding for noise generated externally and internally
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 16)

Applications

- Digital equipment
- Computers and peripherals
- Measuring instruments
- Medical equipment
- Equipment requiring very high impulse attenuation
- Factory automation equipment
- Industrial equipment such as UPS, inverters, and converters
- Wireless communications equipment
- Office automation equipment



Circuit Diagram



Specifications

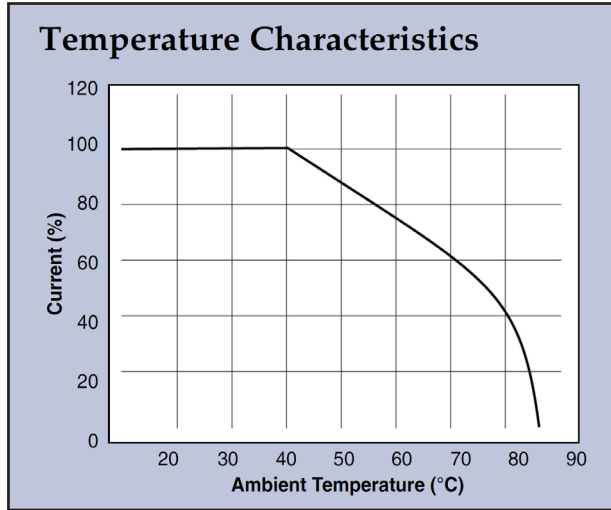
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)
				C _Y	C _X		
62-PMB-050-5-11	250VAC	5A	0.50mA	3300pF	0.1uF	14mH	45°C
62-PMF-050-5-11							
62-PMB-080-5-11		10A			.22uF	4.2mH	
62-PMF-080-5-11							
62-PMB-100-5-12		20A			1.8mH	45°C**	
62-PMF-100-5-12							
62-PMB-150-5-13		10A			7.0mH		
62-PMF-150-5-13							5A
62-PMB-200-5-13		8A			.1uF		
62-PMF-200-5-13						4.2mH	.33uF
62-PMB-200-5-13	2.2mH	1.8mH					
62-PMF-200-5-13			7.0mH	.1uF			

Note: 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.
 Weight: 8.82 ounces (250 grams)

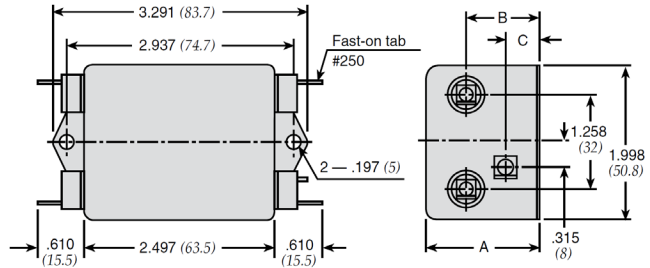
* PMF - designates Fast-on terminals PMB - designates Bolt-in terminals
 ** The temperature rise of 20 amp units can be decreased to 30°C by mounting on 200 X 200 x 1.0(mm) steel chassis

Power Line Filters | Single Stage

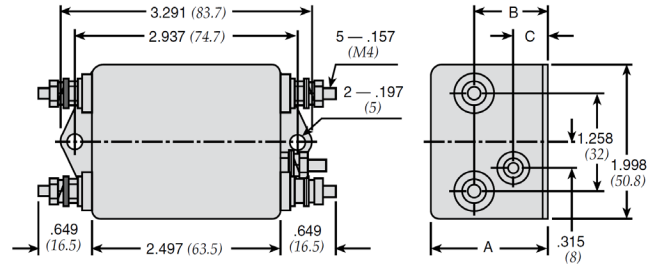
62-PMF & PMB Series



62-LMF

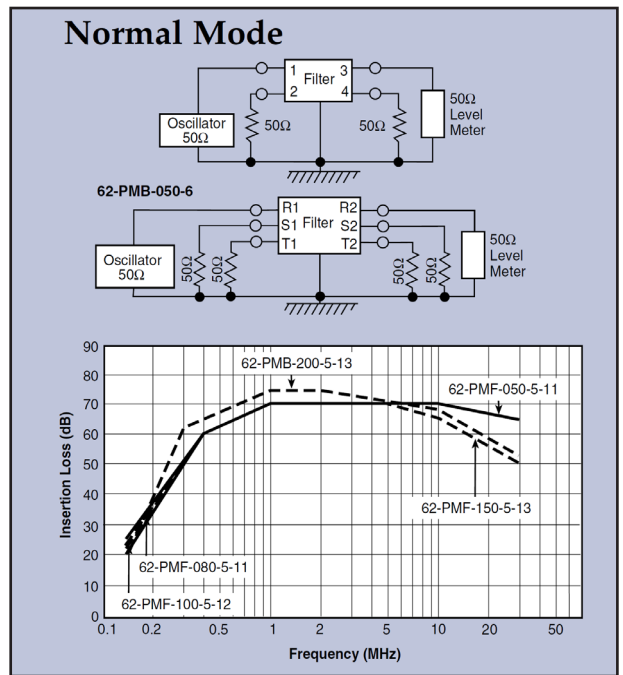
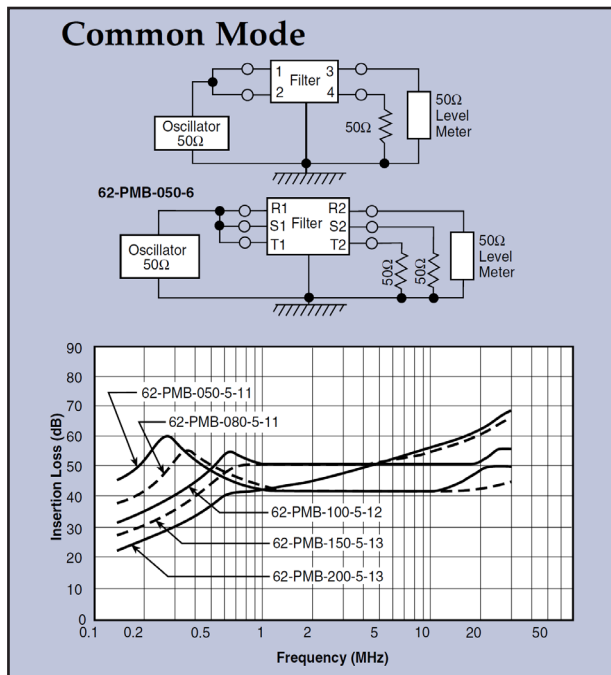


62-PMB



Model	A	B	C
62-PMF/PMB-100-200	1.490 (38)	.944 (24)	.433 (11)
62-PMF/PMB-050-080	1.258 (32)	.786 (20)	0 (0)

Dimensions in inches (mm)



Power Line Filters | Single Stage



12-PMF Series

Features

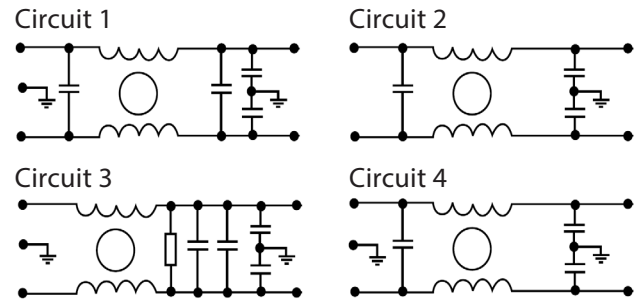
- Space-saving, compact designs
- Suitable for products that must conform to FCC regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective EMI shielding
- Excellent filtering characteristics for both normal mode and common mode
- Epoxy molded for internal component reliability
- Structure provides effective shielding for noise generated externally and internally
- Operating temperature: -25°C to +85°C



Applications

- Digital equipment
- Personal computers and peripherals
- Measuring equipment
- Equipment requiring very high impulse attenuation
- Factory automation equipment
- Industrial equipment such as UPS, inverters, converters
- Wireless communication equipment
- Office automation equipment

Circuit Diagrams



Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Circuit Diagram	Figure	Temperature Rise (Max.)	
12-PMF-001-5-A	120/250VAC	1A	0.50mA	1	A	30°C	
12-PMF-003-5-A		3A		4	A		
12-PMF-003-5-B					B		
12-PMF-006-5-A		6A		4	A		
12-PMF-006-5-C					1		C
12-PMF-006-5-D					6		D
12-PMF-010-5-A		10A		2	A		
12-PMF-010-5-C					3		C
12-PMF-015-5-C		15A		5	E		
12-PMF-015-5-E					C		
12-PMF-020-5-C					D		
12-PMF-020-5-D		20A		5	D		
12-PMF-020-5-E					E		

Note: 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 | Single Stage

12-PMF Series

Figure A

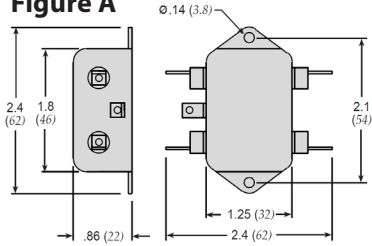


Figure B

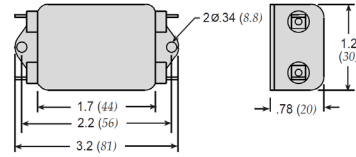


Figure C

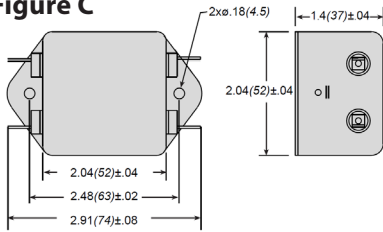


Figure D

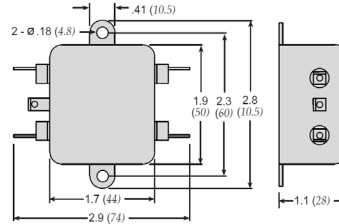
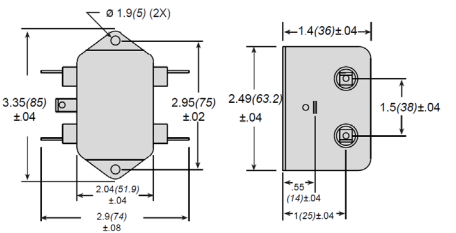
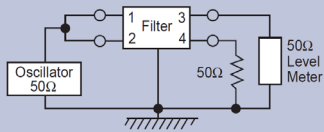


Figure E

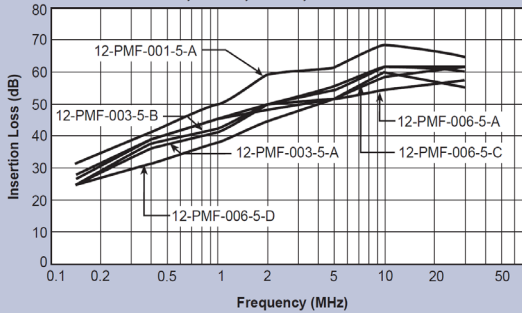


Dimensions in inches (mm)

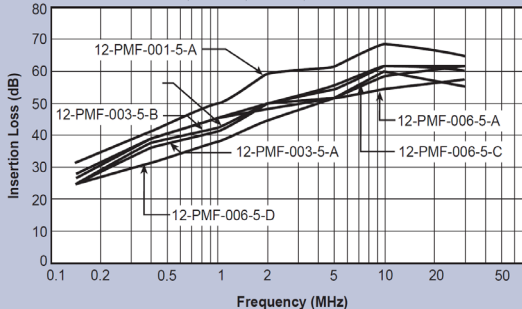
Common Mode



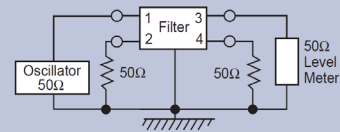
12-PMF-001;-002;-003;-006



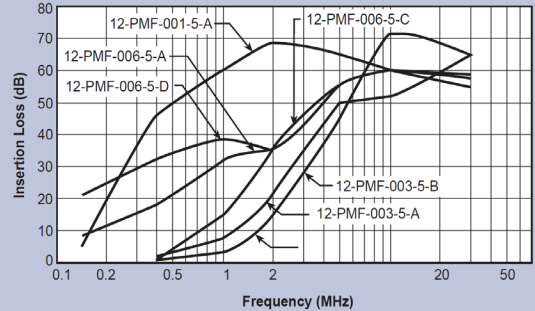
12-PMF-001;-002;-003;-006



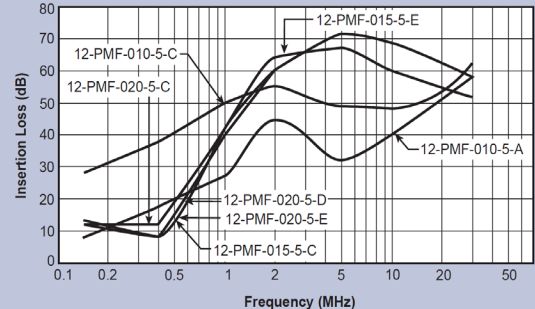
Normal Mode



12-PMF-001;-002;-003;-006



12-PMF-010;-015;-020



Power Line Filters | Single Stage - Higher Current

62-PMB Series

Features

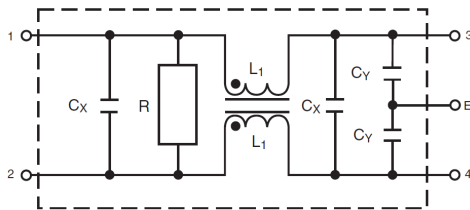
- Space-saving, compact designs
- Suitable for products that must conform to FCC regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective shielding
- Excellent filtering characteristics for both normal mode and common mode
- Epoxy molded for internal component reliability
- Structure provides effective shielding for noise generated externally and internally
- Safety agency approvals
- Designed to be in accordance with VDE 0565 Part 3
- Operating temperature: -25°C to +85°C (including temperature rise)



Applications

- Digital equipment
- Computers and peripherals
- Measuring instruments and medical equipment
- Medical equipment
- Equipment requiring very high impulse attenuation
- Factory automation equipment
- Industrial equipment such as UPS, inverters, and converters
- Wireless communications equipment
- Office automation equipment

Circuit Diagram



Specifications

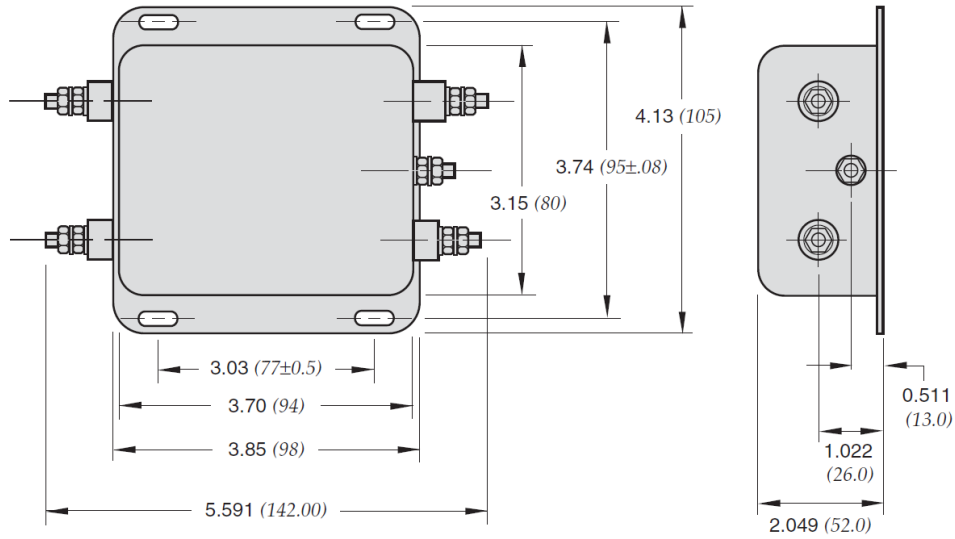
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)
				C _y	C _x		
62-PMB-300-5-14	250VAC	30A	0.50mA	3300pF	.47uF	1.6mH	45°C
62-PMB-400-5-14		40A				0.8mH	

Note: 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.

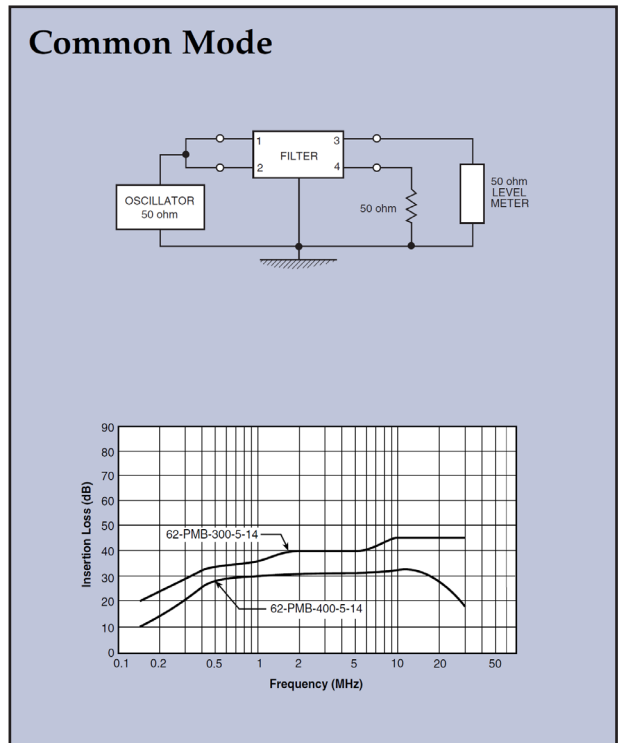
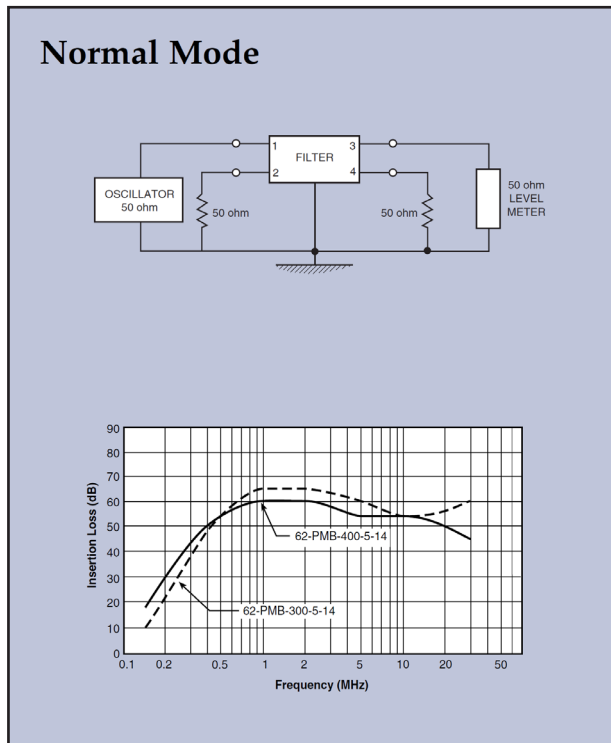
Power Line Filters | Single Stage - Higher Current

62-PMB Series

62-PMB-300-5-14 and 62-PMB-400-5-14



Dimensions in inches (mm)



Power Line Filters | Single Stage - Higher Current

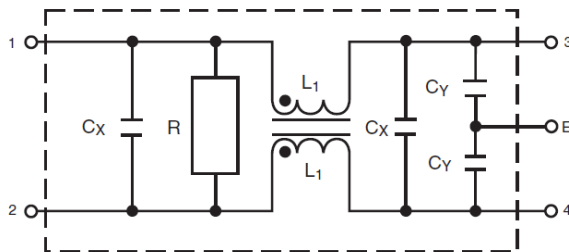
12-PMB Series

Features

- Space-saving, compact designs
- Suitable for products that must conform to FCC regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective EMI shielding
- Excellent filtering characteristics for both normal mode and common mode
- Epoxy molded for internal component reliability
- Structure provides effective shielding for noise generated externally and internally
- Designed to be in accordance with VDE 0565 Part 3
- Operating temperature: -25°C to +85°C



Circuit Diagrams



Applications

- Digital equipment
- Computers and peripherals
- Measuring equipment
- Medical equipment
- Equipment requiring very high impulse attenuation
- Factory automation equipment
- Industrial equipment such as UPS, inverters, and converters
- Wireless communications equipment
- Office automation equipment

Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Circuit Diagram	Figure	Temperature Rise (Max.)
12-PMB-025-5-A	120/250VAC	25A	0.50mA	1	A	30°C
12-PMB-030-5-A		30A				
12-PMB-035-5-B		35A				
12-PMB-050-5-B		50A	1.0mA			
12-PMB-100-8-C		100A				
12-PMB-120-8-C		120A				

Note: Test voltage: 1500VAC one minute, line to earth
 Insulation resistance: 300 Mohm min. at 500VDC
 Voltage drop: 1V max.
 Discharge time: 0.4 sec. max.
 Weight: 8.82 ounces (250 grams)

Power Line Filters | Single Stage - Higher Current

12-PMB Series

Figure A

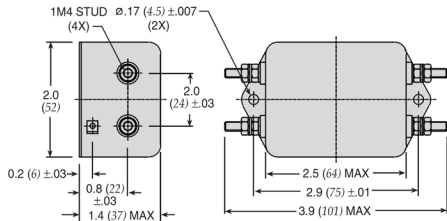


Figure B

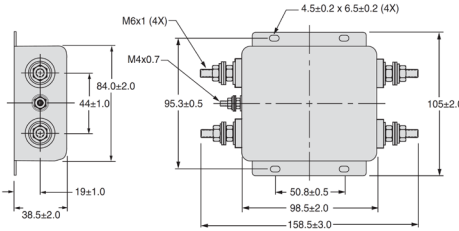
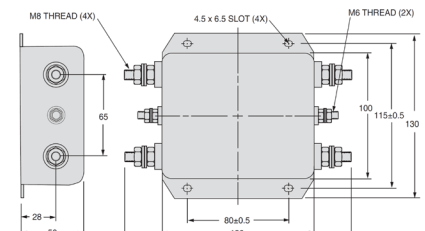
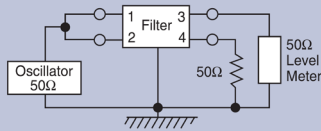


Figure C

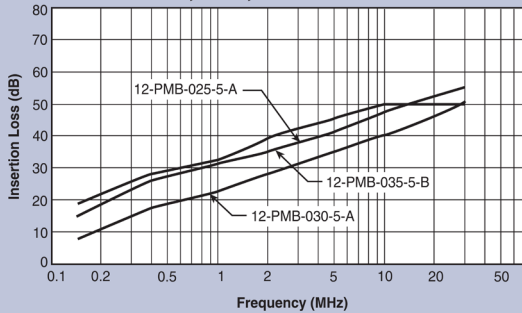


Dimensions in inches (mm)

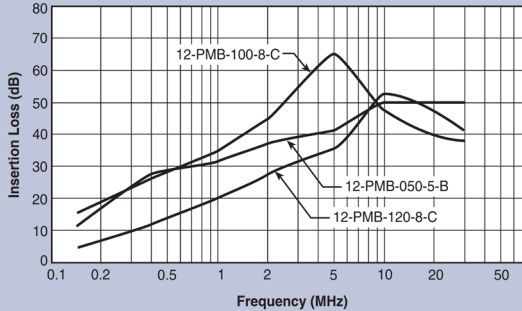
Common Mode



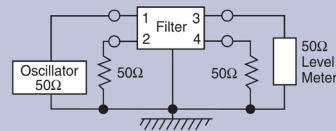
12-PMB-025;-030;-035



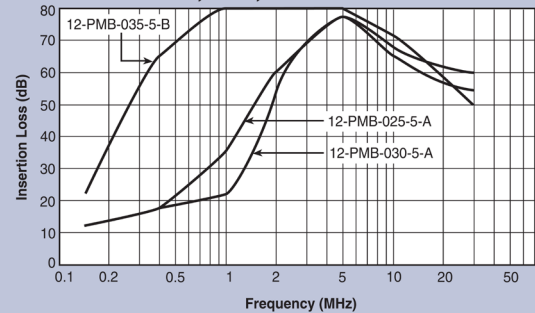
12-PMB-050;-100;-120



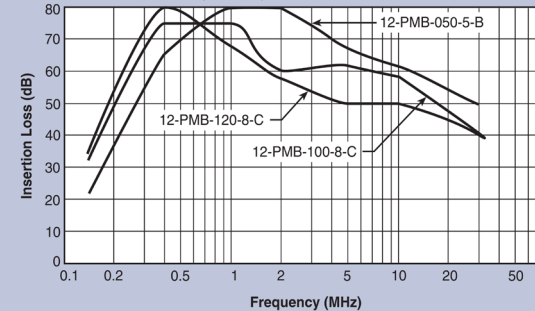
Normal Mode



12-PMB-025;-030;-035



12-PMB-050;-100;-120



Power Line Filters | DC - Higher Current

12-PMF & 12 PMB DC Series

Features

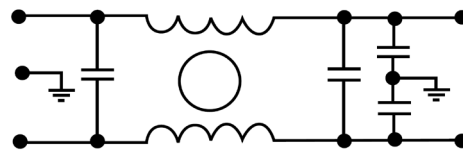
- Space-saving, compact designs
- Suitable for products that must conform to FCC regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective shielding
- Excellent filtering characteristics for both normal mode and common mode
- Epoxy molded for internal component reliability
- Structure provides effective shielding for noise generated externally and internally
- Designed to be in accordance with VDE 0565 Part 3
- Operating temperature: -40°C to +85°C



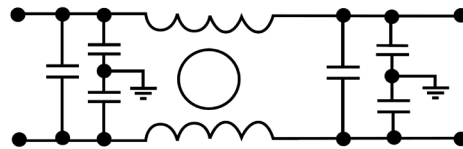
Applications

- Digital equipment
- Computers and peripherals
- Measuring equipment
- Equipment requiring very high impulse attenuation
- Factory automation equipment
- Industrial equipment such as UPS, inverters, and converters
- Wireless communications equipment

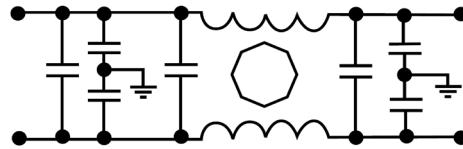
Circuit 1



Circuit 2



Circuit 3



Power Line Filters | DC - Higher Current

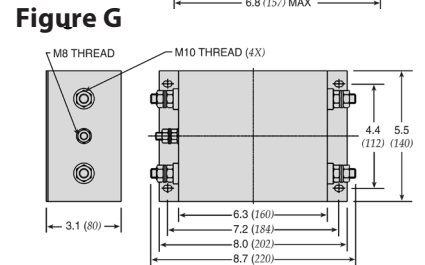
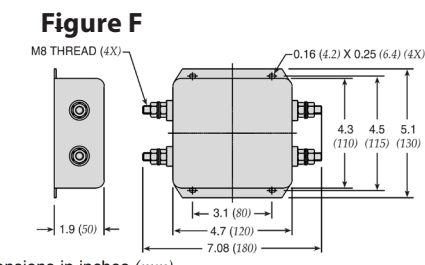
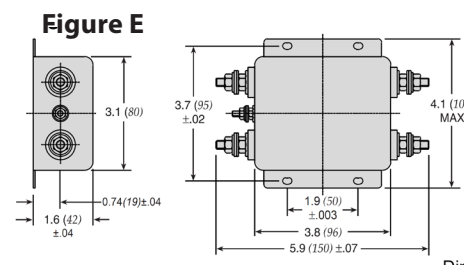
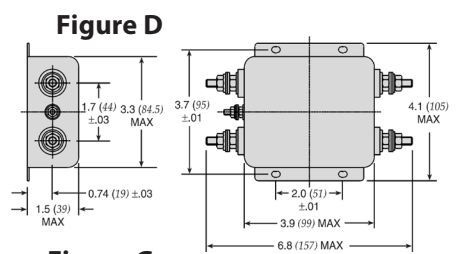
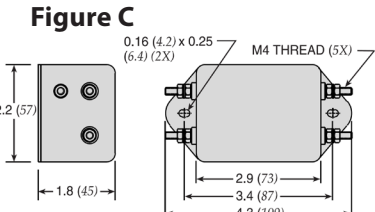
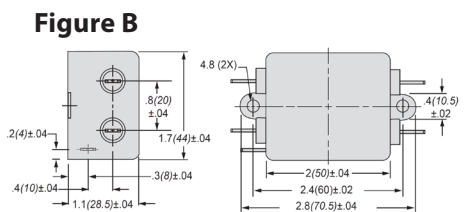
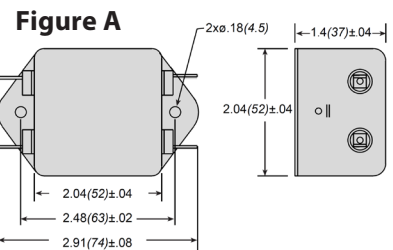
12-PMF & 12 PMB DC Series

Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Circuit Diagram	Figure	Temperature Rise (Max.)	
12-PMF-006-DC-C	120/250VAC	6A	1	A	30°C	
12-PMF-010-DC-C		10A				
12-PMF-015-DC-C		15A				
12-PMF-020-DC-C		20A				
12-PMF-025-DC-D		25A				
12-PMB-025-DC-F		30A				
12-PMB-030-DC-F		35A		C		
12-PMB-035-DC-F		40A				
12-PMB-040-DC-F		50A				
12-PMB-050-DC-B		60A		D		
12-PMB-060-DC-B		80A		2		E
12-PMB-080-DC-G		100A		3		F
12-PMB-080-DC-C		120A				
12-PMB-100-DC-C		140A				
12-PMB-120-DC-C		180A	2	G		
12-PMB-140-DC-C		200A				
12-PMB-180-DC-E		260A				
12-PMB-200-DC-E						
12-PMB-260-DC-E						

Note: Test voltage: 1500VAC one minute, line to earth
 Insulation resistance: 300 Mohm min. at 500VDC
 Voltage drop: 1V max.
 Discharge time: 0.4 sec. max.
 Weight: 8.82 ounces (250 grams)

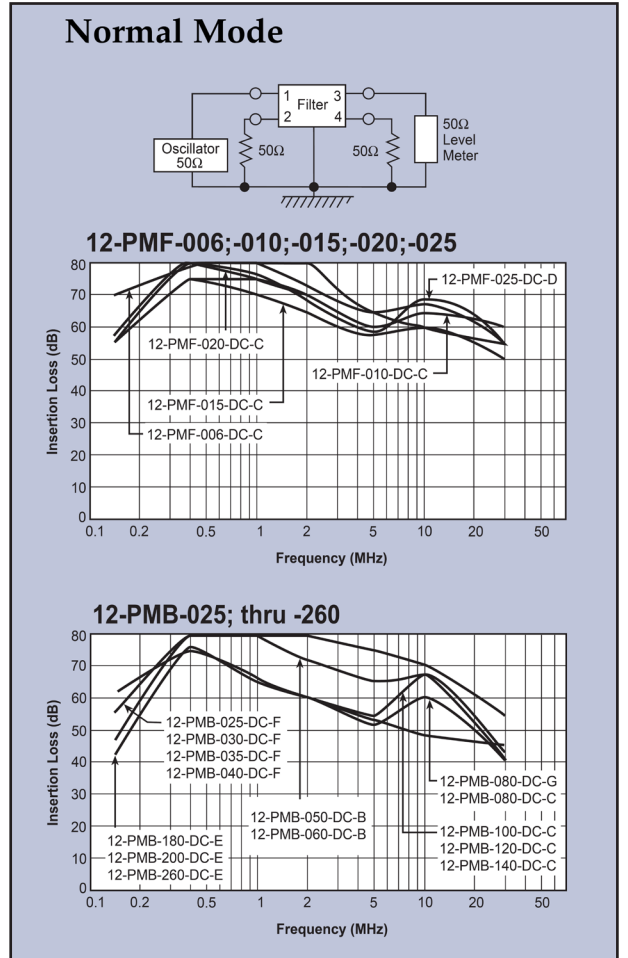
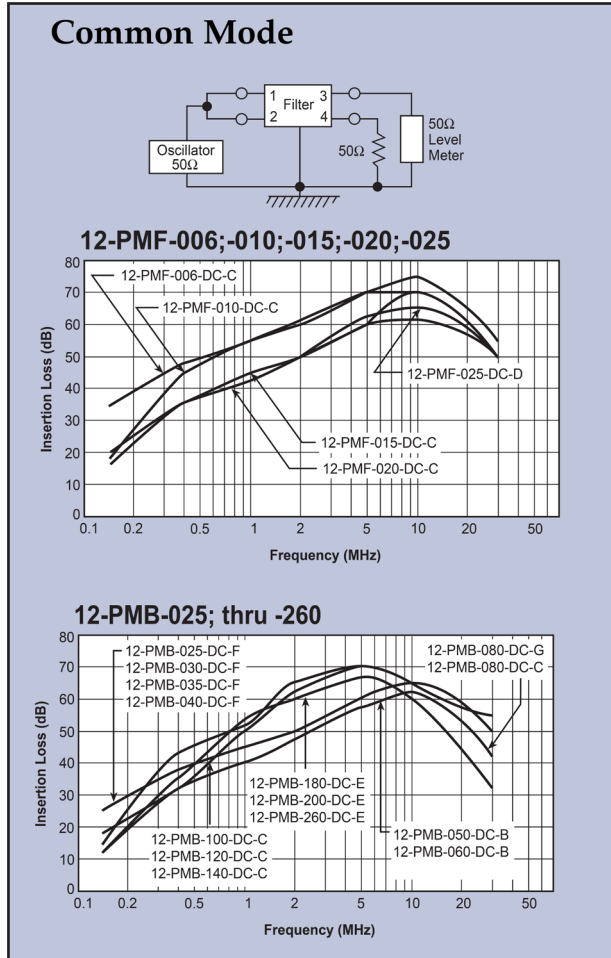
Dimensions in inches (mm)



Dimensions in inches (mm)

Power Line Filters | DC - Higher Current

12-PMF & 12-PMB DC Series



Power Line Filters | Dual Stage

62-MMF Series

Features

- Suitable for products that must conform to FCC regulations
- Excellent attenuation for high voltage impulse
- Metal case provides effective shielding
- Two stages for excellent filtering characteristics
- Epoxy molded for internal component reliability
- Structure provides effective shielding for noise generated externally and internally
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 27)

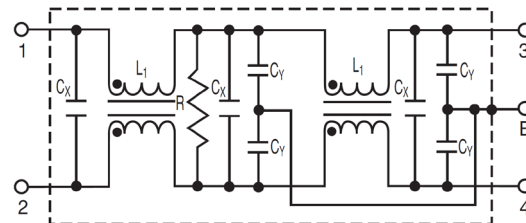


Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments and medical equipment
- Medical equipment
- Wireless communications equipment
- Equipment requiring very high impulse attenuation

Circuit Diagram

62-MMF-XXX-7-11



Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance			Inductance (L ₁)(2X)	Temp. Rise (Max.)
				C _{Y1}	C _{Y2}	C _X		
62-MMF-030-7-11	250VAC	3A	.7mA	3300pF	1000pF	0.1uF	3.7mH	30°C
62-MMF-050-7-11	250VAC	5A	.7mA	3300pF	1000pF	0.1uF	2.9mH	30°C

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.

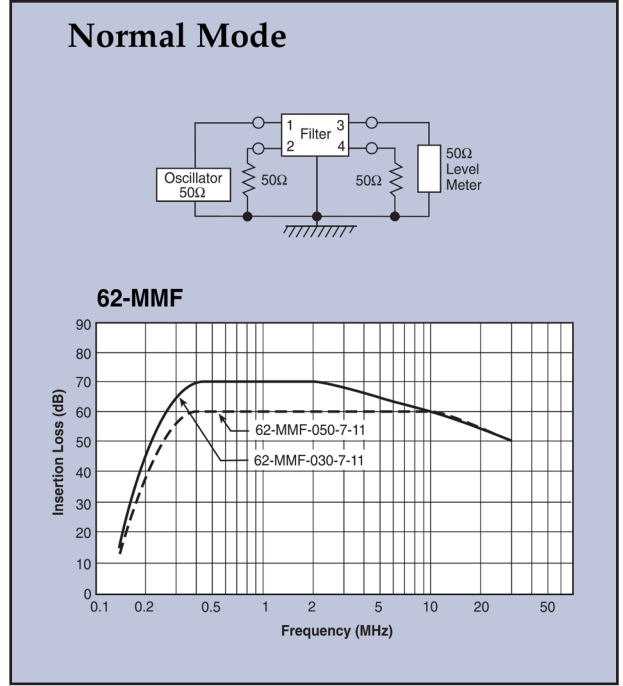
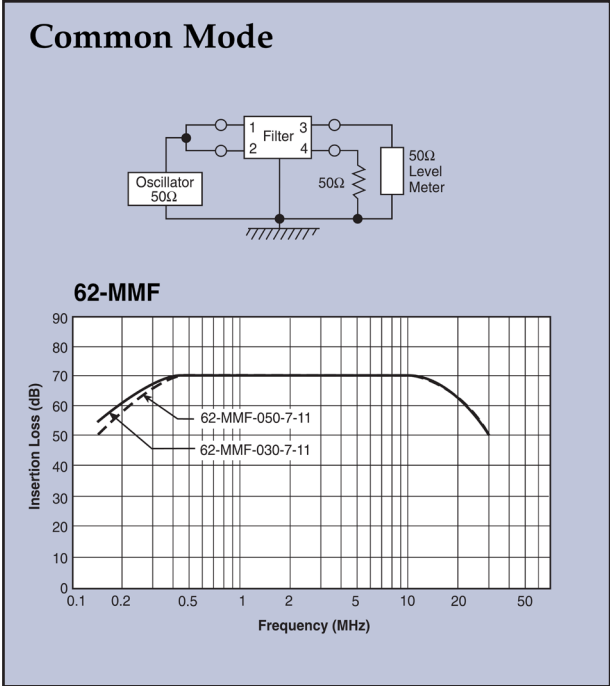
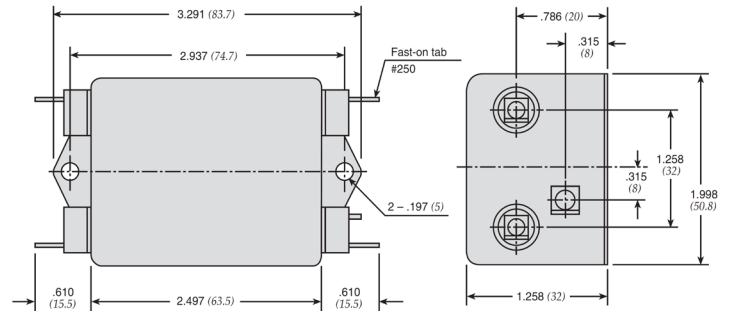
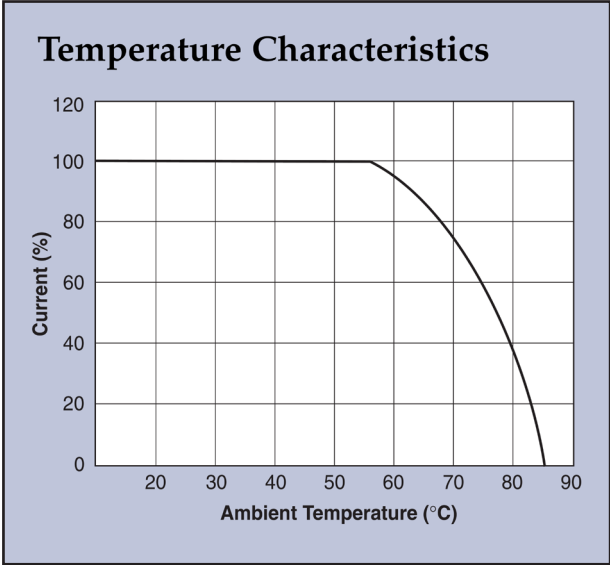
Voltage drop: 1V max.

Discharge time: 0.4 sec. max.

Weight: 6.0 ounces (170 grams)

Power Line Filters | Dual Stage

62-MMF Series



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
- Medical equipment
- Wireless communications equipment

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		3A			B	
12-MMF-006-5-F		6A		A		
12-MMF-006-5-G		6A		C		
12-MMF-008-5-B		8A		A		
12-MMF-010-5-F		10A		A1		
12-MMF-010-5-G				A		
12-MMF-010-5-B				C		
12-MMF-012-5-B				12A	D	
12-MMB-015-5-E				15A	G	
12-MMB-020-5-F				20A	E	
12-MMB-030-5-D				30A	E	
12-MMB-050-5-C				50A	D	

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

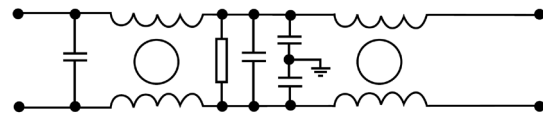
Voltage drop: 1V max.

Discharge time: 0.4 sec. max.

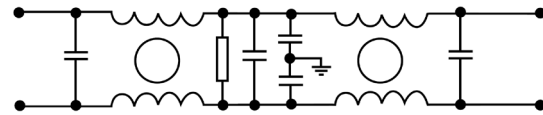


Circuit Diagram

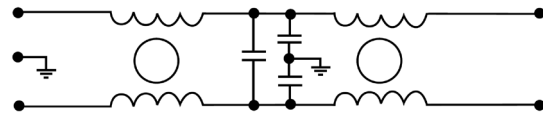
Circuit 1



Circuit 2



Circuit 3



Power Line Filters | Dual Stage

12-MMF & 12-MMB Series

Figure B

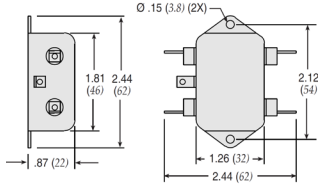


Figure C

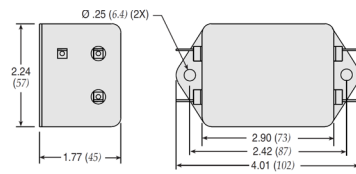


Figure A

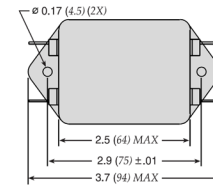


Figure A

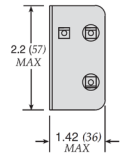


Figure D

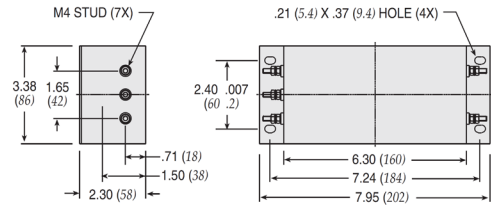


Figure E

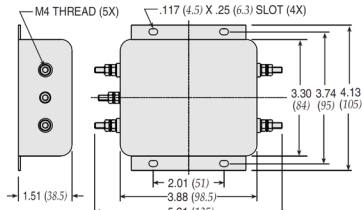


Figure E

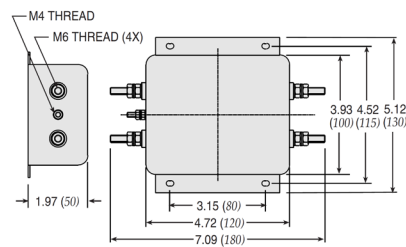
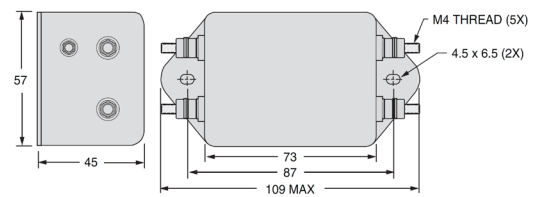
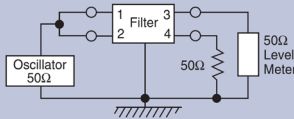


Figure E

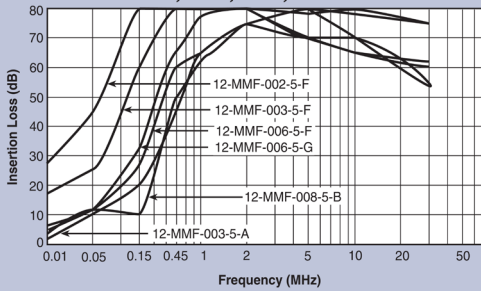


Dimensions in inches (mm)

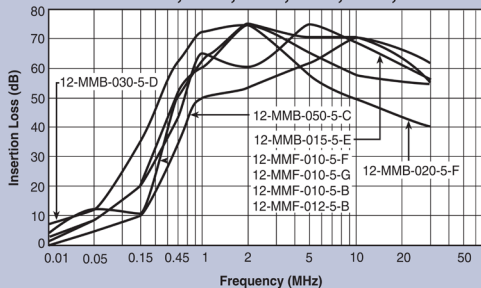
Common Mode



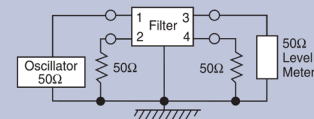
12-MMF-002;-003;-006;-008



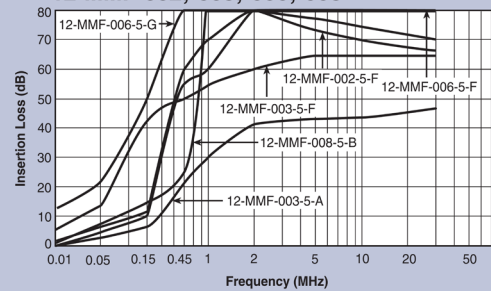
12-MMF-010;-012;-015;-020;-030;-050



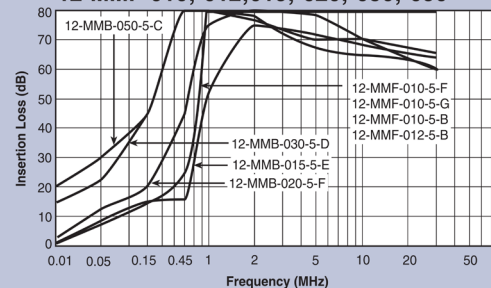
Normal Mode



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



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



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

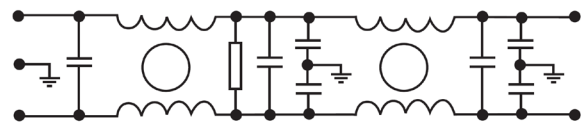


Applications

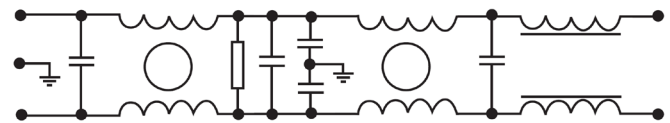
- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Medical equipment
- Wireless communications equipment
- Equipment requiring very high noise attenuation

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		1	E	
12-MMB-020-11-D		20A			F	
12-MMB-030-11-D		30A				
12-MMB-040-11-E		40A				
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)

Power Line Filters | Dual Stage

12-MMF & 12-MMB Series

Figure A

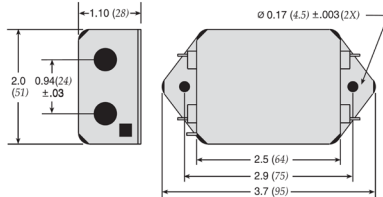


Figure B

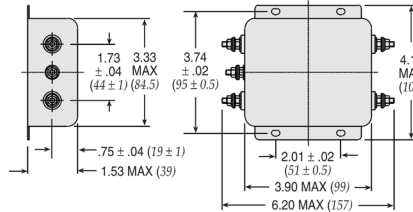


Figure C

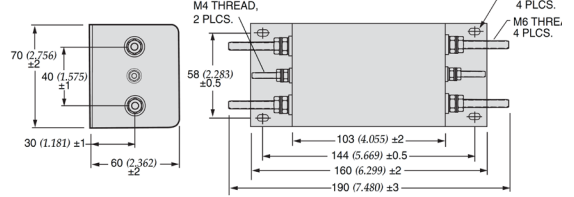


Figure D

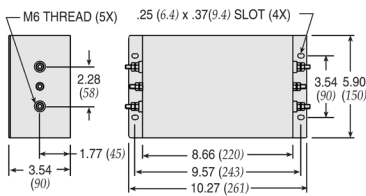


Figure E

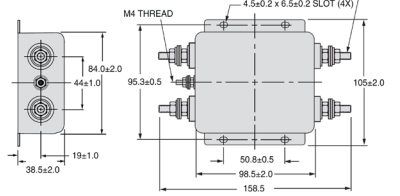
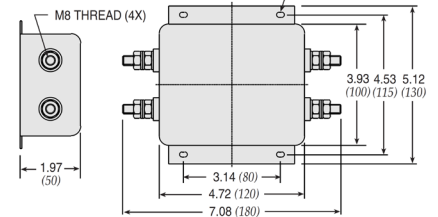
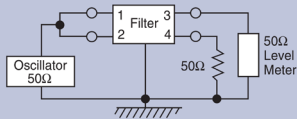


Figure F

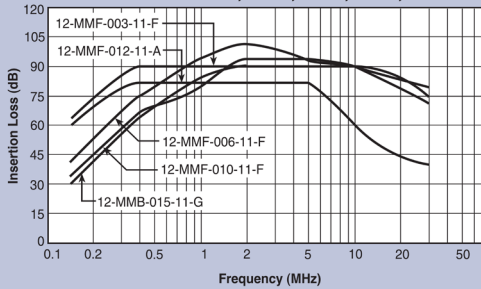


Dimensions in inches (mm)

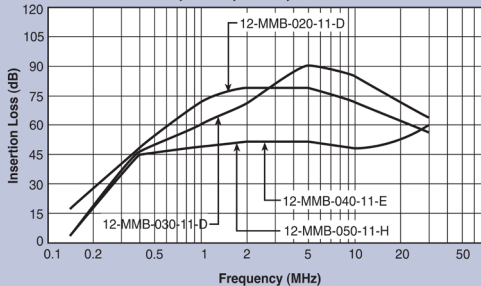
Common Mode



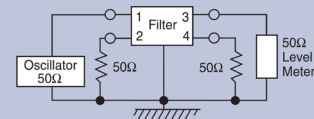
12-MMF/MMB-003;-006;-010;-012;-015



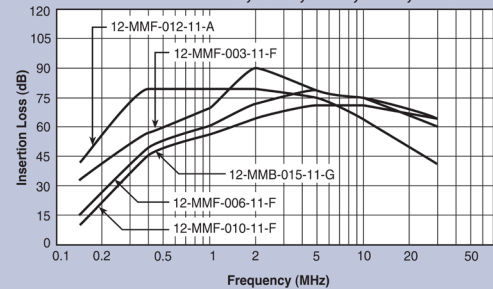
12-MMB-020;-030;-040;-050



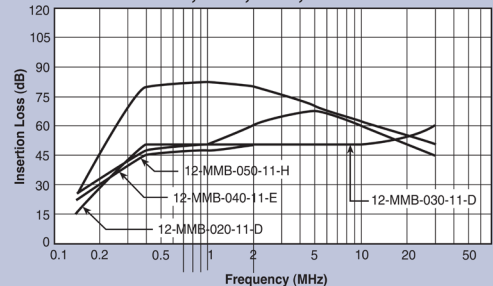
Normal Mode



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



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



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
- Epoxy molded for reliability
- Structure provides effective shielding for noise generated both externally and internally
- Operating temperature: -40°C to +85°C

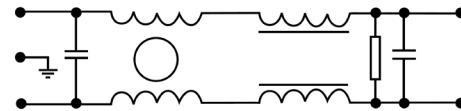


Applications

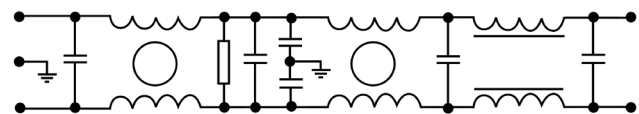
- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Medical equipment
- Wireless communications equipment
- Equipment requiring very high noise attenuation

Circuit Diagram

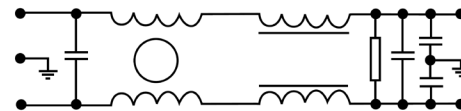
Circuit 1



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	
12-MMF-003-2-G			6A	C		
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				

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)

Power Line Filters | Dual Stage

12-MMF & 12-MMB Series

Figure A

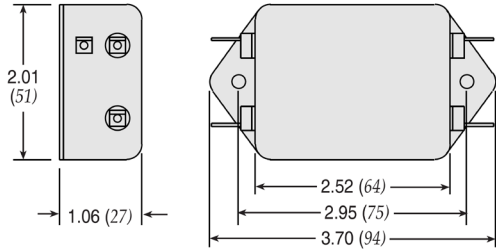


Figure B

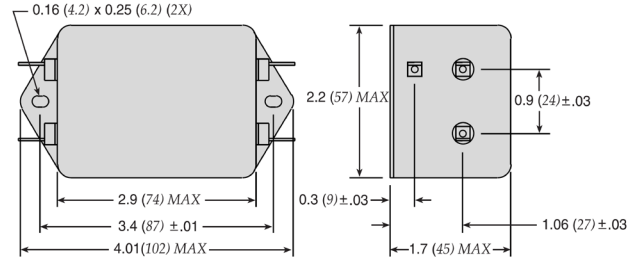


Figure C

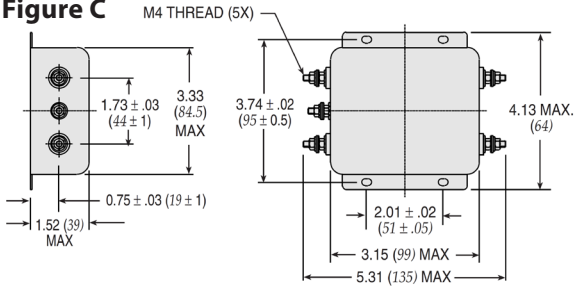
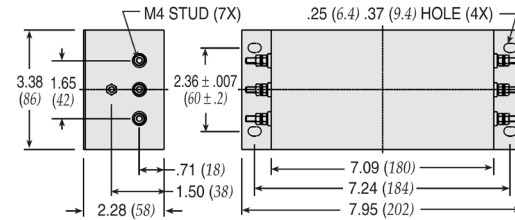
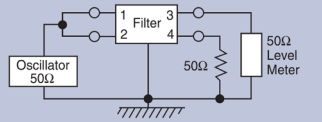


Figure D

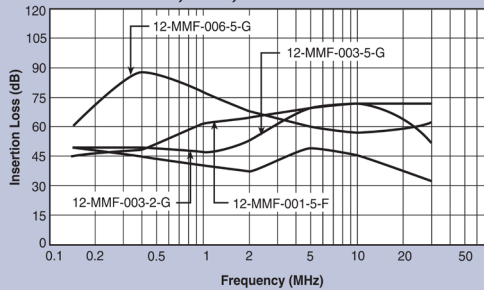


Dimensions in inches (mm)

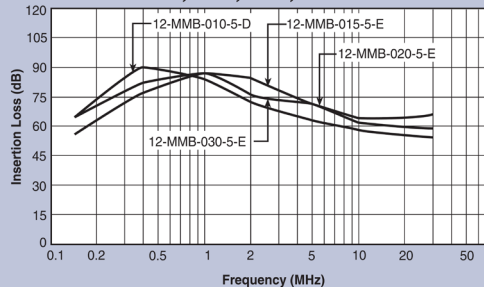
Common Mode



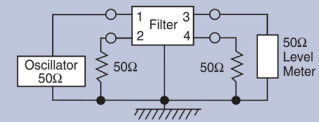
12-MMF-001;-003;-006



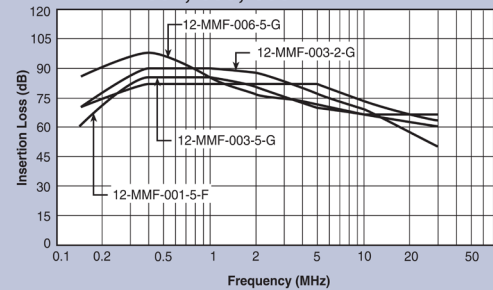
12-MMB-010;-015;-020;-030



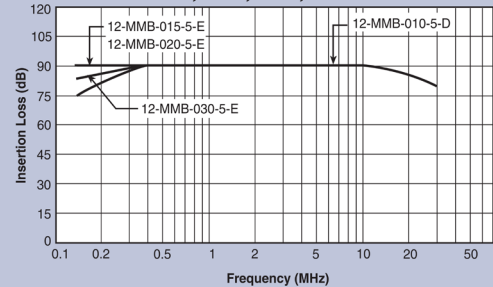
Normal Mode



12-MMF-001;-003;-006



12-MMB-010;-015;-020;-030



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[12-MMF-003-5-G](#) [12-MMB-080-12-A](#) [12-MMF-006-5-F](#) [12-MMF-010-11-F](#) [12-PMF-006-DC-C](#) [62-PMF-200-5-13](#) [12-](#)
[PMF-006-5-A](#) [12-PMF-015-5-E](#) [62-PML-015-5-11](#) [62-ARL-030-3-11](#) [62-LMB-030-5-11](#) [62-LML-050-5-11](#) [12-PMF-](#)
[020-5-C](#) [62-PML-030-3-11](#) [62-ARL-045-5-11](#) [62-AFL-045-5-11](#) [62-AFL-030-3-11](#) [62-PQF-060-5-11](#) [62-PQF-020-5-](#)
[12](#) [62-PMF-100-5-12](#) [62-ARC-010-3-11](#) [62-AFC-016-5-11](#) [62-PRF-030-5-11](#) [62-LMB-100-5-11](#) [12-PMF-001-5-A](#) [62-](#)
[AFC-010-3-11](#) [12-PMF-003-5-B](#) [62-PRF-010-5-12](#) [62-ARC-045-3-11](#) [62-ARL-060-5-11](#) [62-AFC-045-3-11](#) [62-PRF-](#)
[010-5-11](#) [62-LMB-080-5-11](#) [62-LML-080-5-11](#) [62-AFC-016-3-11](#) [62-ARC-016-3-11](#) [62-ARC-016-5-11](#) [62-LMF-080-5-](#)
[11](#) [62-PML-050-5-11](#) [62-ARC-030-5-11](#) [62-AFL-010-5-11](#) [62-AFC-030-5-11](#) [62-PML-050-3-11](#) [62-ARL-010-5-11](#) [62-](#)
[PPF-060-5-11](#) [12-PMF-006-5-C](#) [12-PMF-010-5-C](#) [62-PPF-020-5-12](#) [62-MMF-030-7-11](#) [62-AFC-045-5-11](#) [62-ARC-](#)
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[11](#) [62-AFL-016-5-11](#) [12-PMF-010-5-A](#) [62-LMF-050-5-11](#) [62-AFL-060-5-11](#) [62-PPF-030-5-12](#) [62-PRF-020-5-12](#) [62-](#)
[AFC-060-3-11](#) [63-PMF-080-8-14](#) [62-LML-100-5-11](#) [12-PMF-002-5-B](#) [62-AFL-010-3-11](#) [62-ARL-045-3-11](#) [62-PQF-](#)
[020-5-11](#) [62-PQF-030-5-12](#) [12-PMF-003-5-A](#) [62-AFL-030-5-11](#) [62-LML-030-5-11](#) [62-AFL-016-3-11](#) [62-ARL-016-3-11](#)
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[ARC-030-3-11](#) [63-PMF-030-8-14](#) [62-LMF-030-5-11](#) [62-PML-030-5-11](#) [12-PMF-020-5-E](#) [62-AFL-045-3-11](#) [62-AFC-](#)
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