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.

Appliance Filters ..................................................PF50-PF53
Single Stage.........................................................PF54-PF69
With Wire Leads....................................................PF56-PF57
With Wire Leads for Medical Applications ..........PF58-PF59
Higher Current.....................................................PF66-PF69
DC – Higher Current .............................................PF70-PF71
Dual Stage............................................................PF72-PF79
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 equipment
- Measuring instruments and medical equipment
- TV & VCR monitors and display units
- Home appliances

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-MPC-001-2-B</td>
<td>120/250VAC</td>
<td>1A</td>
<td>5uA</td>
<td>1</td>
<td>A1</td>
<td>30°C</td>
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<tr>
<td>11-MPC-001-5-A</td>
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<td>2A</td>
<td>0.50mA</td>
<td>2</td>
<td>A</td>
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<tr>
<td>11-MPC-002-5-B</td>
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<td>3A</td>
<td></td>
<td>3</td>
<td>D</td>
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<tr>
<td>11-MPC-002-5-D</td>
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<td>6A</td>
<td></td>
<td>2</td>
<td>A1</td>
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<tr>
<td>11-MPC-006-5-B</td>
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<td>16A</td>
<td>0.2mA</td>
<td>4</td>
<td>B</td>
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</tbody>
</table>

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

Circuit Diagram

Circuit 1

Circuit 2

Circuit 3

Circuit 4
PCB Power Filters
Miniature Printed Circuit Board

11-MPC Series

Figure A

Figure A1

Figure B

Figure C

Figure D

Figure E

Common Mode

Normal Mode

Dimensions in inches (mm)
Power Line Filters
Appliance Filters

62-AL/62-AC Series

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
- Good 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 PF53)

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

Specifications

<table>
<thead>
<tr>
<th>Model*</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Capacitance</th>
<th>Inductance (L1)</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-AFL-010-3-11</td>
<td>250VAC</td>
<td>1.0A</td>
<td>0.35mA</td>
<td>2200pF</td>
<td>11.0mH</td>
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<tr>
<td>62-AFL-010-5-11</td>
<td></td>
<td>0.50mA</td>
<td>3300pF</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>62-AFL-016-3-11</td>
<td></td>
<td>0.35mA</td>
<td>2200pF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62-AFL-016-5-11</td>
<td></td>
<td>0.50mA</td>
<td>3300pF</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>62-AFC-010-3-11</td>
<td></td>
<td>1.6A</td>
<td>0.35mA</td>
<td>2200pF</td>
<td>6.0mH</td>
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</tr>
<tr>
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<td>0.50mA</td>
<td>3300pF</td>
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<td>62-AFL-016-3-11</td>
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<td>2200pF</td>
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<td>0.50mA</td>
<td>3300pF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62-AFL-030-3-11</td>
<td></td>
<td>1.0A</td>
<td>0.35mA</td>
<td>2200pF</td>
<td>2.4mH</td>
<td>40°C</td>
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<td>3300pF</td>
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<td>0.35mA</td>
<td>2200pF</td>
<td>1.0mH</td>
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<tr>
<td>62-AFL-045-5-11</td>
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<td>0.50mA</td>
<td>3300pF</td>
<td></td>
<td></td>
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<tr>
<td>62-AFL-060-3-11</td>
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<td>6.0A</td>
<td>0.35mA</td>
<td>2200pF</td>
<td>0.53mH</td>
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<tr>
<td>62-AFL-060-5-11</td>
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<td>0.50mA</td>
<td>3300pF</td>
<td></td>
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</tr>
</tbody>
</table>

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

Circuit Diagrams

Diagrams and dimensions...
62-AL/62-AC Series

Power Line Filters
Appliance Filters

Common Mode

Normal Mode

Temperature Characteristics

Insertion Loss (dB)

Frequency (MHz)

Insertion Loss (dB)

Frequency (MHz)
Power Line Filters
Single Stage

62-PPF/PQF/PRF Series

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
- Good 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 PF55)

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

Circuit Diagrams

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Capacitance</th>
<th>Inductance (L1)</th>
<th>Temperature Rise (Max.)</th>
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</thead>
<tbody>
<tr>
<td>62-PQF-020-5-11</td>
<td>0.50mA</td>
<td>2A</td>
<td></td>
<td>0.1μF</td>
<td>15mH</td>
<td>30°C</td>
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<tr>
<td>62-PPF-020-5-11</td>
<td>0.22μF</td>
<td>2A</td>
<td></td>
<td>0.1μF</td>
<td>8mH</td>
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</tr>
<tr>
<td>62-PQF-030-5-11</td>
<td>0.1μF</td>
<td>3A</td>
<td></td>
<td>0.1μF</td>
<td>2.1mH</td>
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<tr>
<td>62-PQF-030-5-12</td>
<td>0.22μF</td>
<td>3A</td>
<td></td>
<td>0.1μF</td>
<td>486μH</td>
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<tr>
<td>62-PQF-060-5-11</td>
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<td>6A</td>
<td></td>
<td>0.1μF</td>
<td>181μH</td>
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<tr>
<td>62-PQF-060-5-12</td>
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<td>6A</td>
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<td>1A</td>
<td></td>
<td>0.1μF</td>
<td></td>
<td></td>
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<tr>
<td>62-PPF-020-5-12</td>
<td>0.22μF</td>
<td>2A</td>
<td></td>
<td>0.1μF</td>
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<tr>
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<td>3A</td>
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<td>0.1μF</td>
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<tr>
<td>62-PPF-030-5-12</td>
<td>0.22μF</td>
<td>3A</td>
<td></td>
<td>0.1μF</td>
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</table>

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
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

Temperature Characteristics

<table>
<thead>
<tr>
<th>Ambient Temperature (°C)</th>
<th>Current (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>120</td>
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<tr>
<td>30</td>
<td>100</td>
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<tr>
<td>40</td>
<td>80</td>
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<td>50</td>
<td>60</td>
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<td>60</td>
<td>40</td>
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<td>70</td>
<td>20</td>
</tr>
<tr>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>90</td>
<td>0.1</td>
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</tbody>
</table>

Also available with .250 Fast-ons

Dimensions in inches (mm)

Common Mode

Also available with .250 Fast-ons

Normal Mode

62-PQF Series

62-PPF Series

62-PRF Series
Power Line Filters
Single Stage Wire Leads

62-PML 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 (including temperature rise, see graph on page PF57)

Applications

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

Circuit Diagram

![Circuit Diagram Image]

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Capacitance</th>
<th>Inductance (L_1)</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-PML-015-3-11</td>
<td>250VAC</td>
<td>1.5A</td>
<td>0.35mA</td>
<td>0.1μF</td>
<td>10.0mH</td>
<td>30°C</td>
</tr>
<tr>
<td>62-PML-015-5-11</td>
<td></td>
<td>3A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>4.3mH</td>
<td></td>
</tr>
<tr>
<td>62-PML-030-3-11</td>
<td></td>
<td>3A</td>
<td>0.35mA</td>
<td>2200pF</td>
<td>4.3mH</td>
<td></td>
</tr>
<tr>
<td>62-PML-030-5-11</td>
<td></td>
<td>5A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>2.4mH</td>
<td></td>
</tr>
<tr>
<td>62-PML-050-3-11</td>
<td></td>
<td>5A</td>
<td>0.35mA</td>
<td>2200pF</td>
<td>2.4mH</td>
<td></td>
</tr>
<tr>
<td>62-PML-050-5-11</td>
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<td>5A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>2.4mH</td>
<td></td>
</tr>
</tbody>
</table>

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

Temperature Characteristics

Common Mode

Normal Mode

* 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 +70°C
- Low leakage current

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

Circuit Diagram

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-PML-001-2-A</td>
<td>120/250VAC</td>
<td>1A</td>
<td>5μA</td>
<td>1</td>
<td>A</td>
<td>30°C</td>
</tr>
<tr>
<td>12-PML-002-2-A</td>
<td></td>
<td>2A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-PML-006-2-A</td>
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<td>6A</td>
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<td>10A</td>
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<td>1A</td>
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<td>12-PMF-002-2-B</td>
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<td>1A</td>
<td></td>
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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 B

Figure C

Common Mode

Normal Mode

Dimensions in inches (mm)
Power Line Filters
Single Stage

62-LMF & LMB Series

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 PF61)

Applications
- Digital equipment
- Office automation equipment, such as copy and fax machines
- Computers and peripherals
- Instrumentation and controls

Circuit Diagram

Specifications

<table>
<thead>
<tr>
<th>Model*</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Capacitance</th>
<th>Inductance (L1)</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-LMB-030-5-11</td>
<td>250VAC</td>
<td>3A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>0.1μF &amp; .22μF</td>
<td>45°C</td>
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<tr>
<td>62-LMF-030-5-11</td>
<td>250VAC</td>
<td>5A</td>
<td>.22μF</td>
<td>4.2mH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62-LMF-050-5-11</td>
<td>250VAC</td>
<td>8A</td>
<td>.33μF</td>
<td>2.2mH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62-LMB-080-5-11</td>
<td>250VAC</td>
<td>10A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

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

62-LMF & LMB

62-LMB

Common Mode

Normal Mode

Temperature Characteristics

Dimensions in inches (mm)
Power Line Filters
Single Stage

62-PMF & 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
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF63)

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
- Telecommunications equipment
- Office automation equipment, such as copy and fax machines

Specifications

<table>
<thead>
<tr>
<th>Model*</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Capacitance</th>
<th>Inductance (L1)</th>
<th>Temperature Rise (Max.)</th>
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</thead>
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<tr>
<td>62-PMB-050-5-11</td>
<td>250VAC</td>
<td>5A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>14mH</td>
<td>45°C</td>
</tr>
<tr>
<td>62-PMF-050-5-11</td>
<td>250VAC</td>
<td>5A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>14mH</td>
<td>45°C</td>
</tr>
<tr>
<td>62-PMB-080-5-11</td>
<td>250VAC</td>
<td>8A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>7.0mH</td>
<td>45°C</td>
</tr>
<tr>
<td>62-PMF-080-5-11</td>
<td>250VAC</td>
<td>8A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>7.0mH</td>
<td>45°C</td>
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<td>0.50mA</td>
<td>3300pF</td>
<td>4.2mH</td>
<td>45°C</td>
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<tr>
<td>62-PMF-100-5-12</td>
<td>250VAC</td>
<td>10A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>4.2mH</td>
<td>45°C</td>
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<td>250VAC</td>
<td>15A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>2.2mH</td>
<td>45°C</td>
</tr>
<tr>
<td>62-PMF-150-5-13</td>
<td>250VAC</td>
<td>15A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>2.2mH</td>
<td>45°C</td>
</tr>
<tr>
<td>62-PMB-200-5-13</td>
<td>250VAC</td>
<td>20A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>1.8mH</td>
<td>45°C</td>
</tr>
<tr>
<td>62-PMF-200-5-13</td>
<td>250VAC</td>
<td>20A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>1.8mH</td>
<td>45°C</td>
</tr>
</tbody>
</table>

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
** 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

Temperature Characteristics

![Temperature Characteristics Graph]

Common Mode

![Common Mode Diagram]

Normal Mode

![Normal Mode Diagram]

Dimensions in inches (mm)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A (in)</th>
<th>B (in)</th>
<th>C (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-PMF/PMB-100-200</td>
<td>1.490 (38)</td>
<td>944 (24)</td>
<td>433 (11)</td>
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<tr>
<td>62-PMF/PMB-050-080</td>
<td>1.258 (32)</td>
<td>786 (20)</td>
<td>0 (0)</td>
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</table>
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
- Computers and peripherals
- Measuring instruments
- Medical equipment
- Equipment requiring very high impulse attenuation
- Factory automation equipment
- Industrial equipment such as UPS, inverters and converters
- Telecommunications equipment
- Office automation equipment, such as copy and fax machines

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-PMF-001-5-A</td>
<td>120/250VAC</td>
<td>1A</td>
<td>0.5mA</td>
<td>1</td>
<td>A</td>
<td>30°C</td>
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<tr>
<td>12-PMF-002-5-B</td>
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<td>2A</td>
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<td>2</td>
<td>B</td>
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<td>12-PMF-003-5-A</td>
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<td>3A</td>
<td></td>
<td>2</td>
<td>B</td>
<td></td>
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<td>12-PMF-003-5-B</td>
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<td>3A</td>
<td></td>
<td>4</td>
<td>A</td>
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<tr>
<td>12-PMF-006-5-A</td>
<td></td>
<td>6A</td>
<td></td>
<td>1</td>
<td>C</td>
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<td>12-PMF-006-5-C</td>
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<td>6</td>
<td>D</td>
<td></td>
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<td>12-PMF-006-5-D</td>
<td></td>
<td>10A</td>
<td></td>
<td>2</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>12-PMF-010-5-A</td>
<td></td>
<td>10A</td>
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<td>3</td>
<td>C</td>
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<tr>
<td>12-PMF-010-5-C</td>
<td></td>
<td>15A</td>
<td></td>
<td>5</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>12-PMF-015-5-E</td>
<td></td>
<td>20A</td>
<td></td>
<td></td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

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

Common Mode

Normal Mode
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 pending
- 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
- Medical equipment
- Equipment requiring very high impulse attenuation
- Factory automation equipment
- Industrial equipment such as UPS, inverters and converters
- Telecommunications equipment
- Office automation equipment, such as copy and fax machines

Circuit Diagram

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Capacitance</th>
<th>Inductance (L₁)</th>
<th>Temperature Rise (Max.)</th>
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</thead>
<tbody>
<tr>
<td>62-PMB-300-5-14</td>
<td>250VAC</td>
<td>30A</td>
<td>0.50mA</td>
<td>3300pF</td>
<td>1.6mH</td>
<td>45°C</td>
</tr>
<tr>
<td>62-PMB-400-5-14</td>
<td>250VAC</td>
<td>40A</td>
<td></td>
<td>.47μF</td>
<td>.8mH</td>
<td></td>
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</tbody>
</table>

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)
62-PMB Series

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

Dimensions in inches (mm)

Normal Mode

Common Mode
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 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

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
- Telecommunications equipment
- Office automation equipment, such as copy and fax machines

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-PMB-025-5-A</td>
<td>120/250VAC</td>
<td>25A</td>
<td>0.5mA</td>
<td>1</td>
<td>A</td>
<td>30°C</td>
</tr>
<tr>
<td>12-PMB-030-5-A</td>
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<td>30A</td>
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<td>12-PMB-035-5-B</td>
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<tr>
<td>12-PMB-050-5-B</td>
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<td>50A</td>
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<tr>
<td>12-PMB-100-8-C</td>
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<td>100A</td>
<td>1.0mA</td>
<td></td>
<td>C</td>
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<tr>
<td>12-PMB-120-8-C</td>
<td></td>
<td>120A</td>
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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

<table>
<thead>
<tr>
<th>Model</th>
<th>Insertion Loss (dB)</th>
<th>Frequency (MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-PMB-025-030-035</td>
<td>80</td>
<td>0.1 to 50</td>
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<tr>
<td>12-PMB-050-100-120</td>
<td>80</td>
<td>0.1 to 50</td>
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</tbody>
</table>

### 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**

---

**Figure A**

**Figure B**

**Figure C**

Dimensions in inches (mm)
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 instruments
- Equipment requiring very high impulse attenuation
- Factory automation equipment
- Industrial equipment such as UPS, inverters and converters
- Telecommunications equipment

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage</th>
<th>Rated Current</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-PMF-006-DC-C</td>
<td>48/250 VDC</td>
<td>6A</td>
<td>1</td>
<td>A</td>
<td>30°C</td>
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<td>12-PMF-010-DC-C</td>
<td></td>
<td>10A</td>
<td></td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>12-PMF-015-DC-C</td>
<td></td>
<td>15A</td>
<td></td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>12-PMF-020-DC-C</td>
<td></td>
<td>20A</td>
<td></td>
<td>D</td>
<td></td>
</tr>
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<td>12-PMF-025-DC-D</td>
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<td>25A</td>
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<td>E</td>
<td></td>
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<tr>
<td>12-PMF-030-DC-D</td>
<td></td>
<td>30A</td>
<td></td>
<td>F</td>
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<tr>
<td>12-PMF-035-DC-F</td>
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<td>35A</td>
<td></td>
<td>G</td>
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<tr>
<td>12-PMB-050-DC-B</td>
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<tr>
<td>12-PMB-060-DC-B</td>
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<tr>
<td>12-PMB-080-DC-G</td>
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<tr>
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<tr>
<td>12-PMB-100-DC-C</td>
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<td>260A</td>
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</table>

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
DC - Higher Current

12-PMF & 12-PMB DC Series

Common Mode

Normal Mode

Dimensions in inches (mm)

Insertion Loss (dB)

Frequency (MHz)
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 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 (including temperature rise, see graph on page PF73)

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

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>C_y1</th>
<th>Capacitance</th>
<th>C_x</th>
<th>Inductance (L1) (2X)</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-MMF-030-7-11</td>
<td>250VAC</td>
<td>3A</td>
<td>.7mA</td>
<td>3300pF</td>
<td>1000pF</td>
<td>0.1uF</td>
<td>3.7mH</td>
<td>30°C</td>
</tr>
<tr>
<td>62-MMF-050-7-11</td>
<td>250VAC</td>
<td>5A</td>
<td>.7mA</td>
<td>3300pF</td>
<td>1000pF</td>
<td>0.1uF</td>
<td>2.9mH</td>
<td>30°C</td>
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</table>

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

Temperature Characteristics

Common Mode

Normal Mode

Insertion Loss (dB)

Frequency (MHz)

Dimensions in inches (mm)
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

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-MMF-002-5-F</td>
<td>120/250VAC</td>
<td>2A</td>
<td>0.25mA@120VAC/0.5mA@250VAC</td>
<td>1</td>
<td>A</td>
<td>30°C</td>
</tr>
<tr>
<td>12-MMF-003-5-F</td>
<td>120/250VAC</td>
<td>3A</td>
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<td>3</td>
<td>B</td>
<td></td>
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<tr>
<td>12-MMF-003-5-A</td>
<td>120/250VAC</td>
<td>6A</td>
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<td>A</td>
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<td></td>
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<tr>
<td>12-MMF-006-5-F</td>
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<td>12-MMF-006-5-G</td>
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<td>10A</td>
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<td>12-MMF-006-5-A</td>
<td>120/250VAC</td>
<td>12A</td>
<td></td>
<td>A</td>
<td></td>
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</tr>
<tr>
<td>12-MMF-008-5-B</td>
<td>120/250VAC</td>
<td>15A</td>
<td></td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-MMF-010-5-F</td>
<td>120/250VAC</td>
<td>20A</td>
<td></td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-MMF-010-5-B</td>
<td>120/250VAC</td>
<td>30A</td>
<td></td>
<td>A</td>
<td></td>
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</tr>
<tr>
<td>12-MMF-010-5-B</td>
<td>120/250VAC</td>
<td>50A</td>
<td></td>
<td>A</td>
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</tr>
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</table>

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: 900 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

Common Mode

Normal Mode

Figure A

Figure A1
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 and medical equipment
- Telecommunications equipment
- Equipment requiring very high noise attenuation

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-MMF-003-11-F</td>
<td>120/250VAC</td>
<td>3A</td>
<td>1.5mA</td>
<td>1</td>
<td>A</td>
<td>30°C</td>
</tr>
<tr>
<td>12-MMF-006-11-F</td>
<td></td>
<td>6A</td>
<td></td>
<td>1</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>12-MMF-010-11-F</td>
<td></td>
<td>10A</td>
<td></td>
<td>1</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>12-MMB-015-11-G</td>
<td></td>
<td>15A</td>
<td></td>
<td>2</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>12-MMB-020-11-D</td>
<td></td>
<td>20A</td>
<td></td>
<td>1</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>12-MMB-030-11-D</td>
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<td>30A</td>
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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 A Image]

**Figure B**

![Figure B Image]

**Figure C**

![Figure C Image]

**Common Mode**

![Common Mode Diagram]

**Normal Mode**

![Normal Mode Diagram]
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: -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

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
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