

Compact Two Stage RFI Power Line Filters



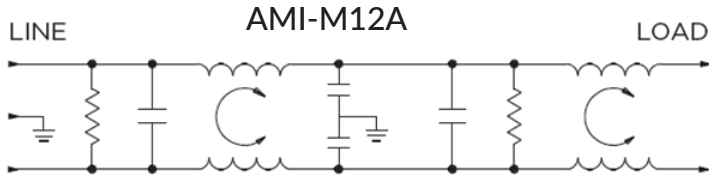
AMI-12A Series

Metal Enclosure Single Phase Two Stage

| AMI Designation | Input/output Style | | | Current Rating | Inductance | Capacitance | | Resistor | Leakage Current @ 120 VAC 60Hz/250 VAC 50 Hz | TIL Insertion Loss | Case Style |
|------------------------|-----------------------|------------|----------------|----------------|------------|-------------|-------|----------|--|--------------------|------------|
| | | | | | | Cx | Cy | | | | |
| Available Part Numbers | 6.3mm Spade Terminals | Wire Leads | Threaded Bolts | A | mH | nF | pF | KΩ | | | |
| AMI-M12A-1-3-B | 1 | - | - | 3 | 1.58 | 1360 | 2800 | 340 | 0.21/0.43 | 001 | A |
| AMI-M12A-1-6-B | 1 | - | - | 6 | 1.56 | 1360 | 2800 | 340 | 0.21/0.43 | 002 | A |
| AMI-M12A-1-10-B | 1 | - | - | 10 | 1.48 | 2000 | 2800 | 235 | 0.21/0.43 | 003 | A |
| AMI-M12A-1-15-C | 1 | - | - | 15 | 1.04 | 3000 | 10000 | 117 | 0.73/1.52 | 004 | A |
| AMI-M12A-1-20-C | 1 | - | - | 20 | 0.84 | 4400 | 10000 | 94 | 0.73/1.52 | 005 | A |
| AMI-M12A-3-3-B | - | 3 | - | 3 | 1.58 | 1360 | 2800 | 340 | 0.21/0.43 | 001 | B |
| AMI-M12A-3-6-B | - | 3 | - | 6 | 1.56 | 1360 | 2800 | 340 | 0.21/0.43 | 002 | B |
| AMI-M12A-3-10-B | - | 3 | - | 10 | 1.48 | 2000 | 2800 | 235 | 0.21/0.43 | 003 | B |
| AMI-M12A-3-15-C | - | 3 | - | 15 | 1.04 | 3000 | 10000 | 117 | 0.73/1.52 | 004 | B |
| AMI-M12A-6-10-B | - | - | 6 | 10 | 1.48 | 2000 | 2800 | 235 | 0.21/0.43 | 003 | C |
| AMI-M12A-6-15-C | - | - | 6 | 15 | 1.04 | 3000 | 10000 | 117 | 0.73/1.52 | 004 | C |
| AMI-M12A-6-20-C | - | - | 6 | 20 | 0.84 | 4400 | 10000 | 94 | 0.73/1.52 | 005 | C |
| AMI-M12A-6-30-C | - | - | 6 | 30 | 0.88 | 4400 | 10000 | 94 | 0.73/1.52 | 006 | D |

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Electrical Schematic



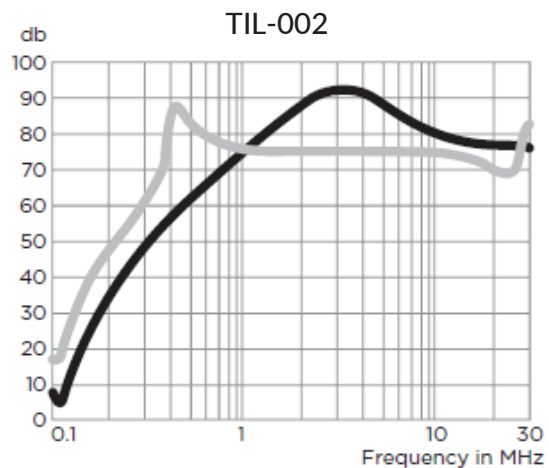
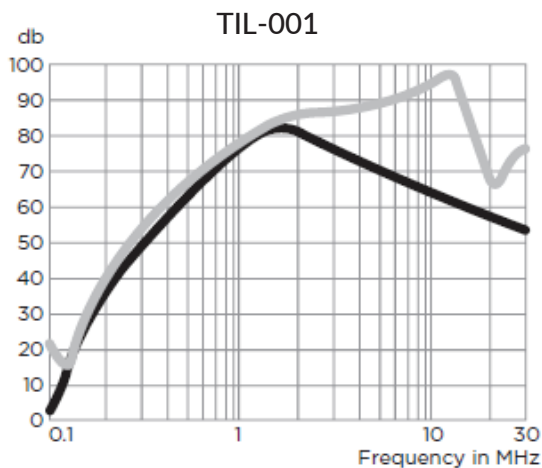
Specifications:

- Rated Voltage (max): 250 VAC
- Operating Frequency: 50/60 Hz
- Operating Current: 3 to 30 A
- Hi-pot Rating (one minute): Line to Ground: 2250 VDC
Line to Line: 1450 VDC
- Operating Ambient Temperature Range (at rated current I_r): -10°C to +40°C. In an ambient temperature (T_a) higher than +40°C the maximum operating current (I_o) is calculated as follows: $I_o = I_r \sqrt{[(85 - T_a)/45]}$

Performance Data

Typical Insertion Loss

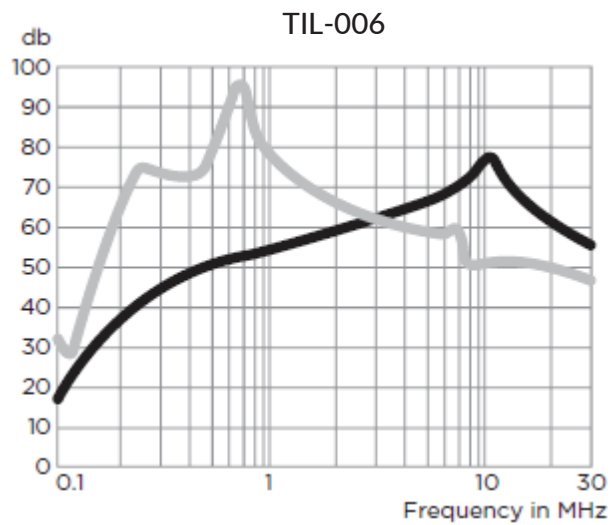
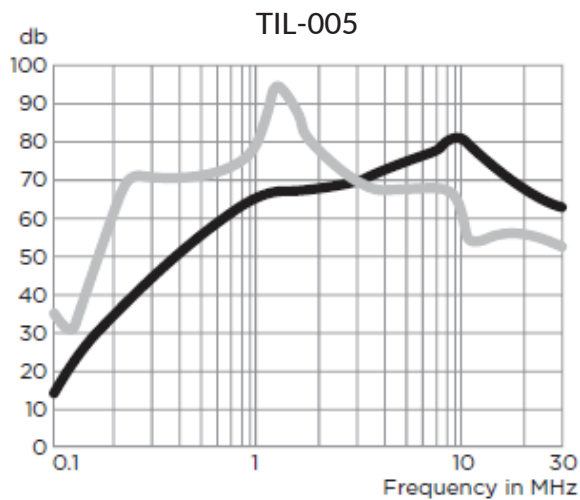
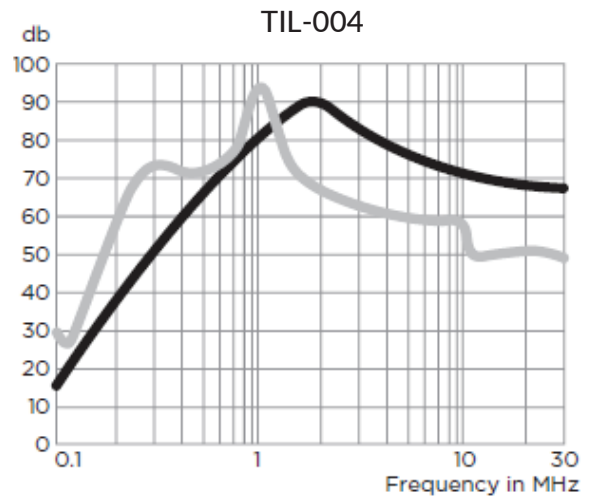
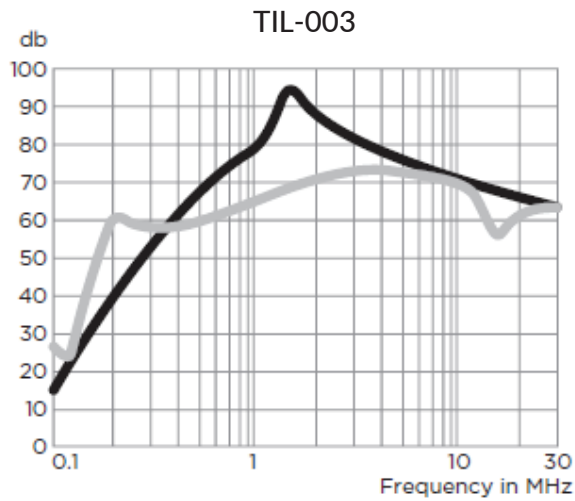
Measured in closed 50 Ohm system



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Performance Data Typical Insertion Loss

Measured in closed 50 Ohm system



— Common Mode / Asymmetrical (L-G)
— Differential Mode / Symmetrical (L-L)

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Minimum Insertion Loss

Common Mode/Asymmetrical (Line to Ground)

| | Frequency-MHz | | | | | | | | |
|----------------|---------------|-----|-----|-----|----|----|----|----|----|
| Current Rating | .05 | .07 | .11 | .15 | 1 | 2 | 10 | 20 | 30 |
| 3A | 6 | 6 | 3 | 16 | 65 | 66 | 62 | 60 | 59 |
| 6A | 6 | 6 | 2 | 15 | 65 | 67 | 65 | 62 | 63 |
| 10A | 5 | 2 | 13 | 24 | 72 | 72 | 56 | 50 | 48 |
| 15A | 3 | 1 | 12 | 22 | 70 | 68 | 57 | 54 | 53 |
| 20A | 2 | 2 | 11 | 21 | 58 | 57 | 63 | 55 | 52 |
| 30A | 2 | 2 | 14 | 22 | 47 | 52 | 60 | 48 | 43 |

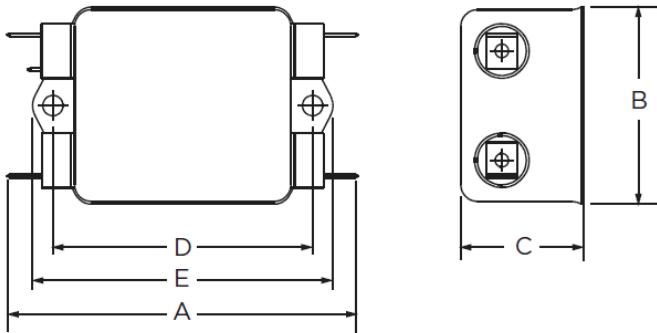
Differential Mode/Symmetrical (Line to Line)

| | Frequency-MHz | | | | | | | | |
|----------------|---------------|-----|-----|-----|----|----|----|----|----|
| Current Rating | .05 | .07 | .11 | .15 | 1 | 2 | 10 | 20 | 30 |
| 3A | 12 | 13 | 7 | 18 | 64 | 69 | 65 | 60 | 52 |
| 6A | 12 | 12 | 8 | 27 | 61 | 61 | 59 | 56 | 54 |
| 10A | 14 | 15 | 12 | 33 | 54 | 58 | 47 | 34 | 36 |
| 15A | 16 | 16 | 13 | 34 | 61 | 52 | 36 | 36 | 23 |
| 20A | 17 | 19 | 15 | 37 | 67 | 62 | 36 | 32 | 30 |
| 30A | 17 | 18 | 14 | 40 | 62 | 53 | 30 | 28 | 26 |

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Case Styles

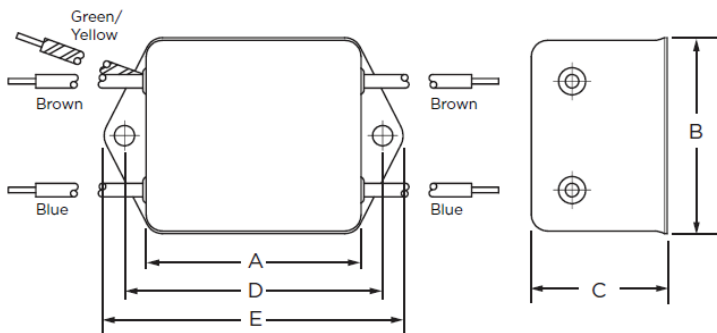
STYLE A



Typical Dimensions:

| | |
|--------------------------|--|
| Line/Load Terminals (4): | .250 [6.3] with .07 [1.8] Dia. hole |
| Ground Terminal (1): | .250 [6.3] with .07 x .16 [1.8 x 3.8] slot |
| Mounting Holes (2): | .187 ±.008 [4.75 ±.20] Dia. |

STYLE B



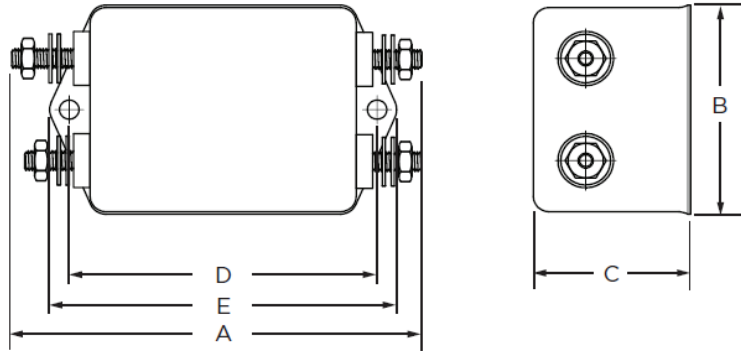
Typical Dimensions:

| | |
|---------------------|---|
| Wire leads (5): | 4.0 [101.6] Min., AWG18 (AWG16 for 15A) |
| Mounting Holes (2): | .187 ±.008 [4.75 ±.20] Dia. |

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Case Styles

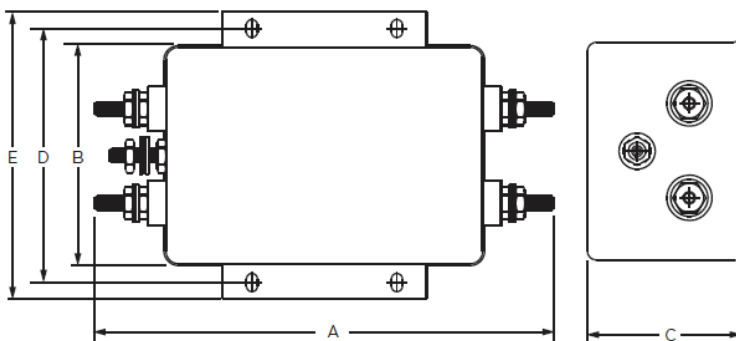
STYLE C



Typical Dimensions:

Terminals (5): 8-32, Torque 18 lbf-in. [2.03 N-m] max. ± 2 [.22]
Mounting Holes (4): $.187 \pm .008$ [4.75 \pm .20] Dia.

STYLE D



Typical Dimensions:

Terminals (5): 10-32, Torque 27 lbf-in. [3.05 N-m] max. ± 3 [.34]
Mounting Slots (4): $.203 \times .156$ [5.16 x 3.96]

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Case Dimensions:

| Model Number | A max | B max | C max | D $\begin{smallmatrix} \pm .15 \\ \pm .38 \end{smallmatrix}$ | E max |
|------------------|---------------|--------------|---------------|--|---------------|
| AMI-M12A-1-3 | 3.35"/85.1mm | 1.81"/46mm | 1.16"/29.5mm | 2.375"/60.3mm | 2.78"/70.6mm |
| AMI-M12A-1-6 | 3.85"/97.8 | 2.07"/52.6mm | 1.16"/29.5mm | 2.938"/74.6mm | 3.35"/85.1mm |
| AMI-M12A-1-10 | 3.85"/97.8 | 2.07"/52.6mm | 1.53"/38.91mm | 2.938"/74.6mm | 3.35"/85.1mm |
| AMI-M12A-1-15/20 | 4.97"/126.2mm | 2.25"/57.2mm | 1.78"/45.2mm | 4.063"/103.2mm | 4.46"/113.3mm |
| AMI-M12A-3-3 | 2.07"/52.6mm | 1.81"/46mm | 1.16"/29.5mm | 2.375"/60.3mm | 2.78"/70.6mm |
| AMI-M12A-3-6 | 2.56"/65mm | 2.07"/52.6mm | 1.16"/29.5mm | 2.938"/74.6mm | 3.35"/85.1mm |
| AMI-M12A-3-10 | 2.56"/65mm | 2.07"/52.6mm | 1.53"/38.91mm | 2.938"/74.6mm | 3.35"/85.1mm |
| AMI-M12A-3-15 | 3.69"/93.7mm | 2.25"/57.2mm | 1.78"/45.2mm | 4.063"/103.2mm | 4.47"/113.5mm |
| AMI-M12A-6-10 | 3.94"/99.9mm | 2.07"/52.6mm | 1.53"/38.91mm | 2.938"/74.63mm | 3.35"/85.1mm |
| AMI-M12A-6-15/20 | 5.09"/129.3mm | 2.25"/57.2mm | 1.78"/45.2mm | 4.063"/103.2mm | 4.47"/113.5mm |
| AMI-M12A-6-30 | 6.05"/153.7mm | 3.12"/79.2mm | 2.18"/55.4mm | 3.5"/88.9mm | 3.96"/100.6mm |