

# Metal Enclosure 3 Phase Single Stage

## AMI-M31NA Series

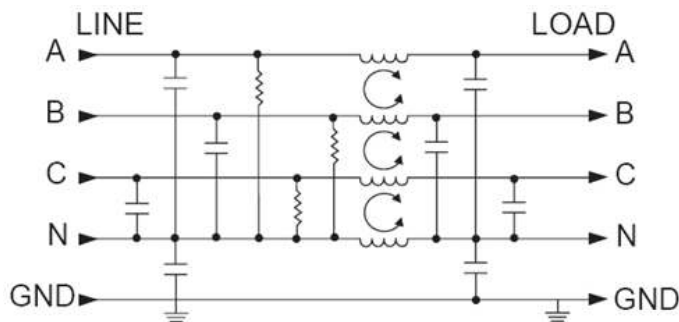
Multipurpose Power Line RFI Filters for Emission Control

| AMI Designation                             | Input/output Style            |                   | Current Rating | Inductance mH | Capacitance |       | Resistor K $\Omega$ | Leakage Current @ 120 VAC 60Hz/250 VAC 50Hz | TIL Insertion Loss | Case Style |
|---|-------------------------------|-------------------|----------------|---------------|-------------|-------|---------------------|---|--------------------|------------|
|   |                               |                   | A              |               | Cx nF       | Cy pF |                     |   |                    |            |
| <b>Available Part Numbers</b>               | <b>6.3mm Spades Terminals</b> | <b>Wire Leads</b> |                |               |             |       |                     |   |                    |            |
| AMI-M31NA-6A-16-D<br>(1.2*4400*30000*330)   | 6                             | -                 | 16             | 1.2           | 4400        | 30000 | 330                 | 1.62/2.82                                   | 001                | A          |
| AMI-M31NA-6A-25-D<br>(1.1*4400*30000*330)   | 6                             | -                 | 25             | 1.1           | 4400        | 30000 | 330                 | 1.62/2.82                                   | 002                | A          |
| AMI-M31NA-6A-36-D<br>(0.88*4400*30000*330)  | 6                             | -                 | 36             | 0.88          | 4400        | 30000 | 330                 | 1.62/2.82                                   | 003                | A          |
| AMI-M31NA-6A-50-D<br>(0.67*4400*30000*330)  | 6                             | -                 | 50             | 0.67          | 4400        | 30000 | 330                 | 1.62/2.82                                   | 004                | A          |
| AMI-M31NA-6A-100-D<br>(0.25*4400*30000*330) | 6                             | -                 | 100            | 0.25          | 4400        | 30000 | 330                 | 1.62/2.82                                   | 006                | A          |
| AMI-M31NA-6-36-D<br>(0.88*4400*30000*330)   | 6                             | -                 | 36             | 0.88          | 4400        | 30000 | 330                 | 1.62/2.82                                   | 003                | B          |
| AMI-M31NA-6-50-D<br>(0.67*4400*30000*330)   | 6                             | -                 | 50             | 0.67          | 4400        | 30000 | 330                 | 1.62/2.82                                   | 004                | B          |

\*(A)-Flange Mount

## Electrical Schematic

AMI-M31NA



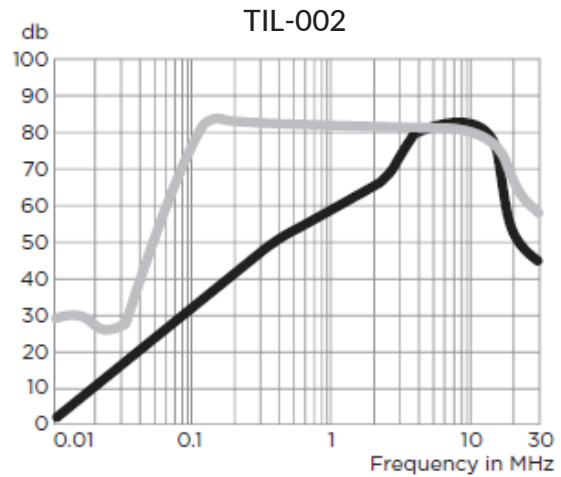
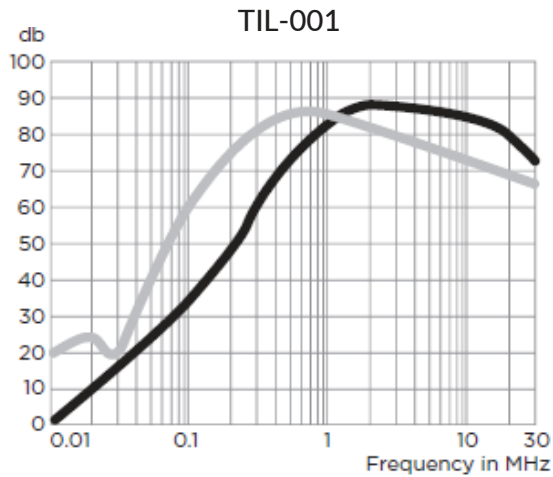
# Metal Enclosure 3 Phase Single Stage

## SPECIFICATIONS:

- Rated Voltage (max): Phase to Phase: 440 VAC  
Phase to Neutral/Ground: 250 VAC
- Operating Frequency: 50/60 Hz
- Operating Current: 16 to 100A
- Hi-pot Rating (one minute): Line to Ground: 1500 VAC  
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

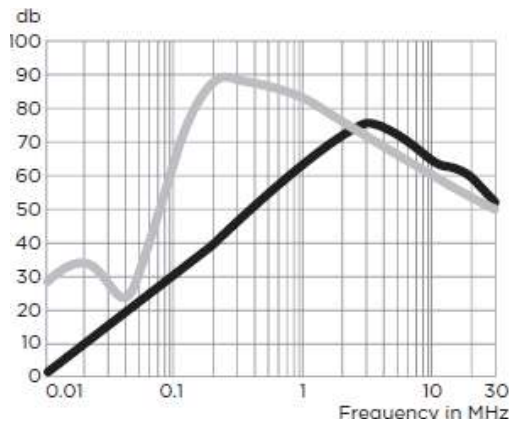


# Metal Enclosure 3 Phase Single Stage

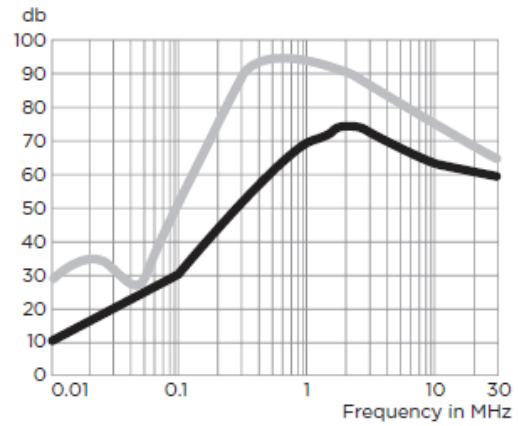
## Performance Data Typical Insertion Loss

Measured in closed 50 Ohm system

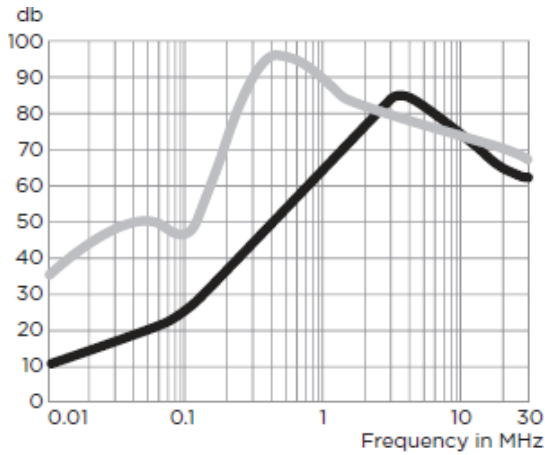
TIL-003



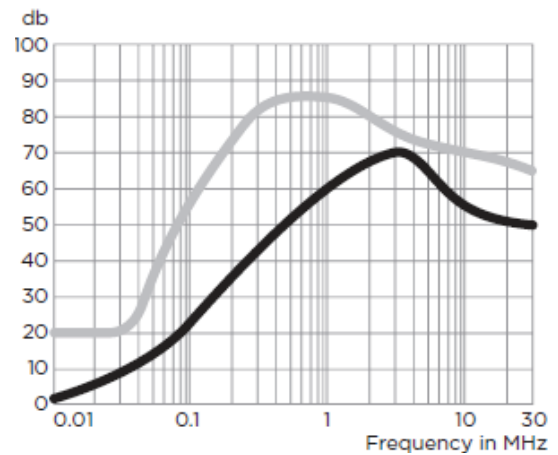
TIL-004



TIL-005



TIL-006



# Metal Enclosure 3 Phase Single Stage

## Minimum Insertion Loss

Common Mode/Asymmetrical (Line to Ground)

| Current Rating | Frequency-MHz |     |    |    |    |    |    |    |
|----------------|---------------|-----|----|----|----|----|----|----|
|                | .01           | .05 | .1 | .5 | 1  | 5  | 10 | 30 |
| 16A            | 2             | 11  | 19 | 52 | 53 | 70 | 61 | 30 |
| 25A            | 2             | 12  | 19 | 46 | 49 | 64 | 54 | 27 |
| 36A            | 1             | 10  | 18 | 49 | 54 | 63 | 57 | 32 |
| 50A            | 1             | 8   | 14 | 43 | 47 | 63 | 53 | 29 |
| 63A            | 2             | 10  | 22 | 50 | 60 | 75 | 70 | 55 |
| 100A           | 1             | 15  | 22 | 55 | 60 | 65 | 55 | 50 |

Differential Mode/Symmetrical (Line to Line)

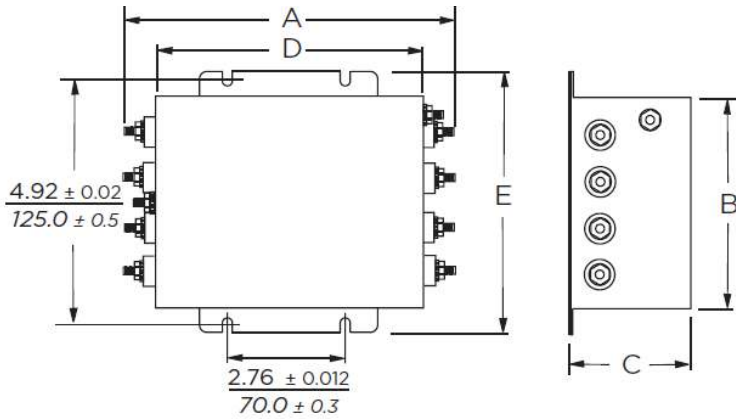
| Current Rating | Frequency-MHz |     |    |    |    |    |    |    |
|----------------|---------------|-----|----|----|----|----|----|----|
|                | .01           | .05 | .1 | .5 | 1  | 5  | 10 | 30 |
| 16A            | 14            | 31  | 30 | 82 | 87 | 76 | 77 | 47 |
| 25A            | 20            | 36  | 38 | 85 | 81 | 68 | 69 | 33 |
| 36A            | 20            | 39  | 36 | 86 | 78 | 65 | 62 | 35 |
| 50A            | 20            | 30  | 38 | 85 | 82 | 67 | 66 | 38 |
| 63A            | 30            | 40  | 45 | 90 | 85 | 70 | 70 | 60 |
| 100A           | 20            | 35  | 45 | 80 | 80 | 65 | 60 | 55 |

# Metal Enclosure

## 3 Phase Single Stage

### Case Styles

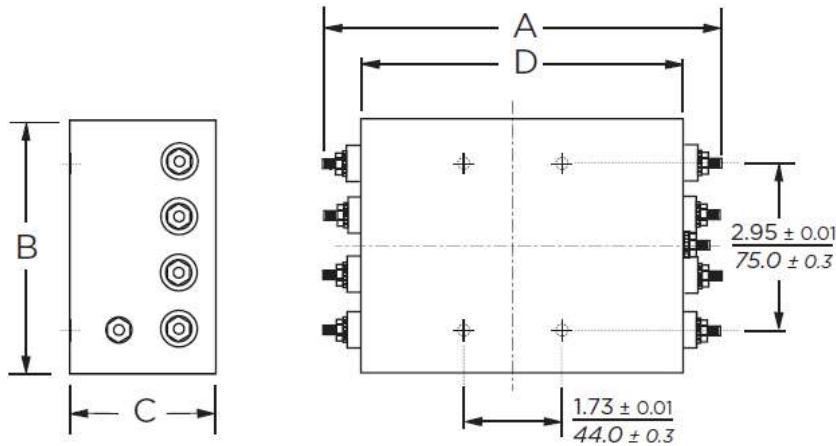
#### STYLE A



#### Typical Dimensions:

|                             |  |
|-----------------------------|--|
| Mounting slots (4):         | .425 x .254 [10.8 x 6.6]                   |
| 16 & 25A Terminals(8):      | 8-32, Torque (max.) 26 lbf-in [2.94 N-m]   |
| 36A Terminals(8):           | 10-32, Torque (max.) 27 lbf-in [3.05 N-m]  |
| 50, 63 & 100A Terminals(8): | 1/4-20, Torque (max.) 56 lbf-in [6.33 N-m] |

#### STYLE B



#### Typical Dimensions:

|                             |  |
|-----------------------------|--|
| Threaded mounting holes(4): | M5 x 8                                     |
| 16 & 25A Terminals(8):      | 8-32, Torque (max.) 26 lbf-in [2.94 N-m]   |
| 36A Terminals(8):           | 10-32, Torque (max.) 27 lbf-in [3.05 N-m]  |
| 50A Terminals(8):           | 1/4-20, Torque (max.) 56 lbf-in [6.33 N-m] |

# Metal Enclosure 3 Phase Single Stage

## Case Dimensions:

| Model Number       | A max        | B max         | C max        | D $\begin{smallmatrix} \pm .015 \\ \pm .38 \end{smallmatrix}$ | E max         |
|--------------------|--------------|---------------|--------------|---|---------------|
| AMI-M31NA-6-16/25  | 7.91"/201.mm | 4.37"/111.0mm | 1.97"/50.0mm | 5.94"/151.0mm   | 5.51"/140.0mm |
| AMI-M31NA-6-36/50  | 7.91"/201.mm | 4.37"/111.0mm | 2.56"/65.0mm | 5.94"/151.0mm   | 5.51"/140.0mm |
| AMI-M31NA-6-100    | 7.91"/201.mm | 4.37"/111.0mm | 2.56"/65.0mm | 5.94"/151.0mm   | 5.51"/140.0mm |
| AMI-M31NA-6A-36/50 | 7.91"/201.mm | 4.37"/111.0mm | 2.56"/65.0mm | 5.94"/151.0mm   | -             |