

# General EMI Filter with High Attenuation Performance

## Dual-Stage Performance EMI Filter AMI-27 Series



- Rated current from 1 to 36 A
- Dual-stage filter
- High differential mode performance
- Optional medical version (Type B)
- Optional safety version (Type A)

### Approvals:



### Technical Specifications

Maximum continuous operating voltage: 250VAC, 50/60Hz

Operating frequency: DC to 400Hz

Rated currents: 1 to 36A @ 40°C max.

High potential test voltage: L → PE 3000VDC for 2 sec (standard types)

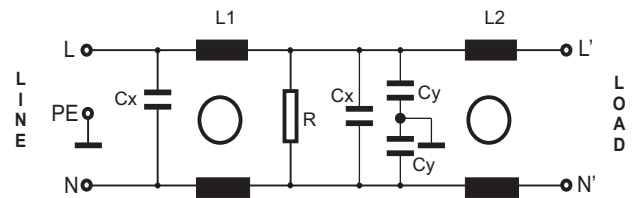
L → PE 3500VDC for 2 sec (B types)

L → N 1100VDC for 2 sec

Temperature range (operation and storage): -25°C to +100°C (25/100/21)

Design corresponding to: UL 1283.

### CIRCUIT DIAGRAM:



### Features and Benefits

- AMI-27 dual-stage filters are designed for easy and fast chassis mounting.
- The AMI-27 filters are also available as B versions with no Y-capacitors for medical applications as well as A versions with low capacitance for safety critical applications with requirements for low leakage currents.
- All filters provide a general purpose conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- The AMI-27 filter can be used to cover a broad range of uses and they offer a good size/amperage ratio.
- AMI-27 filters are also available as single stage filters (AMI-22 series).
- Various terminal options allow you to select the desired connection style.

### Typical Applications

- Consumer electronics
- Computing & accessories
- Residential appliances
- Medical accessories
- Electronic data processing equipment
- Office automation equipment
- Industrial applications
- Machinery
- Various noisy application requires good attenuation performance filter

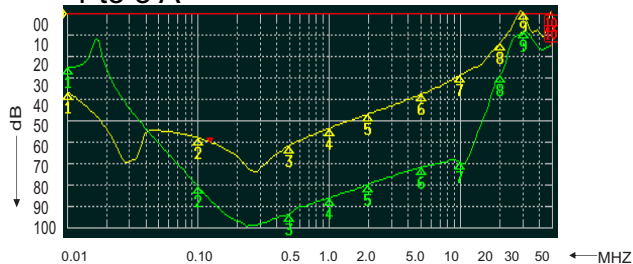
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## FILTER SELECTION TABLE

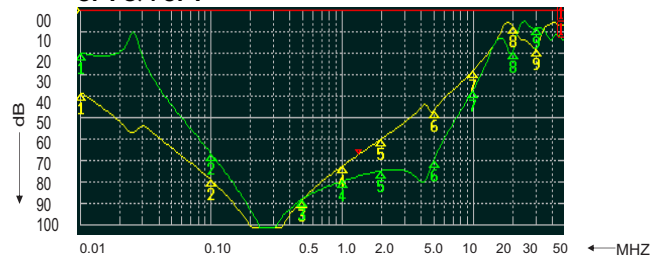
|                                  | Rated current<br>@40°C (25°C)<br>A | Leakage current<br>@ 250VAC/50Hz<br>(@ 120VAC/60Hz)<br>mA | Inductance<br>$\Sigma L$<br>mH | Capacitance<br>$\Sigma Cx$<br>uF | Capacitance<br>$\Sigma Cy$<br>nF | Resistance<br>$\Sigma R$<br>K $\Omega$ | Connetion type                                                                      |                                                                                     |                                                                                     |
|----------------------------------|------------------------------------|-----------------------------------------------------------|--------------------------------|----------------------------------|----------------------------------|----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                  |                                    |                                                           |                                |                                  |                                  |                                        |  |  |  |
| AMI-27-1-X                       | 1 (1.2)                            | 0.73 (0.43)                                               | 44                             | 0.66                             | 9.4                              | 1000                                   | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27-3-X                       | 3 (3.5)                            | 0.73 (0.43)                                               | 19.6                           | 0.94                             | 9.4                              | 470                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27-6-X                       | 6 (6.9)                            | 0.73 (0.43)                                               | 15.6                           | 2                                | 9.4                              | 220                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27-10-X                      | 10 (11.5)                          | 0.73 (0.43)                                               | 9                              | 2                                | 9.4                              | 220                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27-12-X                      | 12 (13.8)                          | 0.73 (0.43)                                               | 6.5                            | 2                                | 9.4                              | 220                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27-16-X                      | 16 (18.4)                          | 0.73 (0.43)                                               | 5.6                            | 2                                | 9.4                              | 220                                    | 1                                                                                   | 3                                                                                   | 6                                                                                   |
| AMI-27-25-X                      | 25 (28.8)                          | 0.73 (0.43)                                               | 4                              | 4.4                              | 9.4                              | 220                                    |                                                                                     |                                                                                     | 6                                                                                   |
| AMI-27-36-X                      | 36 (41.4)                          | 0.73 (0.43)                                               | 2.46                           | 4.4                              | 9.4                              | 220                                    |                                                                                     |                                                                                     | 6                                                                                   |
|                                  |                                    |                                                           |                                |                                  |                                  |                                        |                                                                                     |                                                                                     |                                                                                     |
| AMI-27A-1-X                      | 1 (1.2)                            | 0.073 (0.04)                                              | 44                             | 0.66                             | 0.94                             | 1000                                   | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27A-3-X                      | 3 (3.5)                            | 0.073 (0.04)                                              | 19.6                           | 0.94                             | 0.94                             | 470                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27A-6-X                      | 6 (6.9)                            | 0.073 (0.04)                                              | 15.6                           | 2                                | 0.94                             | 220                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27A-10-X                     | 10 (11.5)                          | 0.073 (0.04)                                              | 9                              | 2                                | 0.94                             | 220                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27A-12-X                     | 12 (13.8)                          | 0.073 (0.04)                                              | 6.5                            | 2                                | 0.94                             | 220                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27A-16-X                     | 16 (18.4)                          | 0.073 (0.04)                                              | 5.6                            | 2                                | 0.94                             | 220                                    | 1                                                                                   | 3                                                                                   | 6                                                                                   |
| AMI-27A-25-X                     | 25 (28.8)                          | 0.073 (0.04)                                              | 4                              | 4.4                              | 0.94                             | 220                                    |                                                                                     |                                                                                     | 6                                                                                   |
| AMI-27A-36-X                     | 36 (41.4)                          | 0.073 (0.04)                                              | 2.46                           | 4.4                              | 0.94                             | 220                                    |                                                                                     |                                                                                     | 6                                                                                   |
|                                  |                                    |                                                           |                                |                                  |                                  |                                        |                                                                                     |                                                                                     |                                                                                     |
| AMI-27B-1-X                      | 1 (1.2)                            | 0.002 (0.001)                                             | 44                             | 0.66                             |                                  | 1000                                   | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27B-3-X                      | 3 (3.5)                            | 0.002 (0.001)                                             | 19.6                           | 0.94                             |                                  | 470                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27B-6-X                      | 6 (6.9)                            | 0.002 (0.001)                                             | 15.6                           | 2                                |                                  | 220                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27B-10-X                     | 10 (11.5)                          | 0.002 (0.001)                                             | 9                              | 2                                |                                  | 220                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27B-12-X                     | 12 (13.8)                          | 0.002 (0.001)                                             | 6.5                            | 2                                |                                  | 220                                    | 1                                                                                   | 3                                                                                   |                                                                                     |
| AMI-27B-16-X                     | 16 (18.4)                          | 0.002 (0.001)                                             | 5.6                            | 2                                |                                  | 220                                    | 1                                                                                   | 3                                                                                   | 6                                                                                   |
| AMI-27B-25-X                     | 25 (28.8)                          | 0.002 (0.001)                                             | 4                              | 4.4                              |                                  | 220                                    |                                                                                     |                                                                                     | 6                                                                                   |
| AMI-27B-36-X                     | 36 (41.4)                          | 0.002 (0.001)                                             | 2.46                           | 4.4                              |                                  | 220                                    |                                                                                     |                                                                                     | 6                                                                                   |
|                                  |                                    |                                                           |                                |                                  |                                  |                                        |                                                                                     |                                                                                     |                                                                                     |
| Where X denotes connection style |                                    |                                                           |                                |                                  |                                  |                                        |                                                                                     |                                                                                     |                                                                                     |

Insertion Loss: Common mode - —  
Differential mode- —

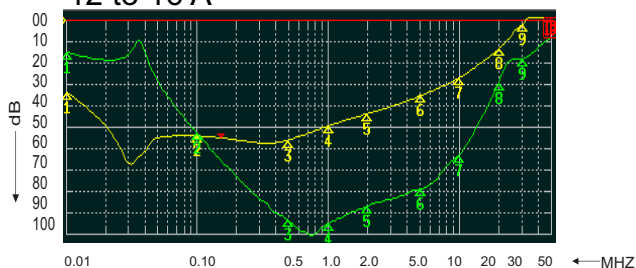
1 to 3 A



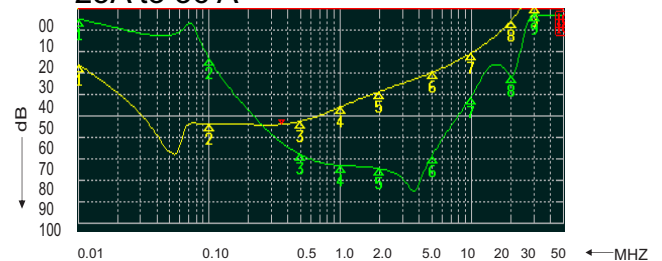
6A & 10A



12 to 16 A



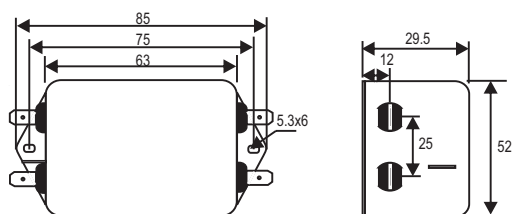
25A to 36 A



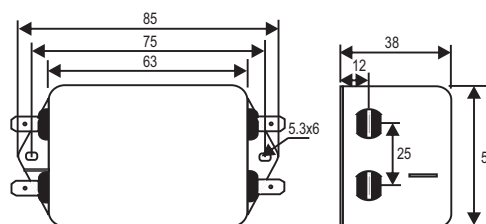
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## MECHANICAL DIMENSION (mm):

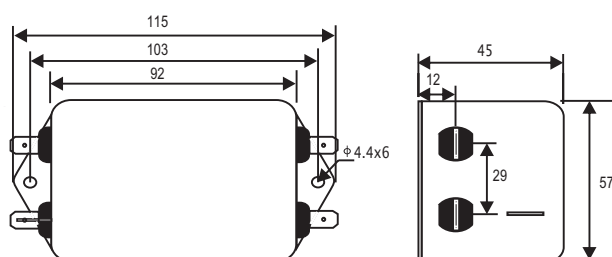
CONNECTION TYPE -1  
1A



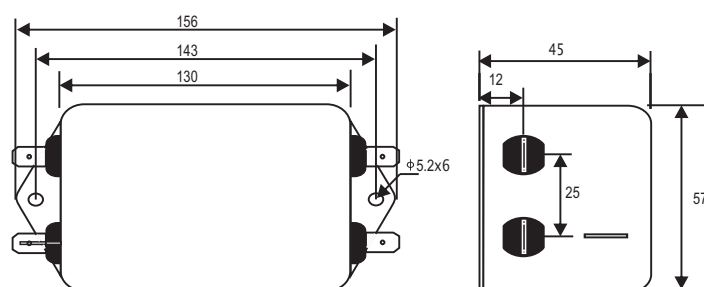
CONNECTION TYPE -1  
3A



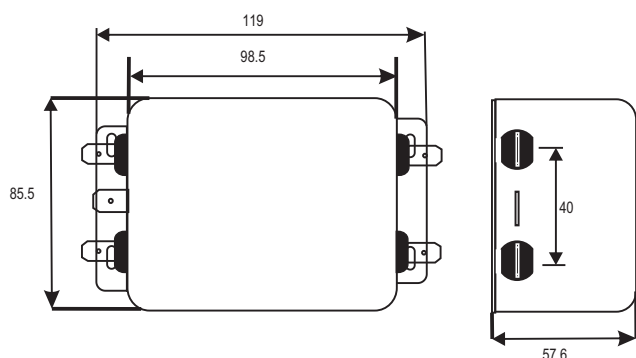
CONNECTION TYPE -1  
6A



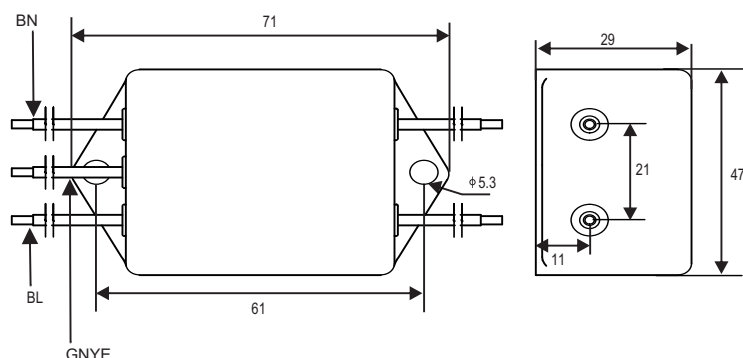
CONNECTION TYPE -1  
10A & 12A



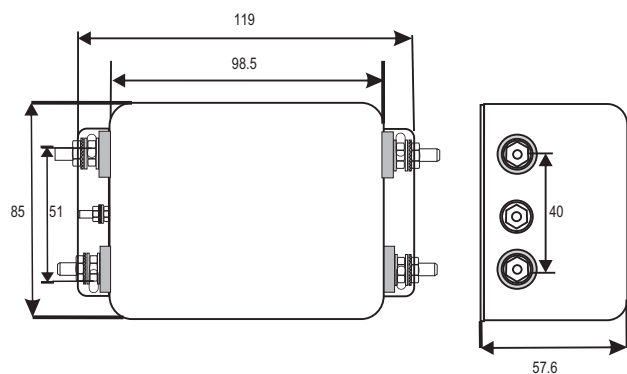
CONNECTION TYPE -1  
16A



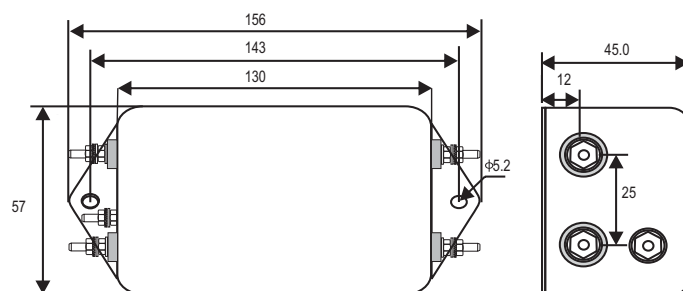
CONNECTION TYPE -3  
16A



CONNECTION TYPE -6  
16A



CONNECTION TYPE -6  
25A & 36A



### NOTE:

All Dimension in mm

Connection type: 1 - Spade Terminals (6.3 x 0.8)  
3 - Wire leads (140mm on both sides)  
6 - Threaded Bolt Terminals (M4)