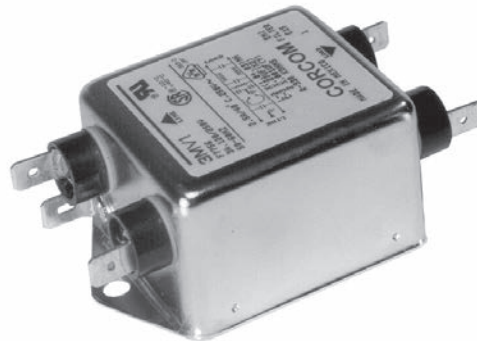


## Multi-purpose Medical Filter for Power Line Noise Protection

# MV Series



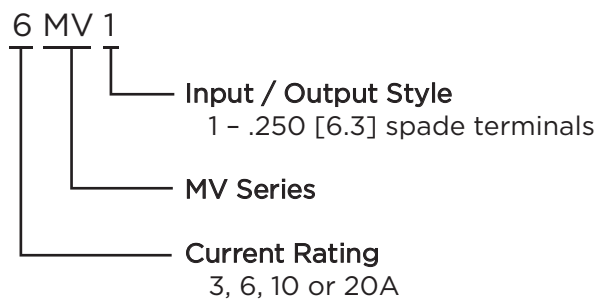
UL Recognized  
CSA Certified  
VDE Approved



## MV Series

- Multi-purpose medical filter
- Improved Line to Ground performance
- A good solution to emission or immunity problems
- Meets leakage current requirements of UL2601 for health care equipment

## Ordering Information



## Available Part Numbers

|       |       |
|-------|-------|
| 3MV1  | 6MV1  |
| 10MV1 | 20MV1 |

## Specifications

### Maximum leakage current each Line to Ground:

|                  |        |
|------------------|--------|
| @ 120 VAC 60 Hz: | .07 mA |
| @250 VAC 50 Hz:  | .13 mA |

### Hipot rating (one minute):

|                 |          |
|-----------------|----------|
| Line to Ground: | 2250 VDC |
| Line to Line:   | 1450 VDC |

### Rated Voltage (max):

250 VAC

### Operating Frequency:

50/60 Hz

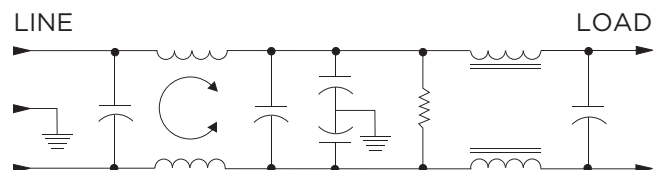
### Rated Current:

3 to 20A

### 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:  $I_o = I_r \sqrt{(85-T_a)/45}$

## Electrical Schematic

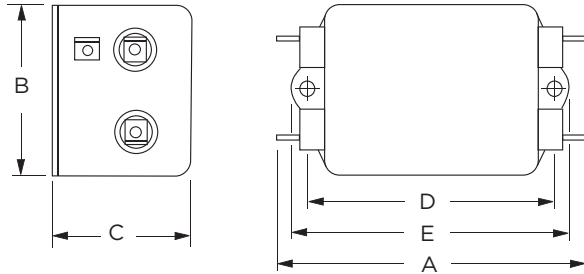


## Multi-purpose Medical Filter for Power Line Noise Protection *(continued)*

# MV Series

## Case Styles

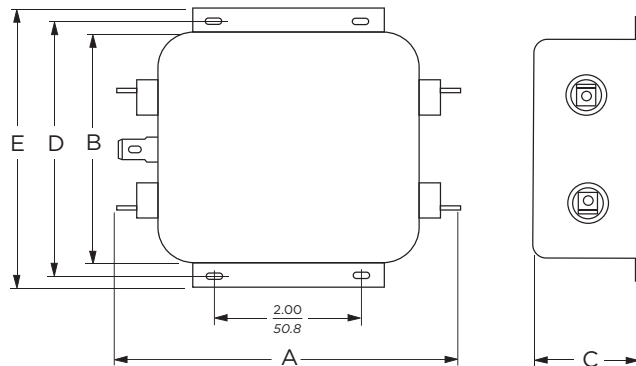
MV1 (3, 6, 10A)



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): .188 [4.78] Dia.

## 20MV1



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): .188 [4.78] Dia.

## Case Dimensions

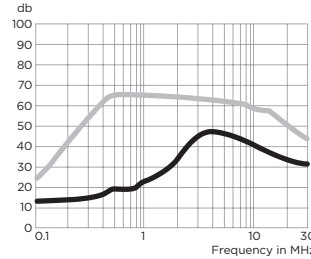
| Part No. | A<br>(max)    | B<br>(max)   | C<br>(max)   | D<br>$\pm .015$<br>$\pm .38$ | E<br>(max)    |
|----------|---------------|--------------|--------------|------------------------------|---------------|
| 3MV1     | 3.36<br>85.3  | 1.82<br>46.2 | 1.28<br>32.5 | 2.375<br>60.33               | 2.78<br>70.6  |
| 6MV1     | 3.86<br>98.0  | 2.08<br>52.8 | 1.53<br>38.9 | 2.938<br>74.63               | 3.34<br>84.8  |
| 10MV1    | 3.86<br>98.0  | 2.08<br>52.8 | 1.53<br>38.9 | 2.938<br>74.63               | 3.34<br>84.8  |
| 20MV1    | 5.23<br>132.8 | 3.38<br>85.9 | 1.53<br>38.9 | 3.75<br>95.25                | 4.20<br>106.7 |

## Performance Data

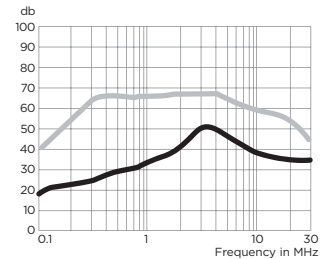
### Typical Insertion Loss

Measured in closed 50 Ohm system

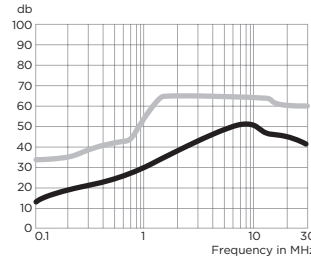
#### 3MV



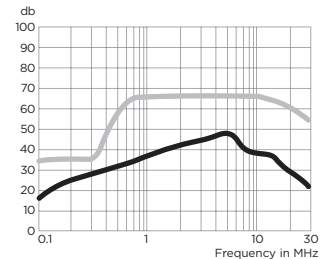
#### 6MV



#### 10MV



#### 20MV



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

### Minimum Insertion Loss

Measured in closed 50 Ohm system

Common Mode / Asymmetrical (Line to Ground)

| Current<br>Rating | Frequency – MHz |    |    |    |    |    |    |
|-------------------|-----------------|----|----|----|----|----|----|
|                   | .15             | .5 | 1  | 2  | 5  | 10 | 20 |
| 3A                | 14              | 19 | 20 | 30 | 46 | 40 | 34 |
| 6A                | 19              | 27 | 30 | 38 | 50 | 40 | 35 |
| 10A               | 15              | 25 | 26 | 34 | 46 | 50 | 44 |
| 20A               | 18              | 30 | 34 | 34 | 46 | 40 | 36 |

Differential Mode / Symmetrical (Line to Line)

| Current<br>Rating | Frequency – MHz |    |    |    |    |    |    |
|-------------------|-----------------|----|----|----|----|----|----|
|                   | .15             | .5 | 1  | 2  | 5  | 10 | 20 |
| 3A                | 33              | 65 | 65 | 65 | 65 | 60 | 53 |
| 6A                | 40              | 65 | 65 | 65 | 65 | 60 | 57 |
| 10A               | 33              | 65 | 65 | 65 | 65 | 65 | 55 |
| 20A               | 25              | 65 | 65 | 65 | 65 | 60 | 57 |