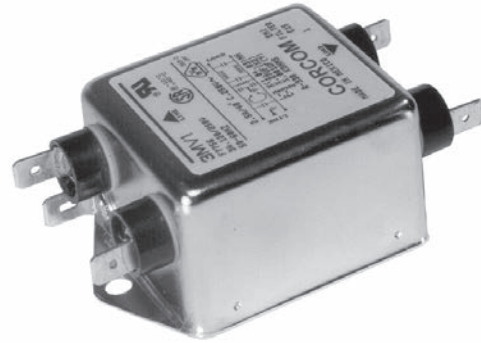


**Multi-purpose Medical Filter for Power Line Noise Protection**

# 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

## 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

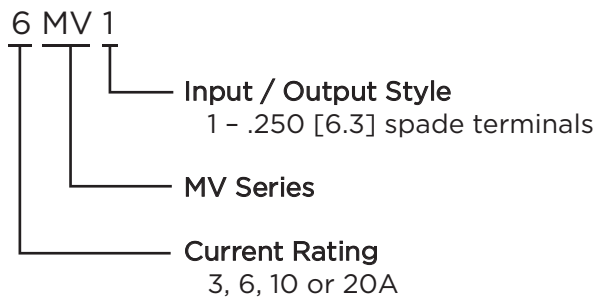
**Rated Voltage (max):** 250 VAC

**Operating Frequency:** 50/60 Hz

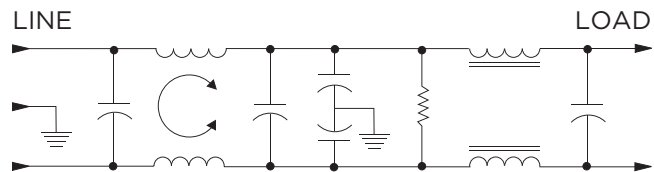
**Rated Current:** 3 to 20A

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

## Ordering Information



## Electrical Schematic



## Available Part Numbers

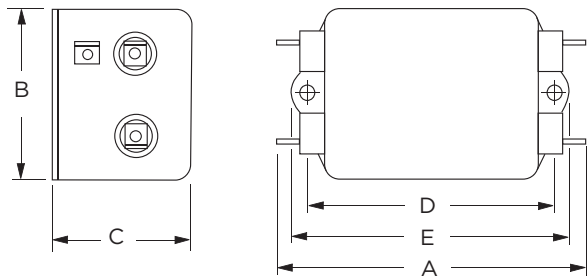
|       |       |
|-------|-------|
| 3MV1  | 6MV1  |
| 10MV1 | 20MV1 |

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

# MV Series

## Case Styles

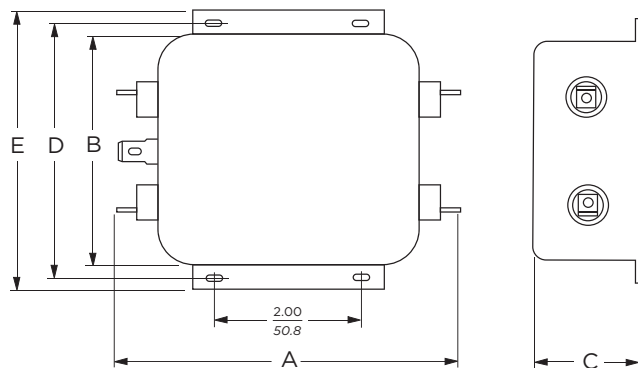
MV1 (3, 6, 10A)



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

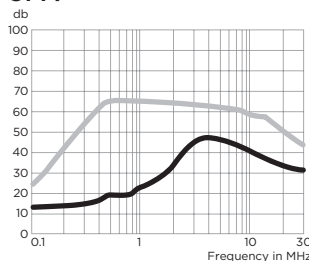
| Part No. | A<br>(max)           | B<br>(max)          | C<br>(max)          | D<br>$\pm .015$<br>$\pm .38$ | E<br>(max)           |
|----------|----------------------|---------------------|---------------------|------------------------------|----------------------|
| 3MV1     | <b>3.36</b><br>85.3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

## Performance Data

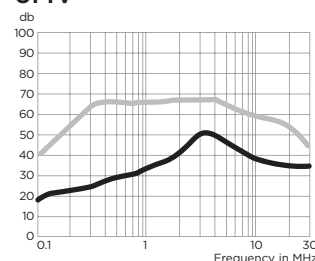
### Typical Insertion Loss

Measured in closed 50 Ohm system

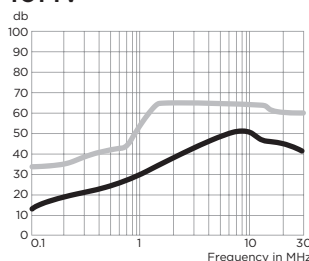
3MV



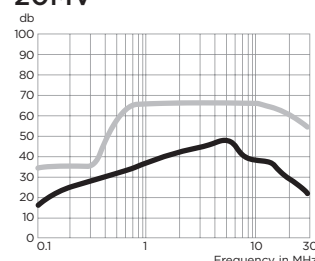
6MV



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 Rating | Frequency – MHz |    |    |    |    |    |    |    |
|----------------|-----------------|----|----|----|----|----|----|----|
|                | .15             | .5 | 1  | 2  | 5  | 10 | 20 | 30 |
| 3A             | 14              | 19 | 20 | 30 | 46 | 40 | 34 | 31 |
| 6A             | 19              | 27 | 30 | 38 | 50 | 40 | 35 | 35 |
| 10A            | 15              | 25 | 26 | 34 | 46 | 50 | 44 | 42 |
| 20A            | 18              | 30 | 34 | 34 | 46 | 40 | 36 | 20 |

Differential Mode / Symmetrical (Line to Line)

| Current Rating | Frequency – MHz |    |    |    |    |    |    |    |
|----------------|-----------------|----|----|----|----|----|----|----|
|                | .15             | .5 | 1  | 2  | 5  | 10 | 20 | 30 |
| 3A             | 33              | 65 | 65 | 65 | 65 | 60 | 53 | 50 |
| 6A             | 40              | 65 | 65 | 65 | 65 | 60 | 57 | 55 |
| 10A            | 33              | 65 | 65 | 65 | 65 | 65 | 55 | 55 |
| 20A            | 25              | 65 | 65 | 65 | 65 | 60 | 57 | 45 |