

**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

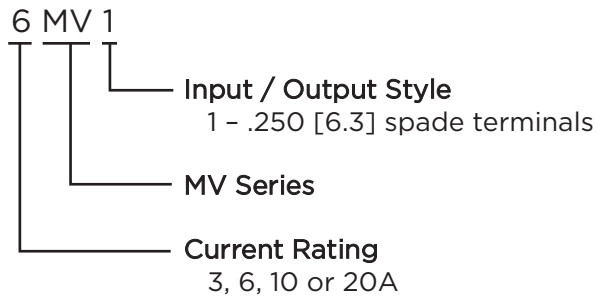
**Rated Voltage (max):** 250 VAC

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

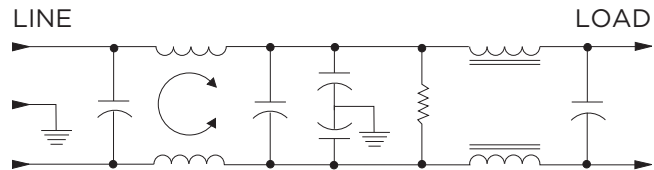
## Ordering Information



## Available Part Numbers

3MV1	6MV1
10MV1	20MV1

## Electrical Schematic

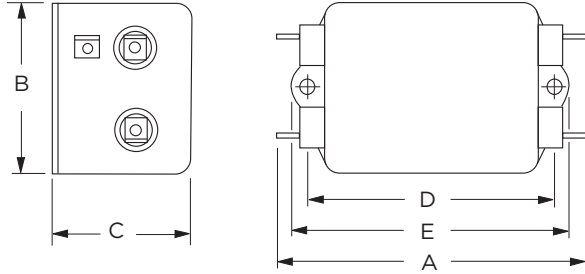


**Multi-purpose Medical Filter for Power Line Noise Protection** *(continued)*

# MV Series

## Case Styles

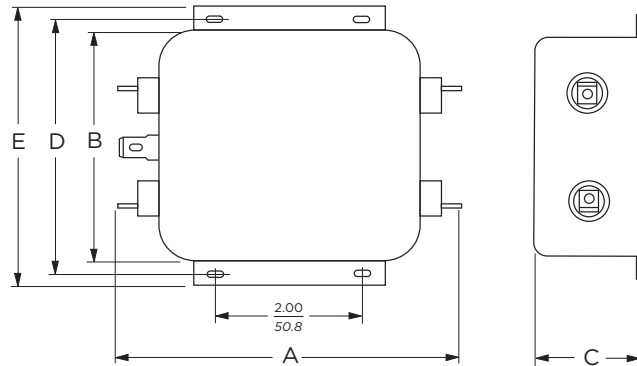
MV1 (3, 6, 10A)



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

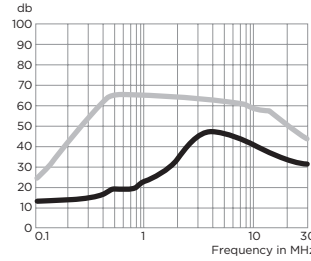
Part. No.	A (max)	B (max)	C (max)	D $\pm .015$ $\pm .38$	E (max)
3MV1	<b>3.36</b> 85.3	<b>1.82</b> 46.2	<b>1.28</b> 32.5	<b>2.375</b> 60.33	<b>2.78</b> 70.6
6MV1	<b>3.86</b> 98.0	<b>2.08</b> 52.8	<b>1.53</b> 38.9	<b>2.938</b> 74.63	<b>3.34</b> 84.8
10MV1	<b>3.86</b> 98.0	<b>2.08</b> 52.8	<b>1.53</b>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

## Performance Data

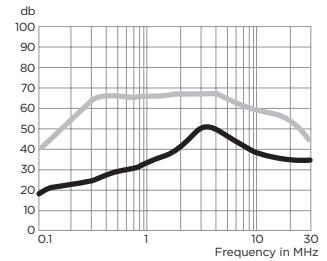
### Typical Insertion Loss

Measured in closed 50 ohm system

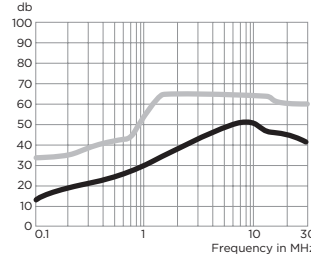
#### 3MV



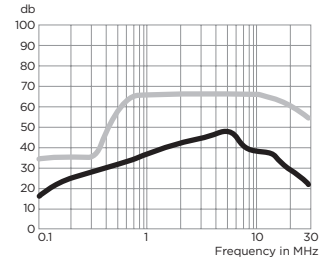
#### 6MV



#### 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