

**Multi-purpose Medical Filter for Power Line Noise Protection with Limited Leakage Current**

# MV Series



**UL Recognized  
CSA Certified  
VDE Approved**



3A, 6A, 10A

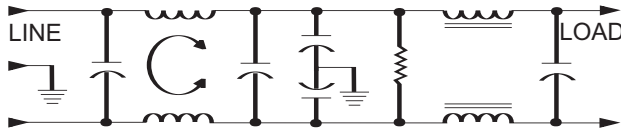
## MV Series

The MV series answers the need for a medical filter to help equipment comply with increasing noise sources in medical applications while still meeting leakage current requirements of UL2601.

Less strict than previous UL medical standards, UL2601 limits leakage current for patient care equipment. Due to the increased need for higher performance filtering, UL has allowed more leakage current than in previous standards.

The MV takes advantage of this to offer improved line-to-ground performance in a moderately priced filter. Higher line-to-line performance is achieved through its additional differential mode rod inductors. Overall, the filter provides a good solution to emission and immunity problems, at a moderate cost, in a reasonable package size.

## Electrical Schematic



Resistor location for reference only.

## Specifications

<b>Maximum leakage current, each line-to-ground</b>	
@ 120 VAC 60 Hz:	.07 mA
@ 250 VAC 50 Hz:	.13 mA
<b>Hipot rating (one minute):</b>	
line-to-ground	2250 VDC
line-to-line	1450 VDC
<b>Operating frequency:</b>	50/60 Hz
<b>Rated voltage (max.):</b>	250 VAC
<b>Rated current:</b>	
3MV	3A
6MV	6A
10MV	10A
20MV	20A

### Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

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

Line-to-line in 50 ohm circuit

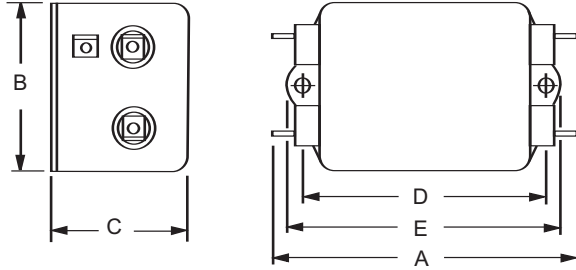
Current Rating	Frequency-MHz							
	.15	.5	1	2	5	10	20	30
3A	33	65	65	65	65	60	53	50
6A	40	65	65	65	65	60	57	55
10A	33	65	65	65	65	65	55	55
20A	25	65	65	65	65	60	57	45

**Multi-purpose Medical Filter for Power Line Noise Protection**  
**with Limited Leakage Current** (Continued)

# MV Series

## Case Styles

### 3/6/10 MV1

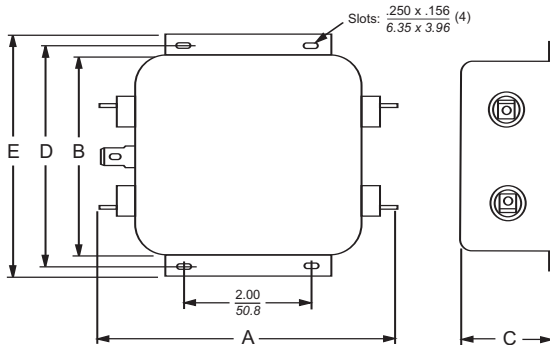


Typical dimensions:

Terminals: .250 [6.35] (5)  
Slot: .07 x .16 [1.8 x 4.1]

Holes: .07 [1.8] Dia.(4)  
Mounting holes: .188 [4.78] Dia. (2)

### 20A



Typical dimensions:

Terminals: .250 [6.35] (5)  
Slot: .07 x .16 [1.8 x 4.1]

Holes: .07 [1.8] Dia.(4)

## Case Dimensions

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

## Part Numbers

3MV1  
6MV1  
10MV1  
20MV1