

**General Purpose RFI Power Line Filters for High Impedance Loads at Low Cost**

# B Series



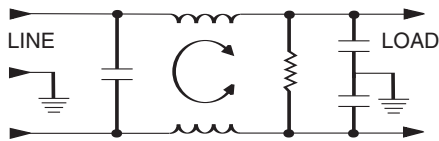
**UL Recognized**  
**CSA Certified**  
**VDE Approved**

## B Series

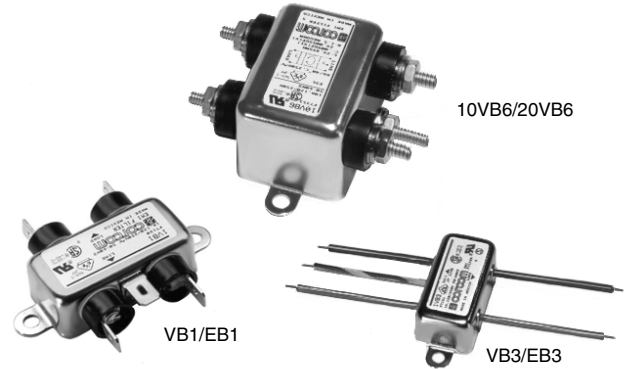
The B series RFI power line filters are general purpose common-mode filters effectively providing RFI control of line-to-ground noise in a small size at low cost. These filters are designed to meet a wide variety of electronic and electrical applications and are available in a broad selection of current ratings and termination styles.

The EB models meet the very low leakage current requirements of VDE portable equipment, and (120 Volt) UL544 non-patient medical equipment.

## Electrical Schematic



Resistor location for reference only.



## Specifications

### Maximum leakage current, each line-to-ground

	<b>VB Models</b>	<b>EB Models</b>
@ 120 VAC 60 Hz:	.4 mA	.21 mA
@ 250 VAC 50 Hz:	.7 mA	.36 mA

### Hipot rating (one minute):

line-to-ground	2250 VDC
line-to-line	1450 VDC

### Operating frequency:

50/60 Hz

### Rated voltage (max.):

250 VAC

### Rated current:

1VB/1EB	1A
2VB/2EB	2A
3VB/3EB	3A
5VB/5EB	5A
10VB/10EB	10A
10VB6	10A
20VB/20EB	20A
30VB6	30A

### Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

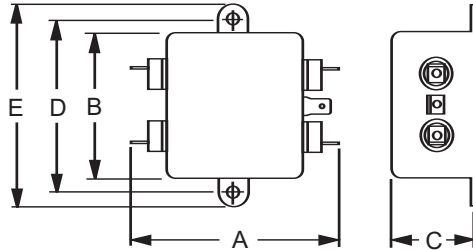
Current Rating	Frequency-MHz					
	.15	.5	1	5	10	30
<b>VB Models</b>						
1A, 3A	15	30	38	50	50	50
2A, 5A, 10A, 20A, 30A	7	20	25	40	45	48
<b>EB Models</b>						
1A, 3A	15	29	35	45	45	48
2A, 5A, 10A, 20A	7	19	23	34	37	42

**General Purpose RFI Power Line Filters for High Impedance Loads at Low Cost (Continued)**

# B Series

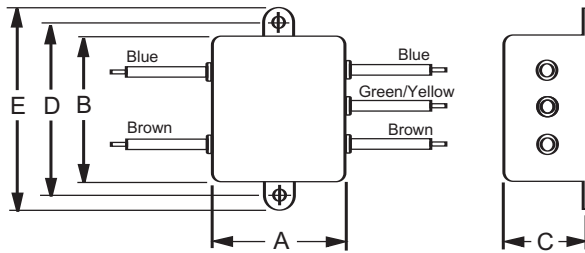
## Case Styles

### B1



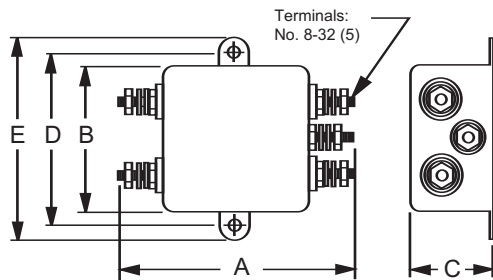
Typical dimensions:  
 Terminals: .250 [6.35] (5)      Holes: .07 [1.8] Dia.(4)  
 Slot: .07 x .16 [1.8 x 4.1]      Mounting holes: .188 [4.78] Dia.(2)

### B3



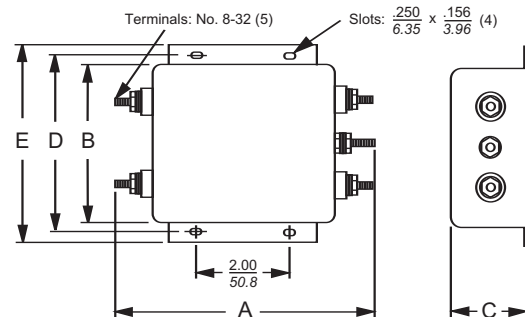
Typical dimensions:  
 Wire Leads: 4.0 [101.6] Min.      Mounting holes: .188 [4.78] Dia.(2)

### 10VB6 & 20VB6



Typical dimensions:  
 Mounting holes: .188 [4.78] Dia.(2)      Torque: 18±2 in. lb.

### 30VB6



## Case Dimensions

Part No.	A (max)	B (max)	C (max)	D $\frac{\pm.015}{\pm.38}$	E (max)
1VB1, 1EB1,	<b>2.25</b>	<b>1.82</b>	<b>0.66</b>	<b>2.125</b>	<b>2.53</b>
2VB1, 2EB1	<i>57.2</i>	<i>46.2</i>	<i>16.8</i>	<i>53.98</i>	<i>64.3</i>
1VB3, 1EB3,	<b>0.96</b>	<b>1.82</b>	<b>0.66</b>	<b>2.125</b>	<b>2.53</b>
2VB3, 2EB3	<i>24.4</i>	<i>46.2</i>	<i>16.8</i>	<i>53.98</i>	<i>64.3</i>
3VB1, 3EB1,	<b>2.61</b>	<b>1.82</b>	<b>0.78</b>	<b>2.125</b>	<b>2.53</b>
5VB1, 5EB1	<i>66.3</i>	<i>46.2</i>	<i>19.8</i>	<i>53.98</i>	<i>64.3</i>
3VB3, 3EB3,	<b>1.32</b>	<b>1.82</b>	<b>0.78</b>	<b>2.125</b>	<b>2.53</b>
5VB3, 5EB3	<i>33.5</i>	<i>46.2</i>	<i>19.8</i>	<i>53.98</i>	<i>64.3</i>
10VB1, 10EB1	<b>2.61</b>	<b>1.82</b>	<b>1.16</b>	<b>2.125</b>	<b>2.53</b>
	<i>66.3</i>	<i>46.2</i>	<i>29.5</i>	<i>53.98</i>	<i>64.3</i>
10VB3, 10EB3	<b>1.32</b>	<b>1.82</b>	<b>1.16</b>	<b>2.125</b>	<b>2.53</b>
	<i>33.5</i>	<i>46.2</i>	<i>29.5</i>	<i>53.98</i>	<i>64.3</i>
10VB6	<b>2.72</b>	<b>1.82</b>	<b>1.16</b>	<b>2.125</b>	<b>2.53</b>
	<i>69.1</i>	<i>46.2</i>	<i>29.5</i>	<i>53.98</i>	<i>64.3</i>
20VB1, 20EB1	<b>3.36</b>	<b>2.07</b>	<b>1.16</b>	<b>2.375</b>	<b>2.81</b>
	<i>85.3</i>	<i>52.6</i>	<i>29.5</i>	<i>60.33</i>	<i>71.4</i>
20VB6	<b>3.46</b>	<b>2.07</b>	<b>1.16</b>	<b>2.375</b>	<b>2.81</b>
	<i>87.9</i>	<i>52.6</i>	<i>29.5</i>	<i>60.33</i>	<i>71.4</i>
30VB6	<b>5.34</b>	<b>3.38</b>	<b>1.53</b>	<b>3.750</b>	<b>4.20</b>
	<i>135.6</i>	<i>85.9</i>	<i>38.9</i>	<i>95.3</i>	<i>106.7</i>

## Part Numbers

1VB1	1EB1
1VB3	1EB3
2VB1	2EB1
2VB3	2EB3
3VB1	3EB1
3VB3	3EB3
5VB1	5EB1
5VB3	5EB3
10VB1	10EB1
10VB3	10EB3
10VB6	20EB1
20VB1	
20VB6	
30VB6	