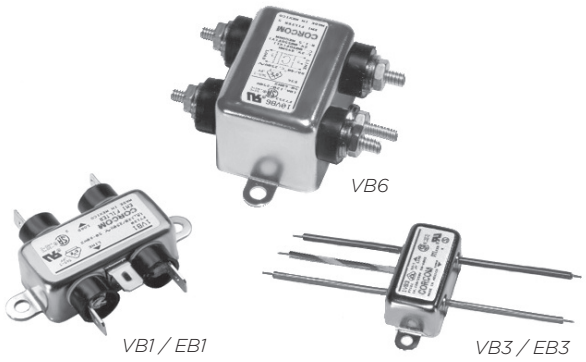
B Series

UL Recognized
CSA Certified
VDE Approved



B Series

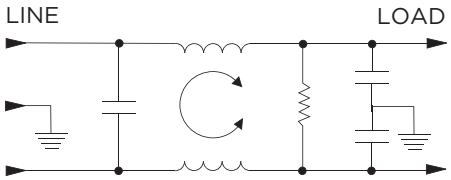
- Small size & low cost
- General purpose
- Wide variety of termination options
- Meets low leakage current requirements of VDE portable equipment and non-patient medical equipment

Ordering Information

10 E B 1

- 1 — Input / Output Style
  - 1 – .250 [6.3] spade terminals
  - 3 – Wire leads
  - 6 – Threaded bolt
- B — B Series
- E — Leakage current designation
  - E – Low leakage *(<0.5 mA)*
  - V – Standard
- 10 — Current Rating
  - 1, 2, 3, 5, 10, 20 or 30A

Electrical Schematic



Specifications

Maximum leakage current each Line to Ground:

	VB Models	EB Models
@ 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

Rated Voltage (max): 250 VAC

Operating Frequency: 50/60 Hz

Rated Current: 1 to 30A

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: $I_o = I_r \sqrt{(85\text{-}Ta)/45}$

Available 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	

Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents. Dimensions are shown for reference purposes only. Specifications subject to change.

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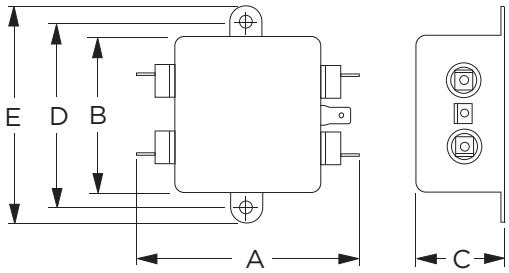
B Series

Case Styles

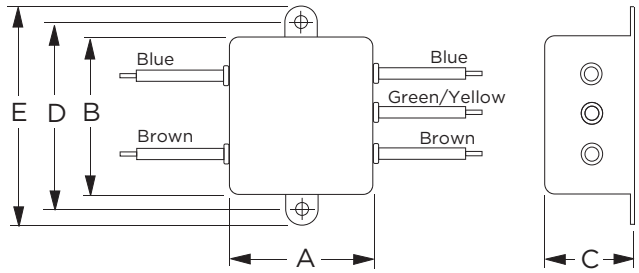
B1



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 [*4.75*] Dia.

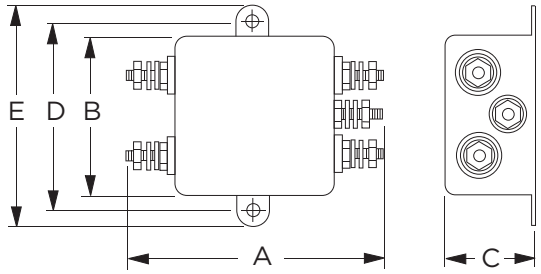
B3



Typical Dimensions:

Wire leads (5):	4.0 [*101.6*] Min. AWG18, (AWG16 for 10A)
Mounting Holes (2):	.188 [*4.75*] Dia.

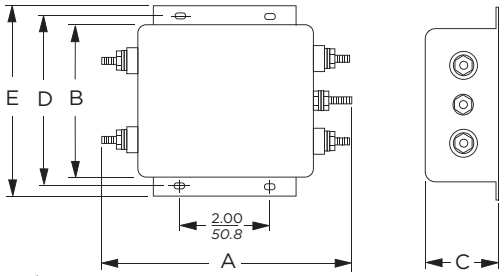
10VB6 & 20VB6



Typical Dimensions:

Terminals (5):	8-32, Torque 18 lbf-in. [*2.03* N-m] max. ± 2 [*.22*]
Mounting Holes (4):	.188 [*4.75*] Dia.

30VB6



Typical Dimensions:

Terminals (5):	8-32, Torque 18 lbf-in. [*2.03* N-m] max. ± 2 [*.22*]
Mounting Slots (4):	.250 x .156 [*6.35 x 3.96*]

Case Dimensions

Part No.	A (max)	B (max)	C (max)	D ± .015 ± .38	E (max)
1VB1, 1EB1, 2VB1, 2EB1	**2.25** *57.2*	**1.82** *46.2*	**0.66** *16.8*	**2.125** *53.98*	**2.53** *64.3*
1VB3, 1EB3, 2VB3, 2EB3	**0.96** *24.4*	**1.82** *46.2*	**0.66** *16.8*	**2.125** *53.98*	**2.53** *64.3*
3VB1, 3EB1, 5VB1, 5EB1	**2.61** *66.3*	**1.82** *46.2*	**0.78** *193.8*	**2.125** *53.98*	**2.53** *64.3*
3VB3, 3EB3, 5VB3, 5EB3	**1.32** *33.5*	**1.82** *46.2*	**0.78** *19.8*	**2.125** *53.98*	**2.53** *64.3*
10VB1, 10EB1	**2.61** *66.3*	**1.82** *46.2*	**1.16** *29.5*	**2.125** *53.98*	**2.53** *6.3*
10VB3, 10EB3	**1.32** *33.5*	**1.82** *46.2*	**1.16** *29.5*	**2.125** *53.98*	**2.53** *64.3*
10VB6	**2.72** *69.1*	**1.82** *46.2*	**1.16** *29.5*	**2.125** *53.98*	**2.53** *64.3*
20VB1, 20EB1	**3.36** *85.3*	**2.07** *52.6*	**1.16** *29.5*	**2.375** *60.33*	**2.81** *71.4*
20VB6	**3.46** *87.9*	**2.07** *52.6*	**1.16** *29.5*	**2.375** *60.33*	**2.81** *71.4*
30VB6	**5.34** *135.6*	**3.38** *85.9*	**1.53** *38.9*	**3.75** *95.3*	**4.20** *106.7*

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B Series

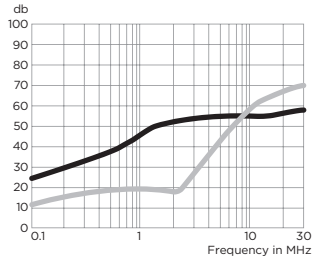
Performance Data

Typical Insertion Loss

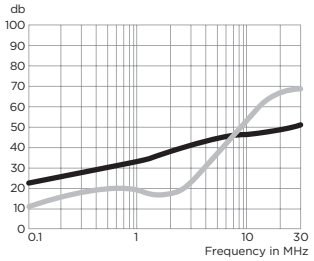
Measured in closed 50 Ohm system

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

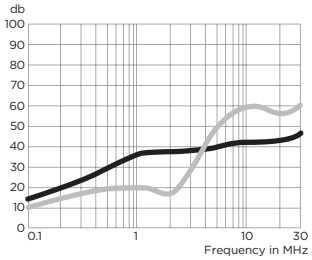
1EB & 3EB



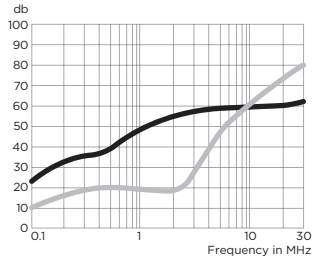
2EB, 5EB & 10EB



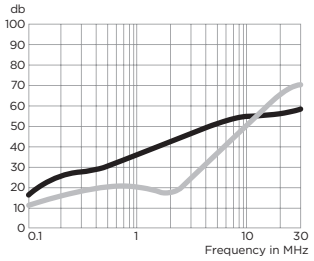
20EB



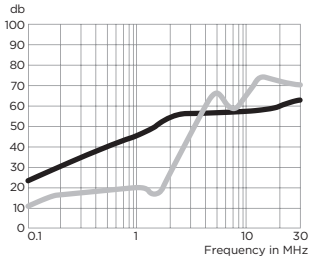
1VB



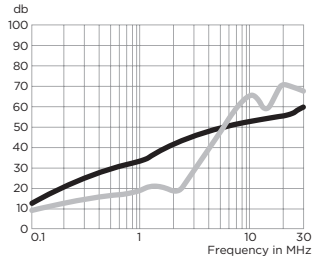
2VB



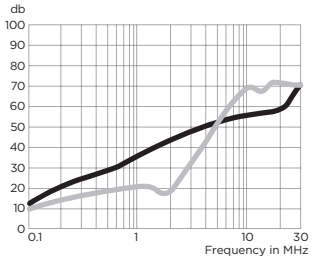
3VB



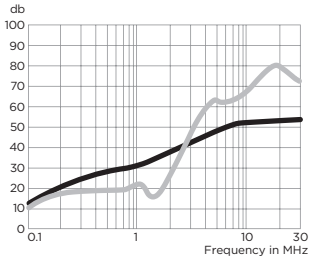
10VB



20VB



30VB



Minimum Insertion Loss

Measured in closed 50 Ohm system

Common Mode / Asymmetrical (Line to Ground)

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

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