



## Introducing

### Corcom SB Series

#### High Performance B Series Power Line Filters

The Corcom SB power line filter series joins the Corcom product family of EMI/RFI filter products. The SB Series of AC/DC rated power line filters is an enhanced version of the popular Corcom B Series filter with improved common and differential mode performance. The compact height (1.53"/38.86 mm) of the SB Series makes these products optimal for space constrained applications. These filters provide significant differential mode performance ideal for industrial machinery equipment and are also suitable as a simple clean up filter within all types of electronic applications. Low leakage versions are available that meet current requirements of VDE portable equipment and UL544 non-patient medical equipment.



## KEY FEATURES

- Compact Size
- High Differential Mode Performance
- 6-30Amp
- 250 Rated Voltage VAC
- 250 Rated Voltage VDC
- UL Recognized, CSA Certified, and VDE Approved

## ORDERING INFORMATION

**20 E SB 6**

**Input / Output Style**  
1 - .250 [6.3] spade terminals  
6 - Threaded bolt

**SB Series**

**Leakage current designation**  
E - Low leakage (<0.5 mA)  
V - Standard

**Current Rating**  
6, 10, 20 or 30A

## STANDARDS AND SPECIFICATIONS

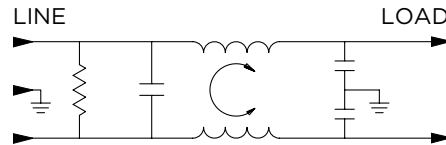


UL Recognized  
CSA Certified  
VDE Approved

## ELECTRICAL SPECIFICATIONS

Max. Leakage current each Line to Ground:	@ 120 VAC 60 Hz	VSB Models: .75 mA	ESB Models: .22 mA
	@ 250 VAC 50 Hz	VSB Models: 1.25 mA	ESB Models: .36 mA
Rated Currents:	6, 10, 20 & 30A		
Rated Voltage (max):	250 VAC & 250 VDC		
Operating Frequency:	50/60 Hz		

## ELECTRICAL SCHEMATIC



## PRODUCT OFFERING

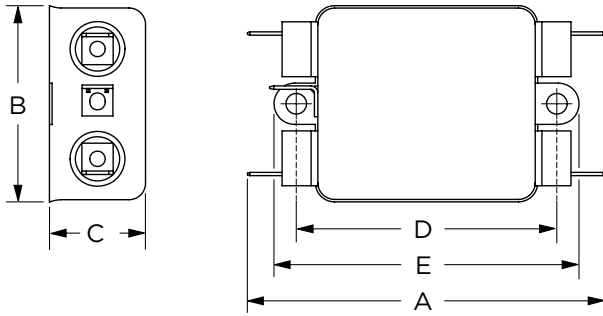
6ESB1	6VSB1
10ESB1	10VSB1
10ESB6	10VSB6
20ESB1	20VSB1
20ESB6	20VSB6
30ESB6	30VSB6

## CASE DIMENSIONS

Part No.	A	B	C	D	E
	(max)	(max)	(max)	± .015 ± .38	(max)
6ESB1, 6VSB1	3.36	1.82	0.91	2.375	2.78
	85.34	46.23	23.11	60.325	70.61
10ESB1, 10VSB1	3.36	1.82	1.28	2.375	2.78
	85.34	46.23	32.51	60.325	70.61
10ESB6, 10VSB6	3.47	1.82	1.53	2.375	2.78
	88.14	46.23	38.86	60.325	70.61
20ESB1, 20VSB1	3.85	2.07	1.31	2.938	3.35
	97.79	52.58	33.27	74.625	85.09
20ESB6, 20VSB6	4	2.07	1.53	2.938	3.35
	101.6	52.58	38.86	74.625	85.09
30ESB6, 30VSB6	4.92	2.07	1.53	3.947	4.33
	124.97	52.58	38.86	100.254	109.98

## CASE STYLES

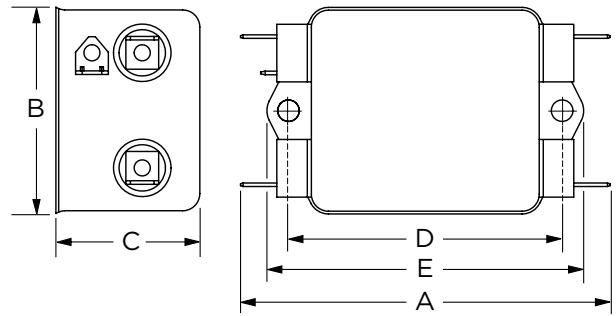
### 6ESB1 & 6VSB1



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.

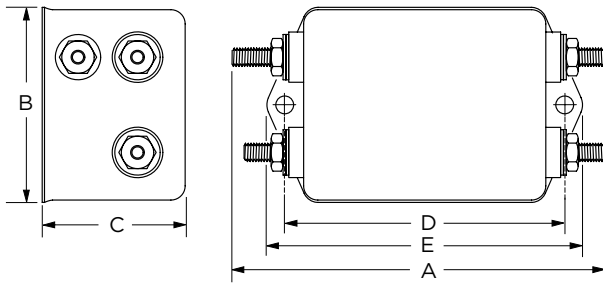
### 10ESB1, 10VSB1, 20ESB1 & 20VSB1



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.

### ESB6 & VSB6



Typical Dimensions:

Terminals (5): 8-32  
Torque 18 lbf-in. [2.03 N-m] max. ± 2 [2.2]  
Mounting Holes (2): .188 [4.75] Dia.

## PERFORMANCE DATA

### Minimum Insertion Loss

Measured in closed 50 Ohm system

#### Common Mode / Asymmetrical (Line to Ground)

Part No.	Frequency — MHz										
	0.03	0.05	0.1	0.15	0.5	1	2	5	10	20	30
<b>ESB Models</b>											
6ESB1	3	8	13	17	31	37	40	47	50	58	62
10ESB1	3	9	15	19	31	39	41	44	47	54	51
10ESB6	3	9	14	18	31	39	41	44	47	54	54
20ESB1	3	7	13	15	30	35	37	39	40	46	40
20ESB6	3	7	13	16	30	35	39	40	44	58	46
30ESB6	3	7	13	17	30	34	37	40	42	49	58
<b>VSB Models</b>											
6VSB1	3	8	14	19	37	47	51	58	66	59	49
10VSB1	3	9	15	21	41	49	50	56	64	54	46
10VSB6	4	9	15	21	39	49	50	56	64	54	44
20VSB1	3	7	14	19	37	45	47	50	60	48	40
20VSB6	3	7	14	19	37	44	49	52	62	48	41
30VSB6	3	6	13	18	37	45	49	51	60	50	42

#### Differential Mode / Asymmetrical (Line to Line)

Part No.	Frequency — MHz											
	0.01	0.03	0.05	0.1	0.15	0.5	1	2	5	10	20	30
<b>ESB Models</b>												
6ESB1	5	14	20	25	29	41	49	47	50	60	74	72
10ESB1	5	15	20	26	29	41	47	50	54	64	74	74
10ESB6	5	14	20	25	29	41	47	48	50	60	62	64
20ESB1	5	15	21	26	29	41	45	48	54	63	70	66
20ESB6	5	15	21	26	29	41	44	48	54	63	70	66
30ESB6	5	14	20	25	29	40	46	50	50	58	70	70
<b>VSB Models</b>												
6VSB1	5	14	20	25	29	40	41	57	66	78	56	62
10VSB1	5	15	21	26	29	39	40	60	64	67	67	64
10VSB6	5	14	20	25	29	39	40	60	64	68	70	64
20VSB1	5	15	20	26	29	40	42	60	68	70	70	67
20VSB6	5	15	21	26	29	39	38	58	68	70	70	66
30VSB6	5	15	20	25	29	39	39	56	62	70	70	66

## FOR MORE INFORMATION

[www.corcom.com](http://www.corcom.com)

### Technical Support

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Part numbers in this brochure are RoHS Compliant\*, unless marked otherwise.

\*as defined [www.tycoelectronics.com/leadfree](http://www.tycoelectronics.com/leadfree)

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Harrisburg, PA

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