



## 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.



**STANDARDS AND SPECIFICATIONS**

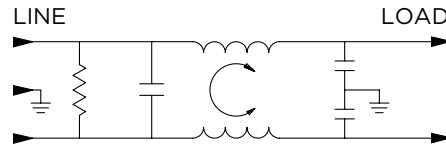


UL Recognized  
 CSA Certified  
 VDE Approved

**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**



**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

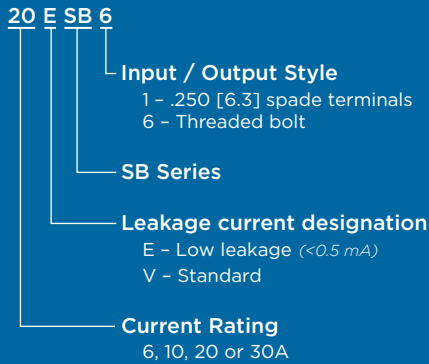
**PRODUCT OFFERING**

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

**CASE DIMENSIONS**

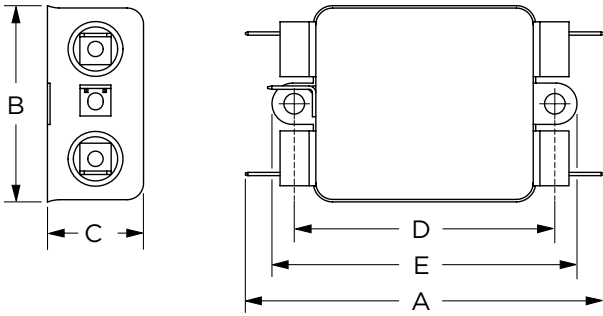
Part No.	A	B	C	D	E
	(max)	(max)	(max)	$\pm .015$ $\pm .38$	(max)
6ESB1, 6VSB1	3.36	1.82	0.91	2.375	2.78
	85.34	46.23	23.11	60.325	70.61
10ESB1, 10VSB1	3.36	1.82	1.28	2.375	2.78
	85.34	46.23	32.51	60.325	70.61
10ESB6, 10VSB6	3.47	1.82	1.53	2.375	2.78
	88.14	46.23	38.86	60.325	70.61
20ESB1, 20VSB1	3.85	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

**ORDERING INFORMATION**



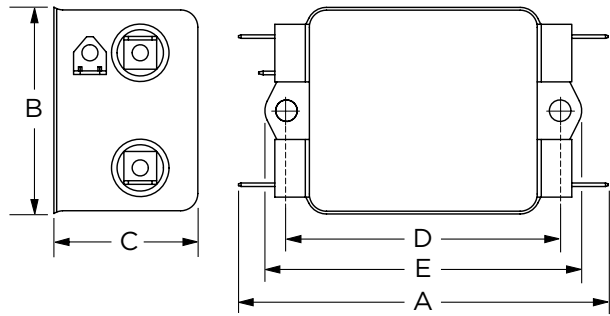
**CASE STYLES**

**6ESB1 & 6VSB1**



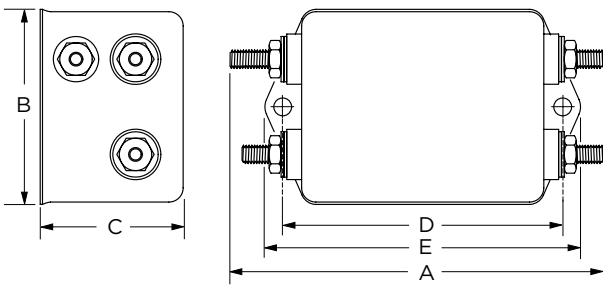
Typical Dimensions:  
 Line/Load Terminals (4): .250 [6.3] with .07 [1.8] Dia. hole  
 Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot  
 Mounting Holes (2): .188 [4.75] Dia.

**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 [.22]  
 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

Internet:	<a href="http://www.tycoelectronics.com/help">www.tycoelectronics.com/help</a>
USA:	+1 (800) 522-6752
Canada:	+1 (905) 470-4425
Mexico & Central America:	+52 (0) 55-1106-0814
South America:	+55 (0) 11-2103-6000
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

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

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

### Tyco Electronics Corporation

Harrisburg, PA

[tycoelectronics.com](http://tycoelectronics.com)

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

© 2010 Tyco Electronics Corporation. All Rights Reserved.

Corcom SB PDF 08/2010

Corcom, TE (logo) and Tyco Electronics are trademarks of the Tyco Electronics group of companies and its licensors.

Other products, logos, and Company names mentioned herein may be trademarks of their respective owners.

---

While Tyco Electronics has made every reasonable effort to ensure the accuracy of the information in this catalog, Tyco Electronics does not guarantee that it is error-free, nor does Tyco Electronics make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. Tyco Electronics reserves the right to make any adjustments to the information contained herein at any time without notice. Tyco Electronics expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this catalog are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult Tyco Electronics for the latest dimensions and design specifications.



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[10ESB1](#) [20ESB1](#) [10VSB6](#) [20VSB6](#)