SK Series

UL Recognized
CSA Certified
VDE Approved

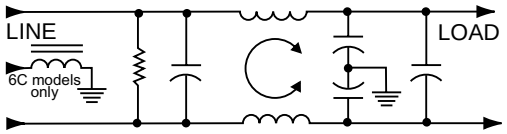
SK Series – 3, 6 & 10 Amp Models

This series of RFI filters was designed to reduce conducted noise to acceptable limits for equipment that must comply with the FCC specifications in the USA and CISPR specifications in Europe.

The SK (Super K) series filters use significantly higher element values than the general purpose K series, which makes them better suited for equipment with line-to-ground and line-to-line conducted emissions, including switch mode power supplies.

The ESK models meet the very low leakage current requirements of VDE portable equipment and (120 Volt) UL 544 non-patient medical equipment.

Electrical Schematic



Resistor location for reference only.

Specifications

Maximum leakage current, each line-to-ground

	VSK Models	ESK 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

Operating frequency: 50/60 Hz

Rated voltage (max.): 250 VAC

Rated current:

3VSK/3ESK	3A
6VSK/6ESK	6A
10VSK/10ESK	10A

Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

Current Rating	.01	.08	.1	.15	.5	1	5	10	30
VSK									
3A, 6A, 10A	4	23	25	29	43	44	42	42	30
ESK									
3A, 6A, 10A	4	22	24	28	42	40	36	36	27

Line-to-line in 50 ohm circuit

Current Rating	.01	.08	.1	.15	.5	1	5	10	30
VSK									
3A, 6A	1	3	10	25	59	65	62	40	40
10A	1	3	3	10	55	65	65	50	50
ESK									
3A, 6A	1	3	10	25	59	65	62	40	40
10A	1	3	3	10	55	65	65	65	45

20 and 30 amp SK models on page 84.

Catalog 1654001
Revised 03-04

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.

USA Cust. Svc.: 1-800-468-2023
CORCOM Prods: 1-847-680-7400
1-508-992-4495
Germany: 49-89-6089-0

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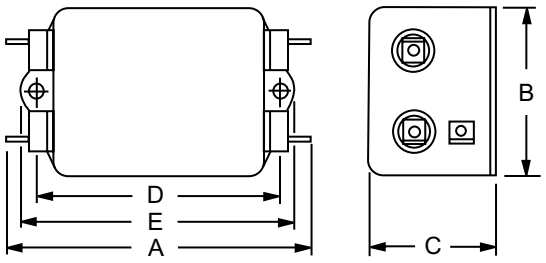
SK Series

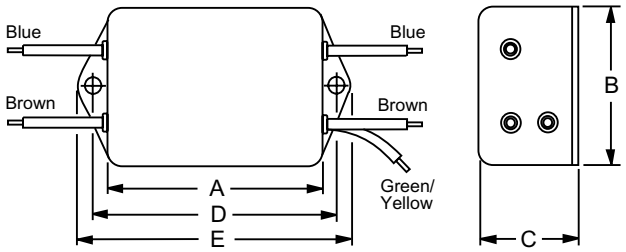
Case Styles

SK1



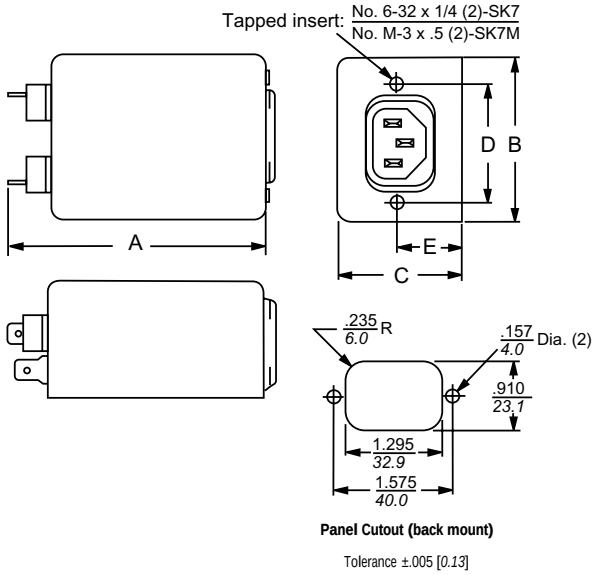
Typical dimensions:
Terminals: .250 [*6.35*] (5)
Slot: .07 x .16 [*1.8 x 4.1*]
Holes: .07 [*1.8*] Dia.(4)
Mounting holes: .188 [*4.78*] Dia. (2)

3A-SK3



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

SK7 & SK7M (with metric insert)

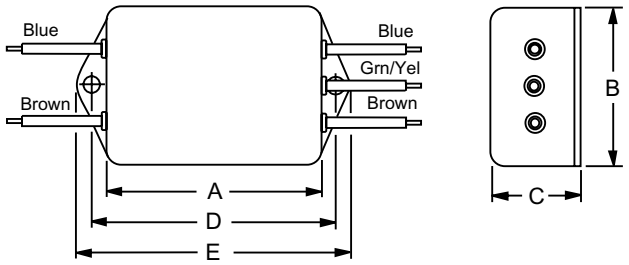


Panel Cutout (back mount)

Tolerance ±.005 [*0.13*]

Typical dimensions:
Terminals: .250 [*6.35*] (3)
Slot: .07 x .16 [*1.8 x 4.1*]
Holes: .07 [*1.8*] Dia.(2)

6A & 10A-SK3



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

Case Dimensions

Part No.	A (max)	B (max)	C (max)	D ± .015 / ± .38	E (max)	
3VSK1, 3ESK1	**3.85**	**2.07**	**1.16**	**2.938**	**3.35**	
	97.8	*52.6*	*29.5*	*74.63*	*85.1*	
3VSK3, 3ESK3	**2.56**	**2.07**	**1.16**	**2.938**	**3.35**	
	65.0	*52.6*	*29.5*	*74.63*	*85.1*	
3VSK7, 3VSK7M,	**3.21**	**2.25**	**1.53**	**1.575**	**0.63**	†
3ESK7, 3ESK7M	*81.5*	*57.2*	*38.9*	*40.01*	*16.0*	
6VSK1, 6ESK1	**4.34**	**2.25**	**1.28**	**3.427**	**3.83**	
	110.2	*57.2*	*32.5*	*87.05*	*97.3*	
6VSK3, 6ESK3	**3.05**	**2.25**	**1.28**	**3.427**	**3.83**	
	77.5	*57.2*	*32.5*	*87.05*	*97.3*	
6VSK7, 6VSK7M,	**3.21**	**2.25**	**1.78**	**1.575**	**0.63**	†
6ESK7, 6ESK7M	*81.5*	*57.2*	*45.2*	*40.01*	*16.0*	
10VSK1, 10ESK1	**4.97**	**2.25**	**1.78**	**4.063**	**4.46**	
	126.2	*57.2*	*45.2*	*103.2*	*113.3*	
10VSK3, 10ESK3	**3.69**	**2.25**	**1.78**	**4.063**	**4.46**	
	93.7	*57.2*	*45.2*	*103.2*	*113.3*	
10VSK7, 10VSK7M,	**4.34**	**2.25**	**1.78**	**1.575**	**0.63**	†
10ESK7, 10ESK7M	*110.0*	*57.2*	*45.2*	*40.01*	*16.0*	

† ±.02 [*±.5*]

Part Numbers

3VSK1	3ESK1
3VSK3	3ESK3
3VSK7	3ESK7
3VSK7M	3ESK7M
6VSK1	6ESK1
6VSK3	6ESK3
6VSK7	6ESK7
6VSK7M	6ESK7M
10VSK1	10ESK1
10VSK3	10ESK3
10VSK7	10ESK7
10VSK7M	10ESK7M
Line Cord No. (K7/K7M)	GA400

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ESK6/VSK6

SK Series

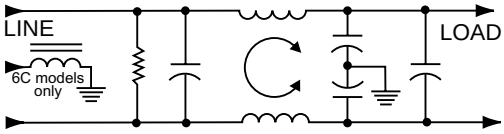
This series of RFI filters was designed to reduce conducted noise to acceptable limits for equipment that must comply with the FCC specifications in the USA and CISPR specifications in Europe.

The SK (Super K) series filters offer significantly higher performance than the K series, which makes this series particularly suited for equipment with high line-to-ground as well as line-to-line conducted emissions.

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

Models ESK6C and VSK6C additionally incorporate a separate ground-circuit inductor to isolate the equipment chassis from power line ground at RF frequencies.

Electrical Schematic



Resistor location for reference only.

Specifications

Maximum leakage current, each line-to-ground

	VSK Models	ESK Models
@ 120 VAC 60 Hz:	0.75 mA	0.3 mA
@ 250 VAC 50 Hz:	1.25 mA	0.5 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:

20VSK/20ESK	20A
30VSK/30ESK	30A
40VSK	40A

Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

Current Rating	.01	.08	.1	.15	.5	1	5	10	30
VSK									
20A	7	23	25	29	43	44	48	48	48
30A	2	13	14	15	27	31	46	51	39
40A	2	15	18	22	40	43	45	50	30
ESK									
20A	7	22	24	28	35	38	45	45	45
30A	2	13	15	15	27	31	40	41	36

Line-to-line in 50 ohm circuit

Current Rating	.01	.08	.1	.15	.5	1	5	10	30
VSK									
20A	1	10	8	8	45	60	65	60	60
30A	5	13	13	13	60	60	51	43	43
40A	7	14	16	30	65	65	65	57	50
ESK									
20A	1	10	8	8	45	60	65	60	60
30A	5	12	12	13	60	60	51	43	43

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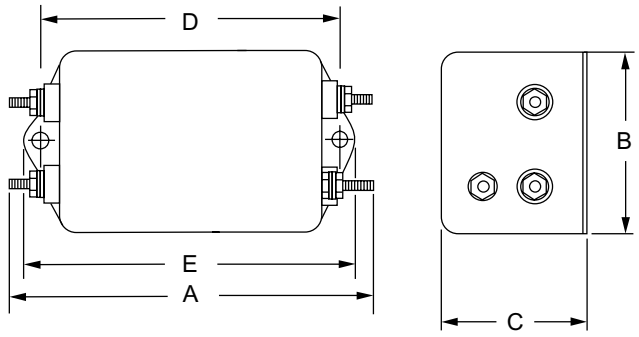
SK Series

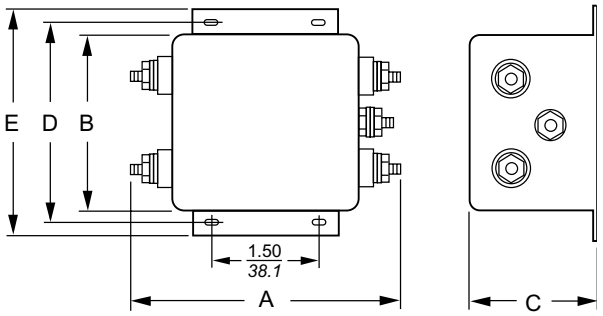
Case Styles

20ESK6 & 20VSK6

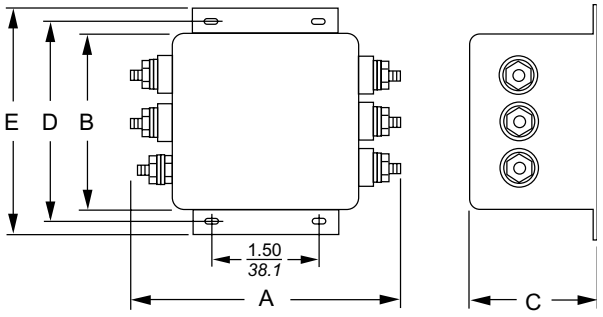


Typical dimensions:
Holes: .188 [*4.78*] Terminals No. 8-32 Torque: 18 ± 2 in.lb

30ESK6 & 30VSK6

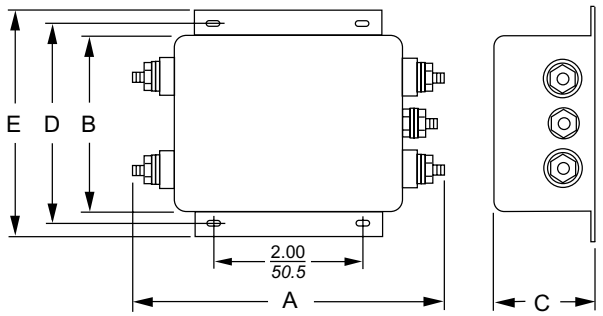


30ESK6C & 30VSK6C



Typical dimensions:
Mounting slots: .250 x .156 [*6.35 x 3.96*] Terminals No. 10-32
Torque: 27 ± 3 in.lb

40VSK6



Typical dimensions:
Mounting slots: .203 x .156 *[5.16x 3.96]* Torque: 27 ± 3 in.lb
Terminals (5): 10-32

Case Dimensions

Part No.	A (max)	B (max)	C (max)	D ± .015 / ± .38	E (max)
20ESK6,	**5.09**	**2.25**	**1.78**	**4.063**	**4.46**
20VSK6	*127.3*	*57.2*	*45.2*	*103.2*	*129.3*

Part No.	A (max)	B (max)	C (max)	D ± .020 / ± .51	E (max)
30ESK6,	**4.92**	**3.12**	**2.75**	**3.437**	**4.00**
30ESK6C	*125.0*	*79.25*	*69.85*	*87.3*	*101.6*
30VSK6,	**4.92**	**3.12**	**2.75**	**3.437**	**4.00**
30VSK6C	*125.0*	*79.25*	*69.85*	*87.3*	*101.6*
40VSK6	**6.00**	**3.12**	**2.18**	**3.50**	**3.96**
	152.4	*79.25*	*55.4*	*88.9*	*100.6*

Part Numbers

20ESK6 20VSK6 30ESK6 30ESK6C	30VSK6 30VSK6C 40VSK6

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