



TE connectivity VK6 K Series Corcom General Purpose RFI Power Line Filter User Guide

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VK6 K Series Corcom General Purpose RFI Power Line Filter User Guide



UL Recognized CSA Certified VDE Approved**

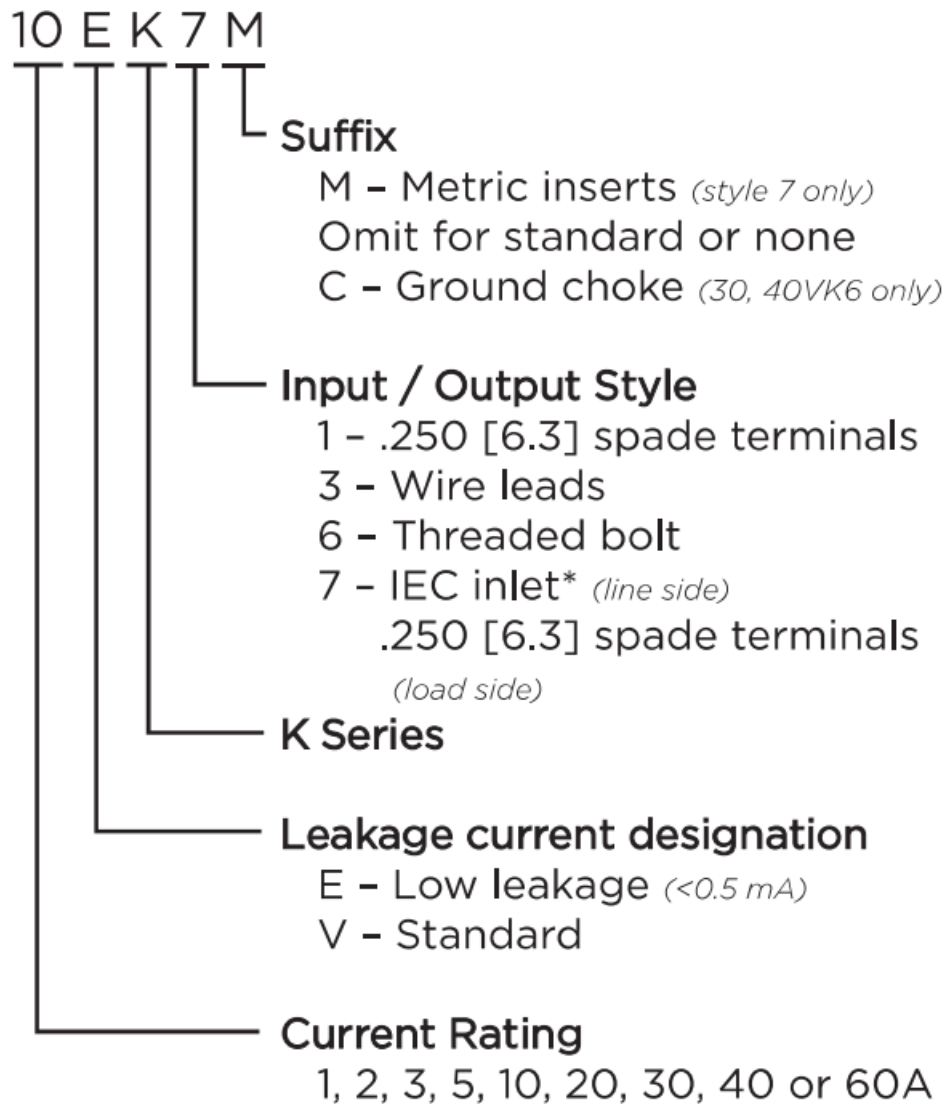
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K Series

- Suitable for high-impedance loads
- Well suited to applications where pulsed, continuous, and/or intermittent RFI interference is present
- EK models meet the very low leakage current requirements for VDE portable equipment and non-patient care medical equipment
- Available with ground line inductor (choke)

Ordering Information



*1-75A: IEC 60320-1 C14 inlet mates with C13 connector

20VK7: C20 inlet mates with C79 connector



VK6



VK7 / EK7



VK1 / EK1



VK3 / EK3

Specifications

Maximum leakage current each Line to Ground:

	VK Models	EK Models
@ 120 VAC 60 Hz:	.5 mA	.21 mA
@250 VAC 50 Hz:	1.0 mA	.36 mA

Hipot rating (one minute):

The line to Ground:	2250 VDC
Line to Line:	1450 VDC

Rated Voltage (max):	250 VAC
Operating Frequency:	50/60 Hz
Rated Current:	1 to 60A*

Operating Ambient Temperature Range

(at rated current I_r): -10°C to +40°C

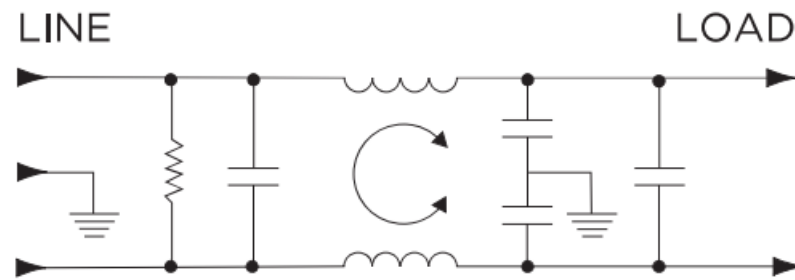
In an ambient temperature (T_a) higher than +40°C the maximum operating current (I_o) is calculated as follows: $I_o = I_r \sqrt{(85-T_a)/45}$

Available Part Number

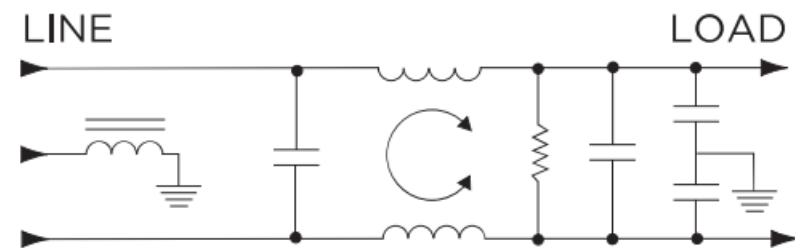
DIROZ	DIRZ	2>IAOL
VIL>130L	2>13L	LNAOL
L>IROL	DIRL	klbiAS
2>I3OL	9>1A09	blAS
DI3OL	09>IA017	2>IAS
WEARS	9>IA017	LNAS
L>199	D9NA02	IAJLAA2
2>119	9>IA02	L.>IA2
DIDS	*DIAOZ	>1A2
WL>132	9>IAOZ	DIA2
L>I32	DIAOZ	2NAZ
2>112	IAIDIAOL	DIAZ
LN12	LAAOL	2NAL
2>ISZ	9NAOL	DIAL

**20VK7, 20A model tested by Underwriters Laboratories to US and Canadian requirements and is VDE approved at 76A, 250VAC

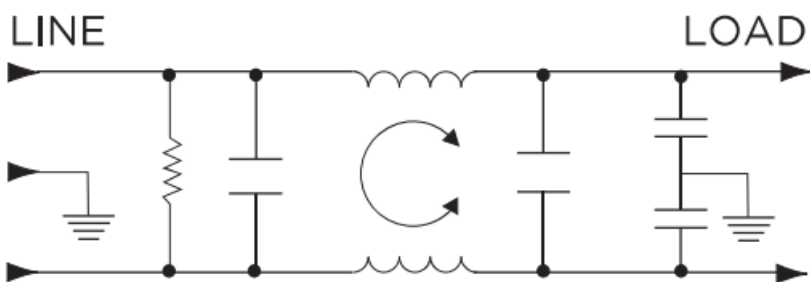
Electrical Schematics



30 & 40VK6C *(Inductor in Ground Line)*

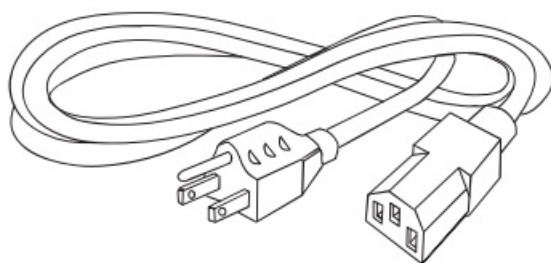


60VK6



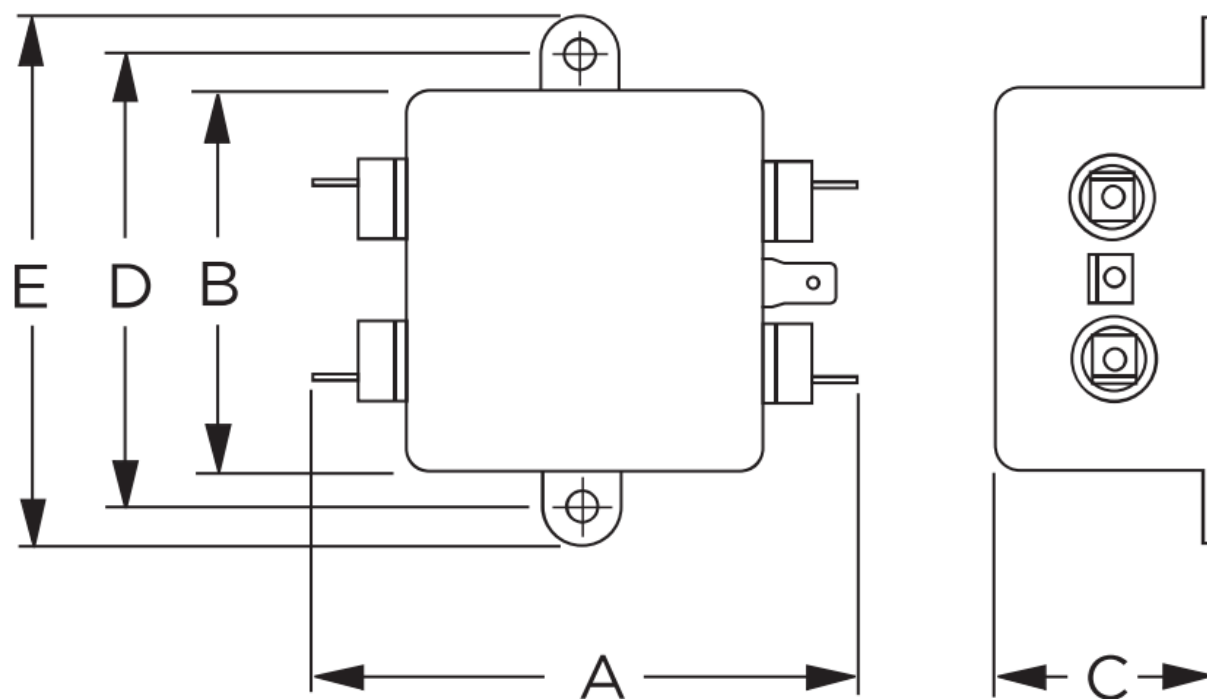
Accessories

GA400: NEMA 5-15P to IEC 60320-1 C-13 line cord



Case Styles

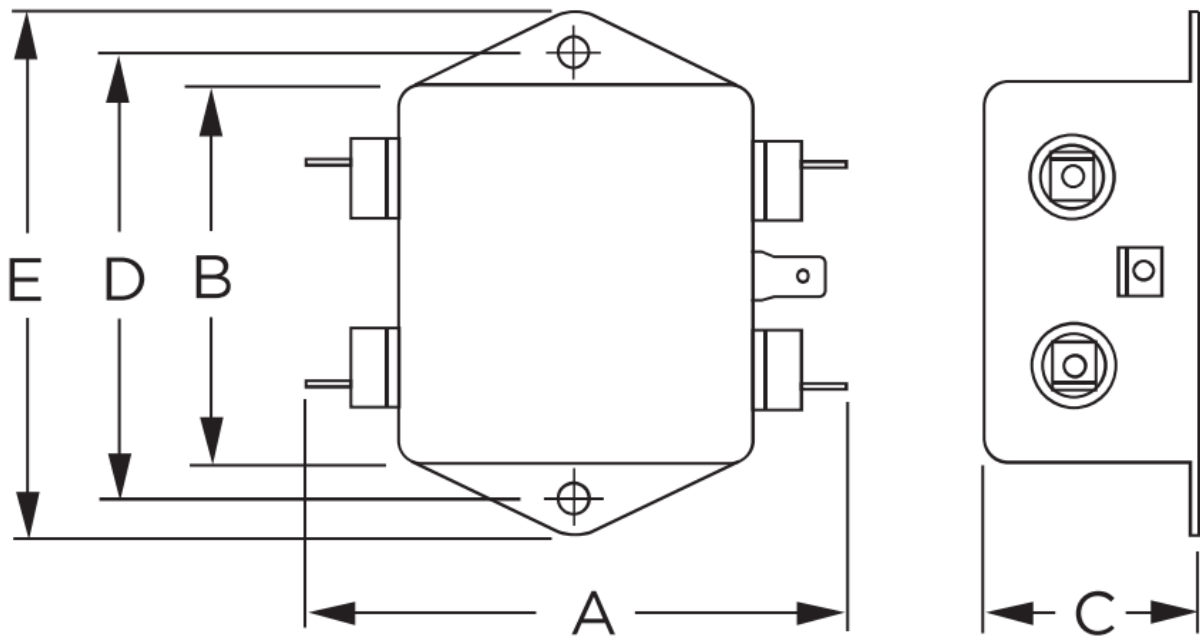
K1 (1, 2, 3, 6, 10A)



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 [4.78] Dia.

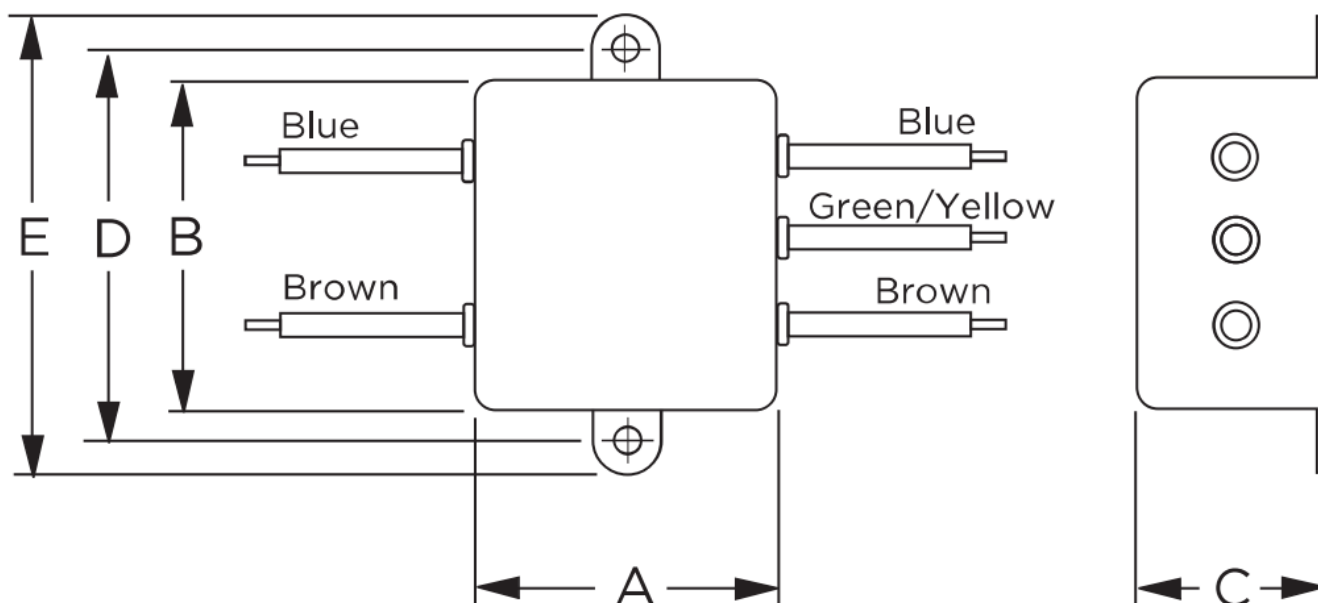
K1 (20A)



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 [4.78] Dia.

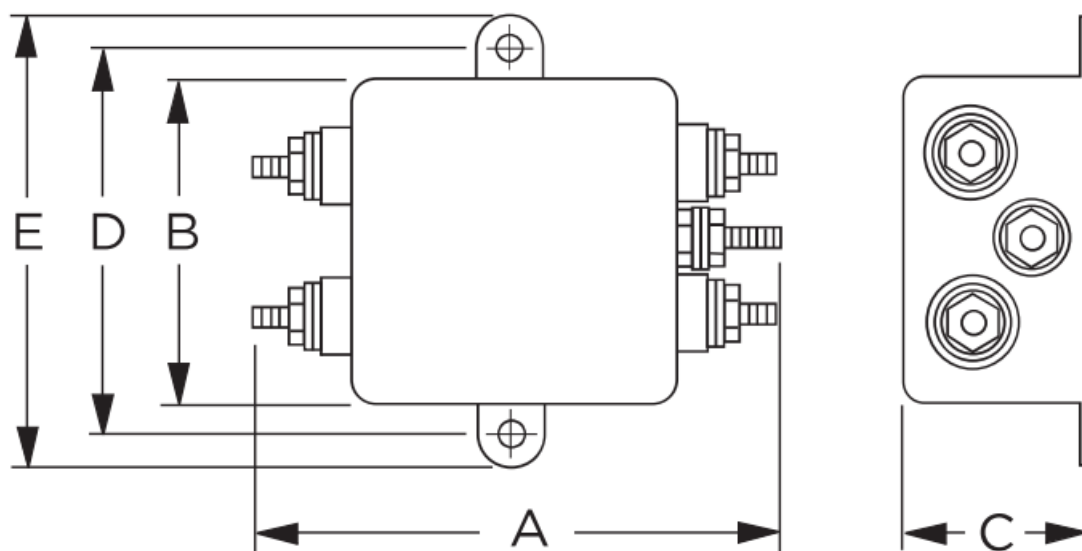
K3



Typical Dimensions:

Wire Leads (5):	4.0 [101.6] Min., AWG18 (AWG16 for 10A)
Mounting Holes (2):	.188 [4.78] Dia.

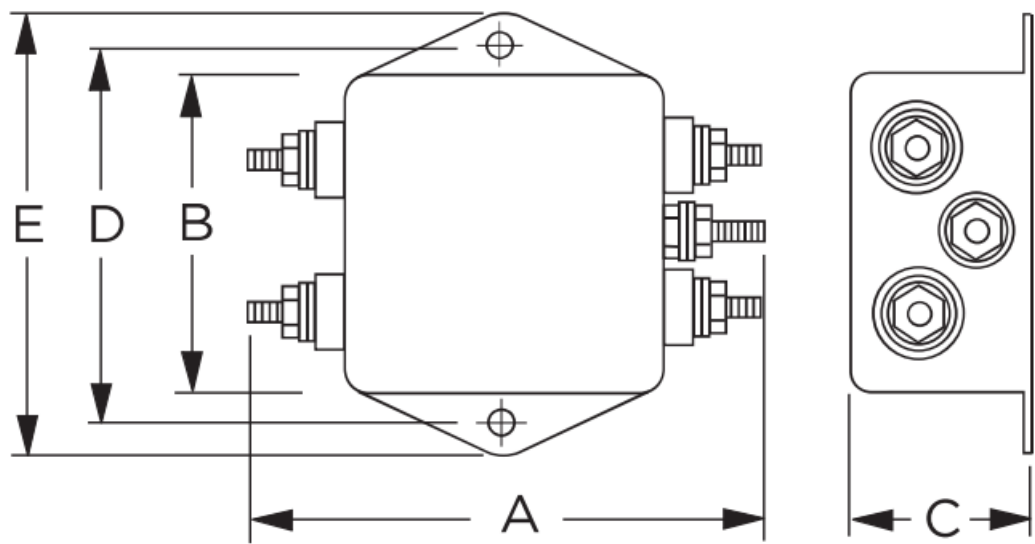
10VK6



Typical Dimensions:

Terminals (5):	8-32, Torque 18 lbf-in. [2.03 N-m] max. ± 2 [.22]
Mounting Holes (2):	.188 [4.78] Dia.

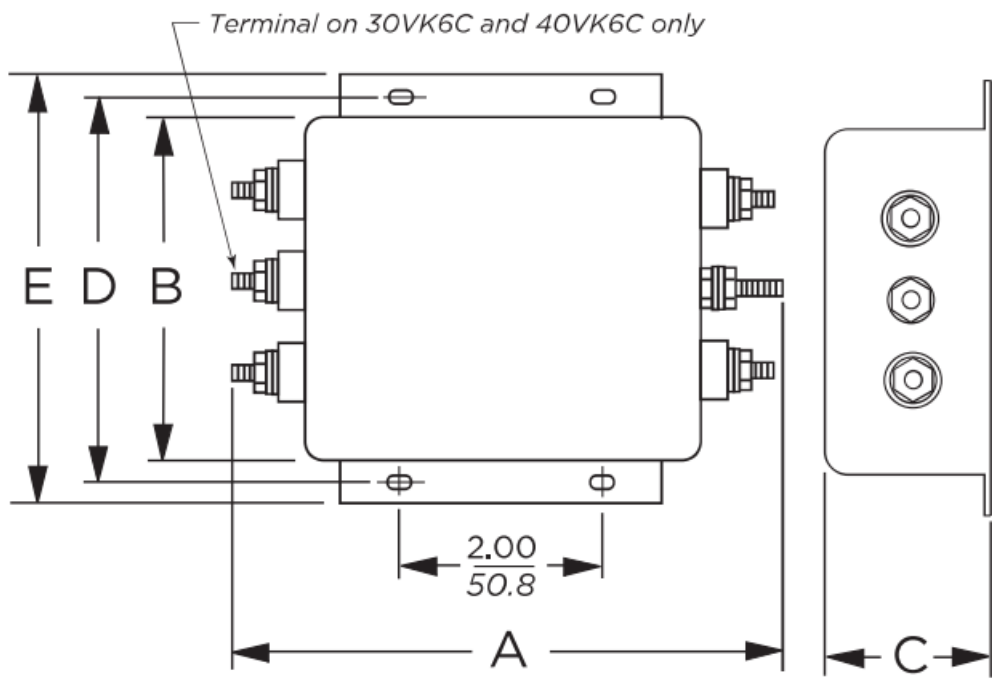
20VK6



Typical Dimensions:

Terminals (5):	8-32, Torque 18 lbf-in. [2.03 N-m] max. ± 2 [.22]
Mounting Holes (2):	.188 [4.78] Dia.

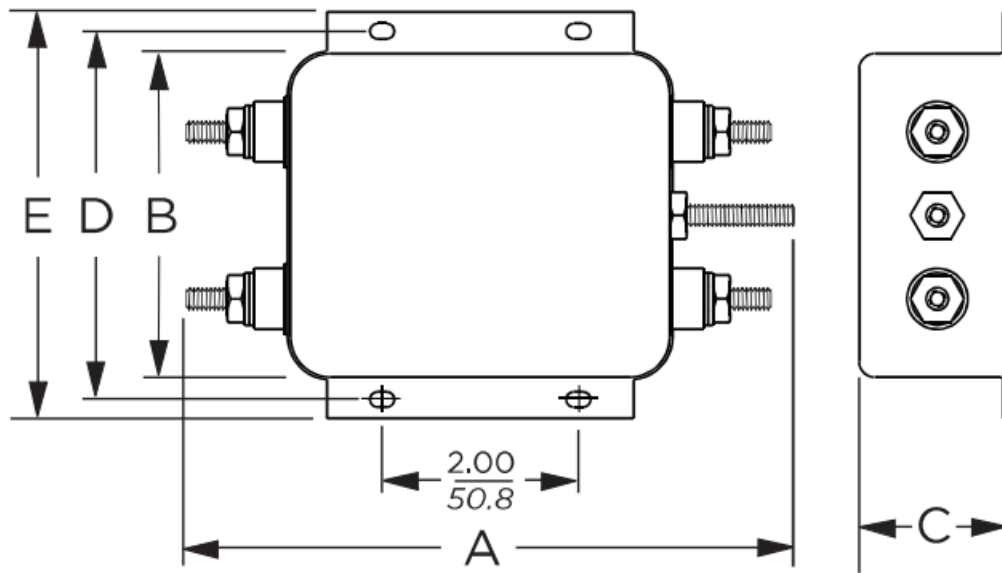
30 VK6/6C & 40VK6/6C



Typical Dimensions:

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

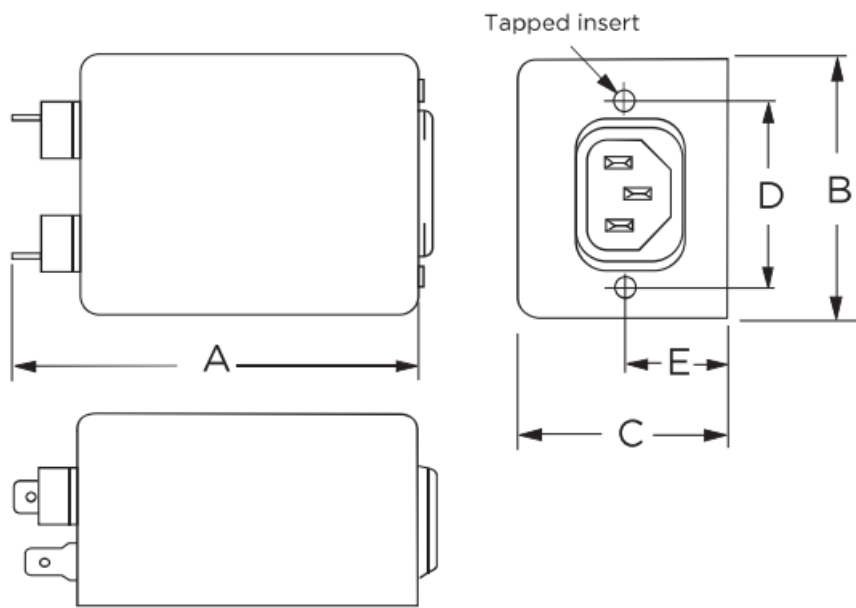
60VK6



Typical Dimensions:

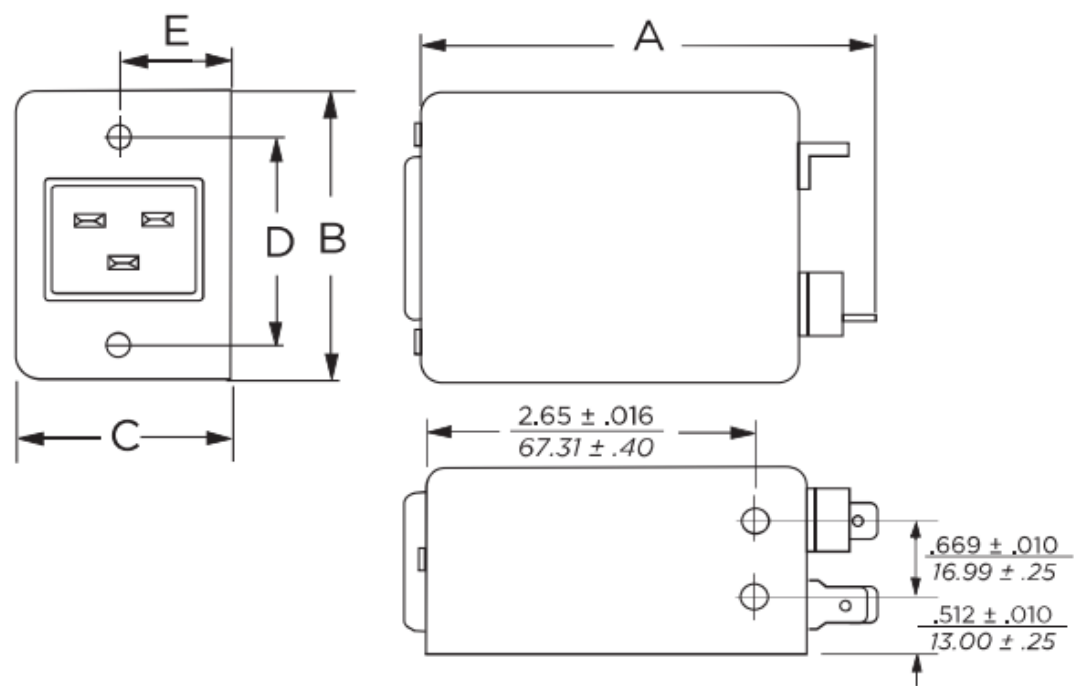
Terminals (5):	B-32, Torque 18 lbf-in. [2.03 N-m] max. ± 2 [.22]
Mounting Slots (4):	.250 x .156 [6.35 x 3.96] Dia.

K7 & K7M (3.5.10A)



Typical Dimensions:

Load Terminals (2):	.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
Line Inlet (1):	IEC 60320-1 C14
K7 Tapped Inserts (2):	6-32 x 1/4
K7M Tapped Inserts (2):	M3 x .5



Typical Dimensions:

Load Terminals (2):	.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
Line Inlet (1):	IEC 60320-1 C14
K7 Tapped Inserts (2):	6-32 x 1/4
K7M Tapped Inserts (2):	M3 x .5

Case Dimensions

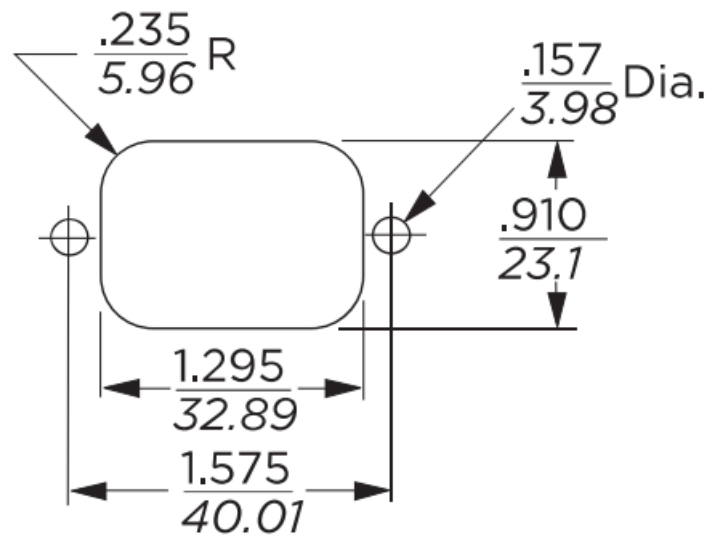
Part No.	A (max)	B (max)	C (max)	D $\pm .015$ $\pm_{38}$	E (max)
1VK1, 1EK1, 2VK1, 2EK1	3.1 78.7	2.07 52.6	0.91 23.1	2.375 60.33	2.81 74.1
1VK3, 1EK3, 2VK3, 2EK3	1.81 46.0	2.07 52.6	0.91 23.1	2.375 60.33	2.81 74.1

3VK1, 3EK1, 5VK1, 5EK1	3.10 78.7	2.07 52.6	1.16 29.5	2.375 60.33	2.81 74.1
3VK3, 3EK3, 5VK5, 5EK3	1.81 46.0	2.07 52.6	1.16 29.5	2.375 60.33	2.81 74.4
3V K7/7 M , 3EK7/7M	3.21 81.5	2.25 57.2	1.28 32.5	1.575 40.01	0.63* 16.0*
5VK7/7M, 5EK7/7M	3.21 81.5	2.25 57.2	1.28 32.5	1.575 40.01	0.63* 16.0'
10VK1, 10EK1	3.35 85.1	2.07 52.6	1.16 29.5	2.375 60.33	2.81 71.4
10VK3, 10EK3 10VK6	2.07 52.6 3.46 87.9	2.07 52.6 2.07 52.6	1.16 29.5 1.16 29.5	2.375 60.33 2.375 60.33	2.81 71.4 2.81 71.4 —
10VK7/7M, 10EK7/7M	3.71 94.2	2.25 57.2	1.28 32.5	1.575 40.01	0.63* 16.0'
20V K1, 20EK1 20VK6 20VK7	3.35 85.1 3.46 87.9	2.56 65.0 2.56 65.0	1.53 38.9 1.53 38.9	2.938 74.63 2.938 — 74.63	3.35 85.1 3.35 — 85.1
	3.8 90.4	2.28 54.6	1.78 39.6	1.575 74.63	.846' 85.8'

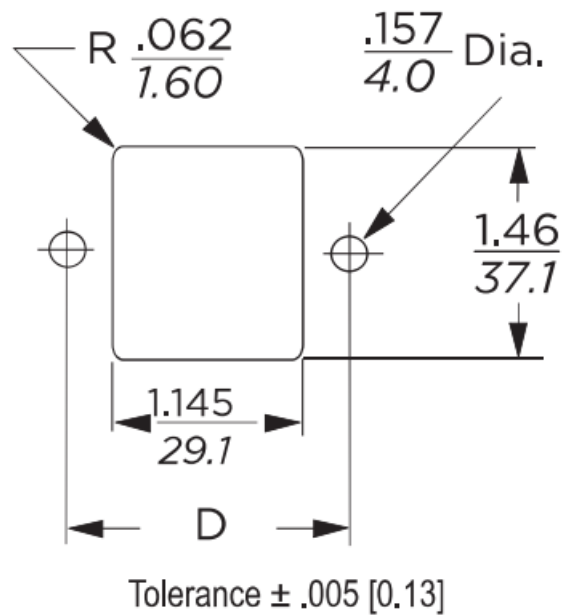
30VK6, 30VK6C	5.34 135.6	3.38 85.9	1.53 38.9	3.75 95.25	4.20 106.7
40VK6, 40VK6C	134 135.6	3.38 85.9	1.53 38.9	3.75 95.25	4.20 106.7
60VK6	6.0 152.4	3.38 85.9	1.53 38.9	3.75 95.25	4.20 106.7,

Recommended panel Cutouts

K7 & K7M Cutout (3, 5, 10A)



20VK7 Cutout

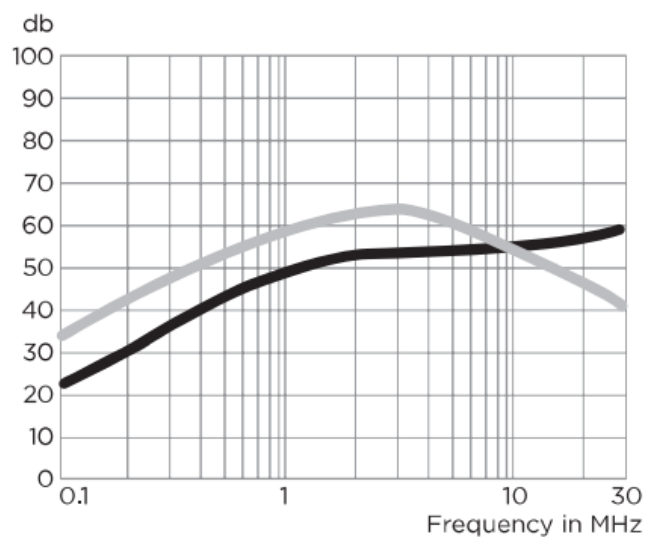


Performance Data

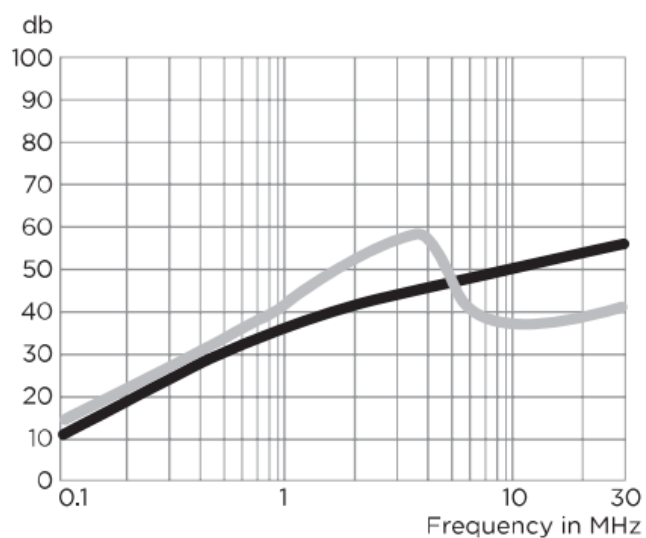
Typical Insertion Loss

Measured in closed 50 Ohm system

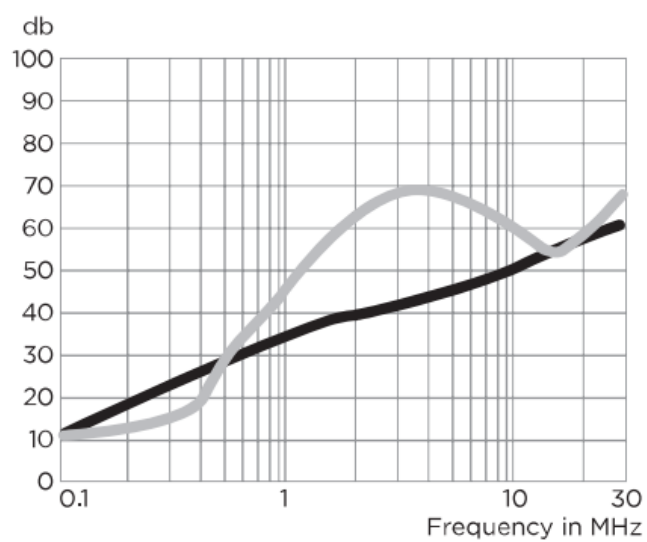
1 & 3EK



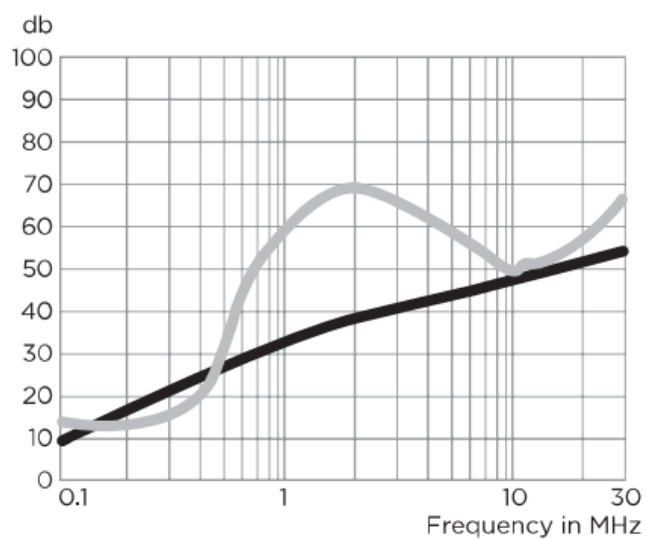
2 & 10EK



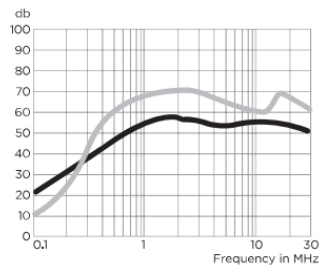
5EK



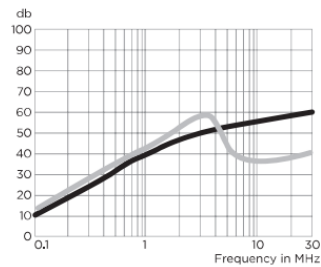
20EK



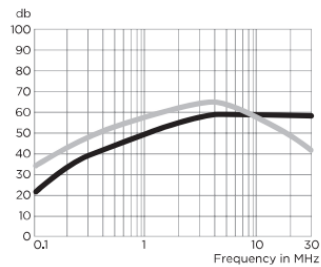
1VK



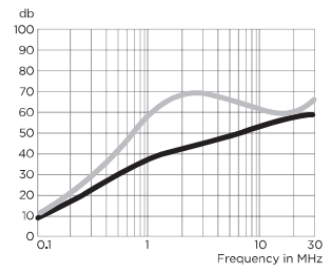
2VK



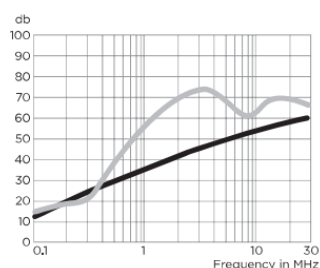
3VK



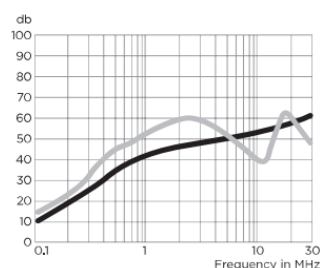
5VK



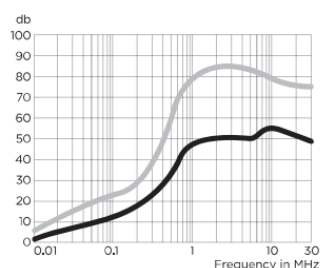
10VK



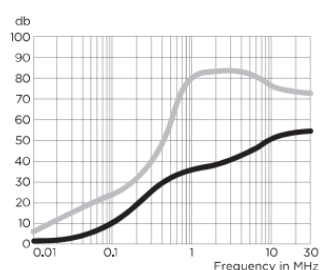
20VK



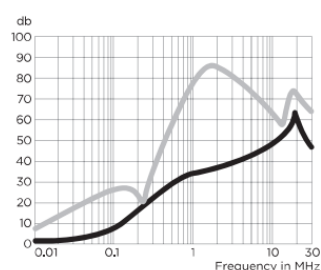
30VK & 30VK6C



40VK & 40VK6C



60VK



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

	Frequency – MHz					
Current Rating	0.15	0.5	1	5	10	30
Vk Models						
1, A	15	30	30	50	50	50
2,A 5A, 10,A	6	19	38	42	45	50
20A	6	19	28	42	45	50
30A, 40A	6	19	28	42	45	50
60A	6	22	28	32	39	35
Ek Models						
1A,3A	15	29	35	45	45	50
2A,5A,10A	8	19	25	38	40	45
20A	8	19	25	38	40	45

	Frequency – MHz					
Current Rating	0.15	0.5	1	5	10	30
Vk Models						
1A,3A	–	–	48	55	50	35
2,A 5A, 10,A	–	–	30	50	30	30
20A	6	6	30	50	30	30
30A, 40A	2	40	60	65	57	55
60A	13	49	67	57	53	53
Ek Models						
1A,3A	–	–	48	55	50	35
2,A 5A, 10,A	–	–	30	50	30	30
20A	6	6	30	50	30	30

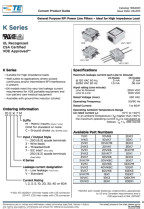
Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents. Dimensions are shown for reference purposes only. Specifications are subject to change.

For email, phone or live chat, please go to

te.com/help

corcom.com

Documents / Resources

	TE connectivity VK6 K Series Corcom General Purpose RFI Power Line Filter [pdf] User Guide VK6, K Series, Corcom General Purpose RFI Power Line Filter, K Series Corcom General Purpose RFI Power Line Filter, VK6 K Series Corcom General Purpose RFI Power Line Filter
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