

Catalog: 1654001 Issue Date: 08.2010

#### **Enhanced Differential Mode Performance K Series RFI Line Filters**

## **DK Series**



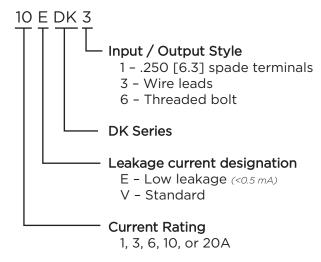
UL Recognized CSA Certified VDE Approved



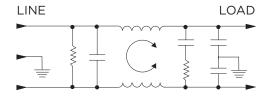
#### **DK Series**

- Higher performance Line to Line attenuation than the K Series
- E version meets the low leakage current requirements of VDE portable equipment and non-patient care equipment
- V version features same high performance with more cost-effective design

## **Ordering Information**



## **Electrical Schematic**



## **Specifications**

Maximum leakage current each Line to Ground:

	VDK Models	<b>EDK Models</b>
@ 120 VAC 60 Hz:	.4 mA	.22 mA
@250 VAC 50 Hz:	.7 mA	.38 mA

Hipot rating (one minute):

nipot 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 20A

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 Numbers**

1VDK1	1EDK1
1VDK3	1EDK3
3VDK1	3EDK1
3VDK3	3EDK3
6VDK1	6EDK1
6VDK3	6EDK3
10VDK1	10EDK1
10VDK3	10EDK3
20VDK1	20EDK1
20VDK6	

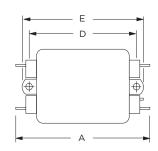


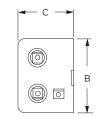
#### **Enhanced Differential Mode K Series RFI Power Line Filters** (continued)

# **DK Series**

#### **Case Styles**

#### VDK1 / EDK1





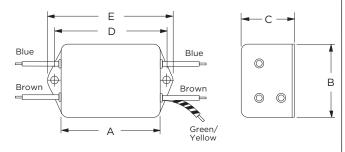
Typical Dimensions:

Line/Load Terminals (4): Ground Terminal (1): Mounting Holes (2):

.250 [6.3] with .07 [1.8] Dia. hole .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

2): .188 [*4.75*] Dia.

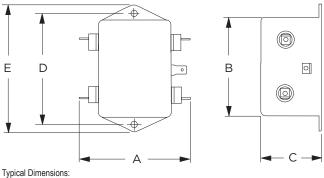
## VDK3 / EDK3



Typical Dimensions:

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

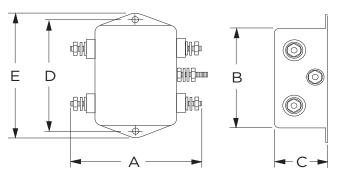
#### 20VDK1 / 20EDK1



Line/Load Terminals (4): Ground Terminal (1): .250 [6.3] with .07 [1.8] Dia. hole .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

Mounting Holes (4): .188 [4.75] Dia.

#### **20VDK6**



Typical Dimensions:

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

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#### **Case Dimensions**

Part No.	Α	В	С	D	Е
Part No.	(max)	(max)	(max)	± .015 ± .38	(max)
1VDK1, 1EDK1	3.35	2.07	1.16	2.375	2.81
IVDKI, IEDKI	85.1	52.6	29.5	60.33	71.4
1VDK3, 1EDK3	2.07	2.07	1.16	2.375	2.81
IVDKS, IEDKS	52.6	52.6	29.5	60.33	71.4
3VDK1, 3EDK1,	3.85	2.07	1.16	2.938	3.35
6VDK1, 6EDK1	97.8	52.6	29.5	74.63	85.1
3VDK3, 3EDK3,	2.56	2.07	1.16	2.938	3.35
6VDK3, 6EDK3	65.0	52.6	29.5	74.63	85.1
10VDK1,	3.85	2.07	1.32	2.938	3.35
10EDK1	97.8	52.6	33.5	74.63	85.1
10VDK3,	2.57	2.07	1.32	2.938	3.35
10EDK3	65.3	52.6	33.5	74.63	85.1
20VDK1,	3.85	2.58	1.78	2.938	3.35
20EDK1	97.8	65.5	45.2	74.63	85.1
20VDK6	3.46	2.58	1.78	2.938	3.35
20 V D N O	87.9	65.5	45.2	74.63	85.1



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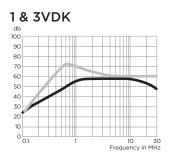
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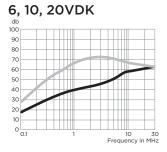
## **DK Series**

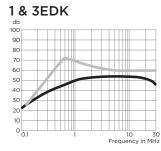
#### **Performance Data**

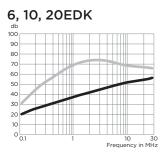
## **Typical Insertion Loss**

Measured in closed 50 Ohm system









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

## **Minimum Insertion Loss**

Measured in closed 50 Ohm system

Common Mode / Asymmetrical (Line to Ground)

Current	Frequency – MHz					
Rating	.15	.5	1	5	10	30
VDK Models						
1A, 3A	18	30	40	48	48	40
6A, 10A, 20A	10	22	30	39	44	50
EDK Models						
1A, 3A	17	27	33	45	45	40
6A, 10A, 20A	10	19	25	34	40	46

Differential Mode / Symmetrical (Line to Line)

Current	Frequency – MHz					
Rating	.15	.5	1	5	10	30
VDK & EDK Mode	els					
1A, 3A	18	47	62	60	50	45
6A, 10A, 20A	20	43	55	65	60	55