

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

# DK Series



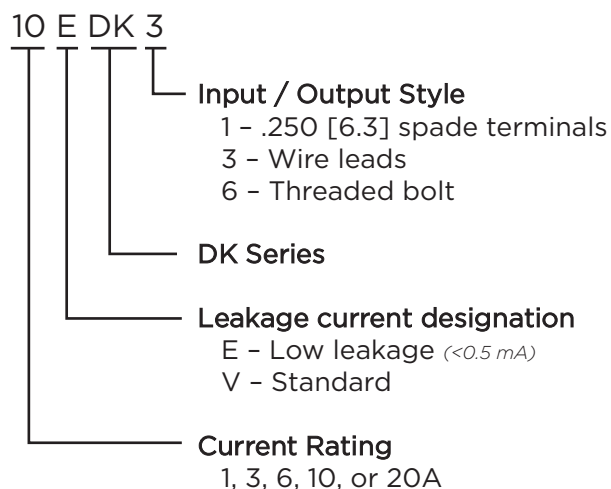
UL Recognized  
CSA Certified  
VDE Approved



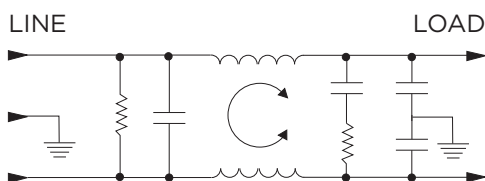
## DK Series

- 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:

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

### Hipot 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  $I_r$ ):  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$   
In an ambient temperature ( $T_a$ ) higher than  $+40^{\circ}\text{C}$   
the maximum operating current ( $I_o$ ) is calculated as  
follows:  $I_o = I_r \sqrt{(85-T_a)/45}$

## Available Part Numbers

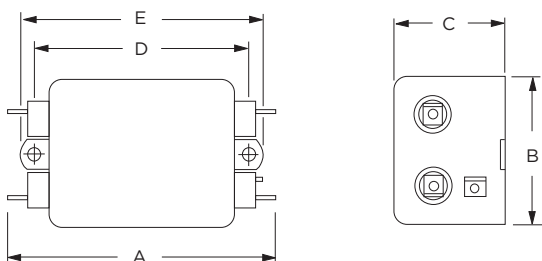
1VVK1	1EDK1
1VVK3	1EDK3
3VVK1	3EDK1
3VVK3	3EDK3
6VVK1	6EDK1
6VVK3	6EDK3
10VVK1	10EDK1
10VVK3	10EDK3
20VVK1	20EDK1
20VVK6	

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

# DK Series

## Case Styles

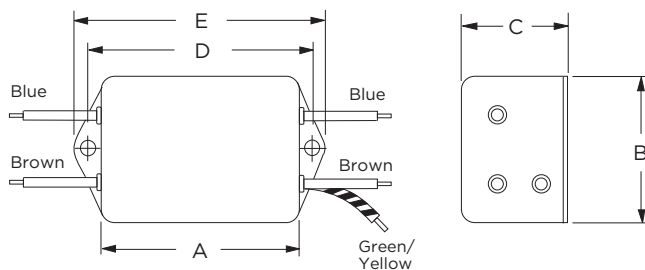
### VDK1 / EDK1



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.

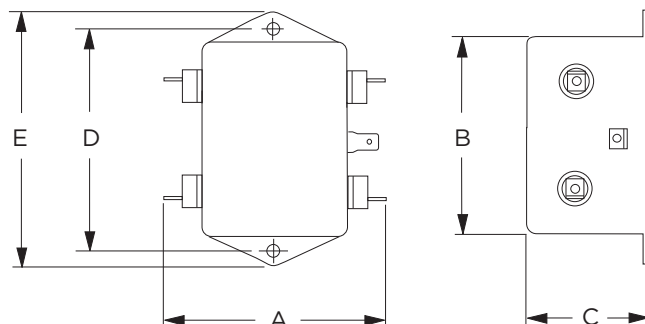
### VDK3 / EDK3



Typical Dimensions:

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

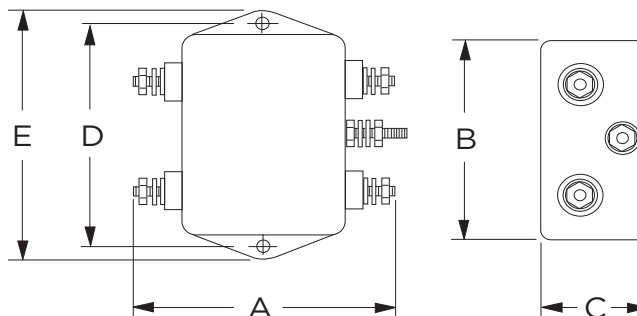
### 20VVK1 / 20EDK1



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 (4): .188 [4.75] Dia.

### 20VVK6



Typical Dimensions:

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

## Case Dimensions

Part No.	A (max)	B (max)	C (max)	D $\pm .015$ $\pm .38$	E (max)
1VVK1, 1EDK1	<b>3.35</b> 85.1	<b>2.07</b> 52.6	<b>1.16</b> 29.5	<b>2.375</b> 60.33	<b>2.81</b> 71.4
1VVK3, 1EDK3	<b>2.07</b> 52.6	<b>2.07</b> 52.6	<b>1.16</b> 29.5	<b>2.375</b> 60.33	<b>2.81</b> 71.4
3VVK1, 3EDK1, 6VVK1, 6EDK1	<b>3.85</b> 97.8	<b>2.07</b> 52.6	<b>1.16</b> 29.5	<b>2.938</b> 74.63	<b>3.35</b> 85.1
3VVK3, 3EDK3, 6VVK3, 6EDK3	<b>2.56</b> 65.0	<b>2.07</b> 52.6	<b>1.16</b> 29.5	<b>2.938</b> 74.63	<b>3.35</b> 85.1
10VVK1, 10EDK1	<b>3.85</b> 97.8	<b>2.07</b> 52.6	<b>1.32</b> 33.5	<b>2.938</b> 74.63	<b>3.35</b> 85.1
10VVK3, 10EDK3	<b>2.57</b> 65.3	<b>2.07</b> 52.6	<b>1.32</b> 33.5	<b>2.938</b> 74.63	<b>3.35</b> 85.1
20VVK1, 20EDK1	<b>3.85</b> 97.8	<b>2.58</b> 65.5	<b>1.78</b> 45.2	<b>2.938</b> 74.63	<b>3.35</b> 85.1
20VVK6	<b>3.46</b> 87.9	<b>2.58</b> 65.5	<b>1.78</b> 45.2	<b>2.938</b> 74.63	<b>3.35</b> 85.1

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

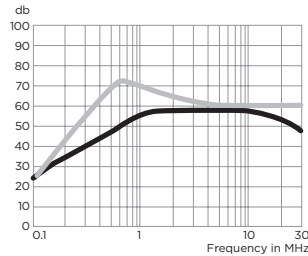
# DK Series

## Performance Data

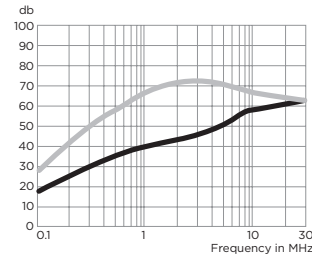
### Typical Insertion Loss

Measured in closed 50 Ohm system

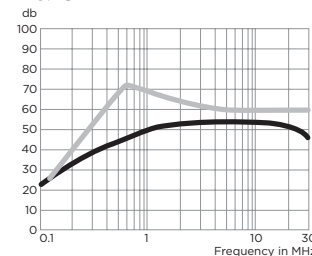
**1 & 3VDK**



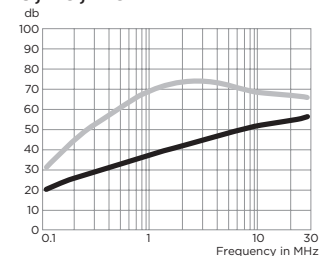
**6, 10, 20VDK**



**1 & 3EDK**



**6, 10, 20EDK**



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

Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz					
	.15	.5	1	5	10	30
<b>VDK &amp; EDK Models</b>						
1A, 3A	18	47	62	60	50	45
6A, 10A, 20A	20	43	55	65	60	55