

# K Series

**General Purpose RFI Power Line Filters**  
**Best Buy for High Impedance Load**  
**20, 30, 40A Models**

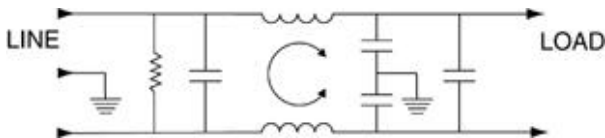


**UL Recognized**  
**CSA Certified**  
**VDE Approved**

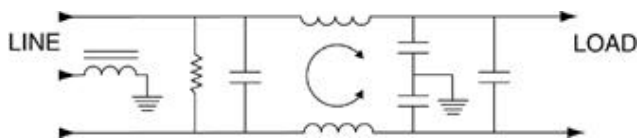
## K Series

The K series RFI power line filters are general purpose common-mode and differential-mode filters. They are effective in the control of line-to-line as well as line-to-ground RFI interference. The K series RFI filters are particularly suited in applications where pulsed, continuous and/or intermittent RFI interference is present. The EK models meet the very low leakage current requirements of VDE portable equipment, and (120 Volt) UL544 nonpatient medical equipment.

## Electrical Schematics



**30VK6C Model** (Inductor in Ground Line)



Resistor location for reference only.



## Specifications

| Maximum leakage current, each line-to-ground | VK Models | EK 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: | 120/250 VAC |
|----------------|-------------|

| Rated current: | @120 VAC | @ 250 VAC |
|----------------|----------|-----------|
| 20VK/20EK      | 20A      | 16A       |
| 30VK6/30VK6C   | 30A      | 25A       |
| 40VK6/40VK6C   | 40A      | 36A       |

**Minimum** insertion loss in dB:  
Line-to-ground in 50 ohm circuit

| Current Rating | Frequency-MHz |    |   |   |    |    |
|----------------|---------------|----|---|---|----|----|
|                | .15           | .5 | 1 | 5 | 10 | 30 |

### VK Models

|               |   |    |    |    |    |    |
|---------------|---|----|----|----|----|----|
| 20A, 30A, 40A | 6 | 19 | 28 | 42 | 45 | 50 |
|---------------|---|----|----|----|----|----|

### EK Models

|     |   |    |    |    |    |    |
|-----|---|----|----|----|----|----|
| 20A | 8 | 19 | 25 | 38 | 40 | 45 |
|-----|---|----|----|----|----|----|

Line-to-line in 50 ohm circuit

| Current Rating | Frequency-MHz |    |   |   |    |    |
|----------------|---------------|----|---|---|----|----|
|                | .15           | .5 | 1 | 5 | 10 | 30 |

### VK Models

|     |   |    |    |    |    |    |
|-----|---|----|----|----|----|----|
| 20A | 6 | 6  | 30 | 50 | 30 | 30 |
| 30A | 2 | 40 | 60 | 65 | 57 | 55 |
| 40A | 2 | 40 | 60 | 65 | 57 | 55 |

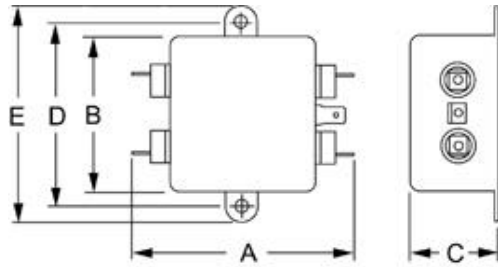
### EK Models

|          |   |   |    |    |    |    |
|----------|---|---|----|----|----|----|
| 20A, 30A | 6 | 6 | 30 | 50 | 30 | 30 |
|----------|---|---|----|----|----|----|

## Case Styles

Metric shown in italics.

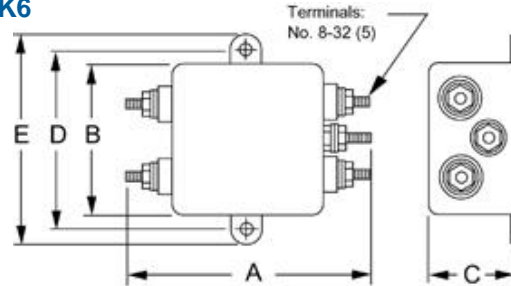
### 20EK1/20VK1



Typical dimensions

Terminals:  $\frac{.250}{6.35}$  (5) Holes:  $\frac{.07}{1.8}$  Dia. (4) Slot:  $\frac{.07 \times .16}{1.8 \times 4.1}$  Mounting holes:  $\frac{.188}{4.78}$  Dia. (2)

### 20VK6

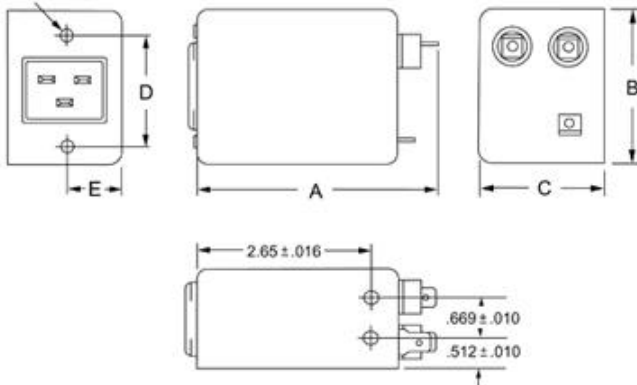


Typical dimensions

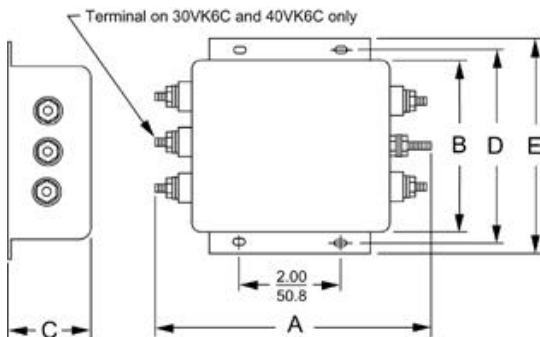
Mounting holes:  $\frac{.188}{4.78}$  Dia. (2) Torque:  $18 \pm 2$  in.lb.

### 20VK7

Insert (4): 6-32



### 30VK6 & 30VK6C, 40VK6 & 40VK6C



Typical Dimensions

Mounting holes:  $\frac{.188}{4.78}$  Dia. (2) Slots:  $\frac{.250}{6.35} \times \frac{.156}{3.96}$  (4) Terminals: No. 8-32 (5)

Torque:  $18 \pm 2$  in.lb.

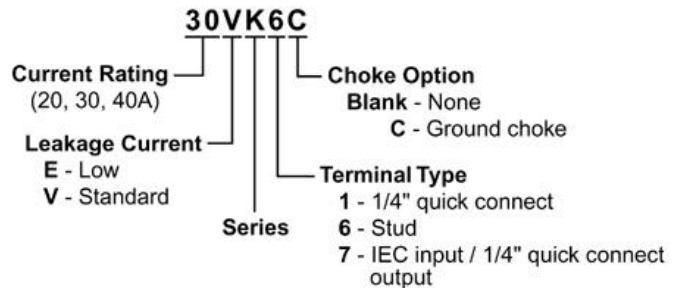
## Case Dimensions

Metric shown in italics.

| Part No.        | A<br>(max)           | B<br>(max)          | C<br>(max)          | D<br>$\pm .015$<br>$\pm .38$ | E<br>(max)                           |
|-----------------|----------------------|---------------------|---------------------|------------------------------|--------------------------------------|
| 20VK1,<br>20EK1 | $\frac{3.35}{85.1}$  | $\frac{2.56}{65.0}$ | $\frac{1.53}{38.9}$ | $\frac{2.938}{74.63}$        | $\frac{3.35}{85.1}$                  |
| 20VK6           | $\frac{3.46}{87.9}$  | $\frac{2.56}{65.0}$ | $\frac{1.53}{38.9}$ | $\frac{2.938}{74.63}$        | $\frac{3.35}{85.1}$                  |
| 20VK7           | $\frac{3.8}{96.52}$  | $\frac{2.28}{57.9}$ | $\frac{1.78}{50.8}$ | $\frac{1.575}{40.39}$        | $\frac{.846 \pm .01}{21.49 \pm .25}$ |
| 30VK6           | $\frac{5.34}{135.6}$ | $\frac{3.38}{85.9}$ | $\frac{1.53}{38.9}$ | $\frac{3.75}{95.25}$         | $\frac{4.2}{106.7}$                  |
| 30VK6C          | $\frac{5.34}{135.6}$ | $\frac{3.38}{85.9}$ | $\frac{1.53}{38.9}$ | $\frac{3.75}{95.25}$         | $\frac{4.2}{106.7}$                  |
| 40VK6           | $\frac{5.34}{135.6}$ | $\frac{3.38}{85.9}$ | $\frac{1.53}{38.9}$ | $\frac{3.75}{95.25}$         | $\frac{4.2}{106.7}$                  |
| 40VK6C          | $\frac{5.34}{135.6}$ | $\frac{3.38}{85.9}$ | $\frac{1.53}{38.9}$ | $\frac{3.75}{95.25}$         | $\frac{4.2}{106.7}$                  |

## Ordering Information

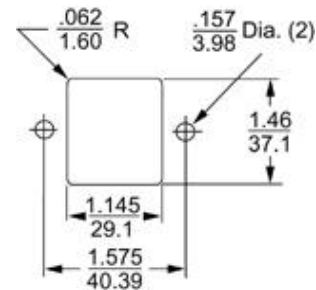
Consult your local Corcom sales representative for pricing.



## Available Part Numbers

|       |        |
|-------|--------|
| 20VK1 | 30VK6  |
| 20EK1 | 30VK6C |
| 20VK6 | 40VK6  |
| 20VK7 | 40VK6C |

## Recommended Panel Cutout



Panel Cutout (back mount)