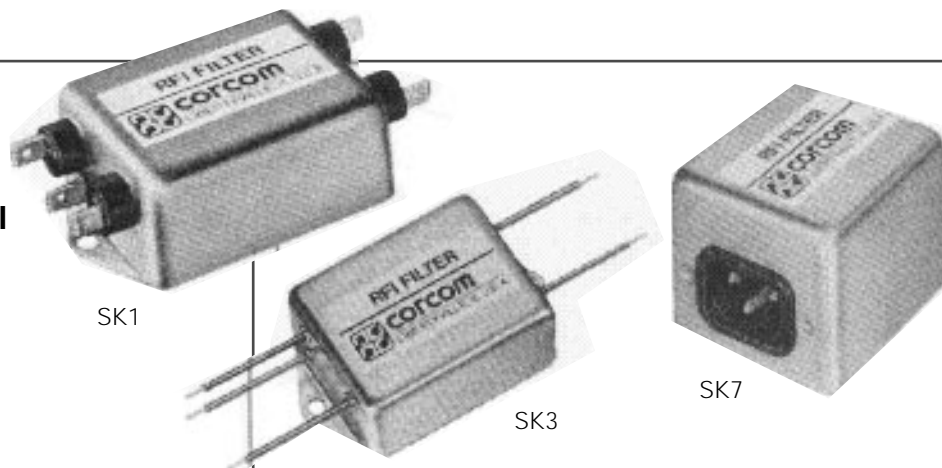


SK Series

3, 6, & 10 Amp
Smallest, Lowest-Cost
RFI Power Line Filters
for SMPS Emission Control



UL Recognized
CSA Certified
VDE Approved
SEV Approved*



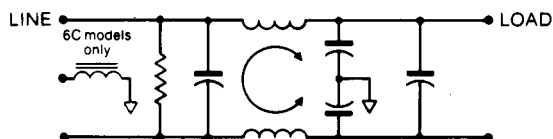
SK Series – 3, 6 & 10 Amp Models

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 SEV, VDE portable equipment and (120 Volt) UL 544 nonpatient medical equipment.

Electrical Schematic



Resistor location for reference only.

Line Cord

Line Cord No. GA400:

71/2 foot, 3-conductor line cord to mate with SK7 models.

20 and 30 amp SK models on page 72.

*ESK models only.

Specifications

| | VSK Models | ESK Models |
|--|------------------|------------------|
| Maximum leakage current, each line-to-ground | | |
| @ 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: | <u>@ 120 VAC</u> | <u>@ 250 VAC</u> |
| 3VSK/3ESK | 3A | 3A |
| 6VSK/6ESK | 6A | 5A |
| 10VSK/10ESK | 10A | 8A |
| Maximum current rated peaks: | | |
| 3VSK/3ESK | 10A | |
| 6VSK/6ESK | 18A | |
| 10VSK/10ESK | 30A | |

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

| Current Rating | Frequency—MHz | | | | | | | | |
|----------------|---------------|-----|----|-----|----|---|---|----|----|
| | .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 | Frequency—MHz | | | | | | | | |
|----------------|---------------|-----|----|-----|----|---|---|----|----|
| | .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

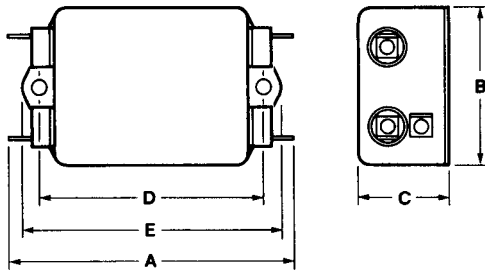
ESK

3A, 6A 1 3 10 25 59 65 62 40 40
10A 1 3 3 10 55 65 65 65 45

Case Styles

Metric shown in italics.

SK1

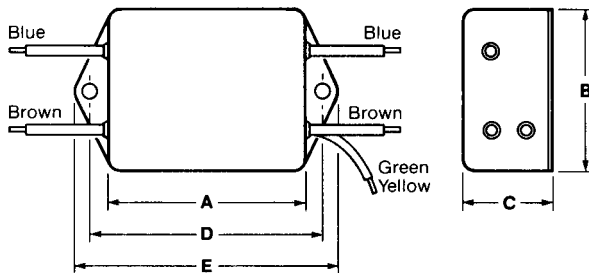


Typical dimensions

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)

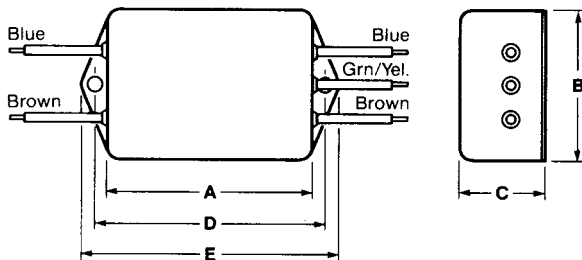
3A-SK3



Typical dimensions

Wire leads: $\frac{4.0}{101.6}$ Min. Mounting holes: $\frac{.188}{4.78}$ Dia. (2)

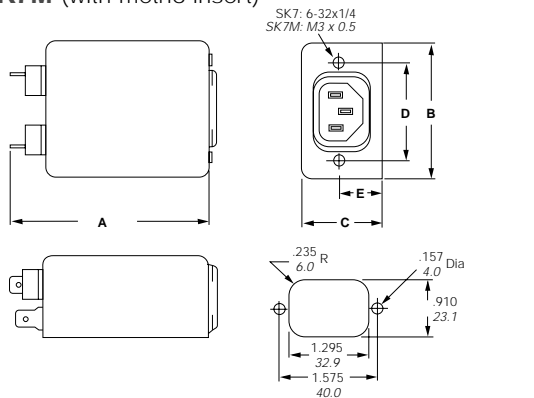
6A & 10A-SK3



Typical dimensions

Wire leads: $\frac{4.0}{101.6}$ Min. Mounting holes: $\frac{.188}{4.78}$ Dia. (2)

SK7 & SK7M (with metric insert)



Typical dimensions

Terminals: $\frac{.250}{6.35}$ (3) Holes: $\frac{.07}{1.8}$ Dia.(2)

Slot: $\frac{.07 \times .16}{1.8 \times 4.1}$

Case Dimensions

Metric shown in italics.

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

† $\pm .02$
 $\pm .5$

Pricing

Consult your local Corcom sales representative for pricing.

| Part No. | Part No. | Unit Price |
|----------|----------|------------|
| 3VSK1 | 3ESK1 | |
| 3VSK3 | 3ESK3 | |
| 3VSK7 | 3ESK7 | |
| 3VSK7M | 3ESK7M | |
| 6VSK1 | 6ESK1 | |
| 6VSK3 | 6ESK3 | |
| 6VSK7 | 6ESK7 | |
| 6VSK7M | 6ESK7M | |
| 10VSK1 | 10ESK1 | |
| 10VSK3 | 10ESK3 | |
| 10VSK7 | 10ESK7 | |
| 10VSK7M | 10ESK7M | |

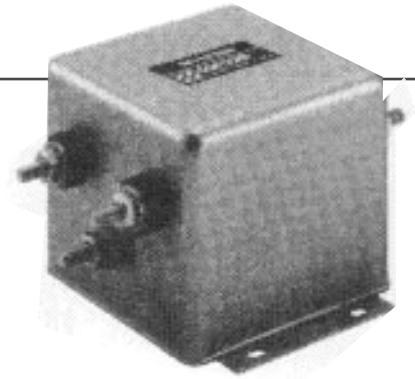
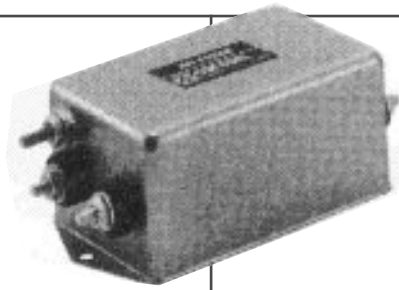
Line Cord No. GA400

SK Series

20, 30 and 40 Amp
High Performance K Series
RFI Power Line Filters



UL Recognized
CSA Certified
VDE Approved*



SK Series

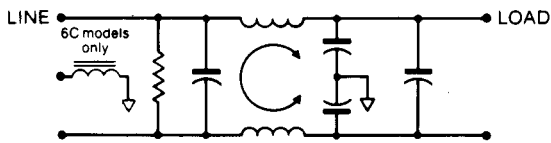
This series of RFI filters was designed to reduce conducted noise to acceptable limits for equipment that must comply with the FCC specifications in the USA and CISPR specifications in Europe.

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 SEV, VDE portable equipment and (120 Volt) UL544 nonpatient 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.

*40VSK6 in process

Specifications

| | VSK Models | ESK Models |
|--|------------------|------------------|
| Maximum leakage current, each line-to-ground | | |
| @ 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: | | 120/250 VAC |
| Rated current: | @ 120 VAC | @ 250 VAC |
| 20ESK/20VSK | 20A | 16A |
| 30ESK/30VSK | 30A | 25A |
| 40VSK | 40A | 36A |

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

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

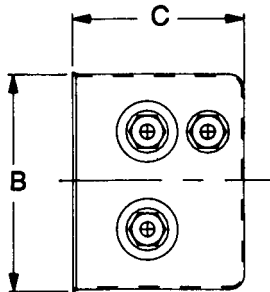
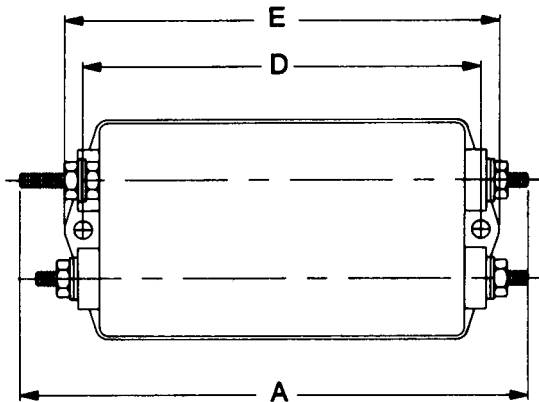
Line-to-line in 50 ohm circuit

| Frequency MHz | VSK 20A | VSK 30A | VSK 40A | ESK 20A | ESK 30A |
|---------------|---------|---------|---------|---------|---------|
| .01 | 1 | 5 | 7 | 1 | 5 |
| .08 | 10 | 13 | 14 | 10 | 12 |
| .10 | 8 | 13 | 16 | 8 | 12 |
| .15 | 8 | 18 | 30 | 8 | 18 |
| .5 | 45 | 27 | 65 | 45 | 60 |
| 1 | 60 | 31 | 65 | 60 | 60 |
| 5 | 65 | 46 | 65 | 65 | 51 |
| 10 | 60 | 51 | 57 | 60 | 43 |
| 30 | 60 | 39 | 50 | 60 | 43 |

Case Styles

Metric shown in italics.

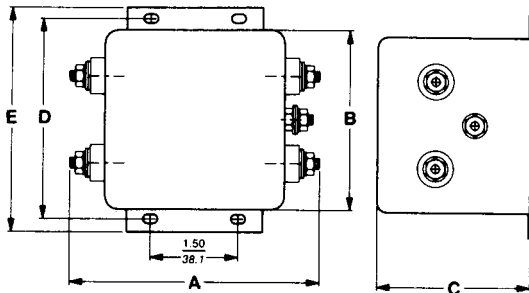
20ESK6 & 20VSK6



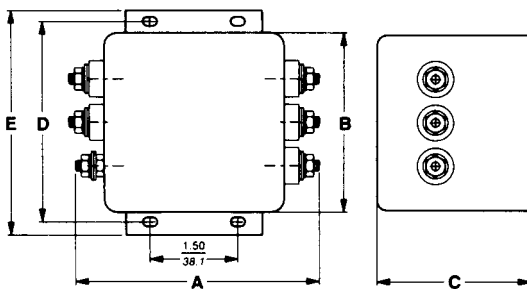
Holes: $\frac{.187}{4.75}$ Terminals: No. 8-32

Torque 18 ± 2 in.lb.

30ESK6 & 30VSK6



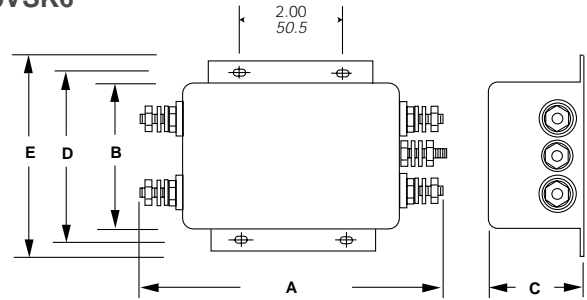
30ESK6C & 30VSK6C



Mounting slots: $\frac{.250 \times .156}{6.35 \times 3.96}$ Terminals: 8-32

Torque 27 ± 3 in.lb.

40VSK6



Terminals (5): 10-32 Torque: 27 ± 3 in. lbs.

Mounting slots (4): $\frac{.203 \times .156}{5.16 \times 3.96}$

Case Dimensions

Metric shown in italics.

| Part No. | A (max) | B (max) | C (max) | D $\pm .015$ $\pm .38$ | E (max) |
|----------|--------------|--------------|--------------|------------------------------|--------------|
| 20ESK6, | <i>5.09</i> | <i>2.25</i> | <i>1.78</i> | <i>4.063</i> | <i>4.46</i> |
| 20VSK6 | <i>127.3</i> | <i>57.2</i> | <i>45.2</i> | <i>103.2</i> | <i>129.3</i> |
| Part No. | A (max) | B (max) | C (max) | D $\pm .020$ $\pm .51$ | E (max) |
| 30ESK6, | <i>4.92</i> | <i>3.12</i> | <i>2.75</i> | <i>3.437</i> | <i>4.0</i> |
| 30ESK6C | <i>125.0</i> | <i>79.25</i> | <i>69.85</i> | <i>87.3</i> | <i>101.6</i> |
| 30VSK6, | <i>4.92</i> | <i>3.12</i> | <i>2.75</i> | <i>3.437</i> | <i>4.0</i> |
| 30VSK6C | <i>125.0</i> | <i>79.25</i> | <i>69.85</i> | <i>87.3</i> | <i>101.6</i> |
| 40VSK6 | <i>6.0</i> | <i>3.12</i> | <i>2.18</i> | <i>3.5</i> | <i>3.96</i> |
| | <i>152.4</i> | <i>79.25</i> | <i>55.4</i> | <i>88.9</i> | <i>100.6</i> |

Pricing

Consult your local Corcom sales representative for pricing.

| Part No. | Part No. |
|----------|----------|
| 20ESK6 | 30VSK6 |
| 20VSK6 | 30VSK6C |
| 30ESK6 | 40VSK6 |
| 30ESK6C | |

Line Cord No. GA400