

High Performance RFI Filters for Switching Power Supplies

# G Series



UL Recognized  
CSA Certified  
VDE Approved



## G Series

The G series RFI filters are designed to provide excellent common-mode and differential-mode attenuation for most digital electronic equipment (particularly switching power supplies) over the frequency range of 20kHz to 30MHz.

These filters are a size- and cost-effective solution for equipment that must meet the conducted emission limits of EN55022 Level A requirements, as well as FCC Part 15J, Class B.

The EG models also meet the very low leakage current requirements for VDE portable equipment as well as (120 volt) UL 544 non-patient medical equipment.

## Specifications

|  |                  |                  |        |
|--|------------------|------------------|--------|
| Maximum leakage current, each line-to-ground | <b>EG Models</b> | <b>VG Models</b> |        |
|  | @ 120 VAC 60 Hz: | .30 mA           | 1.2 mA |
|  | @ 250 VAC 50 Hz: | .50 mA           | 2.0 mA |
| <b>Hipot rating (one minute):</b>            | line-to-ground   | 2250 VDC         |        |
|  | line-to-line     | 1450 VDC         |        |
| <b>Operating frequency:</b>                  | 50/60 Hz         |                  |        |
| <b>Rated voltage (max.):</b>                 | 250 VAC          |                  |        |
| <b>Rated current:</b>                        | 6EG1/6VG1        | 6A               |        |
|  | 10EG1/10VG1      | 10A              |        |

### Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

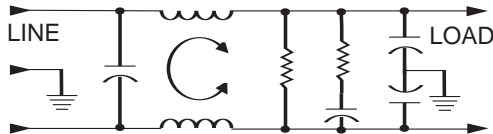
| Current Rating | Frequency-MHz |     |     |    |     |    |    |    |    |    |
|----------------|---------------|-----|-----|----|-----|----|----|----|----|----|
|                | .01           | .05 | .07 | .1 | .15 | .5 | 1  | 5  | 10 | 30 |
| <b>EG1</b>     |               |     |     |    |     |    |    |    |    |    |
| 6A             | 6             | 19  | 23  | 25 | 29  | 48 | 44 | 43 | 40 | 40 |
| 10A            | 8             | 10  | 15  | 18 | 42  | 64 | 65 | 65 | 60 | 60 |
| <b>VG1</b>     |               |     |     |    |     |    |    |    |    |    |
| 6A             | 4             | 18  | 21  | 25 | 30  | 56 | 55 | 53 | 45 | 45 |
| 10A            | 5             | 10  | 24  | 37 | 50  | 72 | 70 | 70 | 60 | 60 |

Line-to-line in 50 ohm circuit

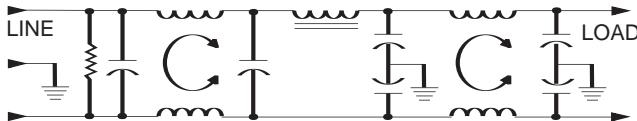
| Current Rating | Frequency-MHz |     |     |    |     |    |    |    |    |    |
|----------------|---------------|-----|-----|----|-----|----|----|----|----|----|
|                | .01           | .05 | .07 | .1 | .15 | .5 | 1  | 5  | 10 | 30 |
| <b>EG1</b>     |               |     |     |    |     |    |    |    |    |    |
| 6A             | 4             | 6   | 10  | 24 | 37  | 66 | 75 | 72 | 50 | 50 |
| 10A            | 5             | 5   | 5   | 26 | 40  | 65 | 65 | 60 | 70 | 70 |
| <b>VG1</b>     |               |     |     |    |     |    |    |    |    |    |
| 6A             | 4             | 7   | 7   | 26 | 39  | 67 | 75 | 68 | 55 | 55 |
| 10A            | 5             | 5   | 7   | 26 | 39  | 65 | 60 | 60 | 70 | 70 |

## Electrical Schematics

### 6EG & 6VG Models



### 10EG & 10VG Models

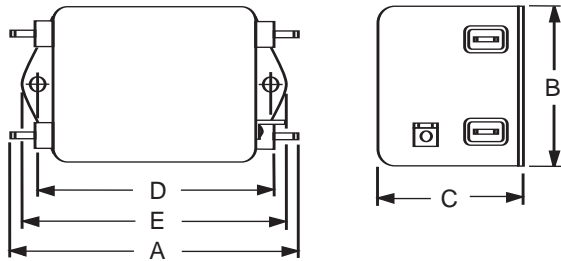


Resistor location for reference only.

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## Case Style

### EG1 & VG1



Typical dimensions:  
 Terminals: .250 [6.35] (5) Holes: .07 [1.8] Dia.(4) Slot: .07 x .16 [1.8 x 4.1]  
 Mounting holes: .188 [4.78] Dia. (2)

## Case Dimensions

| Part No.  | A<br>(max)                  | B<br>(max)                 | C<br>(max)                 | D<br>$\frac{\pm .015}{\pm .38}$ | E<br>(max)                  |
|-----------|-----------------------------|----------------------------|----------------------------|---------------------------------|-----------------------------|
| 6EG1/VG1  | <b>3.56</b><br><i>90.4</i>  | <b>2.15</b><br><i>54.6</i> | <b>1.56</b><br><i>39.6</i> | <b>2.938</b><br><i>74.63</i>    | <b>3.38</b><br><i>85.8</i>  |
| 10EG1/VG1 | <b>4.69</b><br><i>119.1</i> | <b>2.27</b><br><i>57.7</i> | <b>1.8</b><br><i>45.7</i>  | <b>4.063</b><br><i>103.2</i>    | <b>4.47</b><br><i>113.5</i> |

## Part Numbers

|               |               |
|---------------|---------------|
| 6EG1<br>10EG1 | 6VG1<br>10VG1 |
|---------------|---------------|