

# T Series



UL Recognized  
CSA Certified  
VDE Approved



## T Series

The T series RFI filters provide superior common-mode and premium differential-mode attenuation, exceeded only by that of Q series filters. This remarkable performance is available for current ratings up to 20 amps in package sizes smaller than comparable EP series filters. In fact, the 10-amp T is smaller than the 6-amp EP.

These filters are a size and cost-effective choice for very noisy equipment that must meet the emission limits of FCC Parts 15 and 18 or EN55022, A-level. In some cases, these filters can even bring equipment into compliance with EN55022, B-level. This performance is accomplished with circuits that still meet the very low leakage current requirements of VDE portable equipment, and (120 Volt) UL544 non-patient medical equipment

## Specifications

Maximum leakage current, each line-to-ground

|                                   | ET Models | VT Models |
|-----------------------------------|-----------|-----------|
| @ 120 VAC 60 Hz:<br>(3A, 6A, 10A) | .30 mA    | .75 mA    |
| @ 120 VAC 60 Hz:<br>(15A, 20A)    | .30 mA    | 1.2 mA    |
| @ 250 VAC 50 Hz:<br>(3A, 6A, 10A) | .50 mA    | 1.25 mA   |
| @ 250 VAC 50 Hz:<br>(15A 20A)     | .50 mA    | 2.0 mA    |

Hipot rating (one minute):

|                |          |
|----------------|----------|
| line-to-ground | 2250 VDC |
| line-to-line   | 1450 VDC |

Operating frequency:

50/60 Hz

Rated voltage (max.):

250 VAC

Rated current:

|           |     |
|-----------|-----|
| 3ET       | 3A  |
| 6ET       | 6A  |
| 10ET/10VT | 10A |
| 15ET/15VT | 15A |
| 20ET/20VT | 20A |

Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

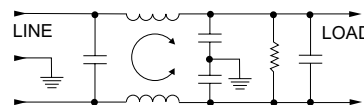
| Current Rating   | Frequency—MHz |     |     |     |    |    |    |    |    |    |    |
|------------------|---------------|-----|-----|-----|----|----|----|----|----|----|----|
|                  | .01           | .03 | .05 | .15 | .5 | 1  | 2  | 5  | 10 | 20 | 30 |
| <b>ET Models</b> |               |     |     |     |    |    |    |    |    |    |    |
| 3A               | 22            | 32  | 36  | 46  | 47 | 44 | 43 | 40 | 42 | 42 | 42 |
| 6A               | 16            | 26  | 30  | 41  | 47 | 44 | 43 | 43 | 40 | 42 | 42 |
| 10A              | 12            | 22  | 26  | 36  | 47 | 42 | 42 | 40 | 42 | 42 | 45 |
| 15A              | 8             | 17  | 22  | 31  | 43 | 44 | 44 | 42 | 47 | 52 | 43 |
| 20A              | 3             | 12  | 17  | 26  | 34 | 36 | 37 | 37 | 42 | 47 | 38 |
| <b>VT Models</b> |               |     |     |     |    |    |    |    |    |    |    |
| 10A              | 12            | 22  | 26  | 38  | 52 | 50 | 50 | 50 | 50 | 50 | 50 |
| 15A              | 8             | 17  | 22  | 33  | 52 | 52 | 52 | 52 | 57 | 45 | 35 |
| 20A              | 3             | 12  | 17  | 29  | 42 | 47 | 50 | 51 | 55 | 40 | 30 |

Line-to-line in 50 ohm circuit

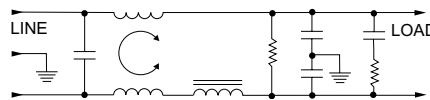
| Current Rating   | Frequency—MHz |     |     |     |    |    |    |    |    |    |    |
|------------------|---------------|-----|-----|-----|----|----|----|----|----|----|----|
|                  | .01           | .03 | .05 | .15 | .5 | 1  | 2  | 5  | 10 | 20 | 30 |
| <b>ET Models</b> |               |     |     |     |    |    |    |    |    |    |    |
| 3A               | 3             | 1   | 30  | 61  | 70 | 70 | 70 | 50 | 50 | 50 | 55 |
| 6A               | 4             | 2   | 14  | 51  | 70 | 70 | 70 | 65 | 47 | 50 | 55 |
| 10A              | 7             | 12  | 17  | 52  | 70 | 70 | 70 | 65 | 55 | 50 | 60 |
| 15A              | 12            | 19  | 15  | 51  | 70 | 70 | 70 | 70 | 70 | 65 | 60 |
| 20A              | 10            | 17  | 13  | 51  | 70 | 70 | 70 | 70 | 67 | 65 | 60 |
| <b>VT Models</b> |               |     |     |     |    |    |    |    |    |    |    |
| 10A              | 7             | 12  | 17  | 52  | 70 | 70 | 70 | 65 | 65 | 50 | 65 |
| 15A              | 12            | 19  | 15  | 51  | 70 | 70 | 70 | 70 | 70 | 65 | 60 |
| 20A              | 10            | 17  | 13  | 51  | 70 | 70 | 70 | 70 | 67 | 65 | 60 |

## Electrical Schematics

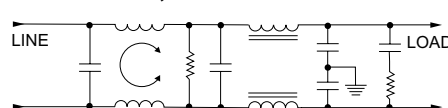
### 3ET & 6ET



### 10ET & 10VT



### 15ET & 15VT, 20ET & 20VT

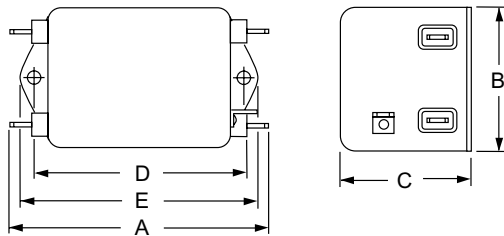


Resistor location for reference only.

# T Series

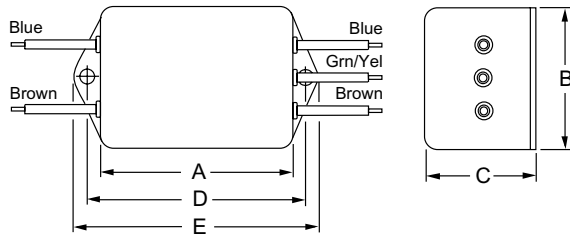
## Case Styles

### T1



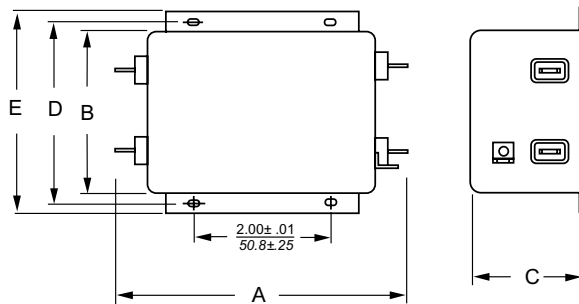
Typical dimensions:  
 Terminals: .250 [6.35] (5)  
 Slot: .07 x .16 [1.8 x 4.1]  
 Holes: .07 [1.8] Dia. (4)  
 Mounting holes: .188 [4.78] Dia. (2)

### T3



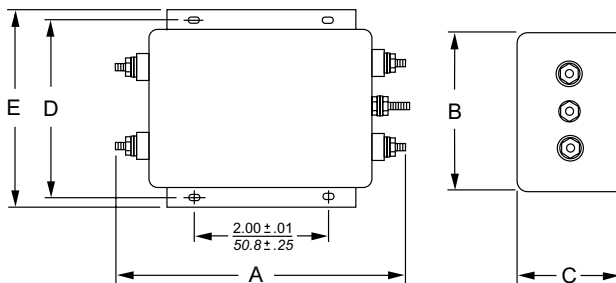
Typical dimensions:  
 Wire leads: 4.0 [101.6] Min.  
 Mounting holes: .188 [4.78] Dia. (2)

### 15A, 20A-T1



Typical dimensions:  
 Terminals: .250 [6.35] (5)  
 Slot: .07 x .16 [1.8 x 4.1]  
 Holes: .07 [1.8] Dia. (4)  
 Mounting holes: .203 x .156 [5.16 x 3.96] Dia. (4)

### 15A, 20A-T6



Typical dimensions:  
 Terminals: No. 8-32  
 Torque: 18 ± 2 in.lb

## Case Dimensions

| Part No.                      | A<br>(max)    | B<br>(max)   | C<br>(max)   | D<br>$\pm .015$<br>$\pm .38$ | E<br>(max)     |
|-------------------------------|---------------|--------------|--------------|------------------------------|----------------|
| 3ET1, 6ET1                    | 3.56<br>90.4  | 2.15<br>54.6 | 1.81<br>46.0 | 2.938<br>74.63               | 3.38<br>85.9   |
| 3ET3, 6ET3                    | 2.55<br>64.8  | 2.15<br>54.6 | 1.81<br>46.0 | 2.938<br>74.63               | 3.38<br>85.9   |
| 3ET7, 6ET7                    | 3.52<br>89.4  | 2.25<br>57.2 | 1.78<br>45.2 | 1.575<br>40.01               | 0.63 †<br>16.0 |
| 10ET1, 10VT1                  | 4.69<br>119.1 | 2.27<br>57.7 | 1.80<br>45.7 | 4.063<br>103.2               | 4.47<br>113.5  |
| 10ET3, 10VT3                  | 3.69<br>93.7  | 2.27<br>57.7 | 1.80<br>45.7 | 4.063<br>103.2               | 4.47<br>113.5  |
| 15ET1, 15VT1,<br>20ET1, 20VT1 | 5.45<br>138.4 | 3.12<br>79.2 | 2.18<br>55.4 | 3.500<br>88.9                | 3.96<br>100.6  |
| 15ET6, 15VT6,<br>20ET6, 20VT6 | 5.95<br>151.1 | 3.12<br>79.2 | 2.18<br>55.4 | 3.500<br>88.9                | 3.96<br>100.6  |

† ±.02 [±.5]

## Part Numbers

|      |       |       |
|------|-------|-------|
| 3ET1 | 10ET1 | 10VT1 |
| 3ET3 | 10ET3 | 10VT3 |
| 3ET7 | 15ET1 | 15VT1 |
| 6ET1 | 15ET6 | 15VT6 |
| 6ET3 | 20ET1 | 20VT1 |
| 6ET7 | 20ET6 | 20VT6 |

Line Cord No. (T7) GA400

### T7

