

High Performance RFI Power Line Filters for Medical Equipment

# HT Series



UL Recognized  
CSA Certified  
VDE Approved



## HT Series

The HT series power line filters provide superior common-mode and premium differential-mode attenuation to RFI noise on the frequency range from 10kHz to 30MHz, for IEC 60601 and UL2601 patient-connected equipment, as well as all other electronic equipment that cannot tolerate leakage current.

They are a size- and cost-effective solution to the problem of meeting both medical leakage current limits and conducted emissions limits in equipment with high noise sources (such as switching power supplies). HT series filters can meet the following Conducted Emissions standards:

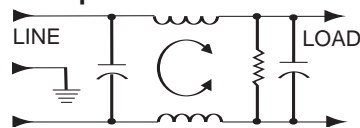
- European Normalized Standards based on EN55022, Level A (in many cases, Level B also).
- FCC Part 15, Computing Devices, Class B.
- FCC Part 18, ISM Equipment, Industrial and Consumer.

*Note: When using the models with an IEC connector, remember that the leakage current of the companion line cord, GA400, is more significant than that of the filter - which may disqualify this line cord from use in patient care applications.*

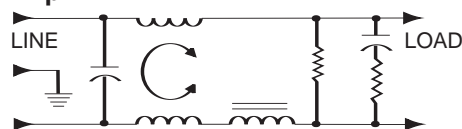
For more information on UL2601, see Appendix C.

## Electrical Schematics

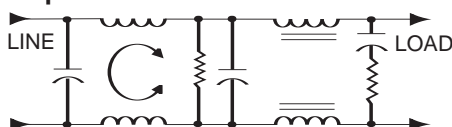
### 3 & 6 Amp



### 10 Amp



### 15 Amp



Resistor location for reference only.

## Specifications

|   |          |
|---|----------|
| <b>Maximum leakage current, each line-to-ground</b> |          |
| @ 120 VAC 60 Hz:                                    | 2µA      |
| @ 250 VAC 50 Hz:                                    | 5µA      |
| <b>Hipot rating (one minute):</b>                   |          |
| line-to-ground                                      | 1500 VAC |
| line-to-line  | 1450 VDC |
| <b>Operating frequency:</b>                         | 50/60 Hz |
| <b>Rated voltage (max.):</b>                        | 250 VAC  |

### Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

| Current Rating | Frequency-MHz |     |     |     |     |    |    |    |    |    |    |    |
|----------------|---------------|-----|-----|-----|-----|----|----|----|----|----|----|----|
|                | .01           | .02 | .05 | .08 | .15 | .5 | 1  | 2  | 5  | 10 | 20 | 30 |
| 3A             | 22            | 32  | 36  | -   | 49  | 46 | 40 | 30 | 22 | 12 | 12 | 12 |
| 6A             | 16            | 23  | 32  | 41  | 46  | 41 | 33 | 26 | 15 | 9  | 6  | 2  |
| 10A            | 9             | 15  | 24  | 30  | 36  | 42 | 34 | 22 | 11 | 12 | 8  | 8  |
| 15A            | 4             | 9   | 18  | 22  | 27  | 41 | 34 | 22 | 12 | 12 | 5  | 2  |

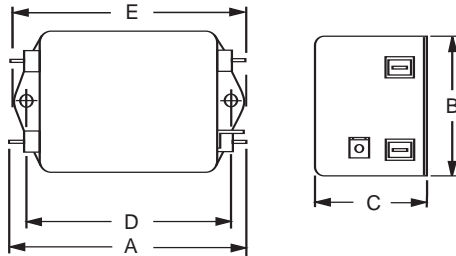
Line-to-line in 50 ohm circuit

| Current Rating | Frequency-MHz |     |     |     |     |    |    |    |    |    |    |    |
|----------------|---------------|-----|-----|-----|-----|----|----|----|----|----|----|----|
|                | .01           | .02 | .05 | .08 | .15 | .5 | 1  | 2  | 5  | 10 | 20 | 30 |
| 3A             | 3             | 1   | 30  | -   | 61  | 70 | 65 | 65 | 48 | 40 | 32 | 32 |
| 6A             | 4             | 1   | 14  | 45  | 51  | 70 | 70 | 65 | 55 | 47 | 37 | 37 |
| 10A            | 7             | 8   | 17  | 32  | 52  | 70 | 70 | 70 | 65 | 55 | 40 | 35 |
| 15A            | 12            | 16  | 15  | 10  | 51  | 70 | 70 | 70 | 70 | 70 | 65 | 55 |

# HT Series

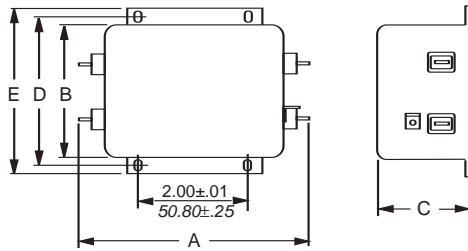
## Case Styles

### HT1 (3, 6 and 10 Amp)



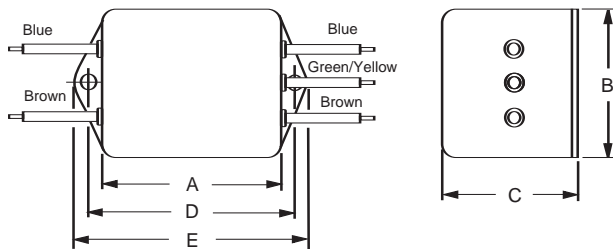
Typical dimensions:  
Terminals: .250 [6.35] (5) Holes: .07 [1.8] Dia.(4) Slot: .07 x .16 [1.8 x 4.1]  
Mounting holes: .188 [4.78] Dia. (2)

### HT1 (15 Amp)



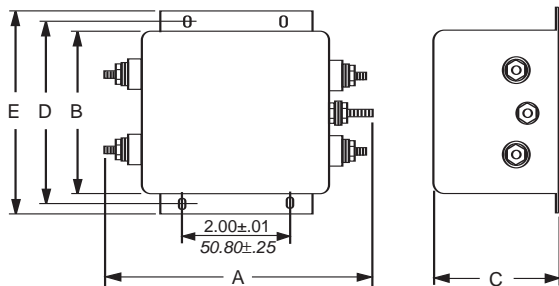
Typical dimensions:  
Terminals: .250 [6.35] (5) Holes: .07 [1.8] Dia.(4) Slot: .07 x .16 [1.8 x 4.1]  
Mounting holes: .203 x .156 [5.16 x 3.96] Dia. (4)

### HT3



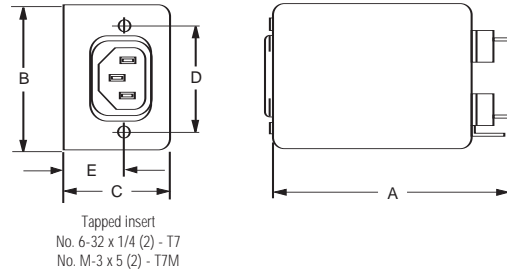
Typical dimensions:  
Wire leads: 4.0 [101.6] Min. Mounting holes: .188 [4.78] Dia. (2)

### HT6

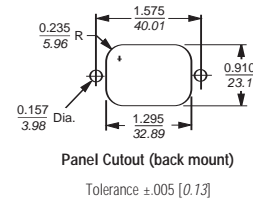


Typical dimensions:  
Terminals: No. 8-32 (5) Mounting holes: .203 x .156 [5.16 x 3.96] Dia. (4)  
Torque: 18±2 in. lb

### HT7 & HT7M (with metric insert)



### Recommended Panel Cutout



### Case Dimensions

| Part No.                        | A (max)              | B (max)             | C (max)             | D $\pm .015$<br>$\pm .38$ | E (max)                          |
|---------------------------------|----------------------|---------------------|---------------------|---------------------------|----------------------------------|
| 3EHT1, 6EHT1                    | <b>3.56</b><br>90.4  | <b>2.15</b><br>54.6 | <b>1.81</b><br>46.0 | <b>2.938</b><br>74.63     | <b>3.38</b><br>85.9              |
| 3EHT3, 6EHT3                    | <b>2.55</b><br>64.8  | <b>2.15</b><br>54.6 | <b>1.81</b><br>46.0 | <b>2.938</b><br>74.63     | <b>3.38</b><br>85.9              |
| 3EHT7, 3EHT7M,<br>6EHT7, 6EHT7M | <b>3.52</b><br>89.4  | <b>2.25</b><br>57.2 | <b>1.78</b><br>45.2 | <b>1.575</b><br>40.01     | <b>0.63</b><br>16.0 <sup>†</sup> |
| 10EHT1                          | <b>4.69</b><br>119.1 | <b>2.27</b><br>57.7 | <b>1.8</b><br>45.7  | <b>4.063</b><br>103.2     | <b>4.47</b><br>113.5             |
| 10EHT3                          | <b>3.69</b><br>93.7  | <b>2.27</b><br>57.7 | <b>1.8</b><br>45.7  | <b>4.063</b><br>103.2     | <b>4.47</b><br>113.5             |
| 15EHT1                          | <b>5.45</b><br>138.4 | <b>3.12</b><br>79.2 | <b>2.18</b><br>55.4 | <b>3.5</b><br>88.9        | <b>3.96</b><br>100.6             |
| 15EHT6                          | <b>5.95</b><br>151.1 | <b>3.12</b><br>79.2 | <b>2.18</b><br>55.4 | <b>3.5</b><br>88.9        | <b>3.96</b><br>100.6             |

<sup>†</sup> ±.02 [±.5]

### Part Numbers

|  |        |
|--|--------|
| 6EHT1  | 10EHT1 |
| 6EHT3  | 10EHT3 |
| 6EHT7  | 15EHT1 |
| 6EHT7M   | 15EHT6 |
| Line Cord No.  | GA400  |
| 7 1/2 foot, 3-conductor line cord to mate with T7 models |        |