

High Performance Power Line Filter for Medical Applications

HZ Series



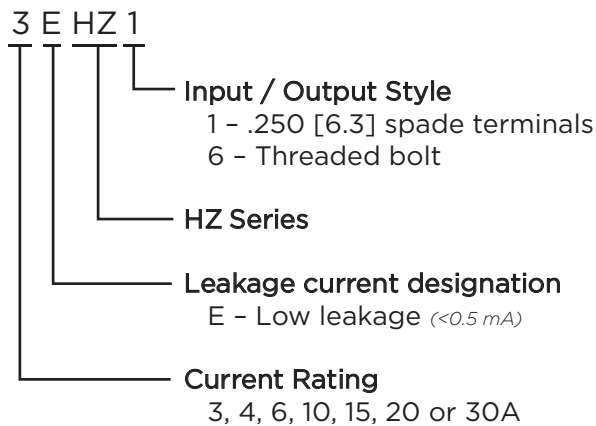
UL Recognized
CSA Certified
VDE Approved



HZ Series

- Designed to provide good attenuation to RFI noise in the frequency range from 10kHz to 30MHz
- Size and cost-effective
- Low leakage current
- New versions up to 30A

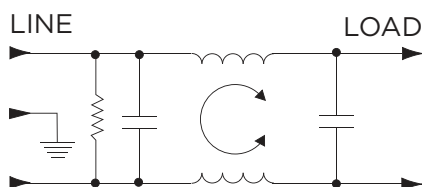
Ordering Information



Available Part Numbers

| | |
|--------|--------|
| 3EHZ1 | 4EHZ1 |
| 6EHZ1 | 10EHZ1 |
| 15EHZ1 | 20EHZ1 |
| 30EHZ6 | |

Electrical Schematic

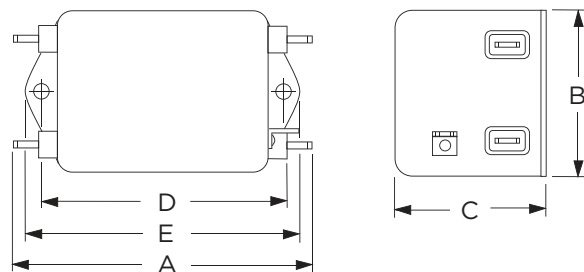


Specifications

- Maximum leakage current each Line to Ground:**
 @ 120 VAC 60 Hz: 2 μ A
 @ 250 VAC 50 Hz: 5 μ A
- Hipot rating (one minute):**
 Line to Ground: 2250 VDC
 Line to Line: 1450 VDC
- Rated Voltage (max):** 250 VAC
- Operating Frequency:** 50/60 Hz
- Rated Current:** 3 to 30A
- Operating Ambient Temperature Range (at rated current I_r):** -10°C to +40°C
 In an ambient temperature (T_a) higher than +40°C the maximum operating current (I_o) is calculated as follows: $I_o = I_r \sqrt{(85-T_a)/45}$

Case Styles

3EHZ1



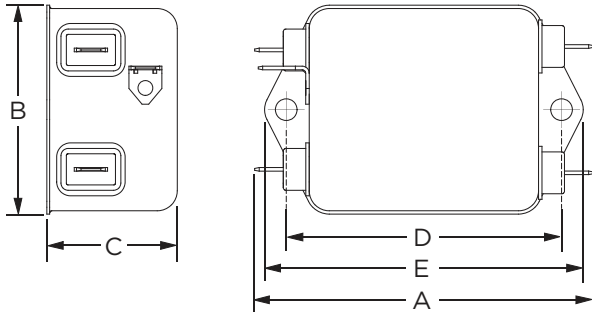
- Typical Dimensions:
- Line/Load Terminals (4): .250 [6.3] with .07 [1.8] Dia. hole
 - Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot
 - Mounting Holes (2): .188 [4.78] Dia.

High Performance Power Line Filter for Medical Applications *(continued)*

HZ Series

Case Styles *(continued)*

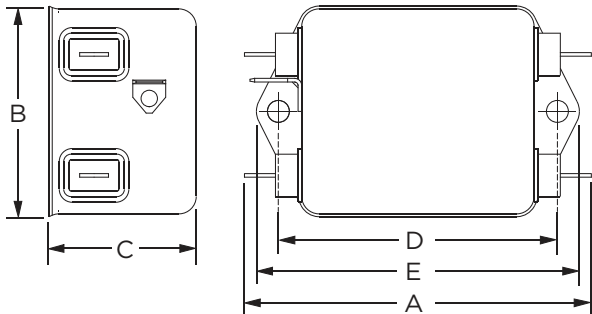
4EHZ1



Typical Dimensions:

- Line/Load Terminals (4): .250 [6.3] with .07 [1.8] Dia. hole
- Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot
- Mounting Holes (2): .188 [4.78] Dia.

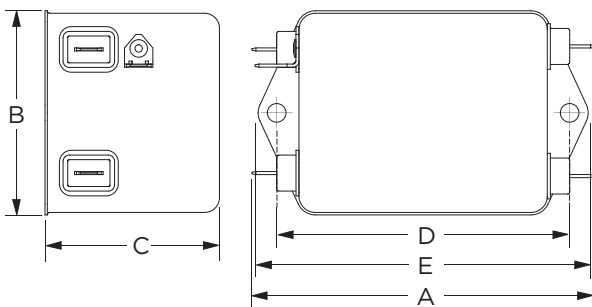
6EHZ1



Typical Dimensions:

- Line/Load Terminals (4): .250 [6.3] with .07 [1.8] Dia. hole
- Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot
- Mounting Holes (2): .188 [4.78] Dia.

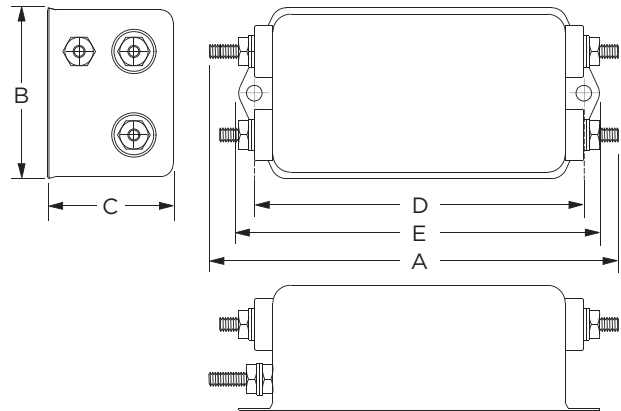
10, 15 & 20EHZ1



Typical Dimensions:

- Line/Load Terminals (4): .250 [6.3] with .07 [1.8] Dia. hole
- Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot
- Mounting Holes (2): .188 [4.78] Dia.

30EHZ6



Typical Dimensions:

- Terminals (5): 8-32, Torque 18 lbf-in. [2.03 N-m] max. ± 2 [2.2]
- Mounting Holes (4): .188 [4.75] Dia.

Case Dimensions

| Part No. | A (max) | B (max) | C (max) | D $\pm .015$ $\pm .38$ | E (max) |
|----------|-----------------------|----------------------|----------------------|------------------------------|-----------------------|
| 3EHZ1 | <i>3.54</i> 89.91 | <i>2.08</i> 52.8 | <i>1.31</i> 33.3 | <i>2.938</i> 74.63 | <i>3.35</i> 85.1 |
| 4EHZ1 | <i>3.07</i> 77.98 | <i>1.82</i> 46.23 | <i>1.16</i> 29.46 | <i>2.375</i> 60.33 | <i>2.78</i> 70.61 |
| 6EHZ1 | <i>3.07</i> 77.98 | <i>1.82</i> 46.23 | <i>1.28</i> 32.51 | <i>2.375</i> 60.33 | <i>2.78</i> 70.61 |
| 10EHZ1 | <i>3.54</i> | <i>2.047</i> | <i>1.805</i> | <i>2.938</i> | <i>3.54</i> |
| 15EHZ1 | <i>89.92</i> | <i>51.99</i> | <i>45.85</i> | <i>74.63</i> | <i>89.92</i> |
| 20EHZ1 | <i>89.92</i> | <i>51.99</i> | <i>45.85</i> | <i>74.63</i> | <i>89.92</i> |
| 30EHZ6 | <i>4.92</i> 124.97 | <i>2.07</i> 52.58 | <i>1.53</i> 38.86 | <i>3.947</i> 100.25 | <i>4.33</i> 109.98 |

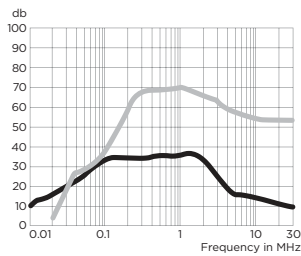
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Performance Data

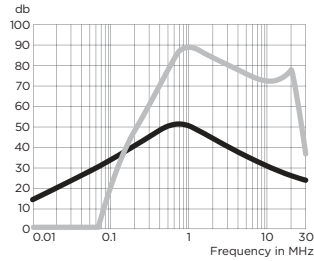
Typical Insertion Loss

Measured in closed 50 Ohm system

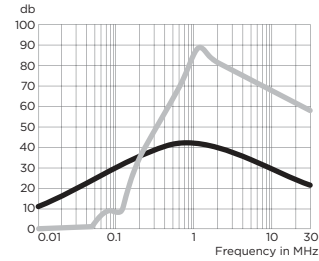
3EHZ1



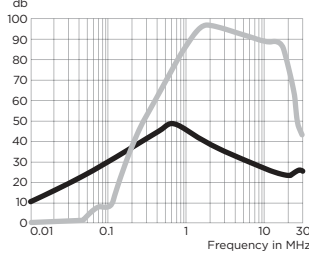
4EHZ1



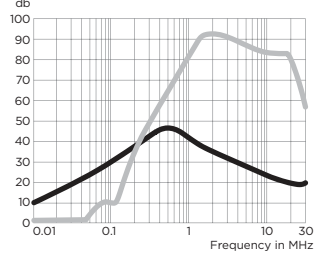
6EHZ1



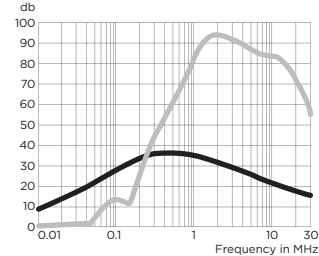
10EHZ1



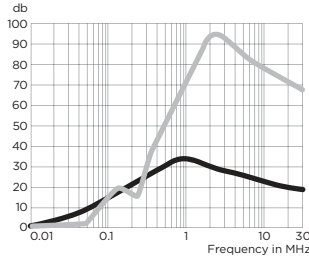
15EHZ1



20EHZ1



30EHZ6



— Common Mode / Asymmetrical (L-G)
— Differential Mode / Symmetrical (L-L)

Minimum Insertion Loss

Common Mode / Asymmetrical (Line to Ground)

| Part No. | Frequency – MHz | | | | | | | | |
|----------|-----------------|-----|----|-----|----|----|----|----|----|
| | .01 | .05 | .1 | .15 | .5 | 1 | 5 | 10 | 30 |
| 3EHZ1 | 10 | 24 | 30 | 34 | 34 | 35 | 15 | 10 | 5 |
| 4EHZ1 | 12 | 24 | 31 | 35 | 47 | 47 | 30 | 25 | 18 |
| 6EHZ1 | 9 | 21 | 27 | 30 | 36 | 34 | 27 | 22 | 16 |
| 10EHZ1 | 7 | 21 | 25 | 31 | 43 | 40 | 26 | 21 | 14 |
| 15EHZ1 | 7 | 27 | 27 | 30 | 43 | 37 | 24 | 17 | 12 |
| 20EHZ1 | 5 | 19 | 24 | 28 | 31 | 29 | 14 | 9 | 4 |
| 30EHZ6 | - | 5 | 11 | 14 | 27 | 30 | 20 | 17 | 14 |

Differential Mode / Symmetrical (Line to Line)

| Part No. | Frequency – MHz | | | | | | | | |
|----------|-----------------|-----|----|-----|----|----|----|----|----|
| | .01 | .05 | .1 | .15 | .5 | 1 | 5 | 10 | 30 |
| 3EHZ1 | 10 | 25 | 30 | 54 | 70 | 70 | 65 | 55 | 55 |
| 4EHZ1 | - | - | 14 | 32 | 72 | 83 | 68 | 63 | 30 |
| 6EHZ1 | - | - | 7 | 17 | 59 | 80 | 67 | 60 | 52 |
| 10EHZ1 | - | - | 4 | 21 | 63 | 80 | 80 | 74 | 36 |
| 15EHZ1 | - | - | 7 | 15 | 51 | 77 | 80 | 74 | 48 |
| 20EHZ1 | - | - | 11 | 9 | 54 | 77 | 74 | 69 | 47 |
| 30EHZ6 | - | - | 13 | 14 | 47 | 67 | 76 | 70 | 58 |