

High Performance Power Line Filter for Medical Applications

# HZ Series



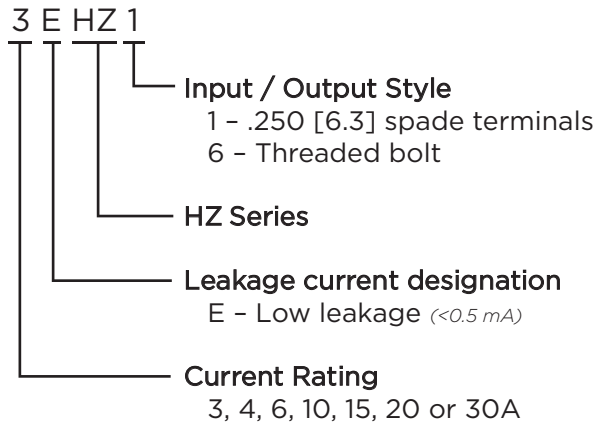
UL Recognized  
CSA Certified  
VDE Approved



## 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

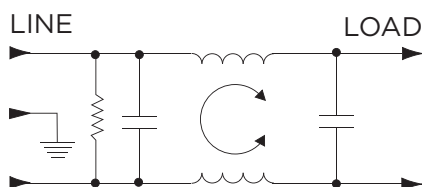
## Ordering Information



## Available Part Numbers

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

## Electrical Schematic

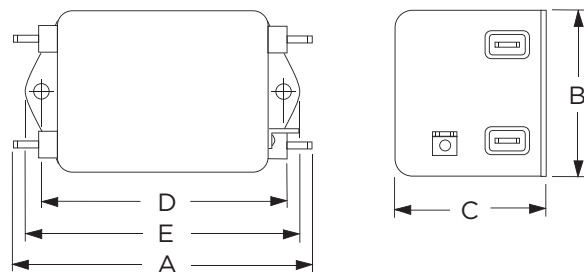


## Specifications

- Maximum leakage current each Line to Ground:**  
 @ 120 VAC 60 Hz: 2 µA  
 @ 250 VAC 50 Hz: 5 µA
- 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<sub>r</sub>):** -10°C to +40°C  
 In an ambient temperature (T<sub>a</sub>) higher than +40°C the maximum operating current (I<sub>o</sub>) is calculated as follows:  $I_o = I_r \sqrt{(85-T_a)/45}$

## Case Styles

### 3EHZ1



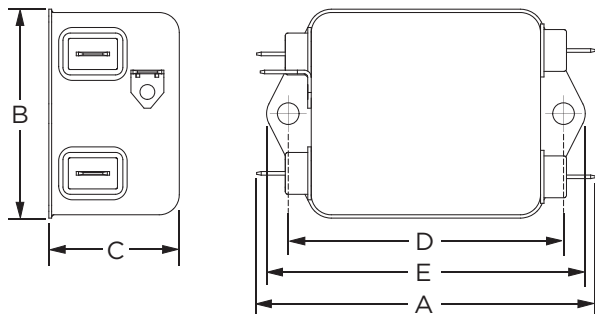
- Typical Dimensions:
- Line/Load Terminals (4): .250 [6.3] with .07 [1.8] Dia. hole
  - Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot
  - Mounting Holes (2): .188 [4.78] Dia.

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

# HZ Series

## Case Styles *(continued)*

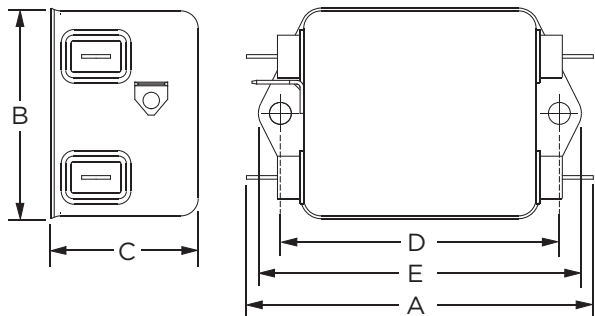
### 4EHZ1



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.

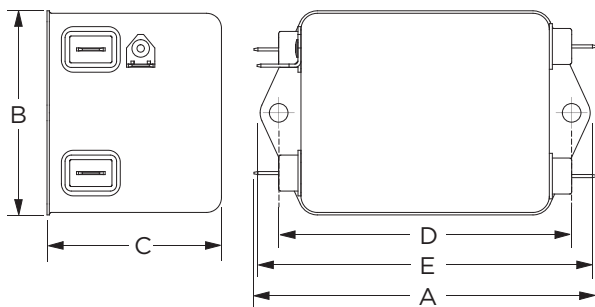
### 6EHZ1



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.

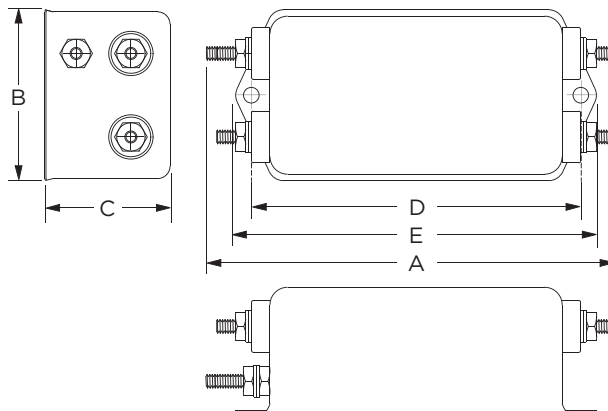
### 10, 15 & 20EHZ1



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 15EHZ1 20EHZ1	<i>3.54</i> 89.92	<i>2.047</i> 51.99	<i>1.805</i> 45.85	<i>2.938</i> 74.63	<i>3.54</i> 89.92
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

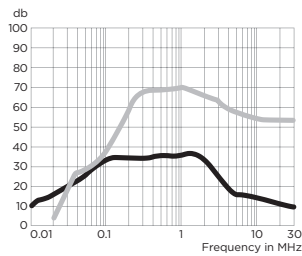
**High Performance Power Line Filter for Medical Applications** *(continued)*

**Performance Data**

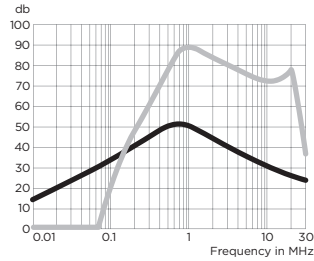
**Typical Insertion Loss**

Measured in closed 50 Ohm system

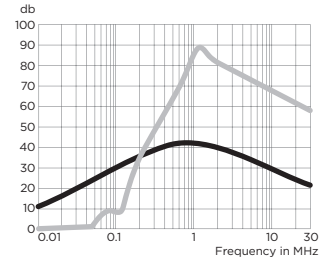
**3EHZ1**



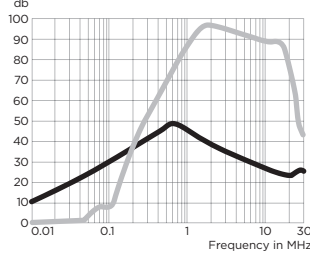
**4EHZ1**



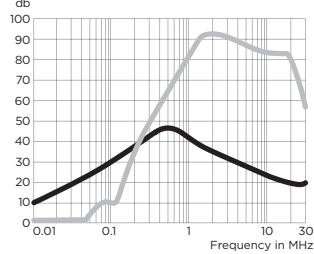
**6EHZ1**



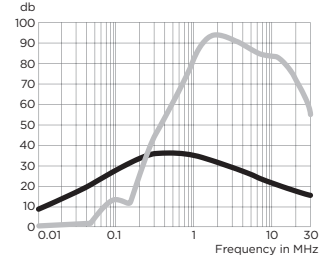
**10EHZ1**



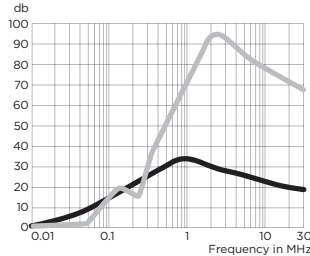
**15EHZ1**



**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