Common-mode Suppression Chokes

Technical specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Maximum continuous operating voltage</td>
<td>250 V AC @ 50°C</td>
</tr>
<tr>
<td>Operating frequency</td>
<td>DC to 400 Hz</td>
</tr>
<tr>
<td>Rated currents</td>
<td>0.3 to 5 A</td>
</tr>
<tr>
<td>Overcurrent</td>
<td>1.5x In nominal for 1 minute, once per hour</td>
</tr>
<tr>
<td>winding-to-winding @ 25°C</td>
<td>3000 V AC, 60 sec, guaranteed</td>
</tr>
<tr>
<td>Temperature range (operation and storage)</td>
<td>-25°C to +100°C (25/100/21)</td>
</tr>
<tr>
<td>Flammability corresponding to</td>
<td>UL 94 V-0</td>
</tr>
<tr>
<td>Measuring frequency</td>
<td>10 kHz: 5 mA &lt;16 μH;</td>
</tr>
<tr>
<td></td>
<td>50 μA &gt;16 μH &lt;160 μH;</td>
</tr>
<tr>
<td></td>
<td>50 μV &gt;16 mH &lt;160 mH</td>
</tr>
<tr>
<td>Inductance tolerance ±30%</td>
<td></td>
</tr>
<tr>
<td>Resistance</td>
<td>Tolerance max ±15% @ 25°C ±20 mΩ; 1 A;</td>
</tr>
<tr>
<td></td>
<td>&gt;20 μΩ ≤200 μΩ; 100 mΩ; &gt;200 μΩ ≤10 mΩ</td>
</tr>
<tr>
<td>Electrical characteristics</td>
<td></td>
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<tr>
<td>MTBF @ 40°C/230 V (Mil-HB-217F)</td>
<td>&gt;5,000,000 hours</td>
</tr>
<tr>
<td>MTBF @ 40°C/230 V (Mil-HB-217F)</td>
<td>&gt;5,000,000 hours</td>
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</table>

Features and benefits

- Rated currents up to 5 A
- Compact and light weight
- Low magnetic leakage flux
- Sectional winding
- Standard footprint
- Broad range of available inductances and current ratings
- Custom-specific versions
- Schaffner offers you also EMI measurement service to verify that your design will pass the required safety standards

Typical applications

- Input filters for switch mode power supplies
- Filters to reduce leaking noise
- TVs, VCRs, multimedia and audio equipment
- Office automation, communications and other electronic devices
- Electric ballast
- AC/AC converters

Typical electrical schematic
## Choke selection table

<table>
<thead>
<tr>
<th>EH choke</th>
<th>Buy (EH)</th>
<th>EV choke</th>
<th>Buy (EV)</th>
<th>L nominal (±30%) [mH]</th>
<th>DC resistance [mΩ]</th>
<th>Rated current [I (50°C)] [A]</th>
<th>Weight [g]</th>
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<tr>
<td>EH20-0.3-02-33M</td>
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</table>

All wires rated 130°C or higher.

## Distribution inventory

Up-to-date inventory levels for global distributors is available at [https://products.schaffner.com/stock](https://products.schaffner.com/stock)
Typical choke attenuation
Per CISPR 17; 50Ω/50Ω asym

EV/EH 20 types

A = 33 mH; B = 18 mH; C = 5.6 mH
D = 3.9 mH; E = 3.3 mH; F = 1.8 mH
G = 0.8 mH

EV/EH 24 types

A = 44 mH; B = 18 mH; C = 10 mH
D = 5.5 mH; E = 2.5 mH; F = 1.2 mH
G = 0.5 mH

EV/EH 28 types

A = 36 mH; B = 20 mH; C = 11 mH
D = 5 mH; E = 2.3 mH; F = 1.1 mH
G = 0.5 mH

EV/EH 28 X types

A = 75 mH; B = 27 mH; C = 15 mH
D = 9 mH; E = 3.5 mH

EV/EH 35 types

A = 90 mH; B = 20 mH; C = 10 mH
D = 5 mH; E = 3.6 mH
Mechanical data

EV 20

EV 35

EV 24 and 28

EH 20 to 35

Dimensions

<table>
<thead>
<tr>
<th></th>
<th>EV 20</th>
<th>EV 24</th>
<th>EV 28</th>
<th>EV 35</th>
<th>EH 20</th>
<th>EH 24</th>
<th>EH 28</th>
<th>EH35</th>
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<td>A</td>
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<td>28</td>
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<td>B</td>
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<td>17.4</td>
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<td>21</td>
<td>24</td>
<td>28</td>
<td>36</td>
<td>±1</td>
</tr>
<tr>
<td>C</td>
<td>25*</td>
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<tr>
<td>D</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
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<td>21</td>
<td>13</td>
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<td>24</td>
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<tr>
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<td>10</td>
<td>15</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>±0.5</td>
</tr>
</tbody>
</table>

All dimensions in mm; 1 inch = 25.4 mm
* Tolerance is +1/-2 mm

Please visit [www.schaffner.com](http://www.schaffner.com) to find more details on filter connectors.
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