

1-stage filter for 3-phase systems with neutral conductor



See below:

**Approvals and Compliances**

**Description**

- Line filter as standard, industrial and medical version
- 1 stage
- Filter with standard or high attenuation (HP)

**Unique Selling Proposition**

- Compact single-stage filter
- Various filter variants
- Light weight design
- Wide temperature range

**Applications**

- Voltage rating 520 VAC for world wide acceptance
- For low power 3 phase energy inverter such as photovoltaic or battery storage systems
- Suitable for use in equipment according to IEC/UL 62368-1

**Weblinks**

[pdf data sheet](#), [html datasheet](#), [General Product Information](#), [Approvals](#), [Distributor-Stock-Check](#), [Detailed request for product](#), [Microsite](#)

**Technical Data**

|                         |  |
|-------------------------|--|
| Rated Current           | 3 - 20A  |
| Rated voltage           | 300/520 VAC, 50/60 Hz  |
| Approval for            | 3 - 20A @ 50 °C / 300/520 VAC;<br>50/60Hz  |
| Overload Current        | 1.5 x I <sub>r</sub> for 1 minute, per hour  |
| Dielectric Strength     | > 2.25 kVDC between L-L<br>> 1.3 kVDC between L-N<br>2.75 kVDC between L-PE<br>Test voltage 2 sec<br>> 1.3 kVDC between L-N<br>between 2.75 kVDC L-PE<br>Test voltage 2 sec/50Hz |
| Number of Filter Stages | 1-stage  |
| Weight                  | 0.2  |
| Material: Housing       | Metal  |
| Sealing Compound        | UL 94V-0   |

|                       |   |
|-----------------------|---|
| Mounting              | Screw-on mounting on chassis                                      |
| Terminal              | Screw clamps  |
| Operating Temperature | -40°C to 100°C  |
| Climatic Category     | 40/100/21 acc. to IEC 60068-1                                     |
| Degree of Protection  | IP20 acc. to IEC 60529  |
| Protection Class      | Suitable for appliances with protection class I acc. to IEC 61140 |
| MTBF                  | > 200'000h acc. to MIL-HB-217 F                                   |

**Approvals and Compliances**

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [Details about Approvals](#)

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

**Approvals**



The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products.

Approval Reference Type: FMAD CP

| Approval Logo | Certificates                  | Certification Body | Description                  |
|---------------|-------------------------------|--------------------|------------------------------|
|               | <a href="#">VDE Approvals</a> | VDE                | Certificate Number: 40050745 |
|               | <a href="#">UL Approvals</a>  | UL                 | UR File Number: E495089      |

**Product standards**

Product standards that are referenced

| Organization   | Design                | Standard   | Description  |
|--|-----------------------|------------|--|
|  | Designed according to | IEC 60939  | Passive filters for suppressing electromagnetic interference |
|  | Designed according to | UL 60939-3 | Electromagnetic interference filters                         |






**Application standards**

Application standards where the product can be used

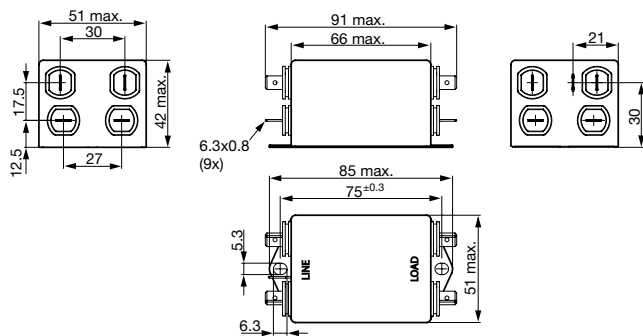
| Organization   | Design                         | Standard       | Description   |
|--|--------------------------------|----------------|---|
|  | Suitable for applications acc. | IEC/UL 62368-1 | Audio/video, information and communication technology equipment - Part 1: Safety requirements |

**Compliances**

The product complies with following Guide Lines

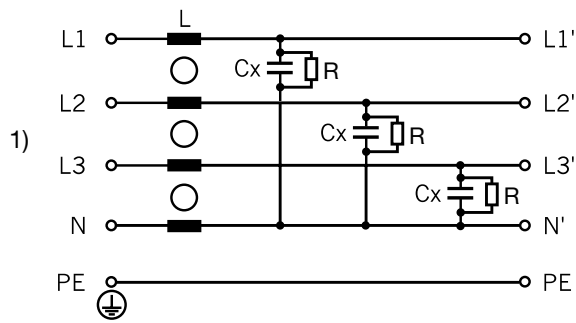
| Identification   | Details  | Initiator   | Description   |
|--|--|-------------|---|
|    | <a href="#">CE declaration of conformity</a>   | SCHURTER AG | The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008. |
|    | <a href="#">UKCA declaration of conformity</a> | SCHURTER AG | The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008.  |
|    | RoHS   | SCHURTER AG | Directive RoHS 2011/65/EU, Amendment (EU) 2015/863  |
|    | China RoHS                                     | SCHURTER AG | The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.  |
|  | REACH  | SCHURTER AG | On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.                               |

**Dimension [mm]**



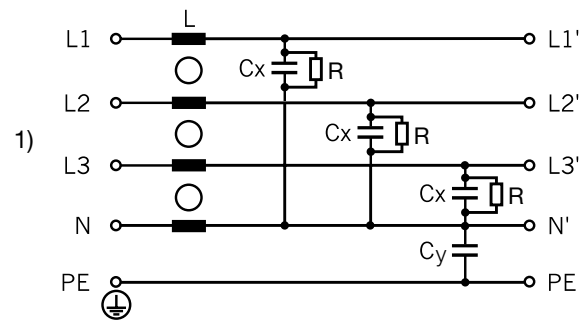
Diagrams

Medical Version (M5)



1) Line

Standard, Industrial version



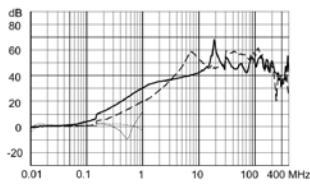
1) Line

Attenuation Loss

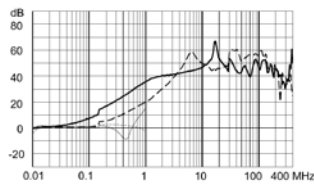
Standard version

--- 50Ω differential mode    \_\_\_\_ 50Ω common mode

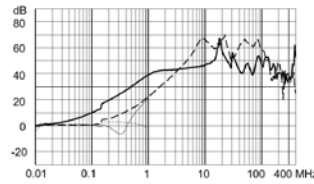
20A



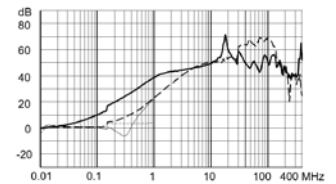
16A



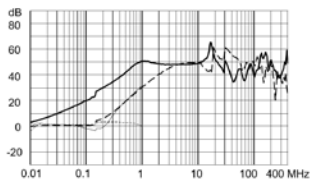
10A



6A

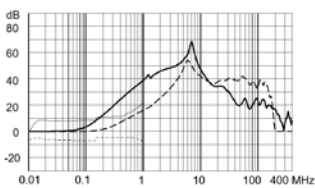


3A

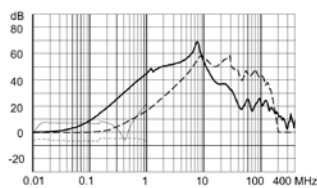


Industrial version

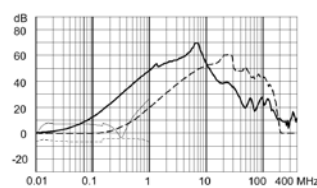
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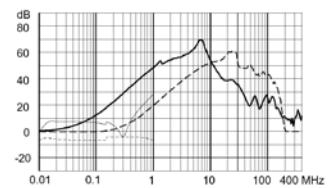
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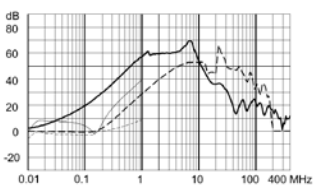
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6A

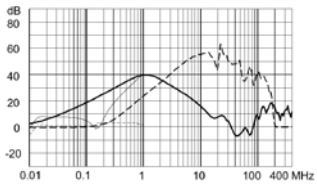


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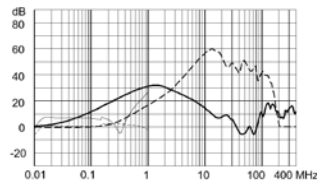


Medical version (M5)

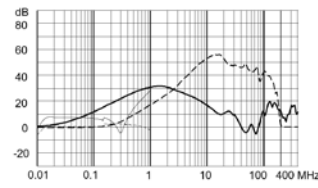
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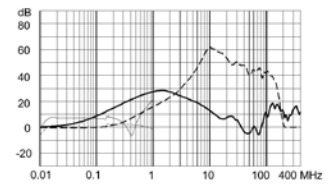
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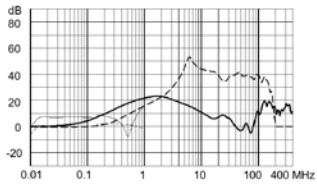
6A



16A

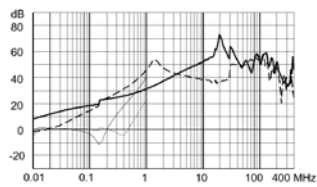


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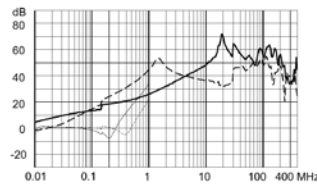


Standard HP

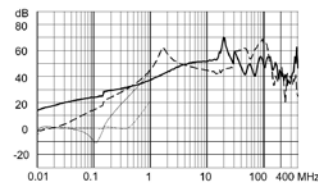
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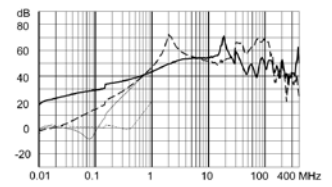
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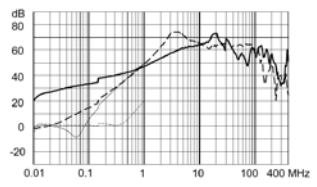
10A



6A

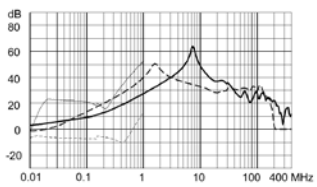


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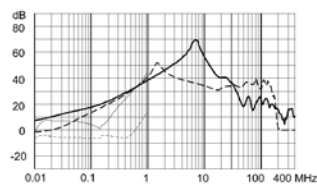


Industry HP

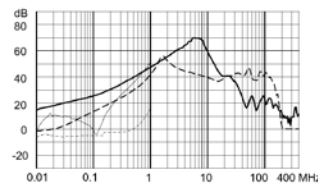
20A



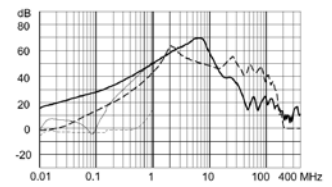
16A



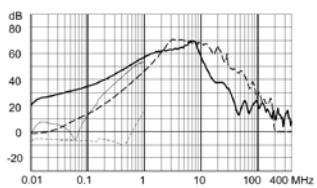
10A



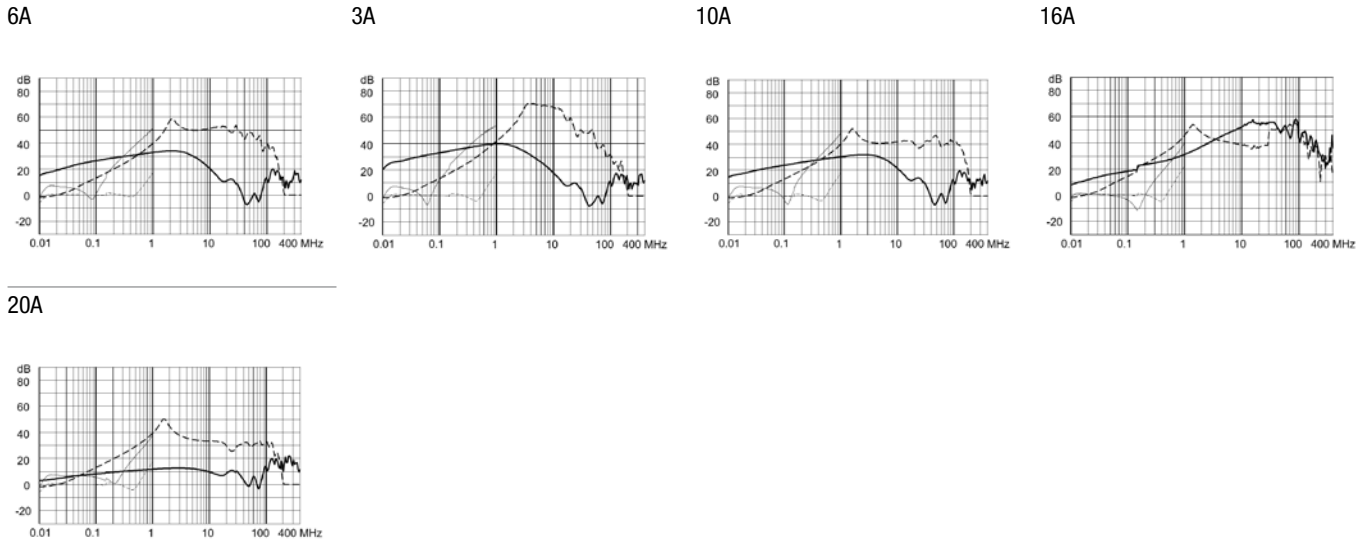
6A



3A



Medical (M5) HP



All Variants

| Rated Current @ Ta<br>50°C [A] | Filter Type             | Tripped Power<br>Dissipation [W] | Contact Resi-<br>stance [mΩ] | Leakage Current [mA]<br>@ 440V, 60Hz 1) | Order Number |
|--------------------------------|-------------------------|----------------------------------|------------------------------|---|--------------|
| 3                              | Industrial version      | 2.8                              | 78.9                         | 3                                       | 3-110-821    |
| 3                              | Industrial version HP   | 2.3                              | 63.6                         | 3                                       | 3-110-843    |
| 3                              | Medical Version (M5)    | 2.8                              | 78.9                         | 0.005                                   | 3-110-817    |
| 3                              | Medical Version (M5) HP | 2.3                              | 63.6                         | 0.005                                   | 3-110-839    |
| 3                              | Standard version        | 2.8                              | 78.9                         | 0.5                                     | 3-110-813    |
| 3                              | Standard version HP     | 2.3                              | 63.6                         | 0.5                                     | 3-110-835    |
| 6                              | Industrial version      | 1.9                              | 13                           | 3                                       | 3-110-832    |
| 6                              | Industrial version HP   | 2.2                              | 15.3                         | 3                                       | 3-110-844    |
| 6                              | Medical Version (M5)    | 1.9                              | 13                           | 0.005                                   | 3-110-818    |
| 6                              | Medical Version (M5) HP | 2.2                              | 15.3                         | 0.005                                   | 3-110-840    |
| 6                              | Standard version        | 1.9                              | 13                           | 0.5                                     | 3-110-814    |
| 6                              | Standard version HP     | 2.2                              | 15.3                         | 0.5                                     | 3-110-836    |
| 10                             | Industrial version      | 2.8                              | 6.9                          | 3                                       | 3-110-833    |
| 10                             | Industrial version HP   | 2.5                              | 6.2                          | 3                                       | 3-110-845    |
| 10                             | Medical Version (M5)    | 2.8                              | 6.9                          | 0.005                                   | 3-110-819    |
| 10                             | Medical Version (M5) HP | 2.5                              | 6.2                          | 0.005                                   | 3-110-841    |
| 10                             | Standard version        | 2.8                              | 6.9                          | 0.5                                     | 3-110-815    |
| 10                             | Standard version HP     | 2.5                              | 6.2                          | 0.5                                     | 3-110-837    |
| 16                             | Industrial version      | 3.6                              | 3.5                          | 3                                       | 3-111-516    |
| 16                             | Industrial version HP   | 2.8                              | 2.7                          | 3                                       | 3-111-519    |
| 16                             | Medical Version (M5)    | 3.6                              | 3.5                          | 0.005                                   | 3-111-515    |
| 16                             | Medical Version (M5) HP | 2.8                              | 2.7                          | 0.005                                   | 3-111-518    |
| 16                             | Standard version        | 3.6                              | 3.5                          | 0.5                                     | 3-111-514    |
| 16                             | Standard version HP     | 2.8                              | 2.7                          | 0.5                                     | 3-111-517    |
| 20                             | Industrial version      | 3.5                              | 2.2                          | 3                                       | 3-110-834    |
| 20                             | Industrial version HP   | 2.5                              | 1.5                          | 3                                       | 3-110-846    |
| 20                             | Medical Version (M5)    | 3.5                              | 2.2                          | 0.005                                   | 3-110-820    |
| 20                             | Medical Version (M5) HP | 2.5                              | 1.5                          | 0.005                                   | 3-110-842    |
| 20                             | Standard version        | 3.5                              | 2.2                          | 0.5                                     | 3-110-816    |
| 20                             | Standard version HP     | 2.5                              | 1.5                          | 0.5                                     | 3-110-838    |

Availability for all products can be searched real-time: <https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER>

Packaging unit

10 Pcs

## Zubehör

### Description



[DIN\\_Rail\\_Kit](#)

Mounting accessory for compact 1- and 3-phase filters

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