3-Phase AC Filters / DC Filters https://www.schurter.com /PG80

FMAD NEO

1-stage filter for 3-phase systems





- Terminals for three phases, neutral conductor and ground

- Industrial or low leakage current versions

Case 5B-16

Description

- 1 stage



Case 5A-4



See below: **Approvals and Compliances**

Applications

- Voltage rating 520 VAC for world wide acceptance
- Protection against interference voltage from the mains
- Especially designed for industrial applications such as: Frequency Converters, Stepper Motor Drives, UPS-Systems, Inverters
- Suitable for use in equipment according to IEC/UL 60950

Weblinks

pdf data sheet, html datasheet, General Product Information, Distributor-Stock-Check, Detailed request for product, Microsite

- Light weight design - Wide temperature range

- Very high attenuation

Unique Selling Proposition - Compact design with small footprint

- Single-stage filter for high efficiency

Technical Data

| Rated Current | 16 - 230A |
|-------------------------|---|
| Rated voltage | 300/520 VAC, 50/60 Hz |
| Approval for | 16 - 230 A @ 50 °C / 300/520 VAC; 50/60 Hz |
| Overload Current | 1.5 x lr for 1 minute, per hour |
| Dielectric Strength | > 2.25 kVDC between L-L > 2.75 kVDC between L-PE Test voltage 2 sec |
| Number of Filter Stages | 1-stage |
| Weight | 0.9 - 4.1 kg |
| 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 NEO

| Approval Logo | Certificates | Certification Body | Description |
|---------------|---------------|--------------------|------------------------------|
| 10 | VDE Approvals | VDE | Certificate Number: 40049000 |
| | UL Approvals | UL | UL File Number: E495089 |

Product standards

Product standards that are referenced

| Organization | Design | Standard | Description |
|--------------|-----------------------|-----------|--|
| IEC | Designed according to | IEC 60939 | Passive filters for suppressing electromagnetic interference |
| (h) | Designed according to | UL 1283 | Electromagnetic interference filters |

FMAD NEO

its affixing in accordance with EU Regulation 765/2008.

Directive RoHS 2011/65/EU, Amendment (EU) 2015/836

2007. It is similar to the EU directive RoHS.

The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March

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.

Application standards

Application standards where the product can be used

RoHS

| Organization Design | | Standard | Description |
|--|---------------------------------|--------------|---|
| Designed for applications acc. | | IEC/UL 60950 | IEC 60950-1 includes the basic requirements for the safety of information technology equipment. |
| Compliances The product comp | lies with following Guide Lines | | |
| Identification | Details | Initiator | Description |
| CE | CE declaration of conformity | SCHURTER AG | The CE marking declares that the product complies with the applicable |

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| ROHS | RoHS |
|----------|------------|
| @ | China RoHS |
| REACH | REACH |

Dimension [mm]

Case 5A-4

Case 5A-10



Case 5B-10

Case 5B-16



Case 5C-25

Case 5C-50



Case 5D-95



Diagrams



FMAD NEO

100 MHz

Attenuation Loss

- - - - 50 Ω differential mode _____ 50 Ω common mode



230 A



Low leakage current version



64 A



All Variants

| Rated Current @ Ta 50°C [A] | Filter Type | Tripped Power Dissipation [W] | Contact Resistance [m Ω] | Leakage Cur- rent [mA] @ 440V, 60Hz 1) | Weight [kg] | Screw clamps [mm2] 2) | Housings | Order Number | |
|--------------------------------|--------------------|----------------------------------|----------------------------------|--|-------------|--------------------------|----------|--------------|--|
| 16 | Industrial Version | 1.5 | 5.7 | 1.5 | 0.9 kg | 4 | 5A-4 | 3-108-700 | |
| 25 | Industrial Version | 1.6 | 2.5 | 10.7 | 1.1 kg | 10 | 5A-10 | 3-108-701 | |
| 36 | Industrial Version | 2.1 | 1.65 | 10.7 | 1.3 kg | 10 | 5B-10 | 3-108-712 | |
| 50 | Industrial Version | 4.1 | 1.65 | 11.4 | 1.3 kg | 10 | 5B-10 | 3-108-713 | |
| 64 | Industrial Version | 3.9 | 0.94 | 11.4 | 1.35 kg | 16 | 5B-16 | 3-108-714 | |
| 80 | Industrial Version | 5.2 | 0.82 | 12.2 | 1.45 kg | 25 | 5C-25 | 3-108-715 | |
| 110 | Industrial Version | 6.3 | 0.52 | 12.2 | 2.5 kg | 50 | 5C-50 | 3-108-716 | |

| Rated Current @ Ta 50°C [A] | Filter Type | Tripped Power Dissipation [W] | Contact Resistance [m Ω] | Leakage Cur- rent [mA] @ 440V, 60Hz 1) | Weight [kg] | Screw clamps [mm2] 2) | Housings | Order Number | |
|--------------------------------|-----------------------------|----------------------------------|----------------------------------|--|-------------|--------------------------|----------|--------------|--|
| 180 | Industrial Version | 12 | 0.37 | 12.2 | 3.1 kg | 95 | 5D-95 | 3-108-717 | |
| 230 | Industrial Version | 14.3 | 0.27 | 13.1 | 4.1 kg | 95 | 5D-95 | 3-108-718 | |
| 16 | Low leakage current version | 1.5 | 5.7 | 1.4 | 0.9 kg | 4 | 5A-4 | 3-109-852 | |
| 25 | Low leakage current version | 1.6 | 2.5 | 3 | 1.1 kg | 10 | 5A-10 | 3-109-853 | |
| 36 | Low leakage current version | 2.1 | 1.65 | 3 | 1.3 kg | 10 | 5B-10 | 3-109-854 | |
| 50 | Low leakage current version | 4.1 | 1.65 | 3 | 1.3 kg | 10 | 5B-10 | 3-109-855 | |
| 64 | Low leakage current version | 3.9 | 0.94 | 3 | 1.35 kg | 16 | 5B-16 | 3-109-856 | |

Most Popular.

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

1) Nominal leakage current acc. to IEC60950 - 5.2.5. under normal operating conditions. Note: worst case leakage current acc. to IEC60950 - Annex G4 (situation with two interrupted lines) can be much higher.

2) Maximum conductor cross section (wire gauge) to be used; a comparative table for AWG and mm² values can be found in the general product information https://www.schurter.com/en/FAQ#10

Packaging unit 1 Pcs

12.07.2019