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

### **FMAD NEO**

1-stage filter for 3-phase systems





Case 5B-16



Case 5A-4

	See below: Approvals and Compliances
Description         - Terminals for three phases, neutral conductor and ground         - 1 stage         - Very high attenuation         - Industrial or low leakage current versions	Applications - Voltage rating 520 VAC for world wide acceptance - Protection against interference voltage from the mains - Especially designed for industrial applications such as: Frequency Con- verters, Stepper Motor Drives, UPS-Systems, Inverters
Unique Selling Proposition - Compact design with small footprint - Single-stage filter for high efficiency	<ul> <li>Variants Machine Safety suitable for machine applications according to IEC 60204-1</li> <li>Suitable for use in equipment according to IEC/UL 62368-1</li> </ul>

#### Weblinks

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

### Technical Data

Light weight designWide temperature range

Rated Current	16 - 230A
Rated voltage	300/520 VAC, 50/60 Hz
Approval for	16 - 230A @ 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
c <b>FN</b> us	UL Approvals	UL	UR 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
(IL)	Designed according to	UL 1283	Passive filters for suppressing electromagnetic interference

### **Application standards**

Application standards where the product can be used

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

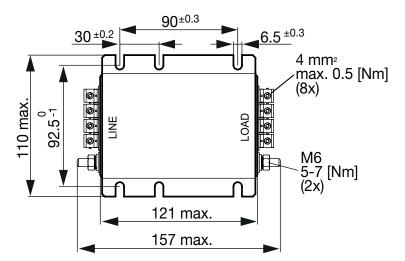
### Compliances

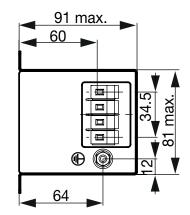
The product complies with following Guide Lines

Identification	Details	Initiator	Description
CE	CE declaration of conformity	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.
UK CA	UKCA declaration of conformity	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	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	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.

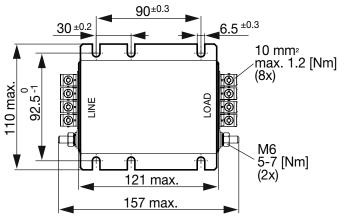
### Dimension [mm]

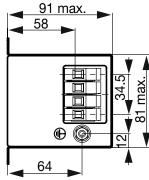
Case 5A-4



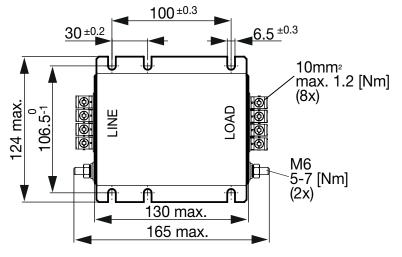


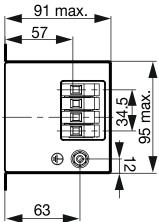
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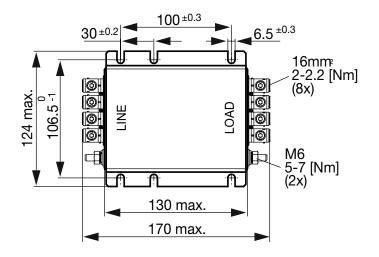


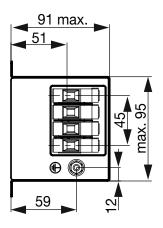
Case 5B-10



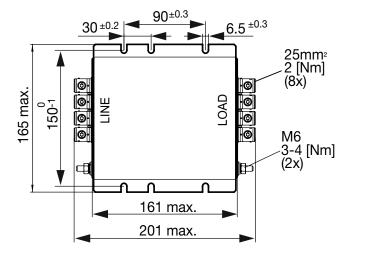


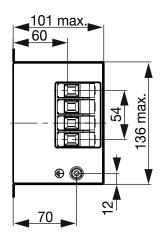
Case 5B-16



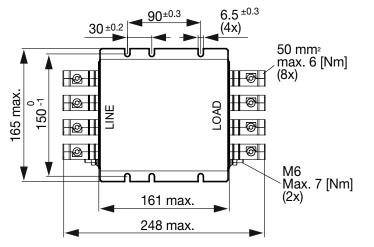


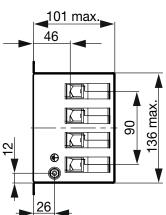
Case 5C-25



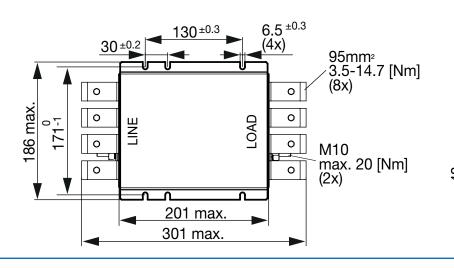


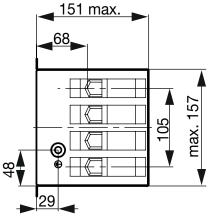
Case 5C-50



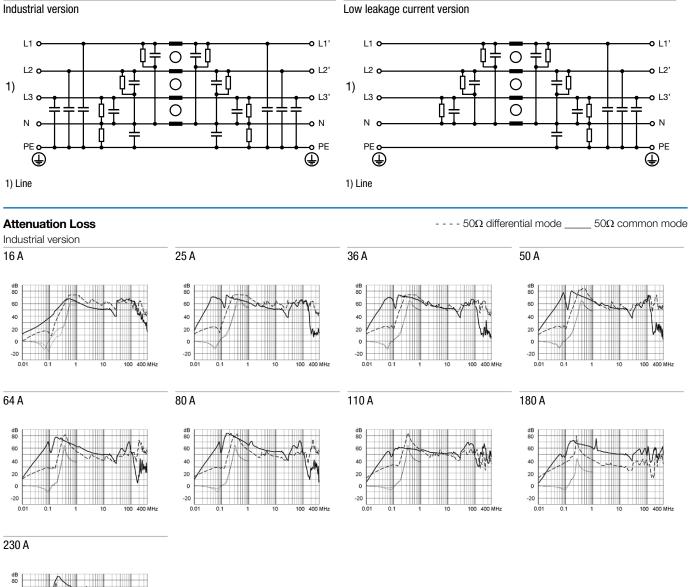


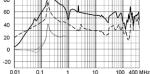
Case 5D-95





### Diagrams



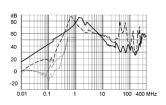


50 A

#### Low leakage current version

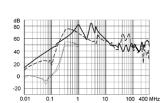




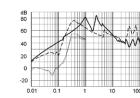




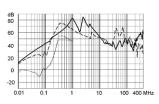
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-20				
0.01	0.1	1	10	100 400 MHz



25 A



36 A



### All Variants

Rated Current @ Ta 50°C [A]	Filter Type	Machine Safety	Power Dissipa- tion [W]	Contact Resi- stance [mΩ]	Leakage Cur- rent [mA] @ 440V,	Weight [kg]	Screw clamps [mm2] 2)	Housing	Order Number
		culoty	[]		60Hz 1)		[]]_)		
16	Industrial version		1.5	5.7	10.5	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
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
16	Industrial version	•	1.5	5.7	10.5	0.9 kg	4	5A-4	3-138-306
25	Industrial version	•	1.6	2.5	10.7	1.1 kg	10	5A-10	3-138-307
36	Industrial version	•	2.1	1.65	10.7	1.3 kg	10	5B-10	3-138-308
50	Industrial version	•	4.1	1.65	11.4	1.3 kg	10	5B-10	3-138-309
64	Industrial version	•	3.9	0.94	11.4	1.35 kg	16	5B-16	3-138-310
80	Industrial version	•	5.2	0.82	12.2	1.45 kg	25	5C-25	3-138-311
110	Industrial version	•	6.3	0.52	12.2	2.5 kg	50	5C-50	3-138-312
180	Industrial version	•	12	0.37	12.2	3.1 kg	95	5D-95	3-138-313
230	Industrial version	•	14.3	0.27	13.1	4.1 kg	95	5D-95	3-138-314
16	Low leakage current version	•	1.5	5.7	1.4	0.9 kg	4	5A-4	3-138-315
25	Low leakage current version	•	1.6	2.5	3	1.1 kg	10	5A-10	3-138-316
36	Low leakage current version	•	2.1	1.65	3	1.3 kg	10	5B-10	3-138-317

Rated Current @ Ta 50°C [A]	Filter Type	Machine Safety	Power Dissipa- tion [W]	Contact Resistance [m $\Omega$ ]	Leakage Cur- rent [mA] @ 440V, 60Hz 1)	Weight [kg]	Screw clamps [mm2] 2)	Housing	Order Number
50	Low leakage current version	•	4.1	1.65	3	1.3 kg	10	5B-10	3-138-318
64	Low leakage current version	•	3.9	0.94	3	1.35 kg	16	5B-16	3-138-319

Availability for all products can be searched real-time: https://www.schurter.com/en/info-center/support-tools/stock-check-distributors

1 Pcs

1) Leakage current according IEC 60939-1

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

Packaging	unit
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The specifications, descriptions and illustrations indicated in this document are based on current information. All content is subject to modifications and amendments. Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability and test each product selected for their own applications.

## **Mouser Electronics**

Authorized Distributor

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### Schurter:

3-109-8523-109-8553-109-8533-108-7173-108-7153-109-8563-109-8543-108-7123-108-7143-108-7143-108-7163-108-7013-108-7003-108-7133-108-7183-138-3063-138-3083-138-3133-138-3073-138-3123-138-3173-138-3143-138-3153-138-3193-138-3093-138-3113-138-3183-138-310