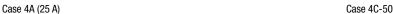
# 1-stage filter for 3-phase systems









# **Description**

- Terminals for three phases and ground
- 1 stage
- Very high attenuation
- Industrial or low leakage current versions

# **Unique Selling Proposition**

- Compact design with small footprint
- Single-stage filter for high efficiency
- Light weight design
- Wide temperature range

# **Applications**

**Approvals and Compliances** 

See below:

- 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 62368-1

# Weblinks

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

#### **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 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: FMAC NEO

Αŗ	proval Logo	Certificates	Certification Body	Description
4	<b>X</b> 10	VDE Approvals	VDE	Certificate Number: 40049000
		UL Approvals	UL	UL File Number: E72928

#### **Product standards**

Product standards that are referenced

Organization	Design	Standard	Description
<u>IEC</u>	Designed according to	IEC 60939	Passive filters for suppressing electromagnetic interference
(U <sub>L</sub> )	Designed according to	UL 1283	Electromagnetic interference filters

# **Application standards**

Application standards where the product can be used

Organization	Design	Standard	Description
<u>IEC</u>	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.

## Compliances

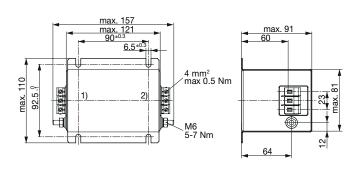
The product complies with following Guide Lines

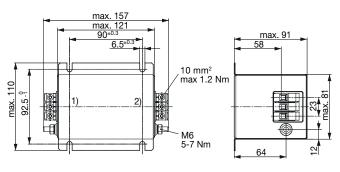
Identification	Details	Initiator	Description
C€	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
ROHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
<b>©</b>	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.

Case 4A (25 A)

# Dimension [mm]

Case 4A (16 A)

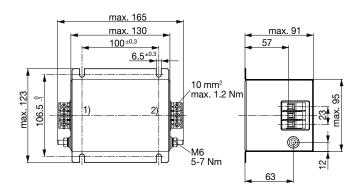


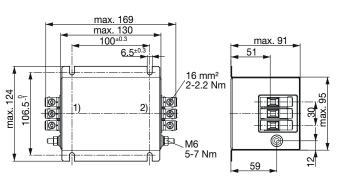


1) Line 2) Load

Case 4B-10

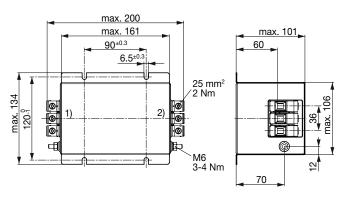
1) Line 2) Load Case 4B-16

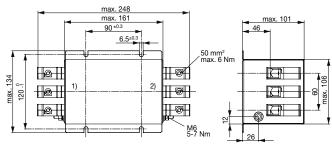




1) Line 2) Load 1) Line 2) Load

Case 4C-25 Case 4C-50

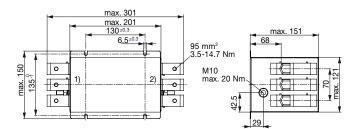




1) Line 2) Load

Case 4D

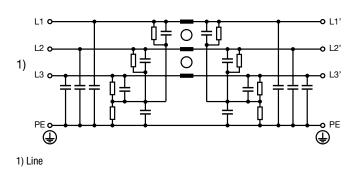
1) Line 2) Load



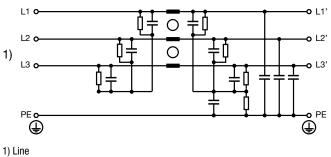
- 1) Line
- 2) Load

# **Diagrams**

Industrial version



Low leakage current version

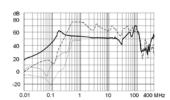


# **Attenuation Loss**

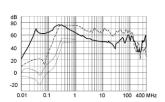
- - - -  $50\Omega$  differential mode \_\_\_\_\_  $50\Omega$  common mode

Industrial version

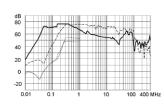




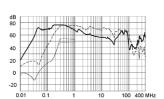
25 A



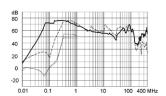
36 A



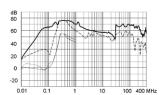
50 A



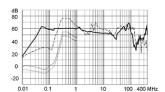
64 A



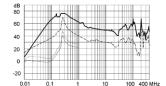
80 A



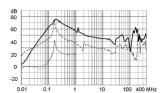
110 A



180 A

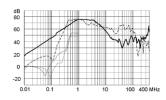


230 A

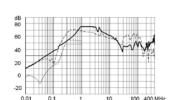


Low leakage current version

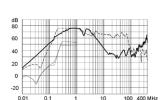
16 A



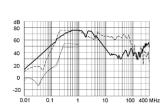
25 A



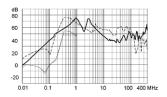
36 A



50 A



64 A



# **All Variants**

Rated Current @ Ta 50°C [A]	Filter Type	Tripped Power Dissipation [W]	Contact Resistance [mΩ]	Leakage Cur- rent [mA] @ 440V, 60Hz 1)	Weight [kg]	Screw clamps [mm2] 2)	Housings	Order Number	
16	Industrial version	1.6	6.2	10.5	0.9 kg	4	4A	3-104-580	
25	Industrial version	1.9	3	10.7	1.1 kg	10	4A	3-104-581	
36	Industrial version	3.2	2.4	10.7	1.2 kg	10	4B-10	3-104-582	
50	Industrial version	6	2.4	11.4	1.2 kg	10	4B-10	3-104-583	
64	Industrial version	3.7	0.9	11.4	1.3 kg	16	4B-16	3-104-584	
80	Industrial version	4	0.6	12.2	1.4 kg	25	4C-25	3-104-585	
110	Industrial version	4.9	0.4	12.2	2.5 kg	50	4C-50	3-104-586	

Rated Current @ Ta 50°C [A]	Filter Type	Tripped Power Dissipation [W]	Contact Resistance [mΩ]	Leakage Cur- rent [mA] @ 440V, 60Hz 1)	Weight [kg]	Screw clamps [mm2] 2)	Housings	Order Number	
180	Industrial version	4.4	0.1	12.2	3kg	95	4D	3-104-587	
230	Industrial version	5.8	0.1	13.1	4 kg	95	4D	3-104-588	
16	Low leakage current version	1.6	6.2	1.4	0.9 kg	4	4A	3-104-862	
25	Low leakage current version	1.9	3	3	1.1 kg	10	4A	3-104-841	
36	Low leakage current version	3.2	2.4	3	1.2 kg	10	4B-10	3-104-872	
50	Low leakage current version	6	2.4	3	1.2 kg	10	4B-10	3-104-873	
64	Low leakage current version	3.7	0.9	3	1.3 kg	16	4B-16	3-104-874	

Most Popular.

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

Packaging unit

1 Pcs

**EMC Products** 

<sup>1)</sup> Leakage current according IEC 60939-1

<sup>2)</sup> 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

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