### Ultra compact and efficient 2-stage filter in ECO design for 3-phase systems



## See below: Approvals and Compliances

### Applications

- Voltage rating 480 VAC for world wide acceptance
- 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**

Description

- High attenuation value

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Rated Current	10 - 115A
Rated voltage	480 VAC, 50/60 Hz
Approval for	10 - 115A @ Ta 40 °C / 480VAC;
	50/60 Hz
Overload Current	1.5 x lr for 1 minute, per hour
Leakage Current	standard < 0.5 mA (440 V / 50 Hz)
Dielectric Strength	480 VAC:
	> 2.25 kVDC between L-L
	> 3 kVDC between L-PE
Number of Filter Stages	2-stage
Weight	1.1 - 5 kg
Material: Housing	Aluminum
Sealing Compound	UL 94V-0

Mounting	Screw-on mounting on chassis, upright or lengthwise
Terminal	Bolts and nuts
Operating Temperature	-25 °C to 100 °C
Climatic Category	25/100/21 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: FMBC ECO

Approval Logo	Certificates	Certification Body	Description
10	VDE Approvals	VDE	Certificate Number: 40023521
c <b>FL</b> <sup>®</sup> us	UL Approvals	UL	UL File Number: E72928

## **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

## Application standards

Application standards where the product can be used

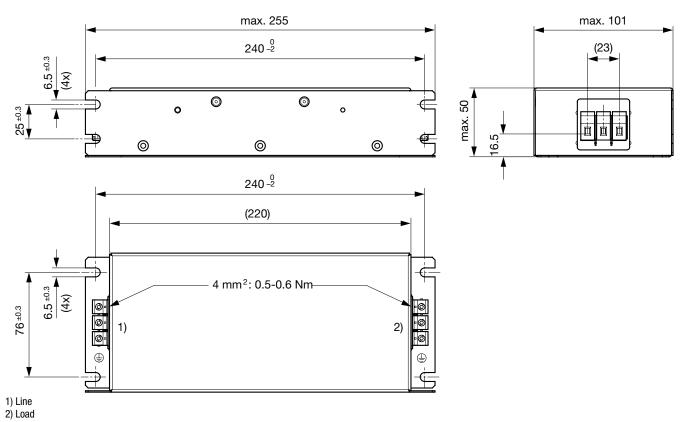
Organization	Design	Standard	Description
IEC	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.
Compliances			

The product complies with following Guide Lines

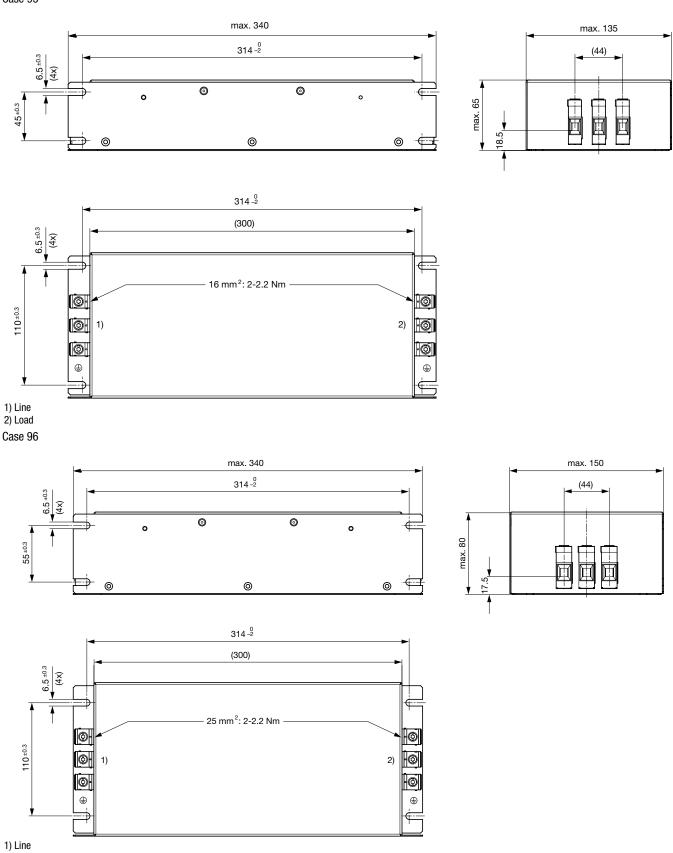
Identification	Details	Initiator	Description				
CE	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.				
RoHS	RoHS	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.				

## Dimension [mm]

Case 94



Case 95



2) Load

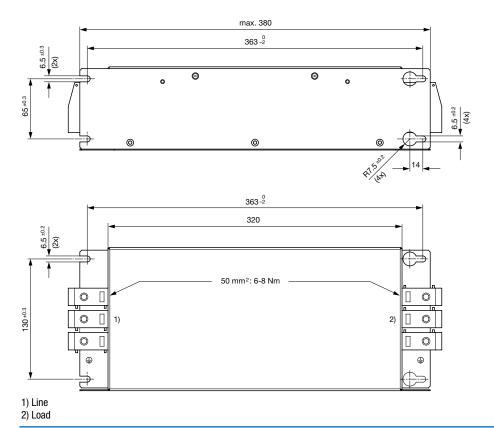
max. 155

(48)

max. 90

39

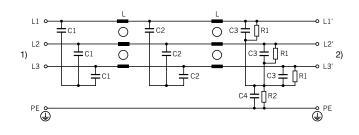
Case 97



## Technical data to the filter components

Rated Current [A]	L [mH]	C1 [µF]	C2 [µF]	C3 [µF]	C4 [nF]	<b>R1 [M</b> Ω]	<b>R2 [M</b> Ω]	Netzfit- ler Aus-
10	2.3	1	1	1	10	1	1	Indus-
20	1.5	1	1	1	10	1	1	Indus-
36	0.9	1	1	2.2	47	1	1	Indus-
50	0.45	1	1	2.2	47	1	1	Indus-
66	0.45	1	1	2.2	47	1	1	Indus-
80	0.32	1	1	2.2	47	1	1	Indus-
115	0.24	1	2.2	2.2	100	1	1	Indus-

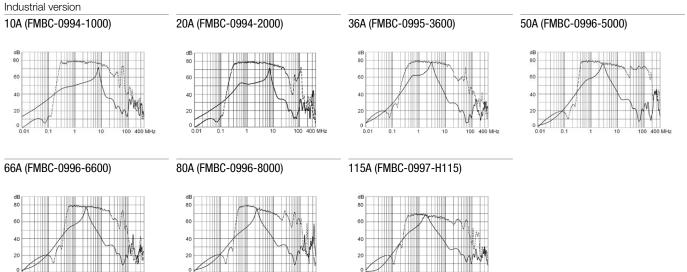
### Diagrams



1) Line

## **Attenuation Loss**

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



### All Variants

Rated Current @ Ta 50°C (75°C) [A]	Tripped Power Dissipa- tion [W]	Contact Resistance [m $\Omega$ ]	Leakage Cur- rent [mA] @ 440V,	Weight [kg]	Screw clamps	Housings	Packaging unit [PCS]	Order Number
10	4	37	0.04	1.1 kg	4	94	1	FMBC-0994-1000
20	9	20	0.04	1.6 kg	4	94	1	FMBC-0994-2000
36	5	3.5	0.2	2.2 kg	16	95	1	FMBC-0995-3600
50	20	7.5	0.2	2.7 kg	16	95	1	FMBC-0995-5000
66	22	4.5	0.2	3.4 kg	25	96	1	FMBC-0996-6600
80	24	3.5	0.2	3.4 kg	25	96	1	FMBC-0996-8000
115	36	2.5	0.4	5 kg	50	97	1	FMBC-0997-H115

Most Popular.

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

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 1 Pcs

12.05.2020

## **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Schurter:

 FMBC-0995-3600
 FMBC-0994-1000
 FMBC-0994-2000
 FMBC-0995-5000
 FMBC-0996-6600
 FMBC-0996-8000

 FMBC-0997-H115
 FMBC-0997-H115
 FMBC-0996-8000
 FMBC-0996-8000
 FMBC-0996-8000