2-stage filter for 3-phase systems

See below:
Approvals and Compliances

Description

- 3 phase line filter with standard attenuation

Applications

- Voltage rating 480 VAC for world wide acceptance
- Protection against interference voltage from the mains
- For standard and industrial applications
- Suitable for use in equipment according to IEC/UL 62368-1

References

We recommend for new applications the type FMBC EP; FMBC NEO

Weblinks

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

Technical Data

Rated Current	8 - 64 A
Rated voltage	480 VAC, 50/60 Hz
Approval for	8 - 64 A @ 40 (75) °C / 480 VAC
Overload Current	1.5 x Ir for 1 minute, per hour
Leakage Current	industrial < 5 mA (440 V / 50 Hz)
Dielectric Strength	480 VAC: 2.25 kVDC between L-L 3 kVDC between L-PE Test voltage (2 sec)
	between 3 kVDC L-PE 50 Hz
Number of Filter Stages	2-stage
Weight	1.7 - 7.45 kg
Material: Housing	Metal
Sealing Compound	UL 94V-0

Mounting	Screw-on mounting on chassis, from top
Terminal	Screw clamps
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	> 200'000 h 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

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	Certificate Number: 40004666
c UL us	UL Approvals	UL	UR 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
UL	Designed according to	UL 1283	Electromagnetic interference filters

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

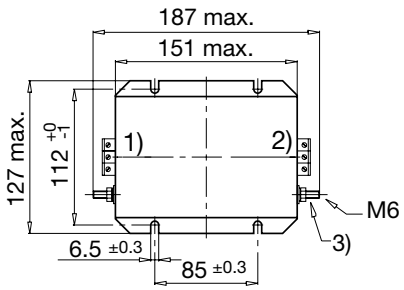
Compliances

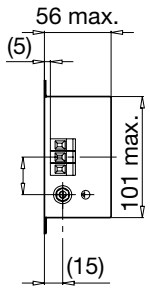
The product complies with following Guide Lines

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.
UKCA	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	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.

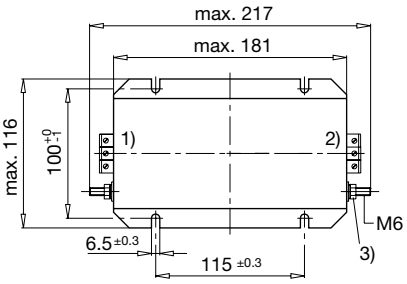
Dimension [mm]

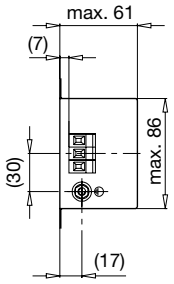
Case 27-3





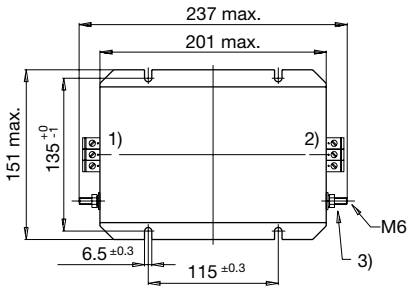
Case 31-3

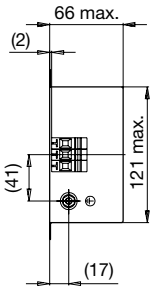




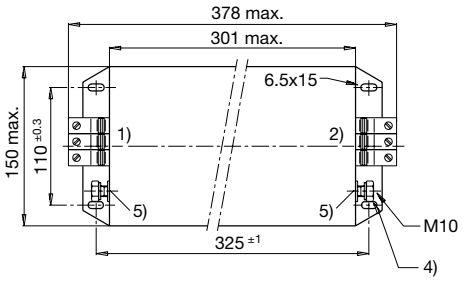
1) Line
2) Load
3) Nut torque 3...4 Nm

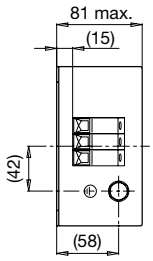
Case 32-7



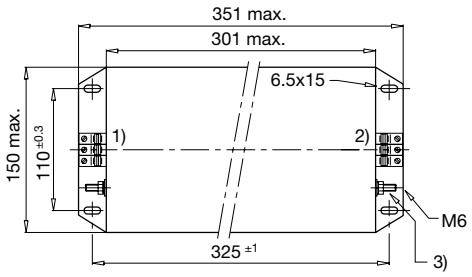


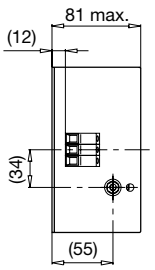
Case 37-3



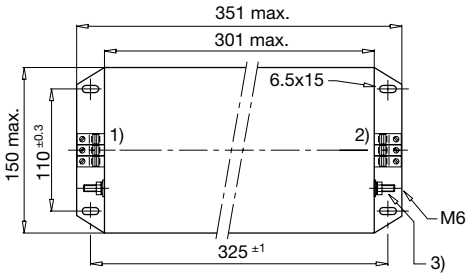


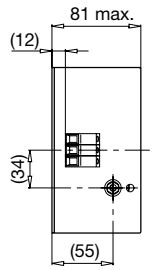
Case 38-3





Case 40-3



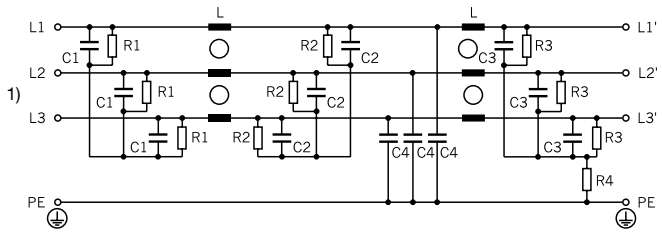


1) Line
2) Load
3) Tightening torque 3...4 Nm
4) Tightening torque 10...17 Nm
5) Do not unscrew lock-nut

Technical data to the filter components

Rated Current @ Tu 40°C (75°C) [A]	Characteristic	L [mH]	C1 [µF]	C2 [µF]	C3 [µF]	C4 [nF]	R1 [MΩ]	R2 [MΩ]	R3 [MΩ]	R4 [MΩ]
8 (5.6)	Excellent attenuation	8	1.0	1.0	2.2	47	-	-	1	1
12 (6.6)	Excellent attenuation	5.5	1.0	1.0	2.2	47	-	-	1	1
16 (8.8)	Excellent attenuation	4.5	1.0	1.0	2.2	47	-	-	1	1
25 (13)	High attenuation	2.4	1.0	2.2	2.2	47	-	-	1	1
25 (16)	Excellent attenuation	4.5	1.0	2.2	2.2	47	-	-	1	1
36 (19)	High attenuation	1.5	1.0	2.2	4.4	47	-	1	1	1
36 (19.5)	Excellent attenuation	3	1.0	2.2	4.4	47	1	1	1	1
50 (27)	High attenuation	1	2.2	2.2	4.4	100	-	1	1	1
64 (36)	Excellent attenuation	0.85	2.2	2.2	4.4	100	-	1	1	1

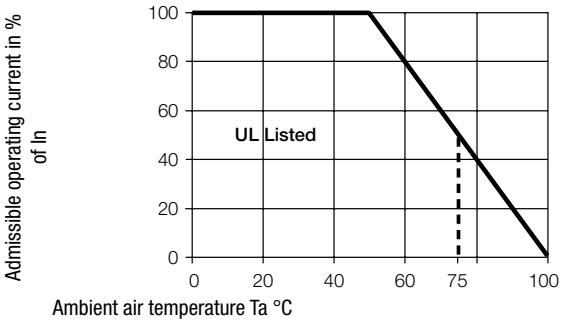
Diagrams



1) Line

Derating Curves

Permissible Working Current as a Function of Ambient Temperature

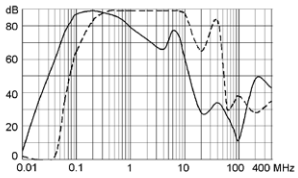


Attenuation Loss

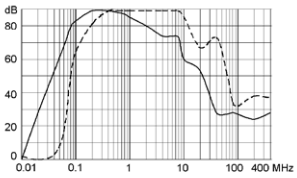
- - - - 50Ω differential mode _____ 50Ω common mode

Industrial version

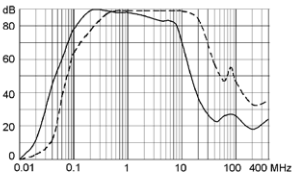
8A (FMBC-0927-0810)



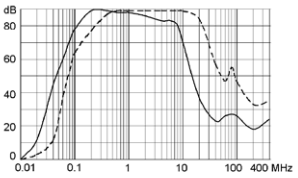
12A (FMBC-0927-1210)



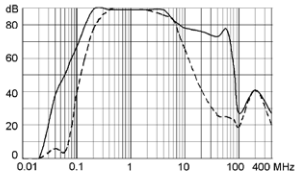
16A (FMBC-0931-1610)



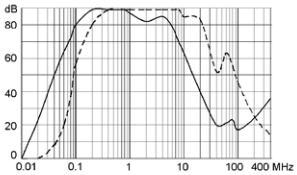
25A (FMBC-0932-2510)



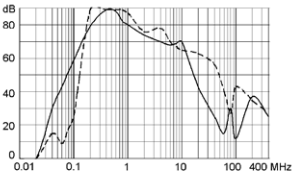
25A (FMBC-0932-2510L)



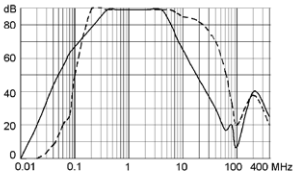
36A (FMBC-0938-3610)



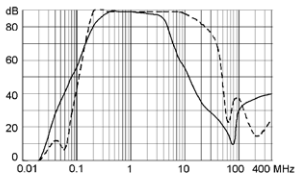
36A (FMBC-0940-3610L)



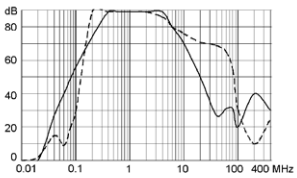
50A (FMBC-0938-5010)



50A (FMBC-0938-5010L)



64A (FMBC-0937-6410)



All Variants

Rated Current @ Tu 40°C (75°C) [A]	Characteristic	Tripped Power Dissipation [W]	Contact Resistance [mΩ]	Leakage Current [mA] @ 440V, 60Hz 1)	Weight [kg]	Screw clamps [mm2] 2)	Housing	Order Number
8 (5.6)	Excellent attenuation	10.6	55	0.5	1.7 kg	4	27-3	FMBC-0927-0810
12 (6.6)	Excellent attenuation	10	23	0.5	1.9 kg	4	27-3	FMBC-0927-1210
16 (8.8)	Excellent attenuation	14.6	19	0.5	2.28 kg	4	31-3	FMBC-0931-1610
25 (13)	High attenuation	20.7	11	0.5	3.5 kg	6	32-7	FMBC-0932-2510L
25 (16)	Excellent attenuation	18.8	10	0.5	3.4 kg	6	32-7	FMBC-0932-2510
36 (19)	High attenuation	18.3	4.7	0.5	6.5 kg	6	40-3	FMBC-0940-3610L
36 (19.5)	Excellent attenuation	29.2	7.5	0.5	7.4 kg	6	38-3	FMBC-0938-3610
50 (27)	High attenuation	25.9	3.45	1.2	7 kg	10	38-3	FMBC-0938-5010L
50 (27)	Excellent attenuation	30.3	4.0	1.2	7 kg	10	38-3	FMBC-0938-5010
64 (36)	Excellent attenuation	47.9	3.9	1.2	7.45 kg	25	37-3	FMBC-0937-6410

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 mm² values can be found in the general product information https://www.schurter.com/en/FAQ#10

Packaging unit 1 Pcs

14.02.2023