FMBC ECO

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

Approvals and Compliances

Description
- High attenuation value

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 60950

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

Technical Data

Rated Current	10 - 115 A
Rated voltage	480 VAC, 50/60 Hz
Approval for	10 - 115 A @ Ta 40 °C / 480 VAC; 50/60 Hz
Overload Current	1.5 x Ir
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	IP 20 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

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 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
UL	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 60950	IEC 60950-1 includes the basic requirements for the safety of information technologyequipment.

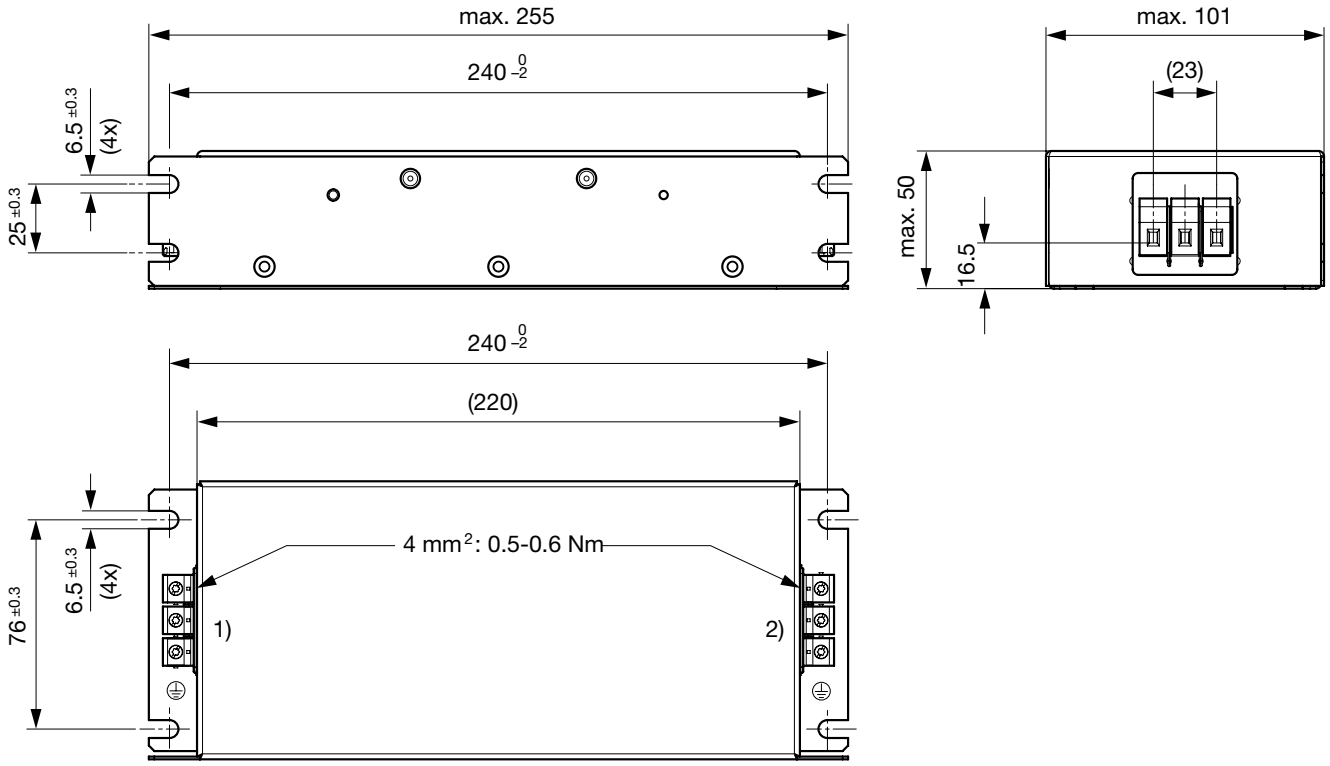
Compliances

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	EU Directive RoHS 2011/65/EU
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.

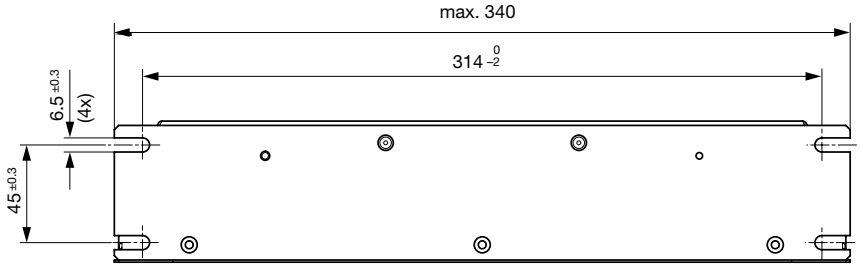
Dimension [mm]

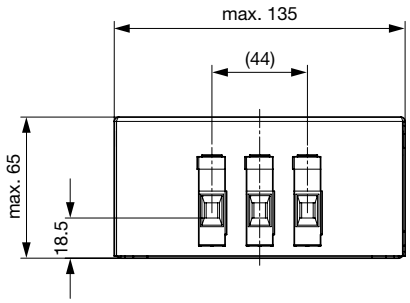
Case 94

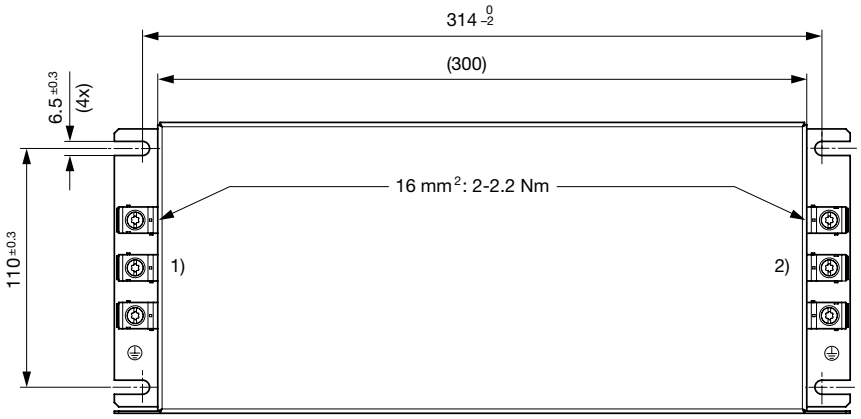


1) Line
2) Load

Case 95







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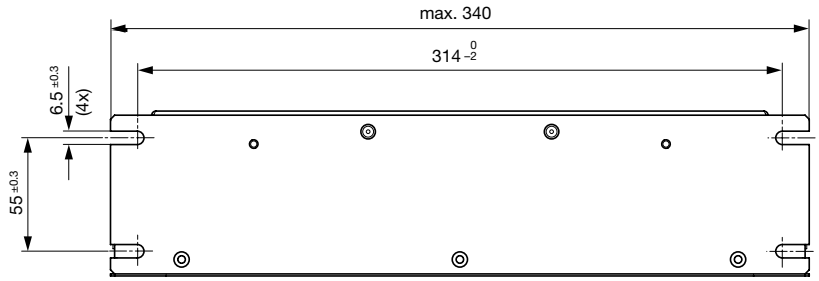
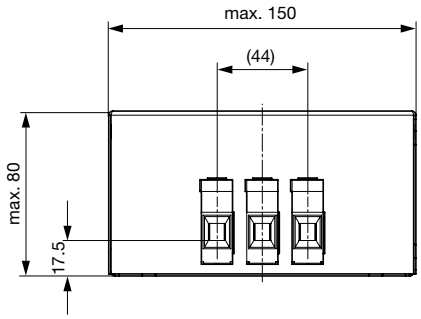
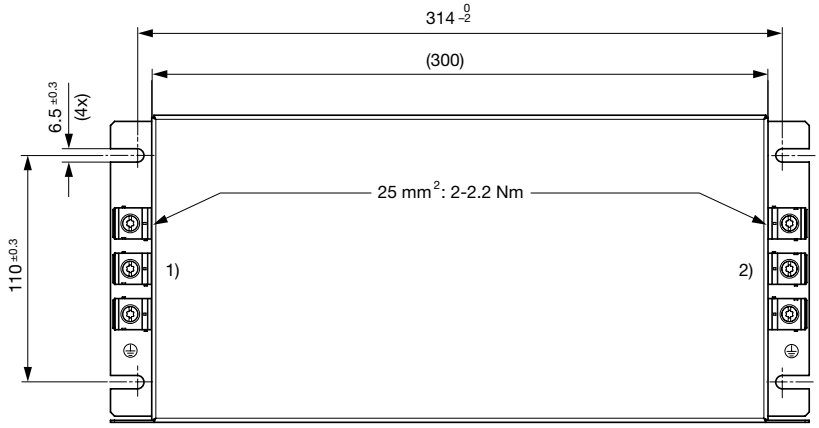
2) Load

Case 96

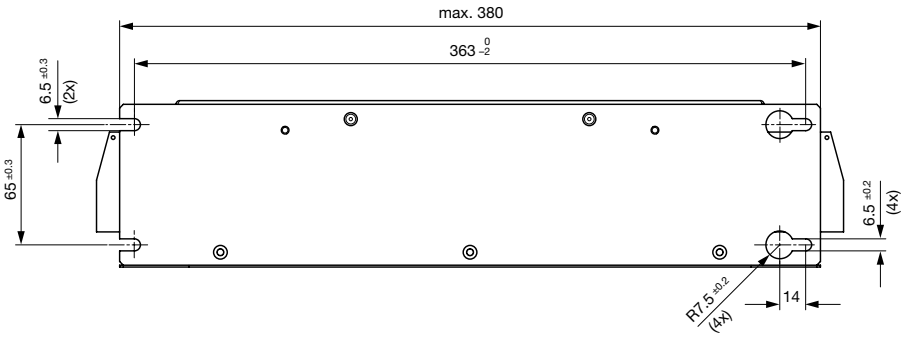


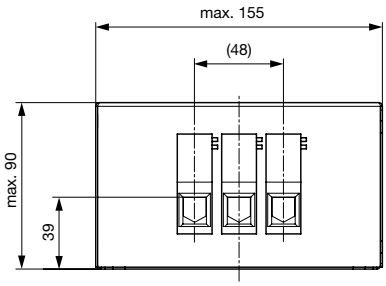


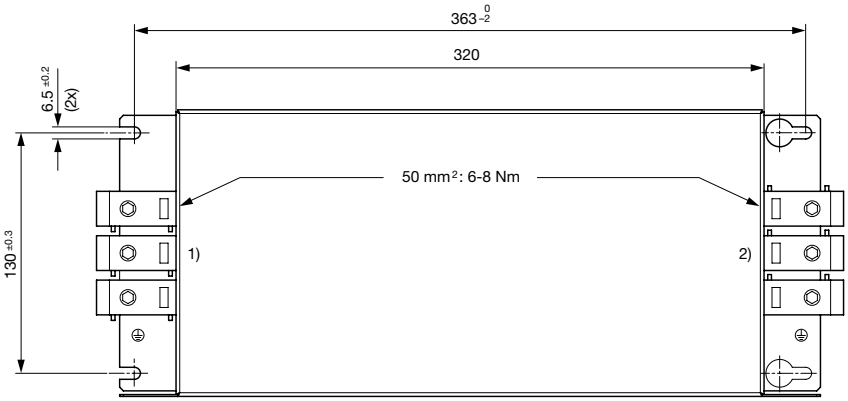


1) Line
2) Load

Case 97





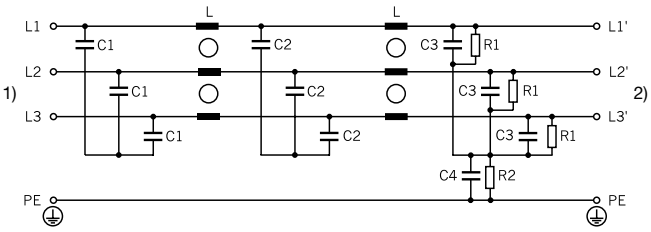


1) Line
2) Load

Technical data to the filter components

Rated Current [A]	L [mH]	C1 [µF]	C2 [µF]	C3 [µF]	C4 [nF]	R1 [MΩ]	R2 [MΩ]	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



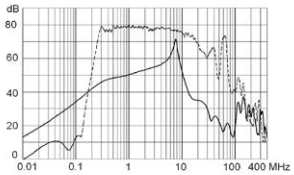
1) Line
2) Load

Attenuation Loss

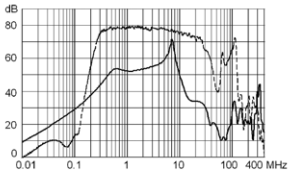
- - - - 50Ω differential mode _____ 50Ω common mode

Industrial version

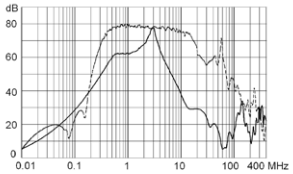
10A (FMBC-0994-1000)



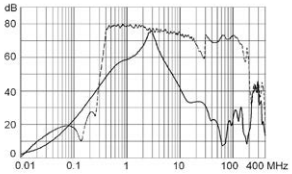
20A (FMBC-0994-2000)



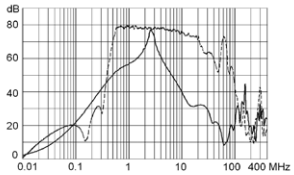
36A (FMBC-0995-3600)



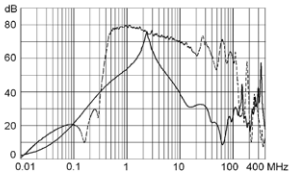
50A (FMBC-0996-5000)



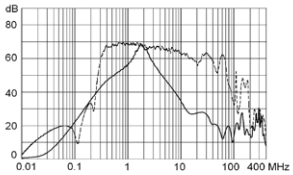
66A (FMBC-0996-6600)



80A (FMBC-0996-8000)



115A (FMBC-0997-H115)



All Variants

Rated Current @ Ta 50°C (75°C) [A]	Tripped Power Dissipation [W]	Contact Resistance [mΩ]	Leakage Current [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) 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 www.schurter.com/emc_info

Packaging unit

1 Pcs

14.12.2017