FMBC ECO

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

new



Description

- High attenuation value
- Cost optimized filter design with excellent price / perfomance ratio
- Very light due to partial potting

Standards

- IEC 60939
- UL 1283, Edition 5, CSA 22.2 No. 8-M1986, @ Ta 40 °C

Approvals

- VDE Certificate Number: 40023521
- UL File Number: E72928

Applications

- Voltage rating 480 VAC for world wide acceptance
- Especially designed for industrial applications such as: Frequency Converters, Stepper Motor Drives, UPS-Systems, Inverters
- Qualified for use in equipment according IEC/EN 60950

References

Weblinks

pdf, html, General Product Information, Approvals, RoHS, CHINA-RoHS, e-Store, SCHURTER-Stock-Check, Distributor-Stock-Check

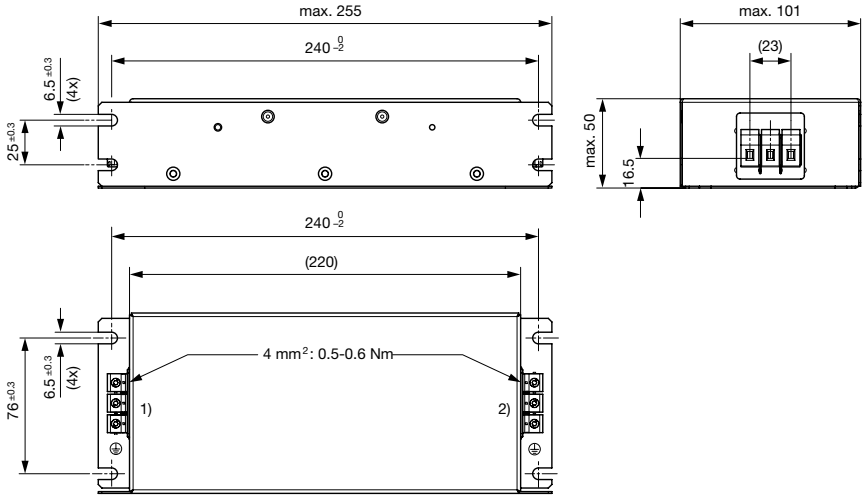
Technical Data

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	industrial < 5 mA (440 V / 50 Hz)
Dielectric Strength for 480 VAC	> 2.25 kVDC between L-L > 3 kVDC between L-PE
Number of Filter Stages	2
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 [°C]	-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 1 acc. to IEC 61140
MTBF	> 200'000 h acc. to MIL-HB-217 F

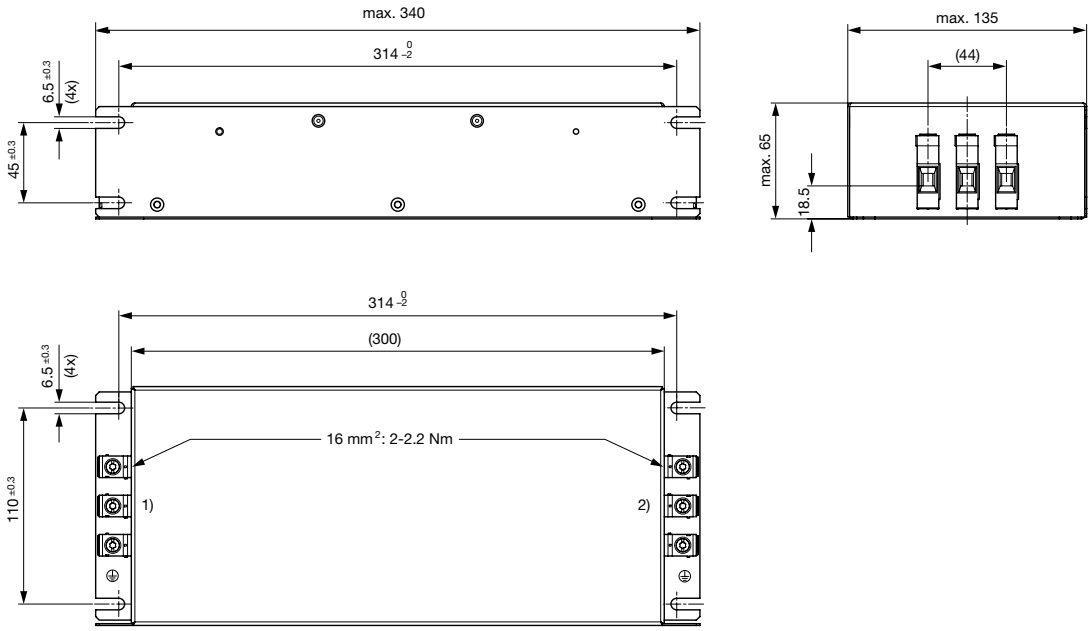
Dimensions

Case 94



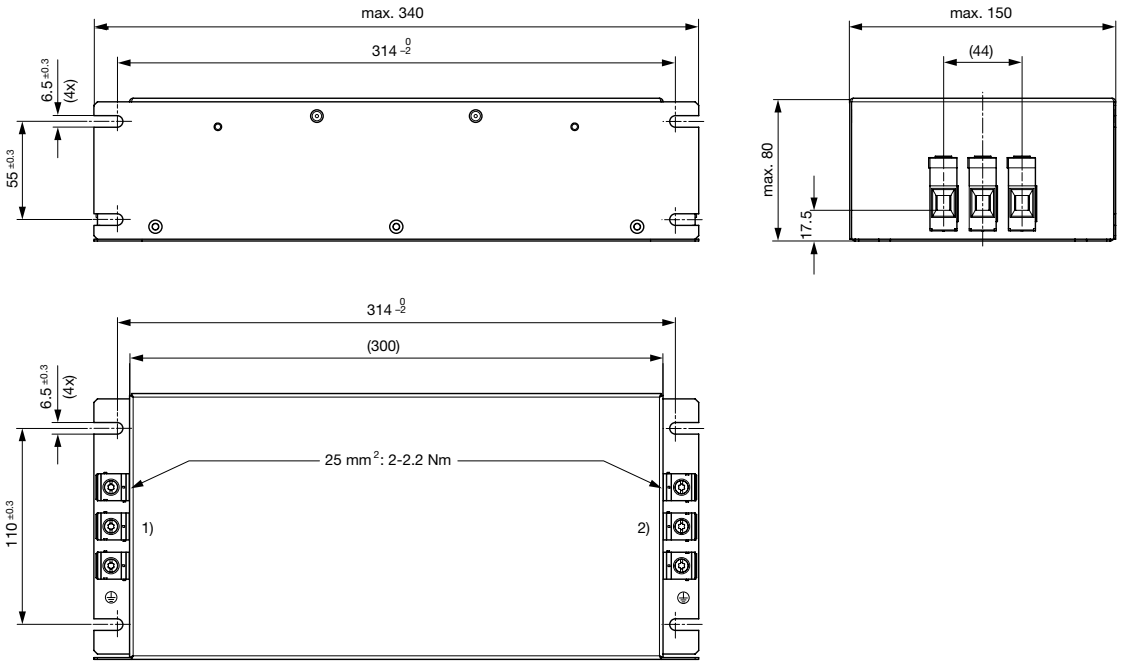
1) Line
2) Load

Case 95



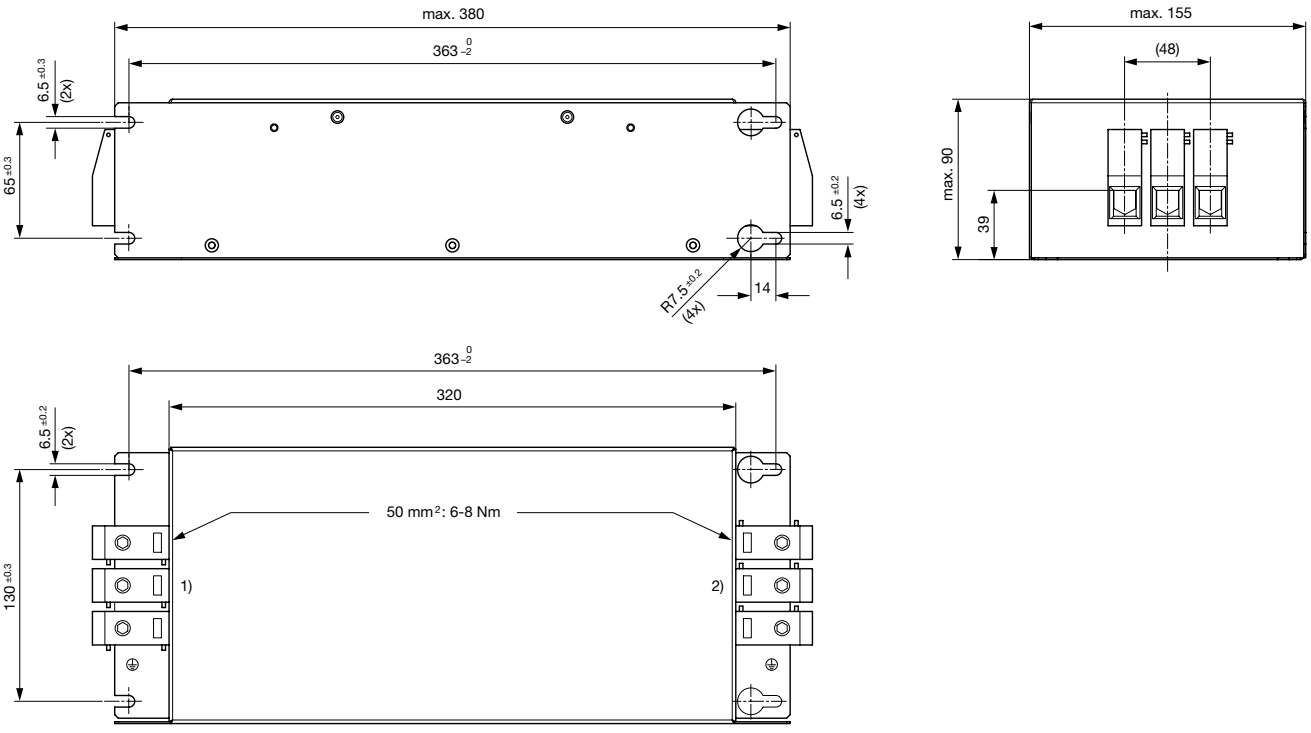
1) Line
2) Load

Case 96



1) Line
2) Load

Case 97

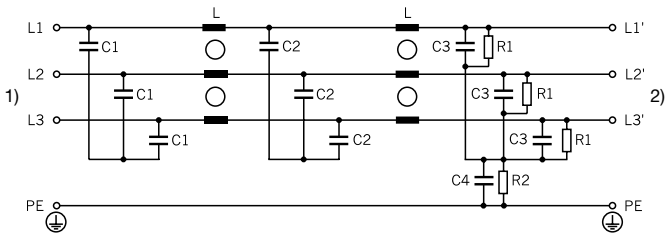


1) Line
2) Load

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	2.2	Indus-
50	0.45	1	1	2.2	47	1	2.2	Indus-
66	0.45	1	1	2.2	47	1	2.2	Indus-
80	0.32	1	1	2.2	47	1	2.2	Indus-
115	0.24	1	2.2	2.2	100	1	2.2	Indus-

Diagrams



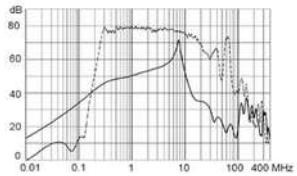
1) Line
2) Load

Attenuation Loss

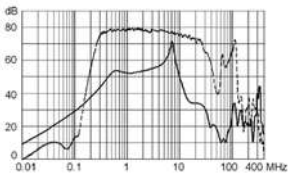
- - - - differential mode _____ common mode

Industrial Version

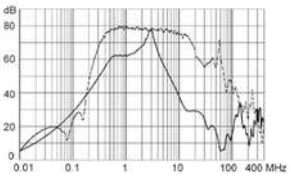
10A (FMBC-0994-1000)



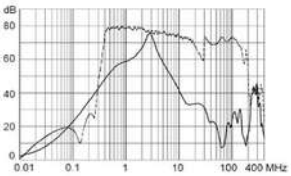
20A (FMBC-0994-2000)



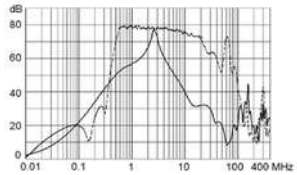
36A (FMBC-0995-3600)



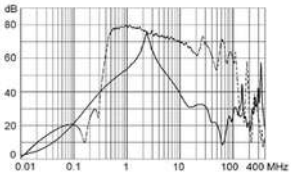
50A (FMBC-0996-5000)



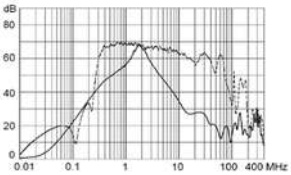
66A (FMBC-0996-6600)



80A (FMBC-0996-8000)



115A (FMBC-0997-H115)



Variants

Rated Current [A]	Tripped Power Dissipation [W]	Contact Resistance [mΩ]	Leakage Current [mA] 1)	Weight [kg]	Screw clamps	Housing	Packaging unit [PCS]	Order Number
10	4	37	5	1.1	10	94	1	FMBC-0994-1000
20	9	20	5	1.6	10	94	1	FMBC-0994-2000
36	5	3.5	7.5	2.2	16	95	1	FMBC-0995-3600
50	20	7.5	7.5	2.7	16	95	1	FMBC-0995-5000
66	22	4.5	7.5	3.4	25	96	1	FMBC-0996-6600
80	24	3.5	7.5	3.4	25	96	1	FMBC-0996-8000
115	36	2.5	15.0	5	35	97	1	FMBC-0997-H115

1) Worst case leakage current acc. to IEC60950 - Annex G4 (situation with two interrupted lines). Nominal leakage current acc. to IEC60950 - 5.2.5. can be found in section technical data.

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

The specifications, descriptions and illustrations indicated in this document are based on current information. All content is subject to modifications and amendments.