1-stage filter for 3-phase systems with neutral conductor



Description
- Terminals for three phases, neutral conductor and ground
- High symmetrical and asymmetrical attenuation
- In the frequency range from 10kHz up to 300MHz

Standards
- IEC 60939
- UL 1283, Edition 5, CSA 22.2 No. 8-M1986, @ Ta 75 °C

Approvals
- VDE Certificate Number: pending
- UL File Number: E72928

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 60950

Weblinks
pdf-datasheet, html-datasheet, General Product Information, Approvals, CE declaration of conformity, RoHS, CHINA-RoHS, REACH, e-Shop, SCHURTER-Stock-Check, Distributor-Stock-Check, Detailed request for product

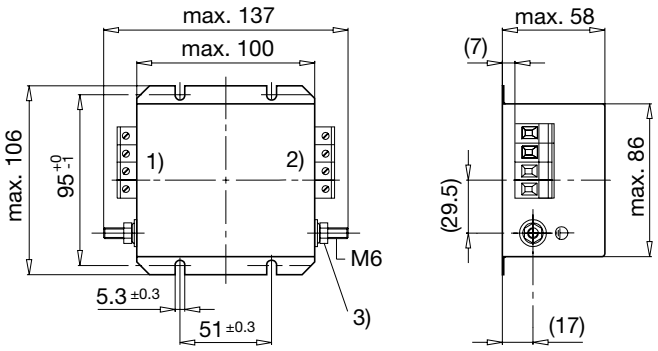
Technical Data

Rated Current	6 - 550 A
Rated voltage	277/480 VAC, 50/60 Hz
Approval for	6 - 550 A @ 40 (75) °C / 277/480 VAC
Overload Current	1.5 x Ir
Leakage Current	industrial < 5 mA (440 V / 50 Hz)
Dielectric Strength	277/480 VAC: 2.25 kVDC between L-L 1.7 kVDC between L-N 3 kVDC between L-PE 2.7 kVDC between N-PE Test voltage (2 sec)
Number of Filter Stages	1-stage
Weight	0.95 - 24.5 kg
Material: Housing	Metal
Sealing Compound	UL 94V-0

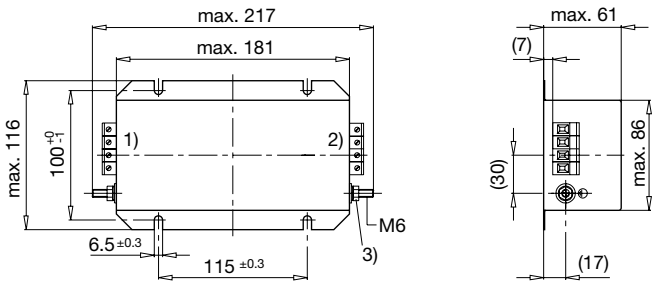
Mounting	Screw-on mounting on chassis, from top
Terminal	Screw clamps
Operating Temperature [°C]	-25 °C to 100 °C
Climatic Category	25/100/21 acc. to IEC 60068-1
Degree of Protection	IP 20 acc. to IEC 60529
Protection Class	Suitable for appliances with protection class I acc. to IEC 61140
MTBF	> 200'000 h acc. to MIL-HB-217 F

Dimension

Case 24-4

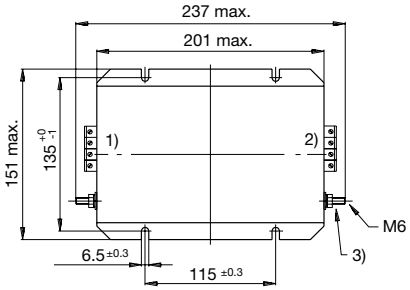


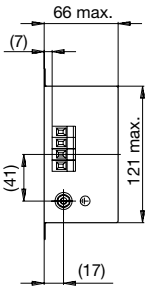
Case 31-4



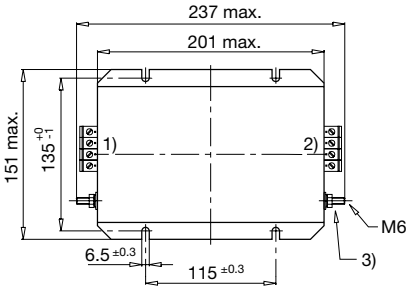
1) Line
2) Load
3) Nut torque 3...4 Nm

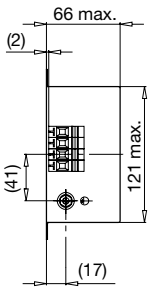
Case 32-4



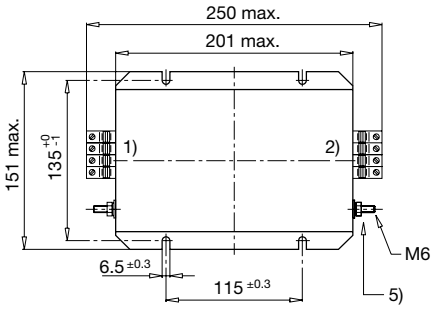


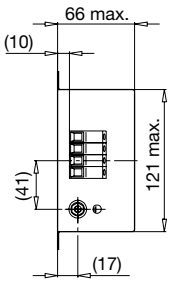
Case 32-8



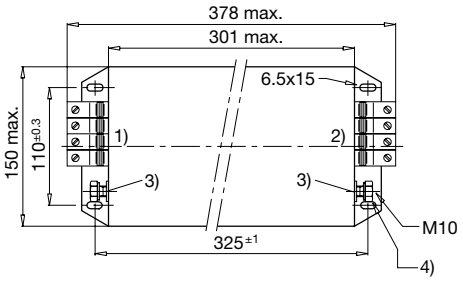


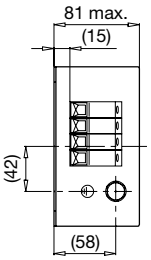
Case 34-4



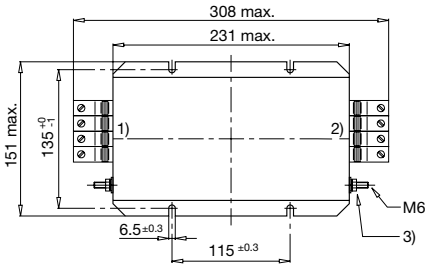


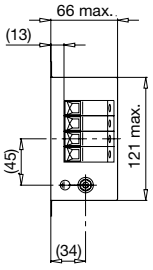
Case 37-4



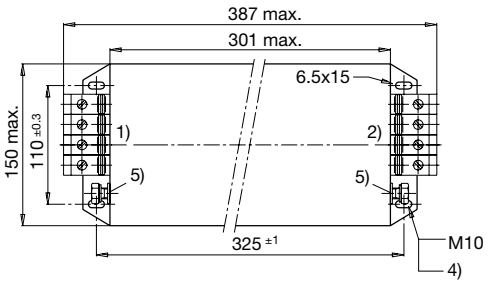


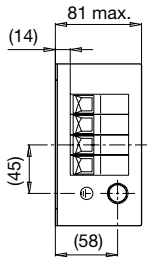
Case 53-4





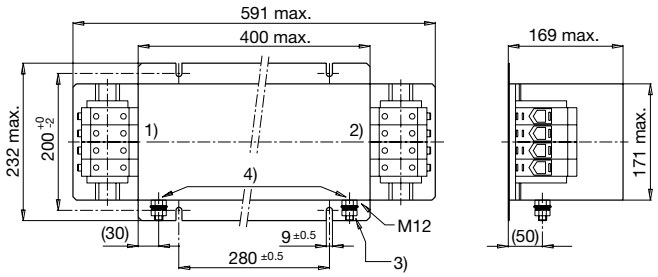
Case 54-4



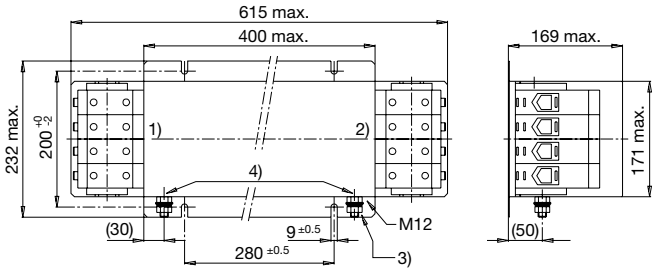


1) Line
2) Load
3) Tightening torque 3...4 Nm
4) Tightening torque 10...17 Nm
5) Do not unscrew lock-nut

Case 55-4

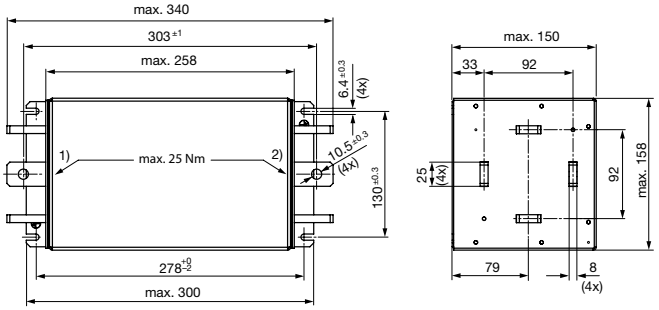


Case 56-4



1) Line
2) Load
3) Nut torque 14...30 Nm
4) Do not unscrew lock-nut

Case KQ

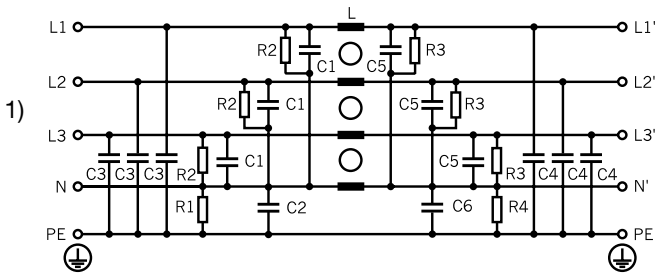


1) Line
2) Load
3) Torsional stress at flat copper max. 25 Nm

Technical data to the filter components

Rated Current @ Ta 40°C (75°C) [A]	L [mH]	C1 [µF]	C2 [µF]	C3 [nF]	C4 [nF]	C5 [µF]	C6 [µF]	R1 [MΩ]	R2 [MΩ]	R3 [MΩ]	R4 [MΩ]
6 (4.8)	9	1.0	-	100	10	2.2	-	-	-	1	2.2
8 (5)	8	1.0	-	100	10	2.2	-	-	-	1	2.2
16 (9.5)	5	1.0	-	100	10	2.2	-	-	-	1	2.2
25 (13)	2.6	4.4	1	10	47	4.4	1	-	1	1	2.2
36 (19)	1.8	4.4	1	10	47	4.4	1	2.2	1	1	-
50 (32)	0.8	4.4	1	10	100	4.4	1	2.2	1	1	-
64 (34)	0.6	4.4	1	10	100	4.4	1	2.2	1	1	-
80 (43)	0.9	6.6	1	47	100	6.6	1	2.2	1	1	-
110 (66)	0.5	6.6	1	47	100	6.6	1	2.2	1	1	-
180 (95)	0.25	6.6	1	47	100	6.6	1	2.2	1	1	2.2
250 (120)	0.2	11	1	100	100	11	1	2.2	0.5	0.5	2.2
550 (320)	0.2	10	1	100	100	10	1	2.2	0.5	0.5	2.2

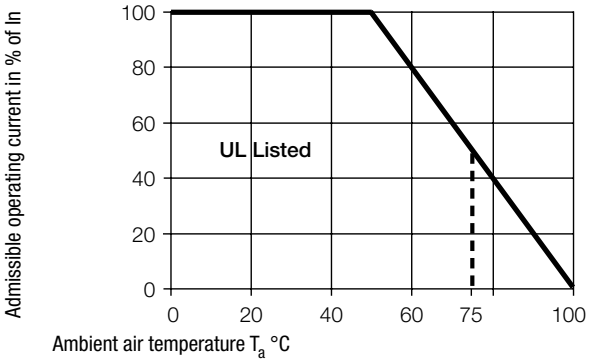
Diagrams



1) Line

Derating Curves

Permissible Working Current as a Function of Ambient Temperature

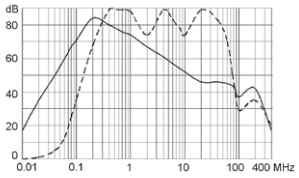


Attenuation Loss

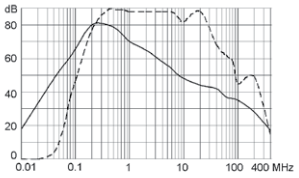
- - - - differential mode _____ common mode

Industrial version

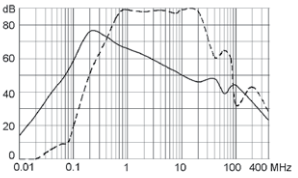
6A (FMAD-0924-0610)



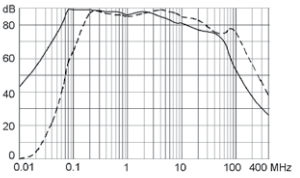
8A (FMAD-0931-0810)



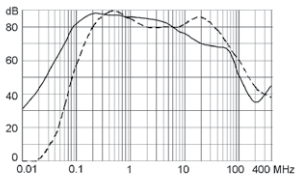
16A (FMAD-0931-1610)
16A (FMAD-0932-1610)



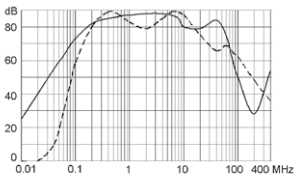
25A (FMAD-0932-2510)



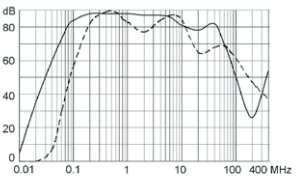
36A (FMAD-0934-3610)



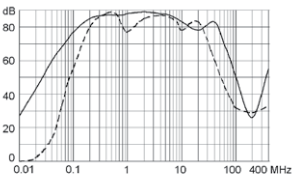
50A (FMAD-0934-5010)



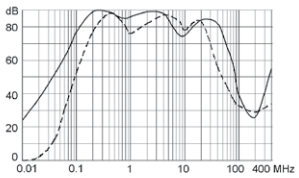
64A (FMAD-0953-6410)



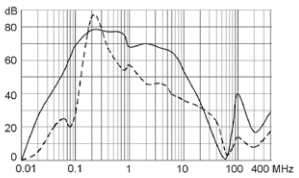
80A (FMAD-0937-8010)



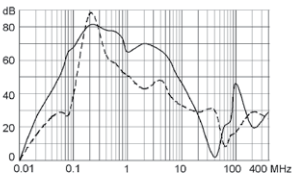
110A (FMAD-0954-H110)



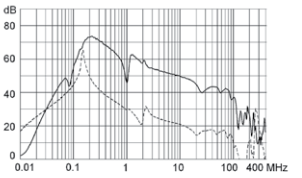
180A (FMAD-0955-H210)



250A FMAD-0956-H310



550A FMAD-09KQ-H650



All Variants

Rated Current @ Ta 40°C (75°C) [A]	Leakage Current [mA] @ 440V, 60Hz [1)]	Tripped Power Dissipation [W]	Contact Resistance [mΩ]	Weight [kg]	Clamps [mm²]	Housing	Order Number	
6 (4.8)	1.3	3.9	27	0.95 kg	4	24-4	FMAD-0924-0610	
8 (5)	1.3	9	35	1.9 kg	4	31-4	FMAD-0931-0810	■
16 (9.5)	1.3	15.4	15	2.1 kg	4	31-4	FMAD-0931-1610	■
16 (9.5)	1.3	15.4	15	3.1 kg	4	32-4	FMAD-0932-1610	
25 (13)	8.4	11.5	4.6	3.35 kg	6	32-8	FMAD-0932-2510	■
36 (19)	8.4	21	4	3.4 kg	10	34-4	FMAD-0934-3610	■
50 (32)	9.0	20	2	3.4 kg	10	34-4	FMAD-0934-5010	■
64 (34)	9.0	27	1.6	4.3 kg	25	53-4	FMAD-0953-6410	■
80 (43)	9.7	39	1.5	7.35 kg	25	37-4	FMAD-0937-8010	■
110 (66)	9.7	58	1.2	7.25 kg	50	54-4	FMAD-0954-H110	■
180 (95)	9.7	51	0.39	22 kg	95	55-4	FMAD-0955-H210	
250 (120)	10.4	62.5	0.25	24.5 kg	240	56-4	FMAD-0956-H310	
550 (320)	10.4	36	0.03	10.6 kg	10)	KQ	FMAD-09KQ-H650	

■ Most Popular.

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

10) Connection straps for M10

6A version: packing unit 2 pcs.

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.

Packaging unit 1 Pcs

26.05.2015

The specifications, descriptions and illustrations indicated in this document are based on current information. All content is subject to modifications and amendments. Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability and test each product selected for their own applications.