1- stage filter for 3-phase systems



Description
- 3 phase line filter with standard attenuation
- Available as high voltage filter (up to 520 VAC)
- High symmetrical and asymmetrical attenuation
- In the frequency range from 10kHz up to 300MHz

Standards
- IEC 60939
- UL 1283, edition 5 and CSA 22.2 No. 8-M1986 @ Ta 75°C for filter types with excellent attenuation up to 110A and high attenuation filter (L-) types. UL PENDING for filter types with excellent attenuation with rated current >110A and high voltage filter (-I) types.

Approvals
- VDE Certificate Number: 40004666 + 40004673
- UL File Number: E72928

Applications
- Voltage rating 480 and 520 VAC for world wide acceptance
- Protection against interference voltage from the mains
- For photovoltaic systems 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

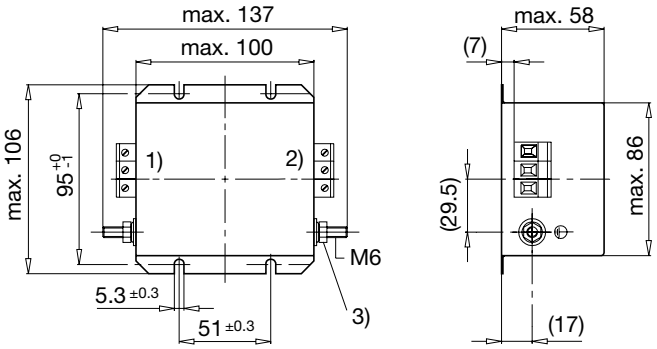
Technical Data

Rated Current	6 - 1100 A
Rated voltage	480/520 VAC, 50/60 Hz
Approval for	6 - 1100 A @ Ta 40 (75) °C / 520 VAC; 50 Hz
Overload Current	1.5 x Ir
Leakage Current	industrial < 15 mA (440 V / 50 Hz)
Dielectric Strength	480 VAC: 2.25 kVDC between L-L 3 kVDC between L-PE
	520 VAC: 2.25 kVDC between L-L 4 kVDC between L-PE Test voltage (2 sec)
Number of Filter Stages	1-stage
Weight	0.9 - 47 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 24-3



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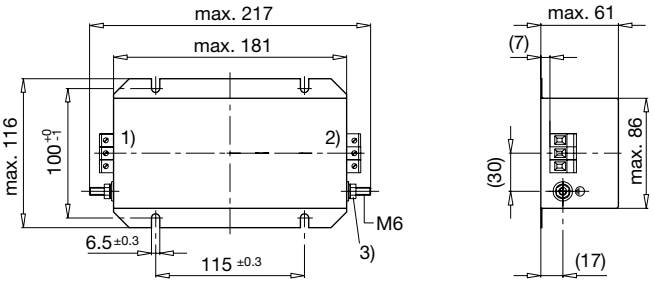
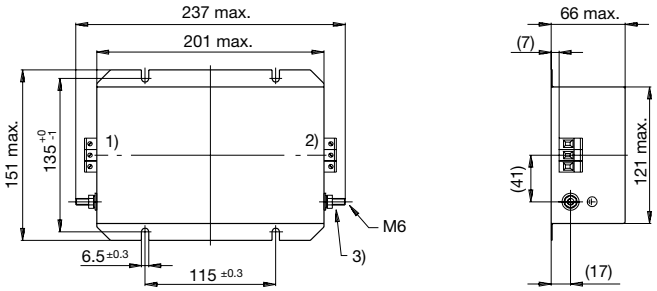


1) Line
2) Load
3) Nut torque 3...4 Nm

Case 32-3



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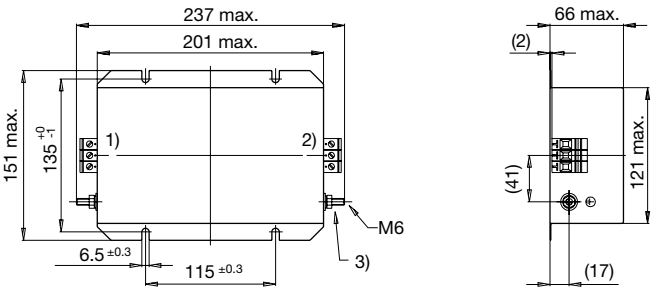

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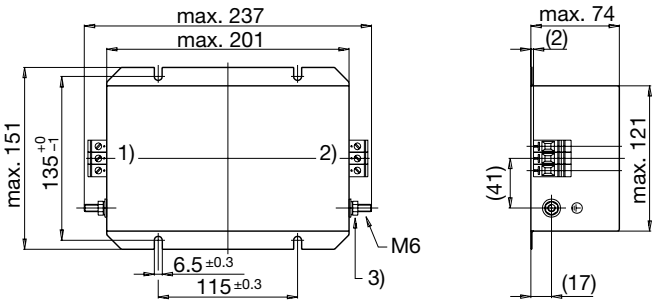

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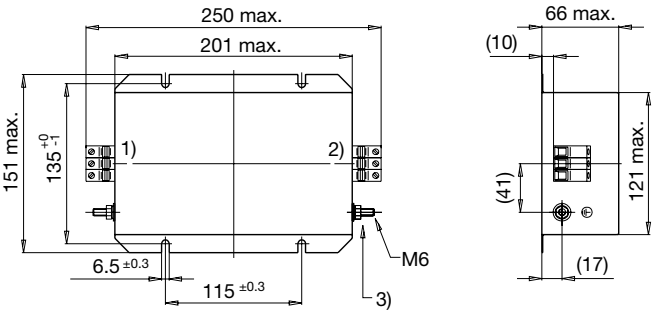

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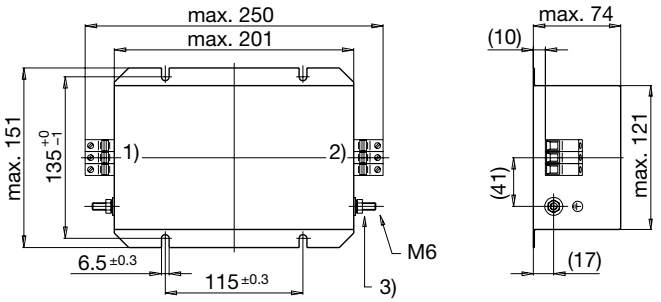

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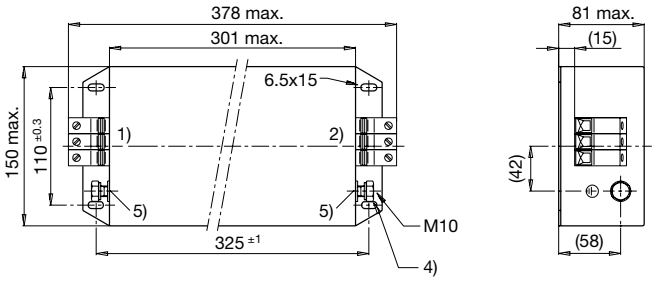

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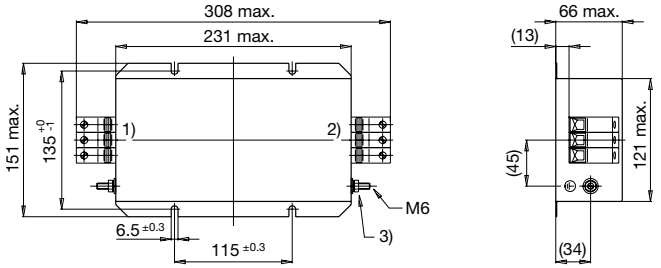

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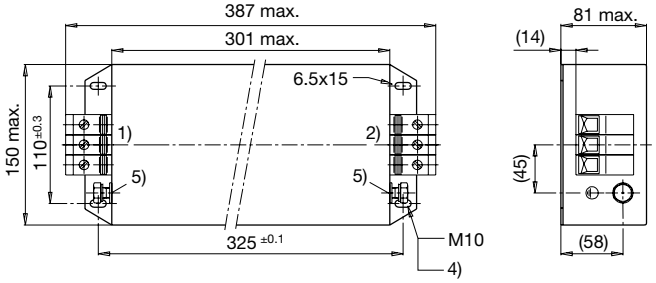
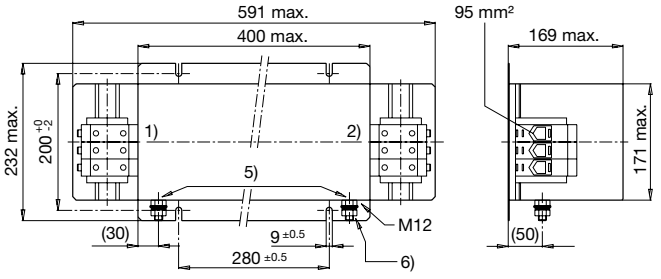


1) Line
2) Load
3) Tightening torque 3...4 Nm
4) Tightening torque 10...17 Nm
5) Do not unscrew lock-nut

Case 55-3



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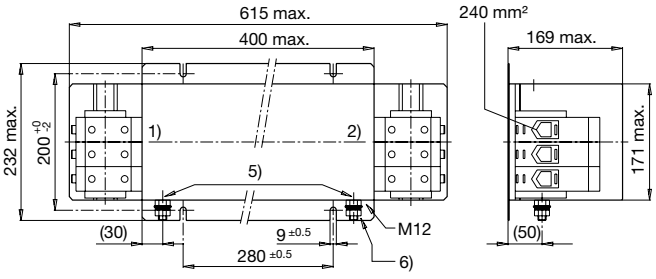

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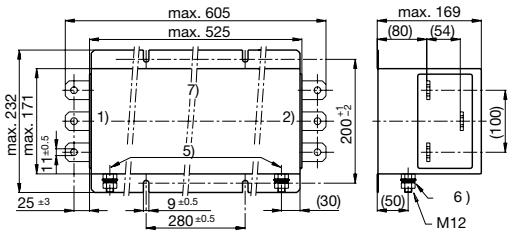

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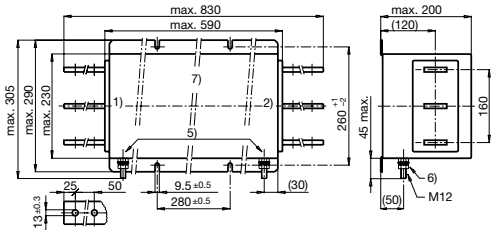


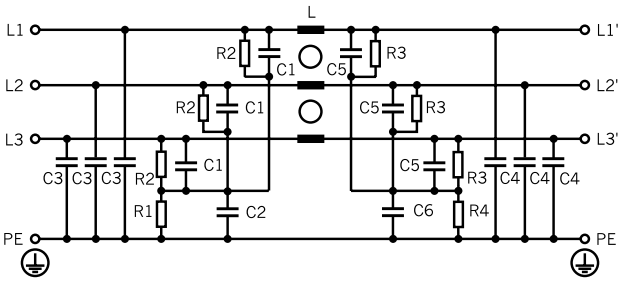
1) Line
2) Load
5) Do not unscrew lock-nut
6) Tightening torque 14...30 Nm
7) Current plates 720 mm^2 (60x12)

Technical data to the filter components

Rated Current @ Ta 40°C (75°C)	Characteristic	Rated Voltage [VAC]	L [mH]	C1 [µF]	C2 [µF]	C3 [nF]	C4 [nF]	C5 [µF]	C6 [µF]	R1 [MΩ]	R2 [MΩ]	R3 [MΩ]	R4 [MΩ]
6 (6)	Excellent attenuation	-	10	1.0	-	100	10	2.2	-	-	-	1	1
8 (5)	Excellent attenuation	480	10	1.0	-	100	10	2.2	-	-	-	1	1
16 (10)	Excellent attenuation	480	6	1.0	-	100	10	2.2	-	-	-	1	1
16 (Pending)	High voltage filter	520	6	1.5	-	50	11	1.5	-	2	1	1	2
16 (10)	Excellent attenuation	-	6	1.0	-	100	10	2.2	-	-	-	1	1
25 (15)	Excellent attenuation	-	3	4.4	1	10	47	4.4	1	2.2	1	1	2.2
25 (14)	High attenuation	-	2.4	4.4	1	10	47	4.4	1	2.2	-	1	2
25 (Pending)	High voltage filter	520	3	3	1.1	50	11	3	1.1	2	1	1	2
36 (20)	High attenuation	-	1.5	4.4	1	10	47	4.4	1	2.2	-	1	2
36 (Pending)	High voltage filter	520	2	3	1.1	50	11	3	1.1	2	1	1	2
50 (32)	Excellent attenuation	-	1	4.4	1	10	100	4.4	1	2.2	1	1	2.2
50 (30)	High attenuation	-	1	4.4	1	10	100	4.4	1	2.2	-	1	2
50 (Pending)	High voltage filter	520	1	3	1.1	50	11	3	1.1	2	1	1	2
64 (37)	High attenuation	-	0.6	4.4	1	10	100	4.4	1	2.2	-	1	2
80 (45)	Excellent attenuation	-	1	6.6	1	47	100	6.6	1	2.2	1	1	2.2
80 (Pending)	High voltage filter	520	1	4.5	1.1	50	50	4.5	1.1	2	1	1	2
64 (37)	Excellent attenuation	480	0.6	4.4	1	10	100	4.4	1	2.2	1	1	2.2
64 (Pending)	High voltage filter	520	0.6	3	1.1	50	11	3	1.1	2	1	1	2
110 (70)	Excellent attenuation	-	0.7	6.6	1	47	100	6.6	1	2.2	1	1	2.2
110 (Pending)	High voltage filter	520	0.7	4.5	1.1	50	50	4.5	1.1	2	1	1	2
180 (Pending)	Excellent attenuation	-	0.4	6.6	1	47	100	6.6	1	2.2	1	1	2.2
180 (Pending)	High voltage filter	520	0.4	4.5	1.1	50	50	4.5	1.1	2	1	1	2
250 (Pending)	Excellent attenuation	-	0.3	11	1	100	100	11	1	2.2	0.5	0.5	2.2
250 (Pending)	High voltage filter	520	0.3	7.5	1.1	50	50	7.5	1.1	2	1	1	2
340 (Pending)	Excellent attenuation	-	0.2	11	1	100	100	22	1	2.2	0.33	0.33	2.2
340 (Pending)	High voltage filter	520	0.2	7.5	1.1	50	50	15	1.1	2	1	1	2
450 (Pending)	Excellent attenuation	-	0.2	11	1	100	100	22	1	2.2	0.33	0.33	2.2
550 (Pending)	Excellent attenuation	-	0.2	11	1	100	100	22	1	2.2	0.33	0.33	2.2
1100 (Pending)	High voltage filter	520	0.12	11	1.1	50	-	22	1.1	2	0.5	0.25	2

Diagrams

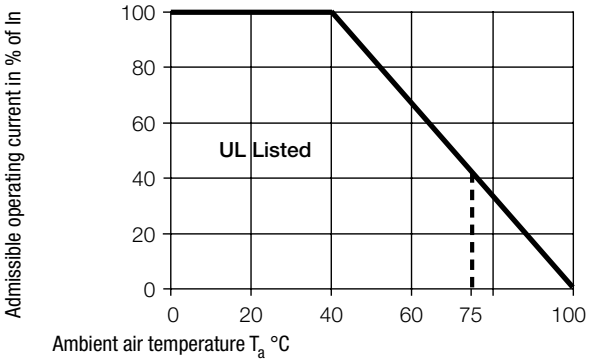
1)



1) Line

Derating Curves

Permissible Working Current as a Function of Ambient Temperature



Attenuation Loss

- - - - differential mode _____ common mode

Industrial version

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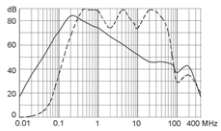

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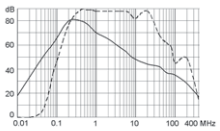
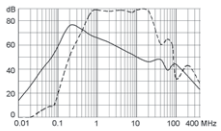


16A (FMAC-0931-1610)
16A (FMAC-0932-1610)



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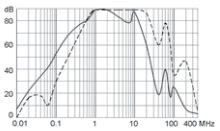

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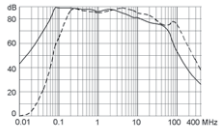

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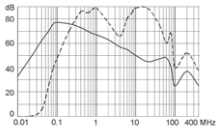

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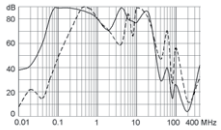

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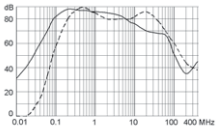

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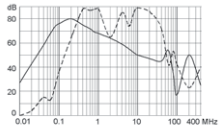

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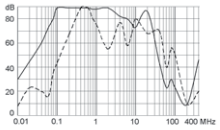

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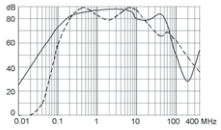

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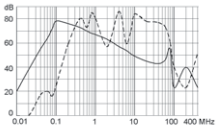

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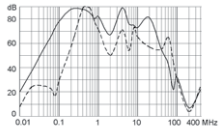

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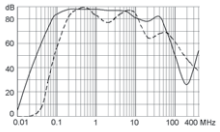

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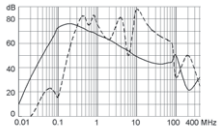

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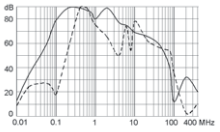

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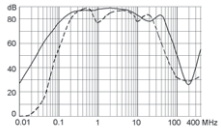

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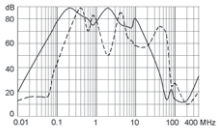

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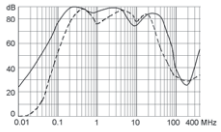

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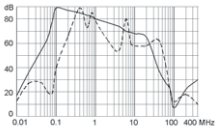

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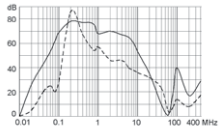

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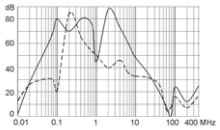

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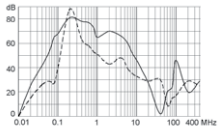

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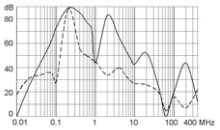

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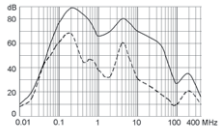

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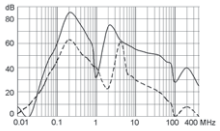

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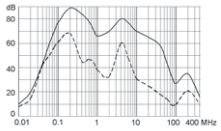
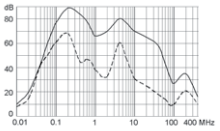
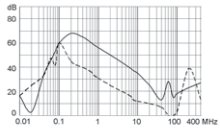


550A (FMAC-0957-H650)



1100A (FMAC-0974-K152I)



All Variants

Rated Current @ Ta 40°C (75°C) [A]	Characteristic	Rated Voltage [VAC]	Tripped Power Dissipation [W]	Leakage Current [mA] @ 440V, 60Hz [1]	Contact Resistance [mΩ]	Weight [kg]	Screw clamps [mm²] [2]	Housing	Order Number	
8 (5)	Excellent attenuation	480	5.38	1.3	28	1.8 kg	4	31-3	FMAC-0931-0810	■
16 (10)	Excellent attenuation	480	8.83	1.3	11.5	1.8 kg	4	31-3	FMAC-0931-1610	
16 (Pending)	High voltage filter	520	8.83	0.7	11.5	1.8 kg	4	31-3	FMAC-0931-1612I	
16 (10)	Excellent attenuation	-	8.83	1.3	11.5	2.8 kg	4	32-3	FMAC-0932-1610	■
25 (15)	Excellent attenuation	-	8.25	8.4	4.4	3.4 kg	6	32-7	FMAC-0932-2510	■
25 (14)	High attenuation	-	9.86	8.4	5.26	3.5 kg	4	32-7	FMAC-0932-2510L	
25 (Pending)	High voltage filter	520	8.25	8.6	4.4	3.35 kg	6	32-7	FMAC-0932-2512I	
36 (20)	High attenuation	-	10.55	8.4	2.71	3.75 kg	6	32-C	FMAC-0932-3610L	
36 (20)	Excellent attenuation	-	12.91	8.6	3.32	3.5 kg	6	34-3	FMAC-0934-3610	■
36 (Pending)	High voltage filter	520	12.91	8.6	3.32	3.3 kg	6	34-3	FMAC-0934-3612I	■
50 (32)	Excellent attenuation	-	9.75	9.0	1.3	3.4 kg	6	34-3	FMAC-0934-5010	■
50 (30)	High attenuation	-	12.63	9.0	1.68	3.6 kg	6	34-C	FMAC-0934-5010L	
50 (Pending)	High voltage filter	520	9.75	9.0	1.3	3.35 kg	6	34-3	FMAC-0934-5012I	
64 (37)	High attenuation	-	18.23	8.6	1.48	4.2 kg	6	34-C	FMAC-0934-6410L	
80 (45)	Excellent attenuation	-	22.6	9.7	1.17	7 kg	25	37-3	FMAC-0937-8010	
80 (Pending)	High voltage filter	520	22.6	9.7	1.17	7.28 kg	25	37-3	FMAC-0937-8012I	
64 (37)	Excellent attenuation	480	13.52	9.0	1.1	3.9 kg	25	53-3	FMAC-0953-6410	■
64 (Pending)	High voltage filter	520	13.52	9.0	1.1	3.8 kg	25	53-3	FMAC-0953-6412I	
110 (70)	Excellent attenuation	-	27.23	9.7	0.75	7.5 kg	50	54-3	FMAC-0954-H110	■
110 (Pending)	High voltage filter	520	27.23	9.7	0.75	7.45 kg	50	54-3	FMAC-0954-H112I	
180 (Pending)	Excellent attenuation	-	36	9.7	0.37	22 kg	95	55-3	FMAC-0955-H210	
180 (Pending)	High voltage filter	520	36	9.7	0.37	23 kg	95	55-3	FMAC-0955-H212I	
250 (Pending)	Excellent attenuation	-	36	10.5	0.2	23.7 kg	240	56-3	FMAC-0956-H310	
250 (Pending)	High voltage filter	520	36	9.1	0.2	25 kg	240	56-3	FMAC-0956-H312I	
340 (Pending)	Excellent attenuation	-	45	10.5	0.13	27 kg	240	56-3	FMAC-0956-H410	
340 (Pending)	High voltage filter	520	45	5.6	0.13	30 kg	240	56-3	FMAC-0956-H412I	
450 (Pending)	Excellent attenuation	-	40	10.5	0.06	33 kg	(B)	57	FMAC-0957-H550	
550 (Pending)	Excellent attenuation	-	45	10.5	0.046	32 kg	(B)	57	FMAC-0957-H650	
1100 (Pending)	High voltage filter	520	80	9.5	0.022	47 kg	(A)	74	FMAC-0974-K152I	

■ Most Popular.

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

6A version: packing unit 2 pcs.

(A): Connecting straps for M12

(B): Connecting straps for M10

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

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.