

2-stage filter for 3-phase systems



**Description**

- Terminals for three phases and ground

**Standards**

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

**Approvals**

- VDE Certificate Number: 40029853  
- UL File Number: E72928

**Applications**

- Voltage rating 480 and 520 VAC for world wide acceptance  
- Protection against interference voltage from the mains  
- 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](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [REACH](#), [Distributor-Stock-Check](#), [Detailed request for product](#)

**Technical Data**

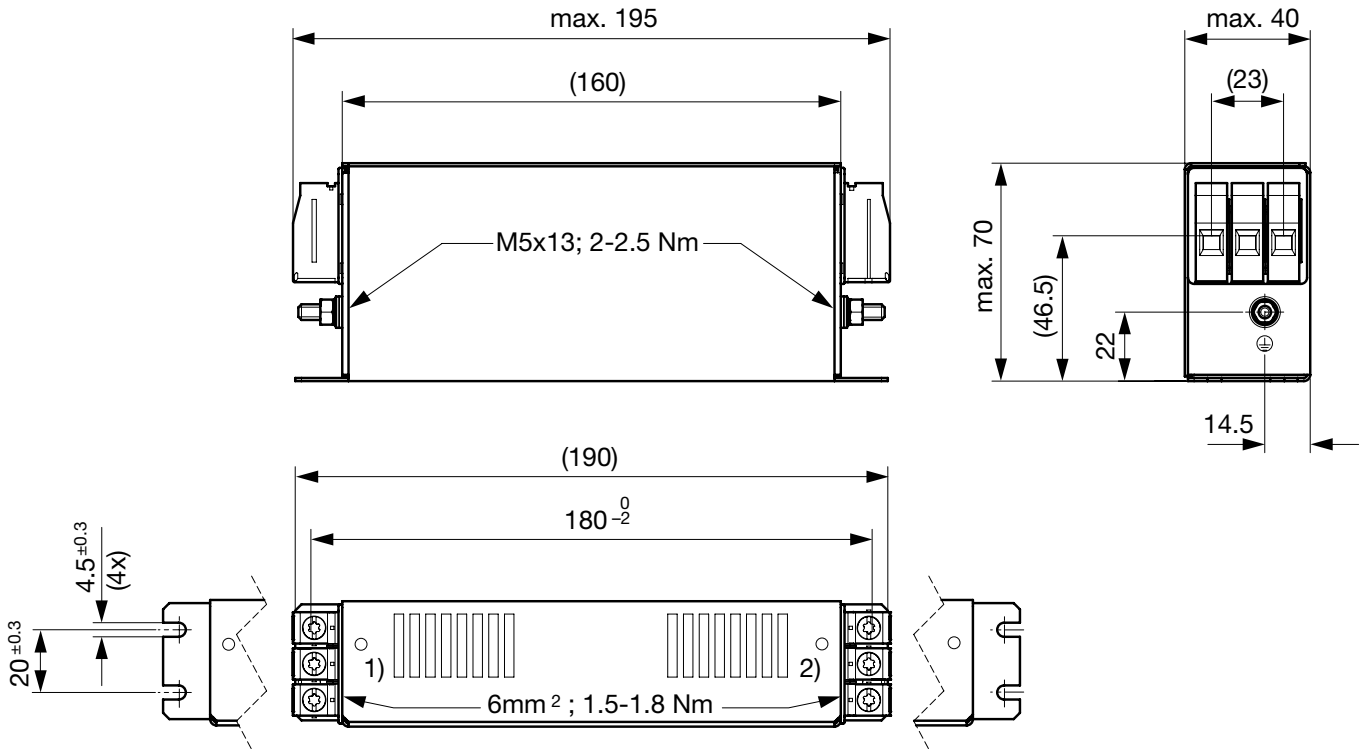
Rated Current	7 - 180A
Rated voltage	480/520 VAC, 50/60 Hz
Approval for	7 - 180A @ 50 (75) °C / 480/520 VAC; 50/60Hz
Overload Current	1.5 x I <sub>r</sub> for 1 minute, per hour
Dielectric Strength	480/520 VAC:
	> 2.25 kVDC between L-L
	> 2.75 kVDC between L-PE
	Test voltage 2 sec
Number of Filter Stages	2-stage
Weight	0.8 - 8 kg
Material: Housing	Metal
Sealing Compound	UL 94V-0

Mounting	Screw-on mounting on chassis
Terminal	Screw clamps
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	> 200'000h acc. to MIL-HB-217 F

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [General Product Information](#)

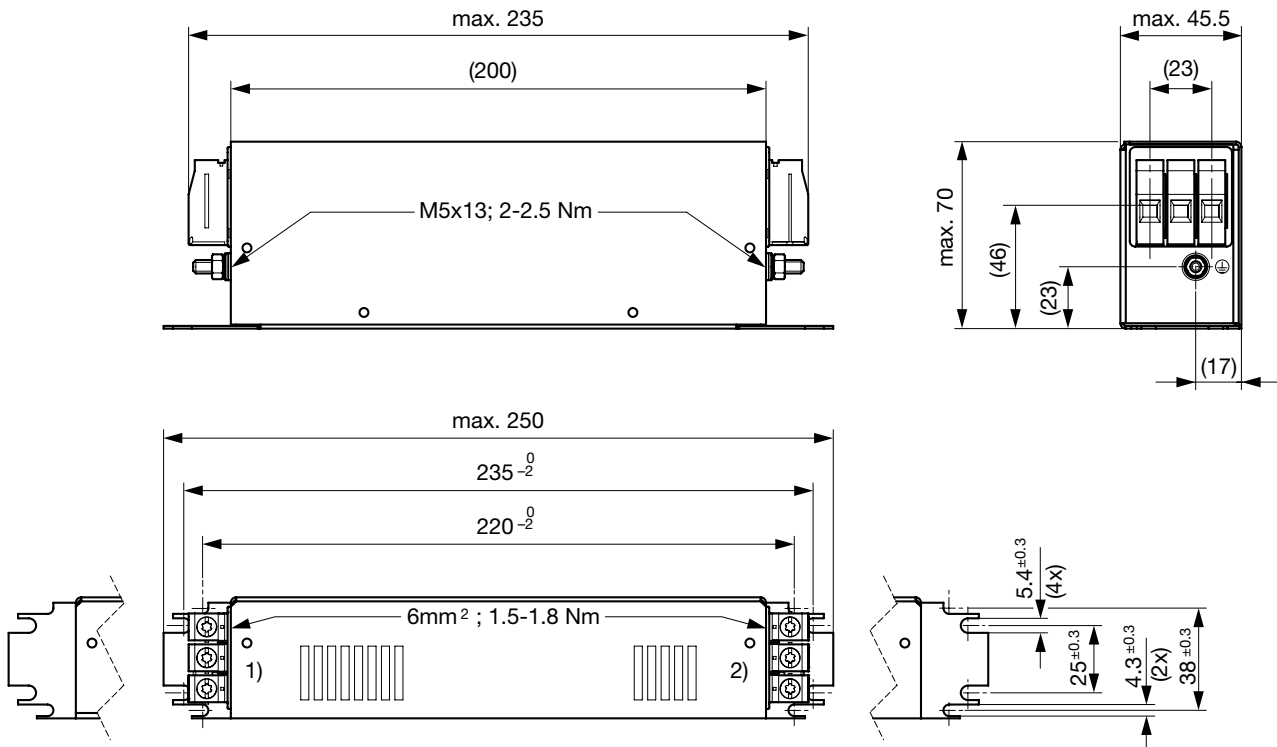
**Dimension**

Case 1U



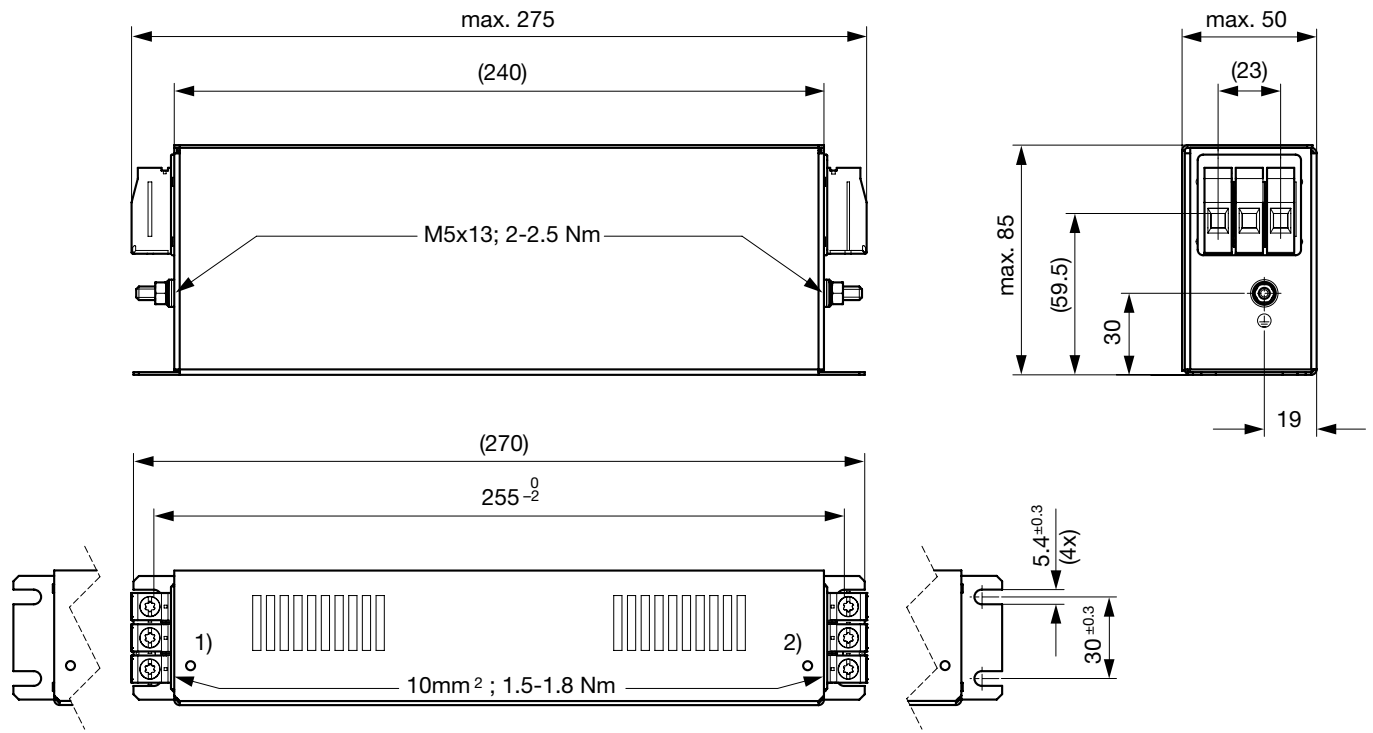
1) Line  
2) Load

Case 1C



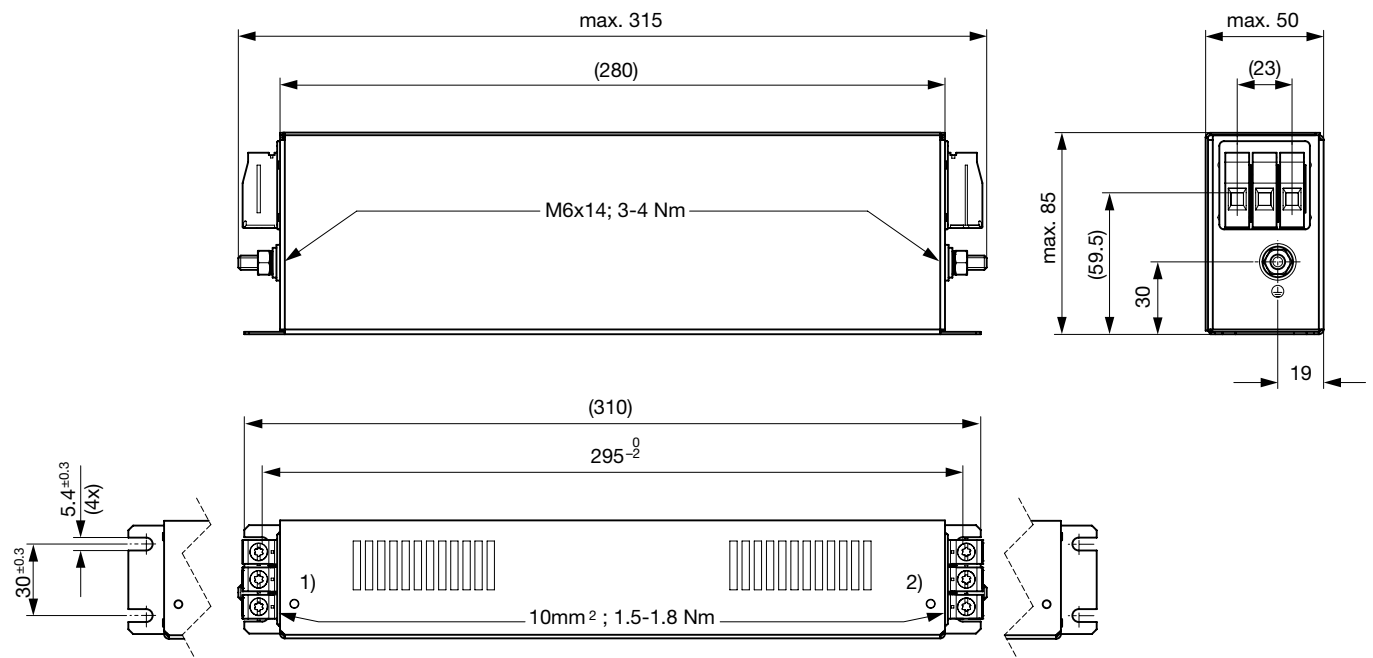
1) Line  
2) Load

Case 1Q



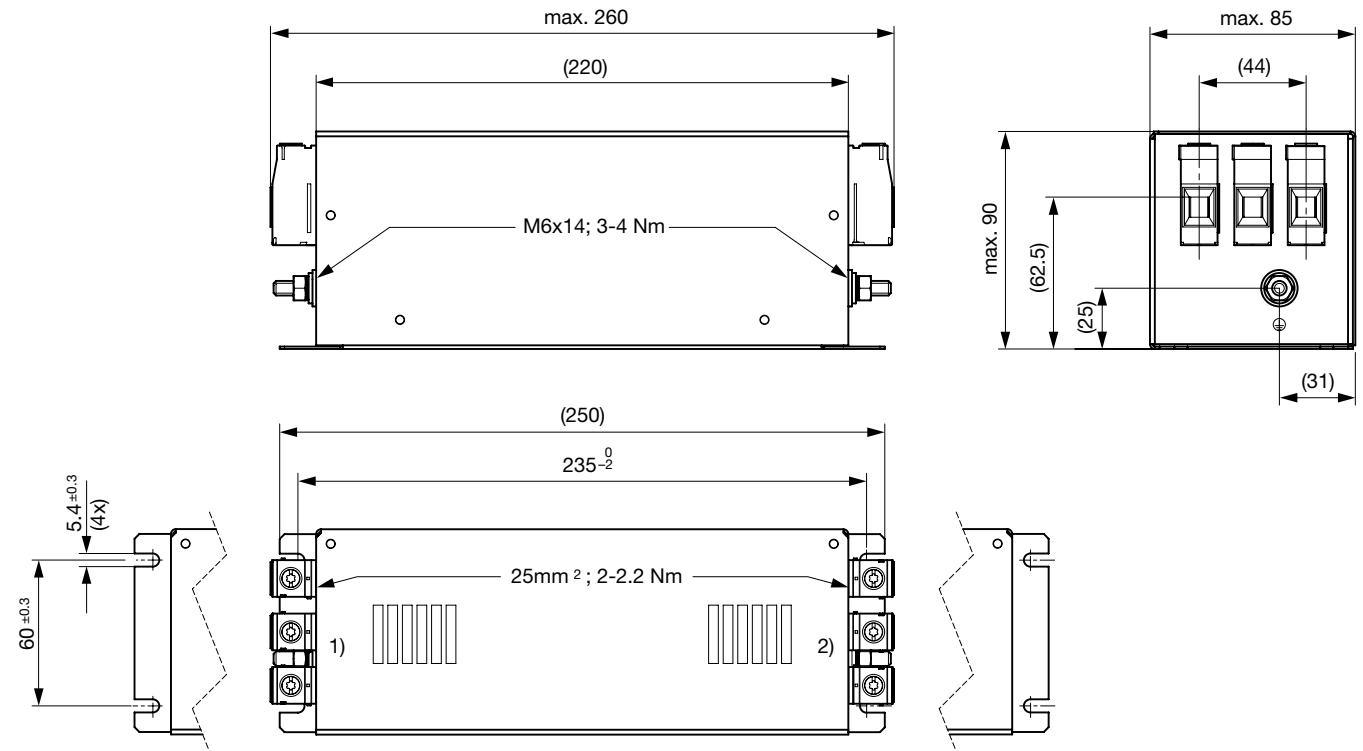
- 1) Line
- 2) Load

Case 1R



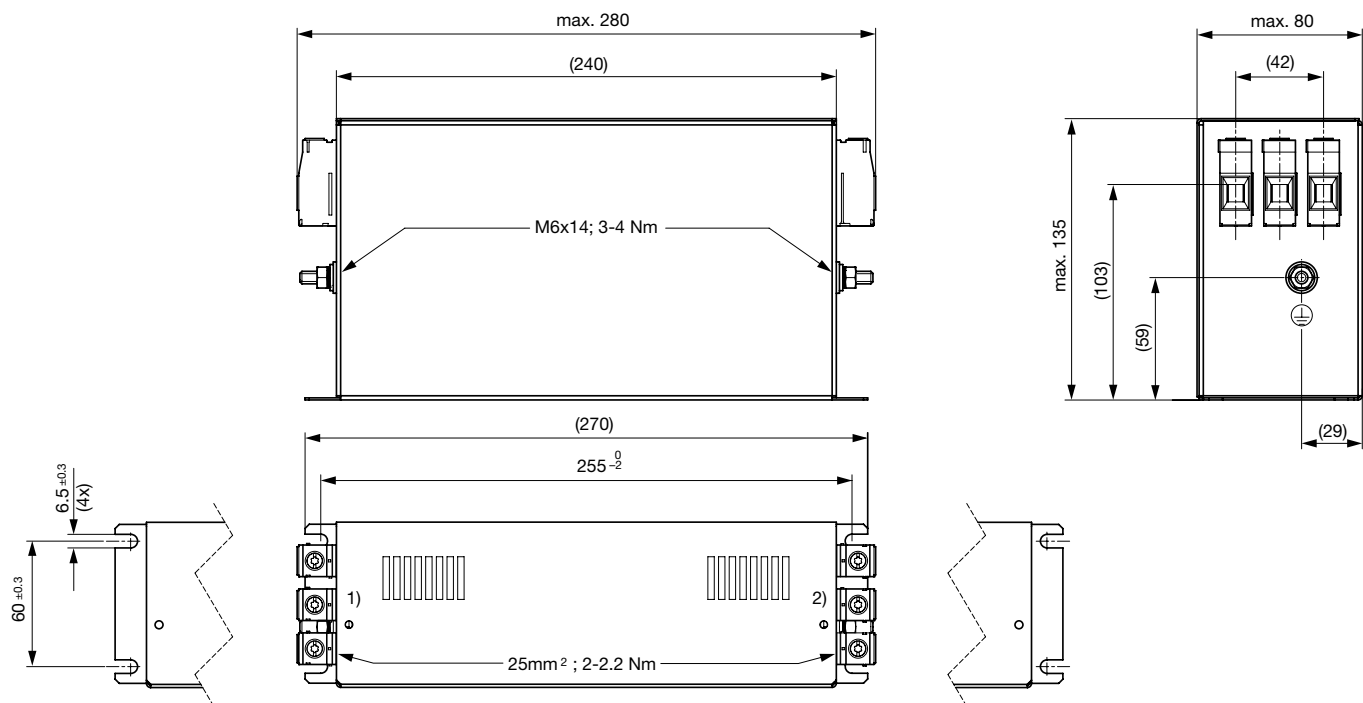
- 1) Line
- 2) Load

Case 1S



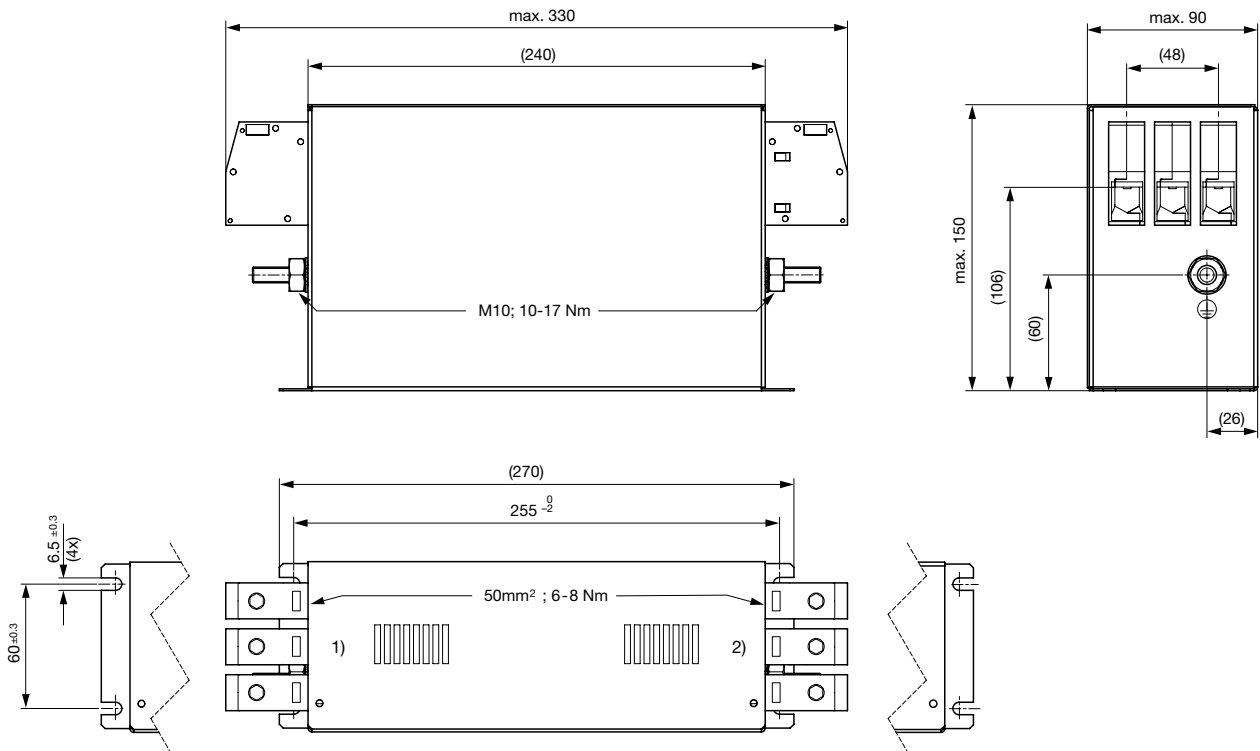
- 1) Line
- 2) Load

Case 1F



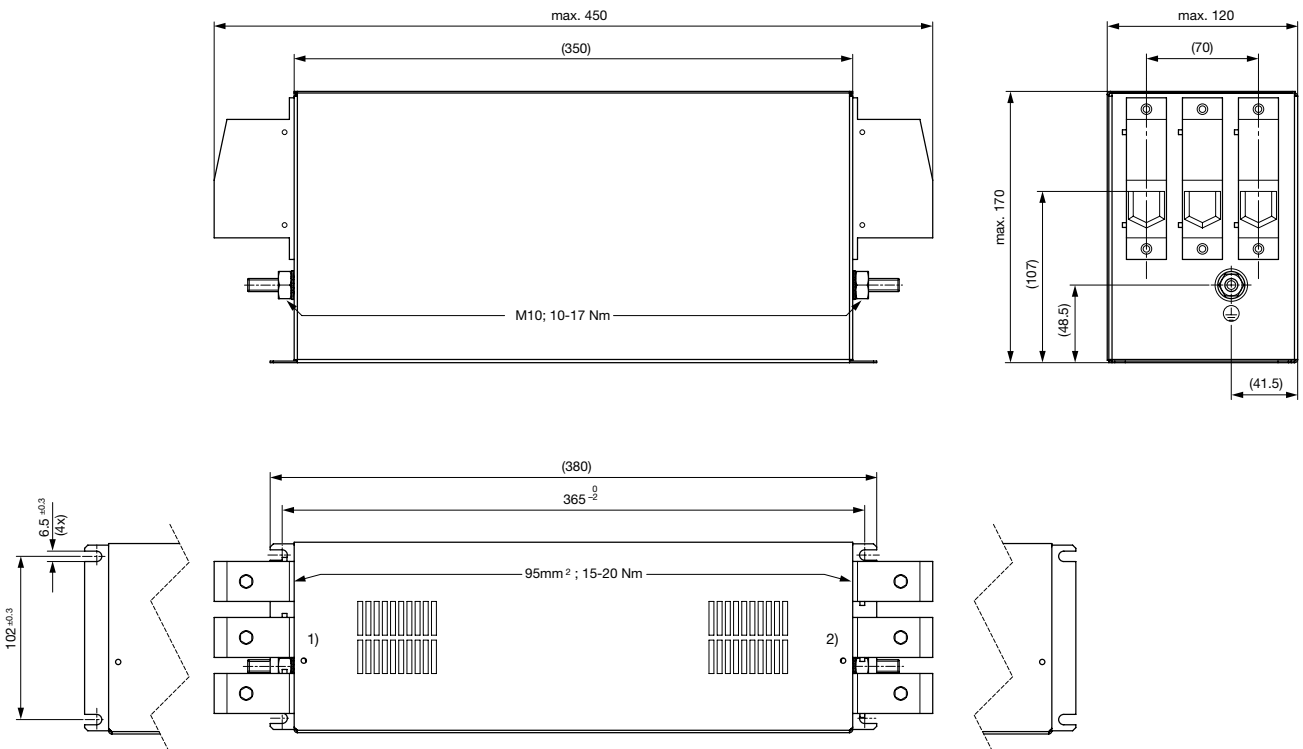
- 1) Line
- 2) Load

Case 1G



- 1) Line
- 2) Load

Case 1V

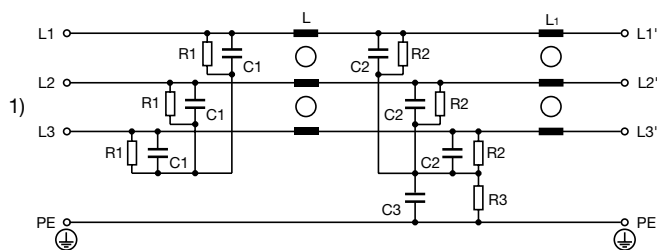


- 1) Line
- 2) Load

Technical data to the filter components

Rated Current @ Ta 50°C (75°C) [A]	L [mH]	L2 [μH]	C1 [μF]	C2 [μF]	C3 [μF]	R1 [MΩ]	R2 [MΩ]	R3 [MΩ]
7 (4.7)	2.7	5	3.3	3.3	3.3	-	1	1
16 (12)	1.9	10	6.6	3.3	3.3	1	1	1
30 (21)	1.9	10	6.8	3.3	3.3	1	1	1
42 (31)	1.3	10	9.9	3.3	3.3	1	1	1
55 (49)	1.8	13	10	3.3	3.3	1	1	1
75 (47)	1.2	13	9.9	3.3	3.3	1	1	1
100 (64)	1.2	13	9.9	3.3	3.3	1	1	1
130 (92)	0.7	26	9.9	3.3	3.3	1	1	1
180 (135)	0.4	31	10	3.3	3.3	1	1	1
7 (4.7)	2.7	5	3.3	3.3	3.3	-	1	1
16 (12)	1.9	10	6.6	3.3	3.3	1	1	1
30 (21)	1.9	10	6.8	3.3	3.3	1	1	1
42 (31)	1.3	10	9.9	3.3	3.3	1	1	1
55 (49)	1.8	13	10	3.3	3.3	1	1	1
75 (47)	1.2	13	9.9	3.3	3.3	1	1	1
100 (64)	1.2	13	9.9	3.3	3.3	1	1	1
130 (92)	0.7	26	9.9	3.3	3.3	1	1	1
180 (135)	0.4	31	10	3.3	3.3	1	1	1

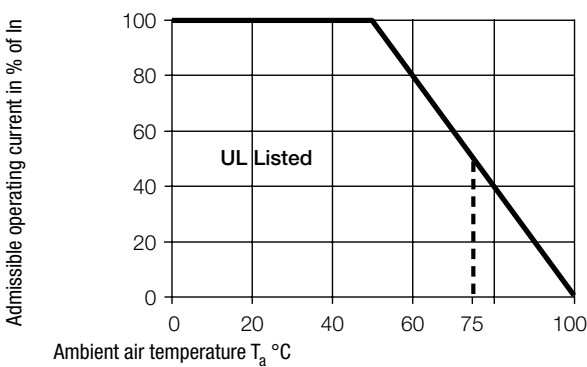
Diagrams



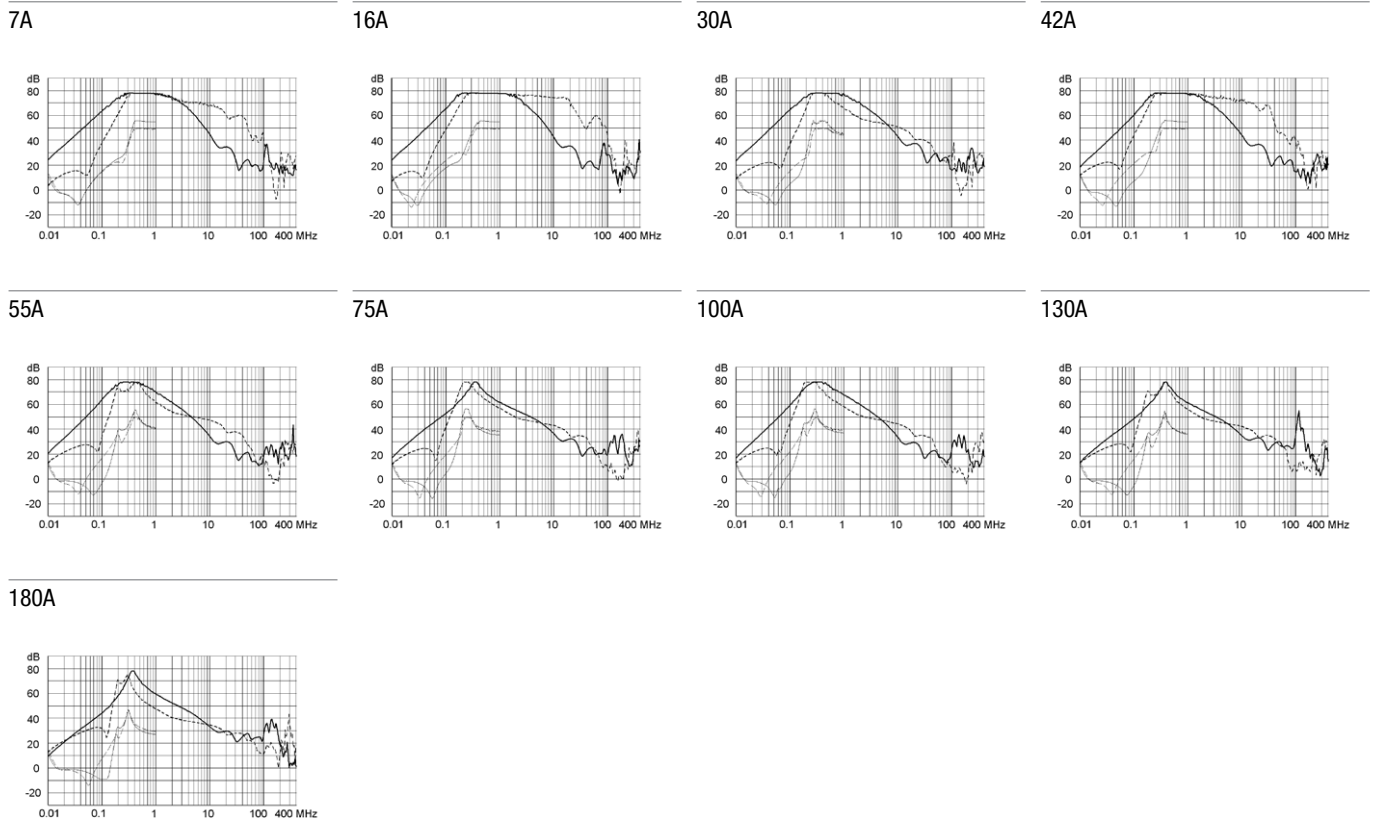
1) Line

Derating Curves

Permissible Working Current as a Function of Ambient Temperature



**Attenuation Loss** . . . 0.1/100Ω differential mode ..... 100/0.1Ω differential mode - - - - 50Ω differential mode \_\_\_\_ 50Ω common mode  
Industrial version



**All Variants**

Rated Current @ Ta 50°C (75°C) [A]	Rated Voltage [VAC]	Tripped Power Dissipation [W]	Leakage Current [mA] @ 440V, 60Hz <sup>1)</sup>	Contact Resi- stance [mΩ]	Weight [kg]	Screw clamps [mm <sup>2</sup> <sup>2)</sup>	Housings	Packaging unit	Order Number
7 (4.7)	480	1.4	10.2	9.2	0.8 kg	6	1U	3	FMBC-A91U-0710
16 (12)	480	4.9	10.2	6.3	1.1 kg	6	1C	3	FMBC-A91C-1610
30 (21)	480	6.8	10.2	2.5	1.5 kg	10	1Q	4	FMBC-A91Q-3010
42 (31)	480	13.8	10.2	2.6	1.9 kg	10	1R	3	FMBC-A91R-4210
55 (49)	480	12.7	10.2	1.4	2.5 kg	25	1S	2	FMBC-A91S-5510
75 (47)	480	16.9	10.2	1	3.8 kg	25	1F	1	FMBC-A91F-7510
100 (64)	480	24	10.2	0.8	5 kg	50	1G	1	FMBC-A91G-J010
130 (92)	480	30.5	10.2	0.6	4.8 kg	50	1G	1	FMBC-A91G-J310
180 (135)	480	19.5	10.2	0.2	8 kg	95	1V	1	FMBC-A91V-J810
7 (4.7)	520	1.4	10.2	9.2	0.8 kg	6	1U	3	FMBC-A91U-0712
16 (12)	520	4.9	10.2	6.3	1.1 kg	6	1C	3	FMBC-A91C-1612
30 (21)	520	6.8	10.2	2.5	1.5 kg	10	1Q	4	FMBC-A91Q-3012
42 (31)	520	13.8	10.2	2.6	1.9 kg	10	1R	3	FMBC-A91R-4212
55 (49)	520	12.7	10.2	1.4	2.5 kg	25	1S	2	FMBC-A91S-5512
75 (47)	520	16.9	10.2	1	3.8 kg	25	1F	1	FMBC-A91F-7512
100 (64)	520	24	10.2	0.8	5 kg	50	1G	1	FMBC-A91G-J012
130 (92)	520	30.5	10.2	0.6	4.8 kg	50	1G	1	FMBC-A91G-J312
180 (135)	520	19.5	10.2	0.2	8 kg	95	1V	1	FMBC-A91V-J812

Most Popular.

Availability for all products can be searched real-time: <http://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 mm<sup>2</sup> values can be found in the general product information [www.schurter.com/emc\\_info](http://www.schurter.com/emc_info)