

2-stage filter for 3-phase systems with low leakage current



**Description**

- Terminals for three phases and ground

**Standards**

- IEC 60939  
- UL 1283, Edition 5, CSA 22.2 No. 8-M1986, @ Ta 50 (40) °C

**Approvals**

- Approval Reference Type: FMBC LL  
- VDE Certificate Number: 40040983  
- UL File Number: E72928

**Applications**

- Suitable for applications with RCDs  
- Protection against interference voltage from the mains  
- Especially designed for industrial applications such as: Frequency Converters, Stepper Motor Drives, UPS-Systems, Inverters

**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**

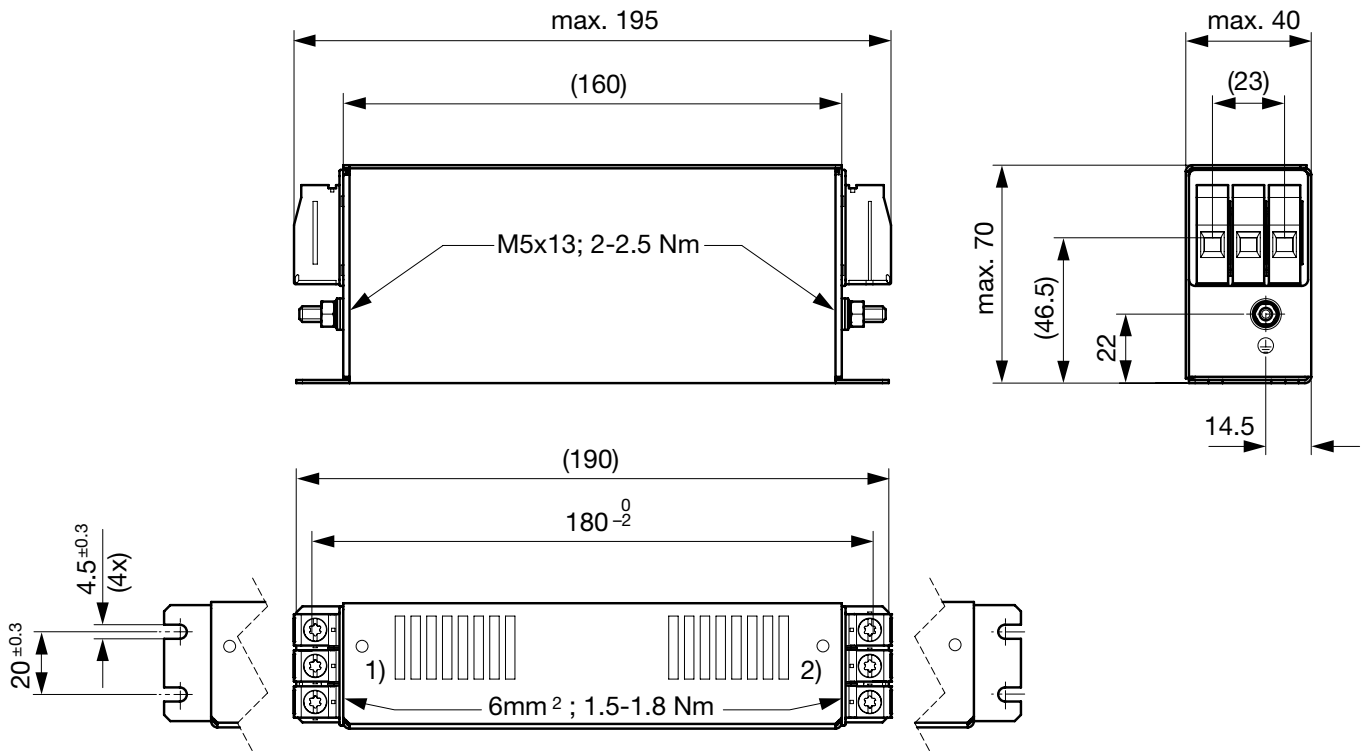
Rated Current	7 - 180A
Rated voltage	520 VAC, 50/60 Hz
Approval for	7 - 180 A @ 50 °C / 520VAC; 50/60Hz
Overload Current	1.5 x I <sub>r</sub> for 1 minute, per hour
Dielectric Strength	> 2.25 kVDC between L-L
	> 2.7 kVDC between L-PE
	Test voltage 2 sec
Number of Filter Stages	2-stage
Weight	0.75 - 9.4 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](#)

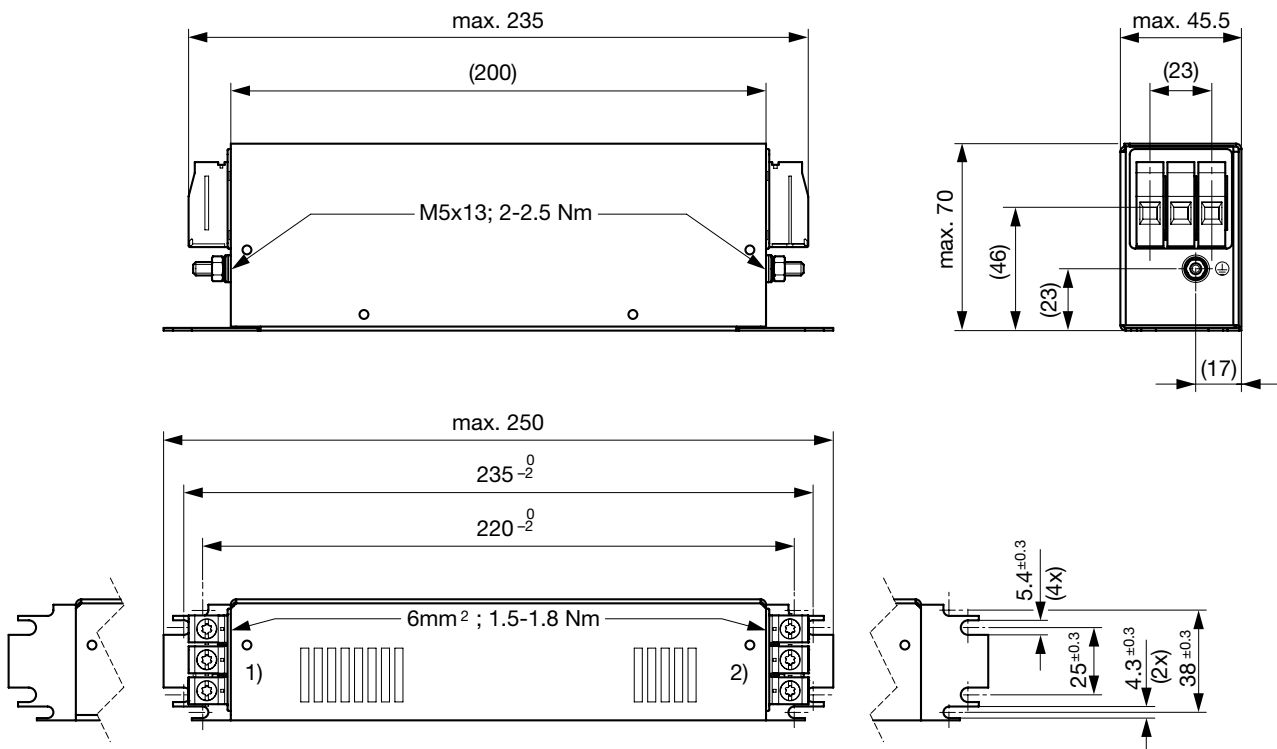
Dimension [mm]

Case 1U



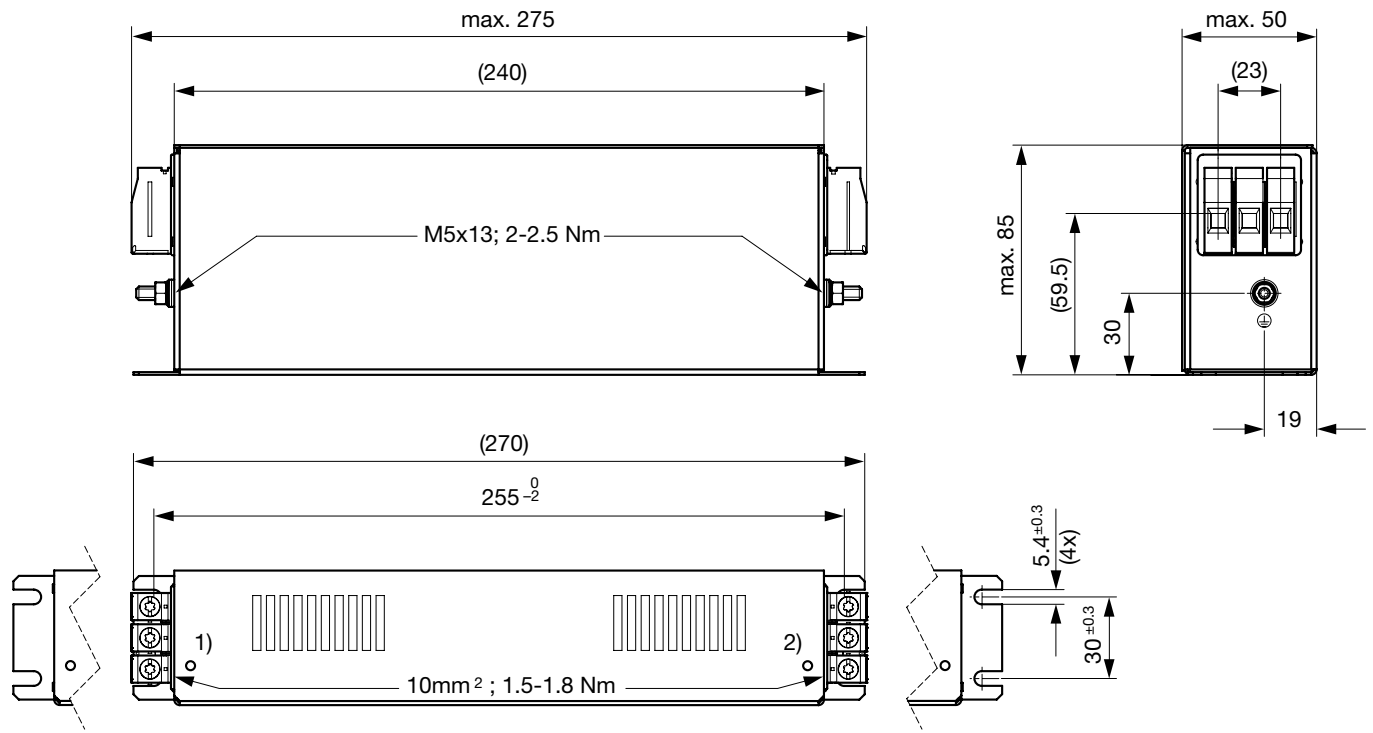
- 1) Line
- 2) Load

Case 1C



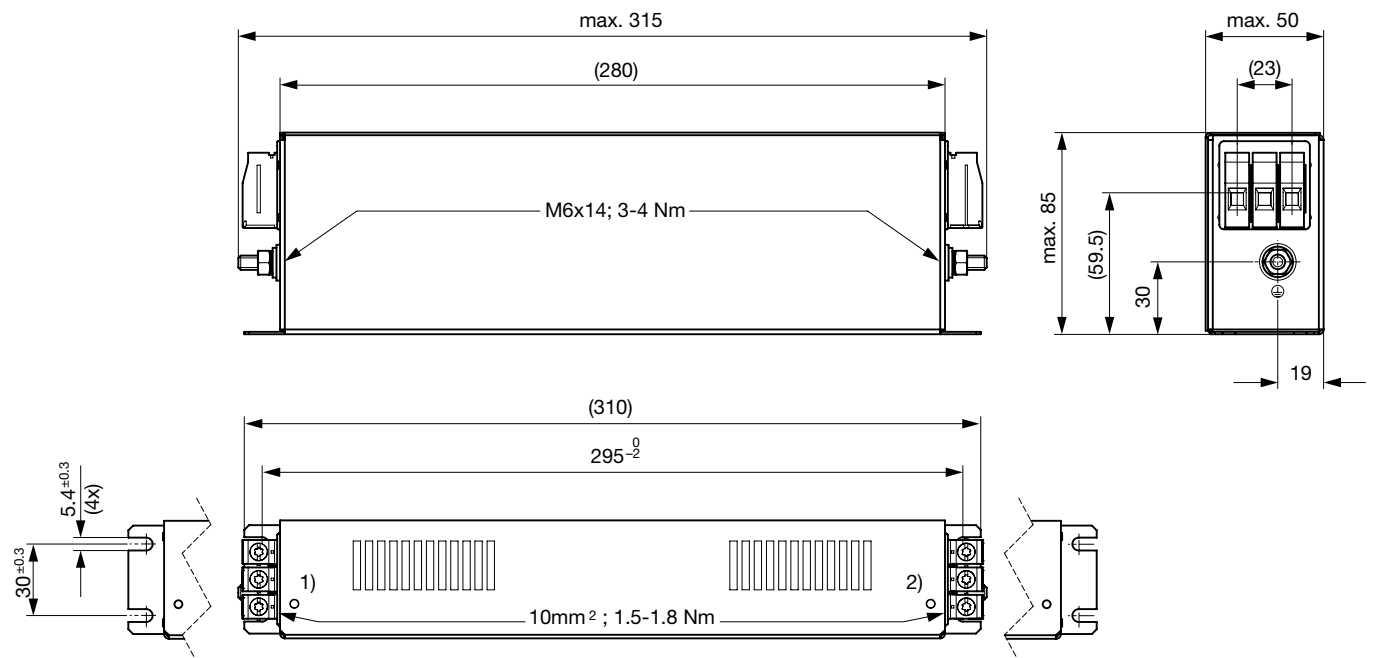
- 1) Line
- 2) Load

Case 1Q



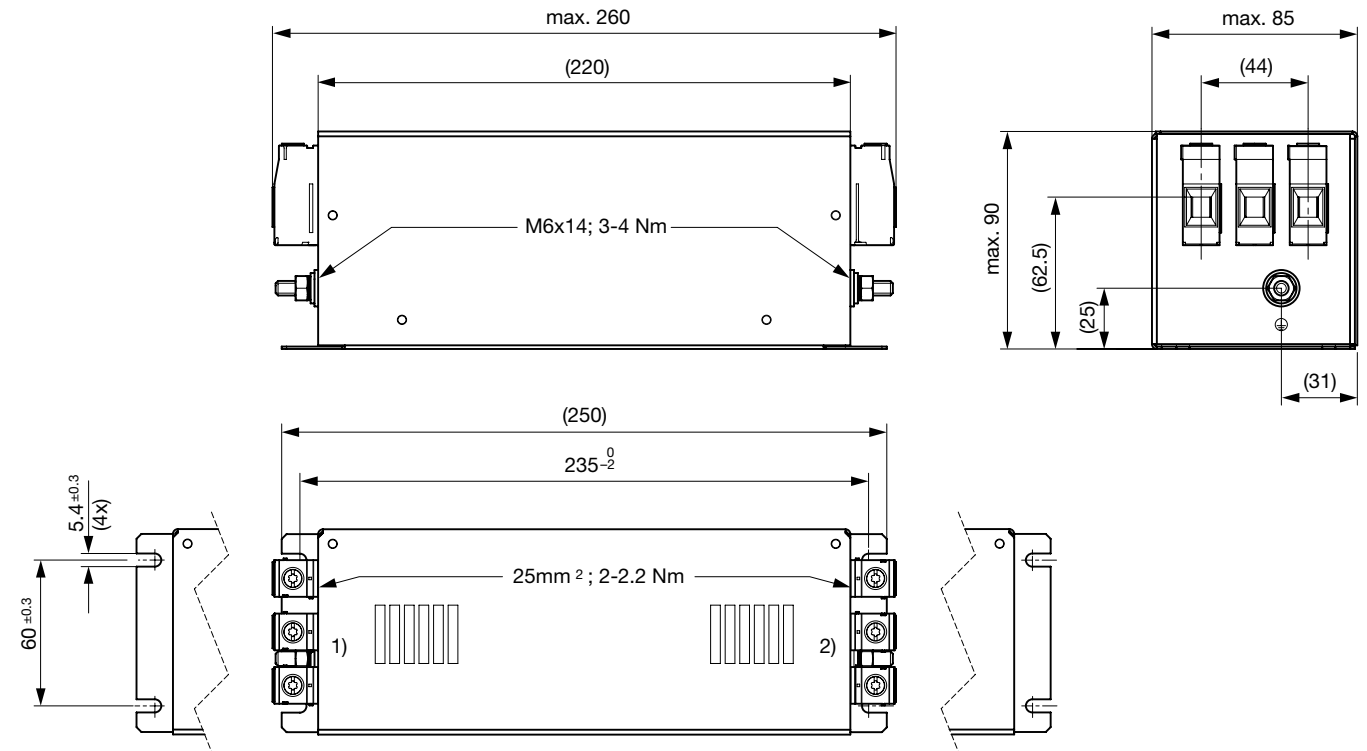
- 1) Line
- 2) Load

Case 1R



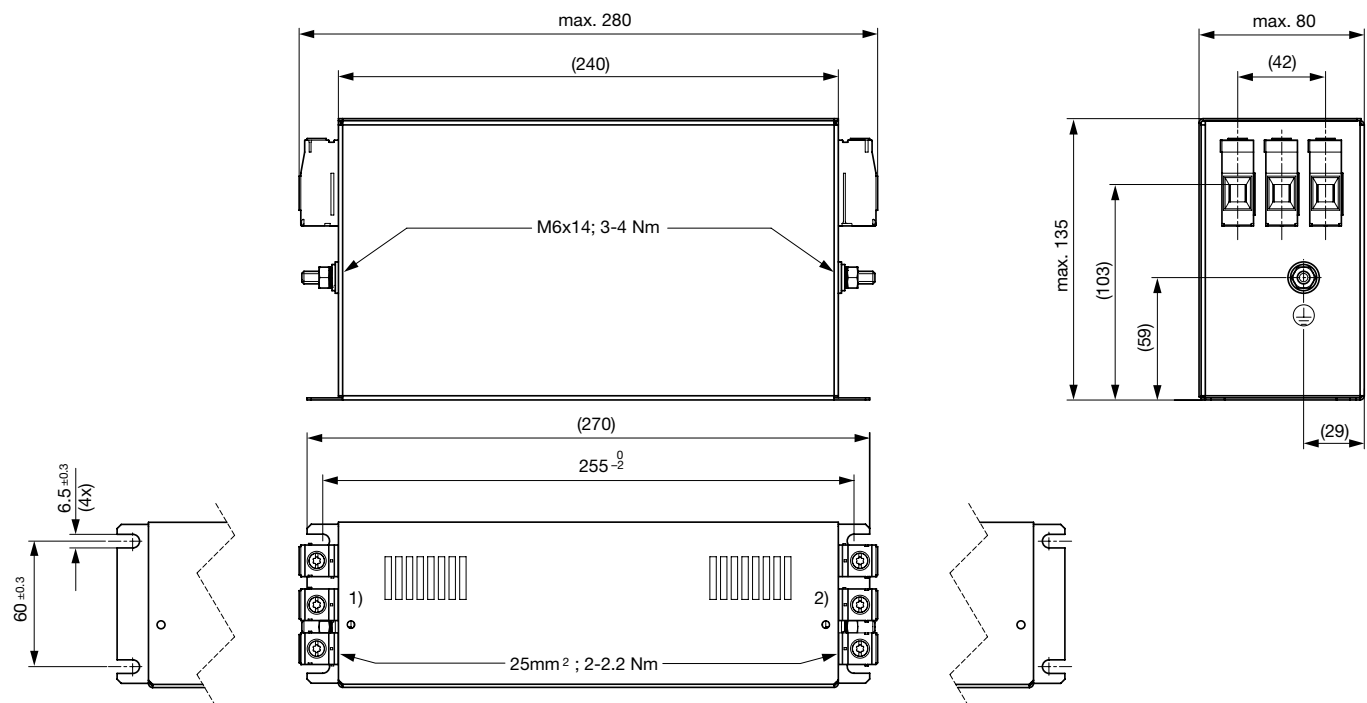
- 1) Line
- 2) Load

Case 1S



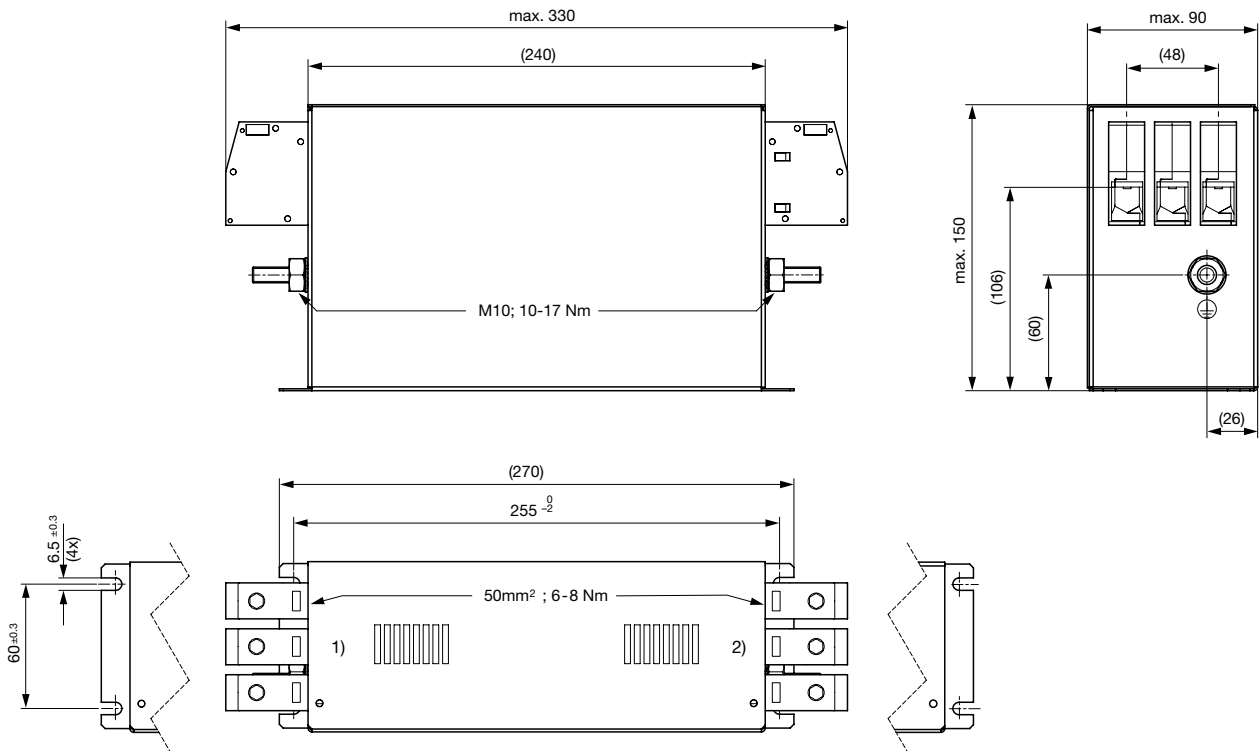
- 1) Line
- 2) Load

Case 1F



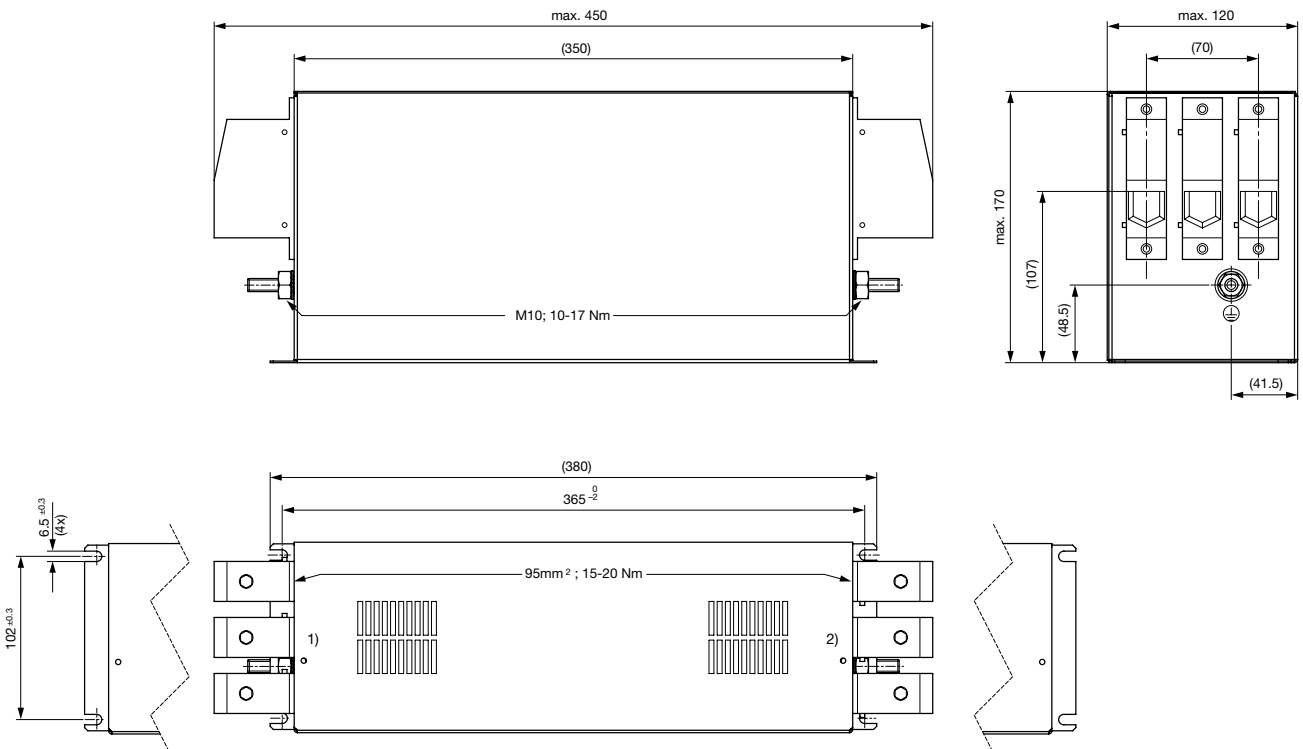
- 1) Line
- 2) Load

Case 1G



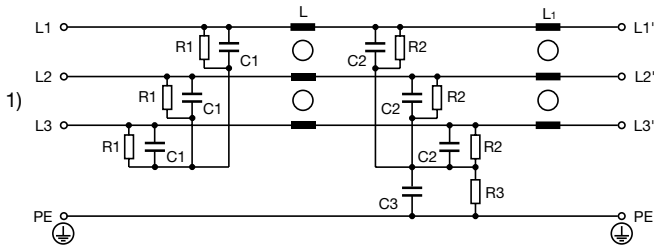
- 1) Line
- 2) Load

Case 1V



- 1) Line
- 2) Load

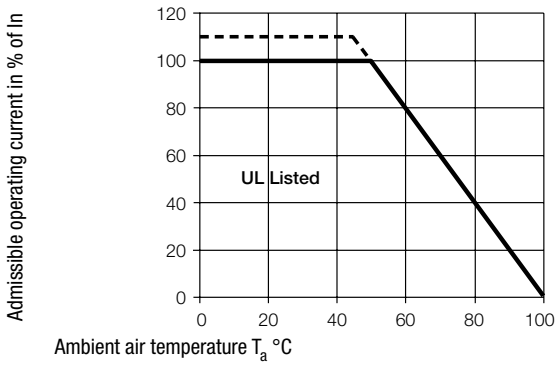
Diagrams



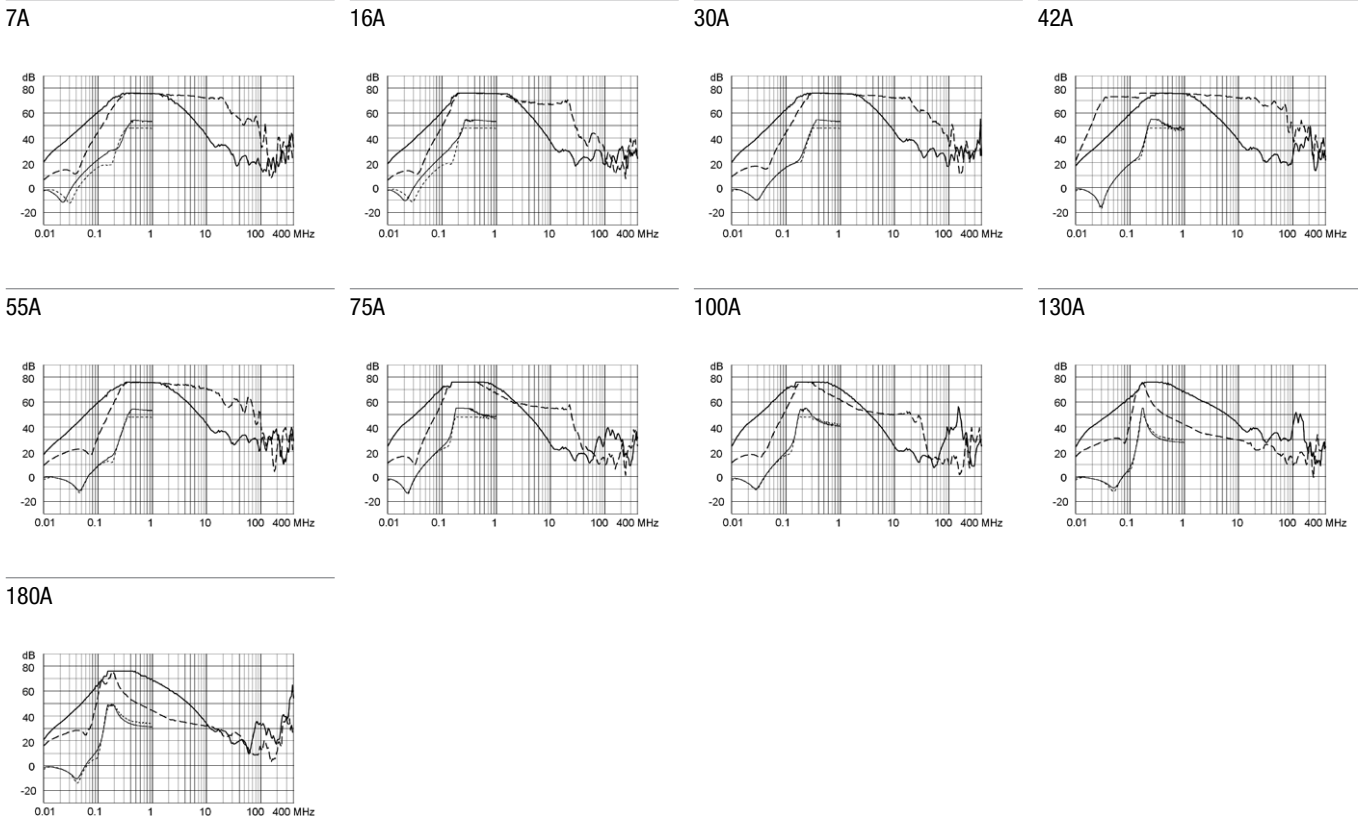
1) Line

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 (40°C) [A]	Rated Voltage [VAC]	Power <sub>loss</sub> @ 25°C, 50Hz [W]	Leakage Current @ 400VAC, 50Hz	Weight [kg]	Screw clamps [mm <sup>2</sup> ] <sup>2)</sup>	Housings	Packaging unit	Order Number
7 (7.7)	520	1.5	4.3	0.75 kg	6	1U	3	<a href="#">FMBC-R91U-0712</a>
16 (17.5)	520	5.4	4.3	1.2 kg	6	1C	3	<a href="#">FMBC-R91C-1612</a>
30 (32.9)	520	6.6	4.3	1.8 kg	10	1Q	4	<a href="#">FMBC-R91Q-3012</a>
42 (46)	520	10.7	4.3	1.8 kg	10	1R	3	<a href="#">FMBC-R91R-4212</a>
55 (60.2)	520	13.3	4.3	2.4 kg	25	1S	2	<a href="#">FMBC-R91S-5512</a>
75 (82.2)	520	19.6	17.5	4.1 kg	25	1F	1	<a href="#">FMBC-R91F-7512</a>
100 (109.5)	520	26.3	17.5	5.4 kg	50	1G	1	<a href="#">FMBC-R91G-J012</a>
130 (142.4)	520	10	19.3	4.6 kg	50	1G	1	<a href="#">FMBC-R91G-J312</a>
180 (197.1)	520	31	19.3	9.4 kg	95	1V	1	<a href="#">FMBC-R91V-J812</a>

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)