

Ultra compact and efficient 1-stage filter in ECO design for 3-phase systems



See below:

#### Approvals and Compliances

#### Description

- High attenuation value

#### Applications

- Voltage rating 480 VAC for world wide acceptance
- Especially designed for industrial applications such as: Frequency Converters, Stepper Motor Drives, UPS-Systems, Inverters
- Suitable for use in equipment according to IEC/UL 62368-1

#### References

We recommend for new applications the type [FMAC NEO](#)

#### Weblinks

[pdf data sheet](#), [html datasheet](#), [General Product Information](#), [Approvals](#), [Distributor-Stock-Check](#), [Detailed request for product](#), [Microsite](#)

#### Technical Data

Rated Current	16 - 150 A @ Ta 40 °C
Rated voltage	480 VAC, 50/60 Hz
Approval for	16 - 150 A @ Ta 40 °C / 480 VAC; 50/60 Hz
Overload Current	1.5 x Ir for 1 minute, per hour
Leakage Current	< 15 mA (440 V / 50 Hz)
Dielectric Strength	480 VAC: > 2.25 kVDC between L-L > 3 kVDC between L-PE Test voltage (2 sec)
Number of Filter Stages	1-stage
Weight	1 - 7 kg
Material: Housing	Aluminum
Sealing Compound	UL 94V-0

Mounting	Screw-on mounting on chassis, upright / lengthwise
Terminal	Bolts and nuts
Operating Temperature	-25 °C to 100 °C
Climatic Category	25/100/21 acc. to IEC 60068-1
Degree of Protection	IP20 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

#### Approvals and Compliances



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

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

#### Approvals



The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products.

Approval Reference Type: FMAC ECO

Approval Logo	Certificates	Certification Body	Description
	<a href="#">VDE Approvals</a>	VDE	Certificate Number: 40028851
	<a href="#">UL Approvals</a>	UL	UR File Number: E72928


Product standards

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	IEC 60939	Passive filters for suppressing electromagnetic interference
	Designed according to	UL 1283	Passive filters for suppressing electromagnetic interference






Application standards

Application standards where the product can be used

Organization	Design	Standard	Description
	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

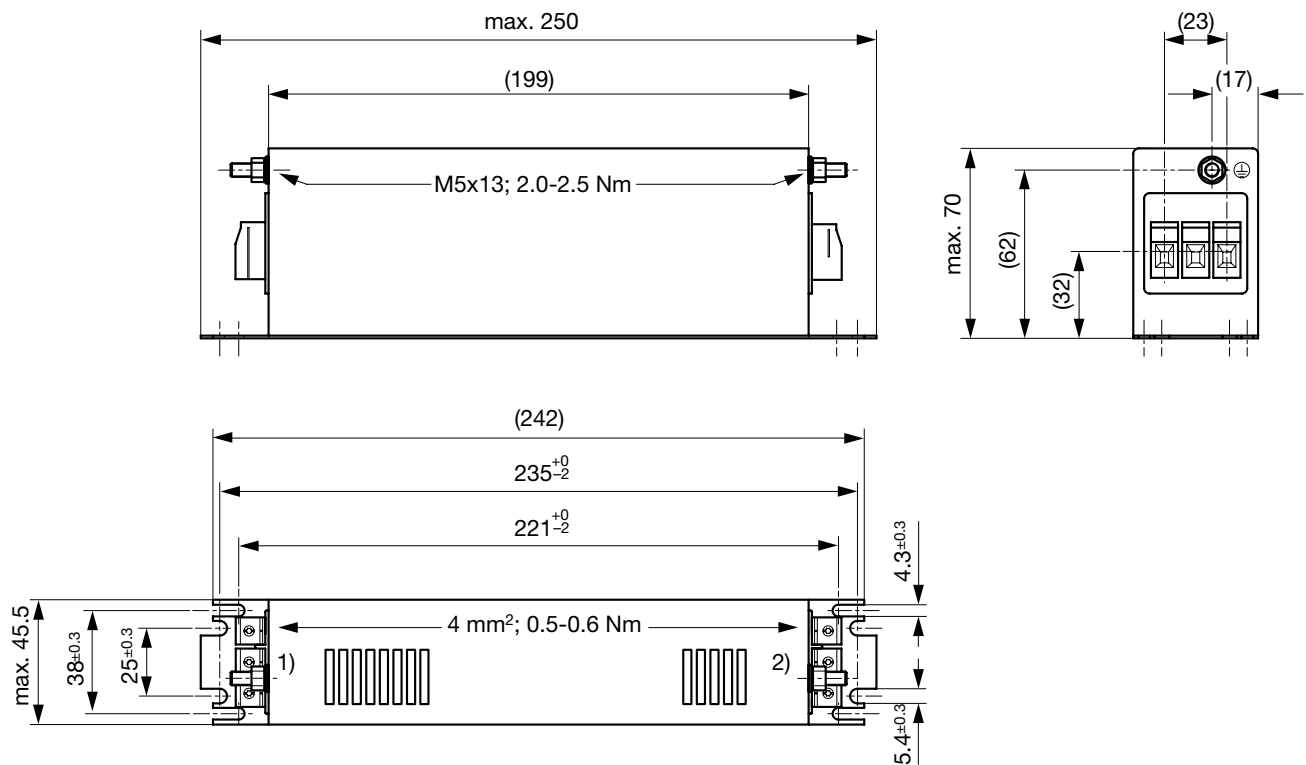
Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
	<a href="#">CE declaration of conformity</a>	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
	<a href="#">UKCA declaration of conformity</a>	SCHURTER AG	The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008.
	<a href="#">RoHS</a>	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
	<a href="#">China RoHS</a>	SCHURTER AG	The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.
	<a href="#">REACH</a>	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

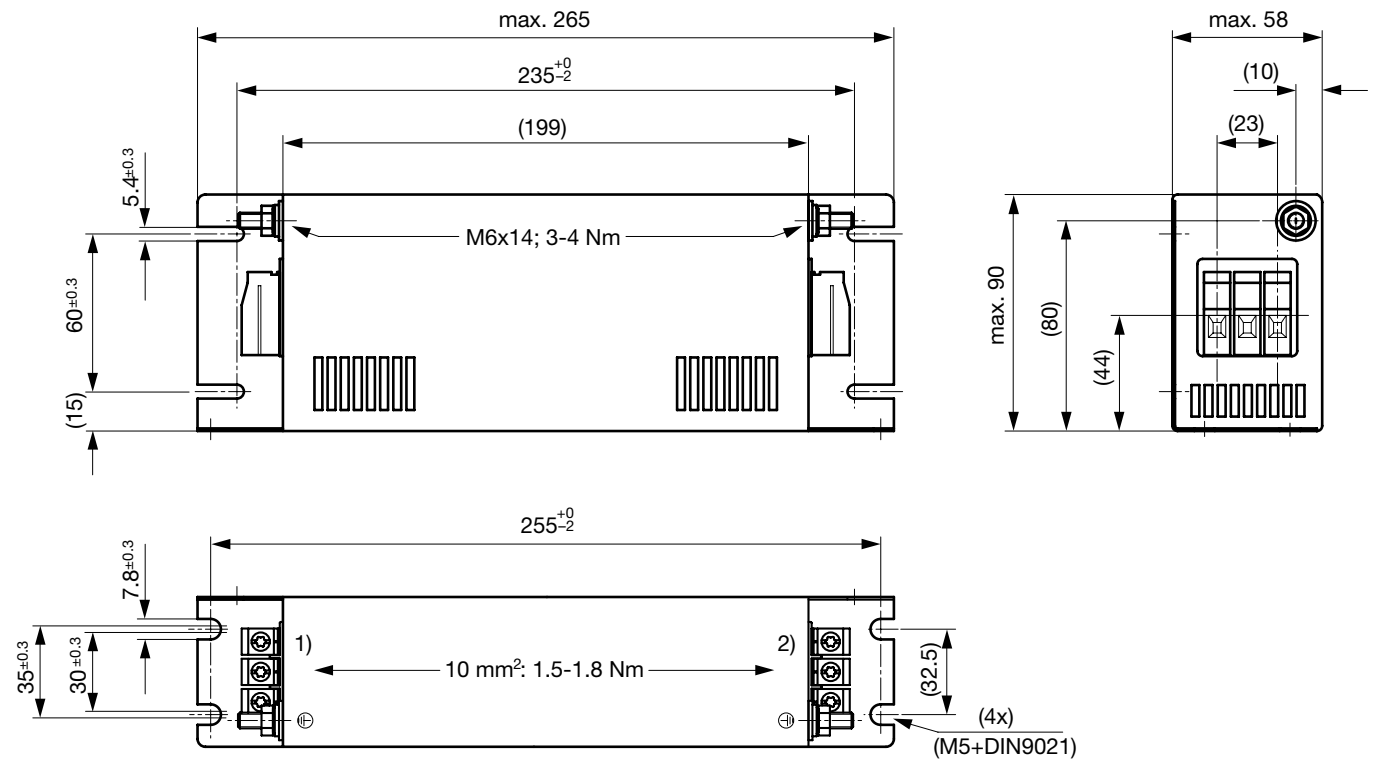
Dimension [mm]

Case 1C



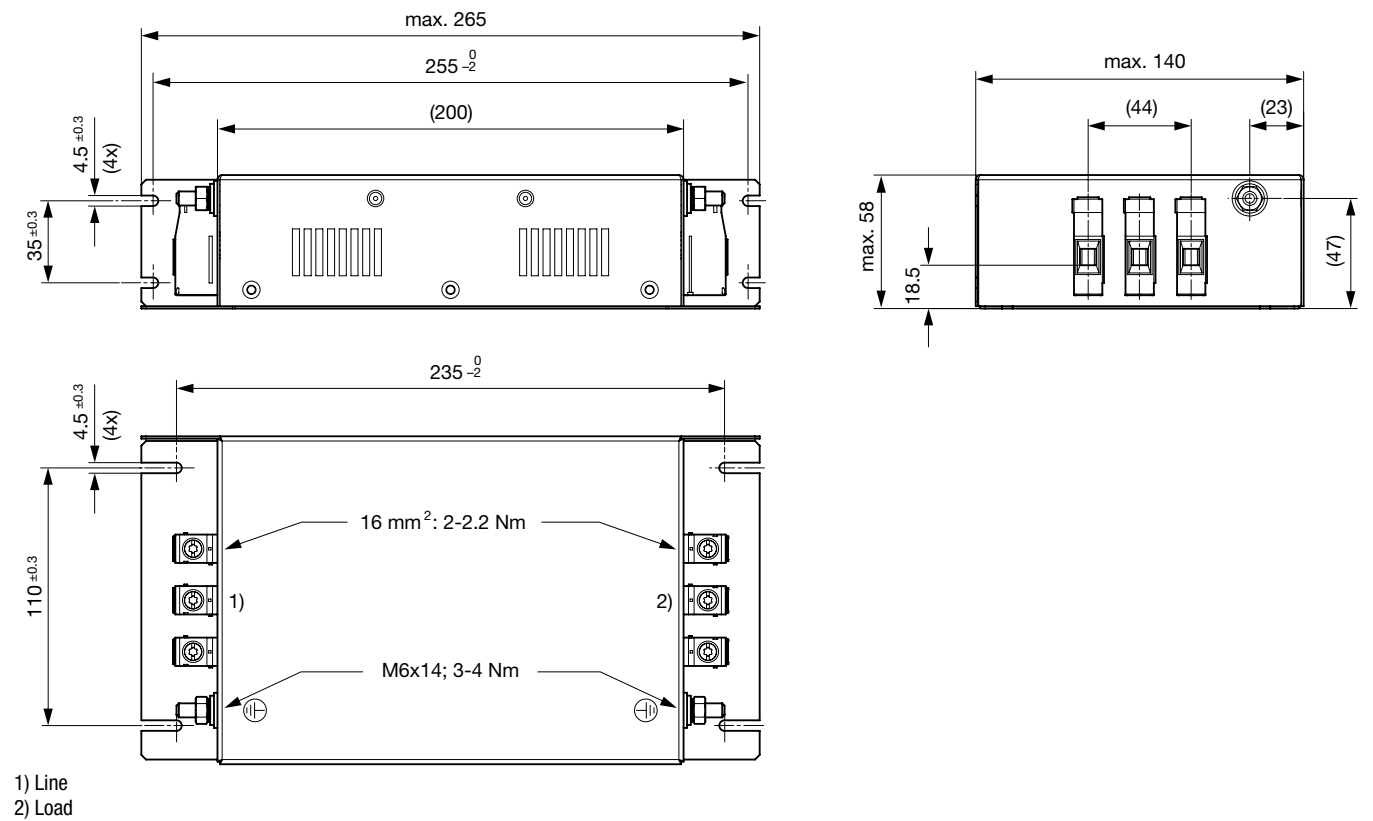
- 1) Line
- 2) Load

## Case 1D-10

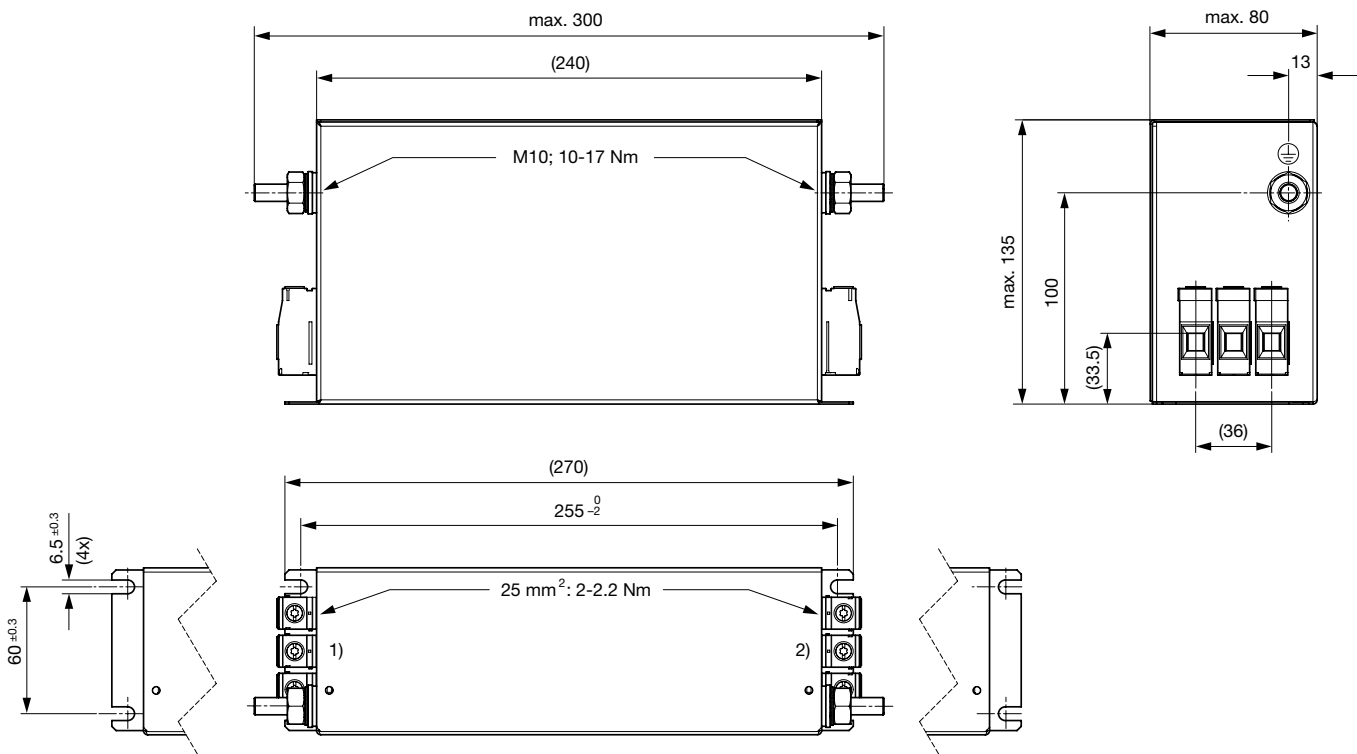


- 1) Line
- 2) Load

### Case 1E

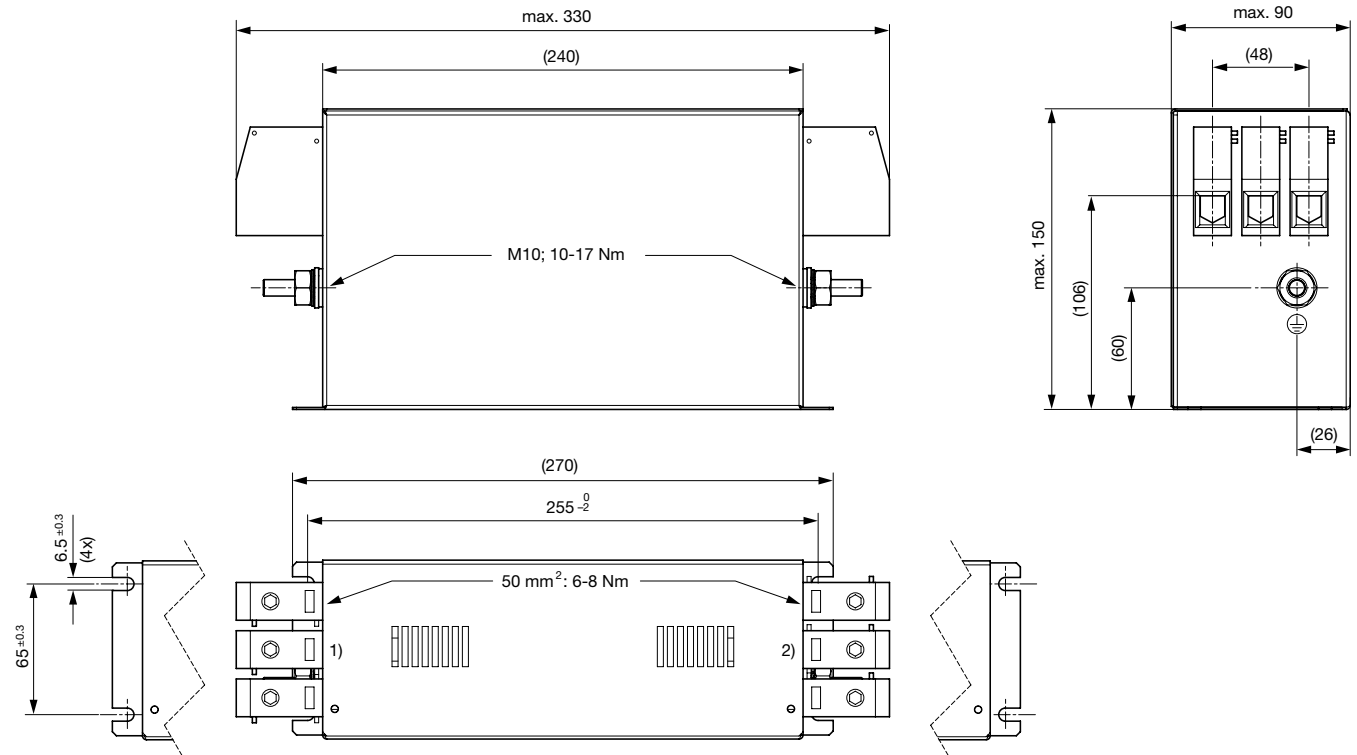


Case 1T



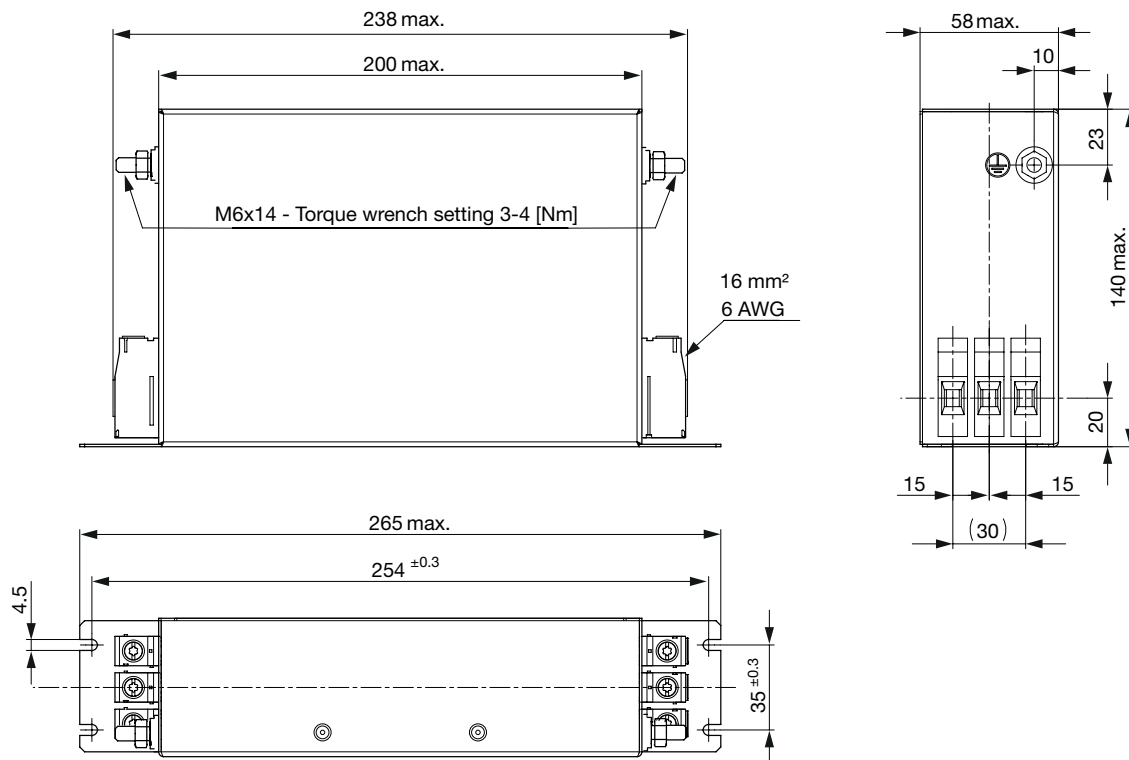
- 1) Line
- 2) Load

Case 1G



- 1) Line
- 2) Load

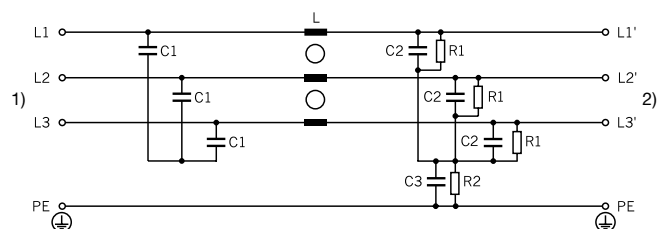
Case SF



Technical data to the filter components

Rated Current [A]	L [mH]	C1 [μF]	C2 [μF]	C3 [μF]	R1 [MΩ]	R2 [MΩ]	Filter-Type
110	0.55	6.6	6.6	3.3	1	1	Indus-
150	0.48	6.6	6.6	3.3	1	1	Indus-
16	0.55	2.2	2.2	3.3	1	1	Indus-
25	0.45	2.2	2.2	3.3	1	1	Indus-
36	0.57	2.2	2.2	3.3	1	1	Indus-
50	0.65	4.7	3.3	3.3	1	1	Indus-
55	0.75	4.7	3.3	3.3	1	1	Indus-
64	0.55	4.7	3.3	3.3	1	1	Indus-
80	0.55	4.7	4.7	3.3	1	1	Indus-

Diagrams



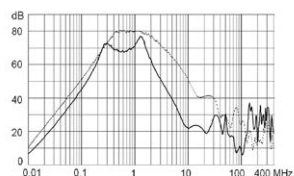
- 1) Line  
 2) Load

## Attenuation Loss

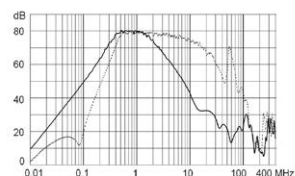
Industrial version

--- 50Ω differential mode \_\_\_\_ 50Ω common mode

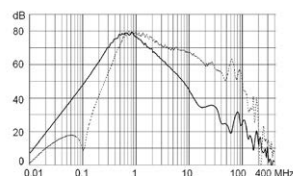
16A (FMAC-091C-1610)



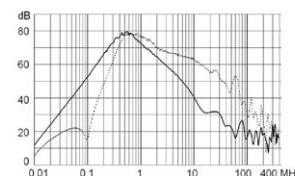
25A (FMAC-091C-2510)



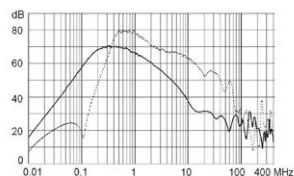
36A (FMAC-091D-3610)



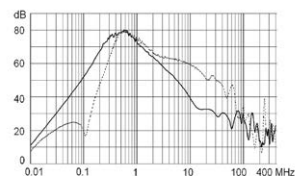
50A (FMAC-091D-5010)



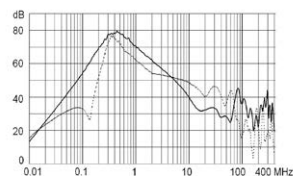
55A (FMAC-091D-5510)



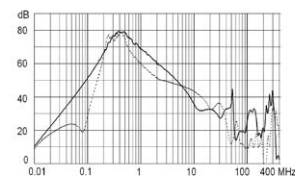
64A (FMAC-091E-6410)



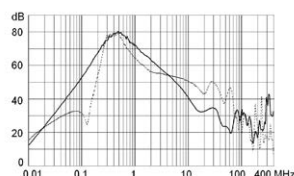
80A (FMAC-091T-8010)



110A (FMAC-091G-H110)



150A (FMAC-091G-H210)



## Variants

Rated Current @ Tu 40°C (75°C) [A]	Characteristic	Rated Voltage [VAC]	Power Dissipation [W]	Leakage Current [mA] @ 440V <sub>1</sub>	Contact Resi- stance [mΩ]	Weight [kg]	Screw clamps [mm <sup>2</sup> ] 2)	Housing	Order Number
16	High attenuation	480	6	8.9	7.6	1 kg	4	1C	FMAC-091C-1610
25	High attenuation	480	8	8.9	4.1	1 kg	4	1C	FMAC-091C-2510
36	High attenuation	480	10	8.9	2.5	1.3 kg	10	1D-10	FMAC-091D-3610
50	High attenuation	480	13	10.2	1.7	1.7 kg	10	1D-10	FMAC-091D-5010
55	High attenuation	480	14	10.2	1.5	1.7 kg	10	1D-10	FMAC-091D-5510
64	High attenuation	480	17	10.2	1.4	2 kg	16	1E	FMAC-091E-6410
110	High attenuation	480	28	11.8	0.8	5.8 kg	50	1G	FMAC-091G-H110
150	High attenuation	480	40	11.8	0.6	7 kg	50	1G	FMAC-091G-H210
80	High attenuation	480	22	11.1	1.1	5.1 kg	25	1T	FMAC-091T-8010
64	High attenuation	480	17	10.2	1.4	2 kg	16	SF	FMAC-3FSF-6410

Availability for all products can be searched real-time: <https://www.schurter.com/en/info-center/support-tools/stock-check-distributors>

1) Leakage current according IEC 60939-1

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 <https://www.schurter.com/en/FAQ#10>

## Packaging unit

1 Pcs