FMAD RAIL

1-stage filter for 3-phase systems with neutral conductor, DIN rail mounting

FMAD RAIL with rail
from front side

FMAD RAIL with rail
from rear side

See below:
Approvals and Compliances

Description

- 3 phase line filter with standard attenuation

Applications

- Especially designed for electric switch and control cabinets
- Suitable for use in equipment according to IEC/UL 62368-1

Weblinks

pdf data sheet, html datasheet, General Product Information, Approvals, Distributor-Stock-Check, Detailed request for product, Microsite

Technical Data

Rated Current	3 - 20 A @ Ta 40 °C
Rated voltage	277/480 VAC, 50/60 Hz
Approval for	3 - 20 A / 277/480 VAC
Overload Current	1.5 x Ir for 1 minute, per hour
Leakage Current	standard < 0.5 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 Test voltage (2 sec)
Number of Filter Stages	1-stage
Weight	0.4 kg
Material: Housing	Metal
Sealing Compound	UL 94V-0

Mounting	DIN rail mounting
Terminal	Bolts and nuts M4, Quick connect terminal for PE
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: FMAD

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	Certificate Number: 40030736
	UL Approvals	UL	UR File Number: E72928

Application standards

Application standards where the product can be used

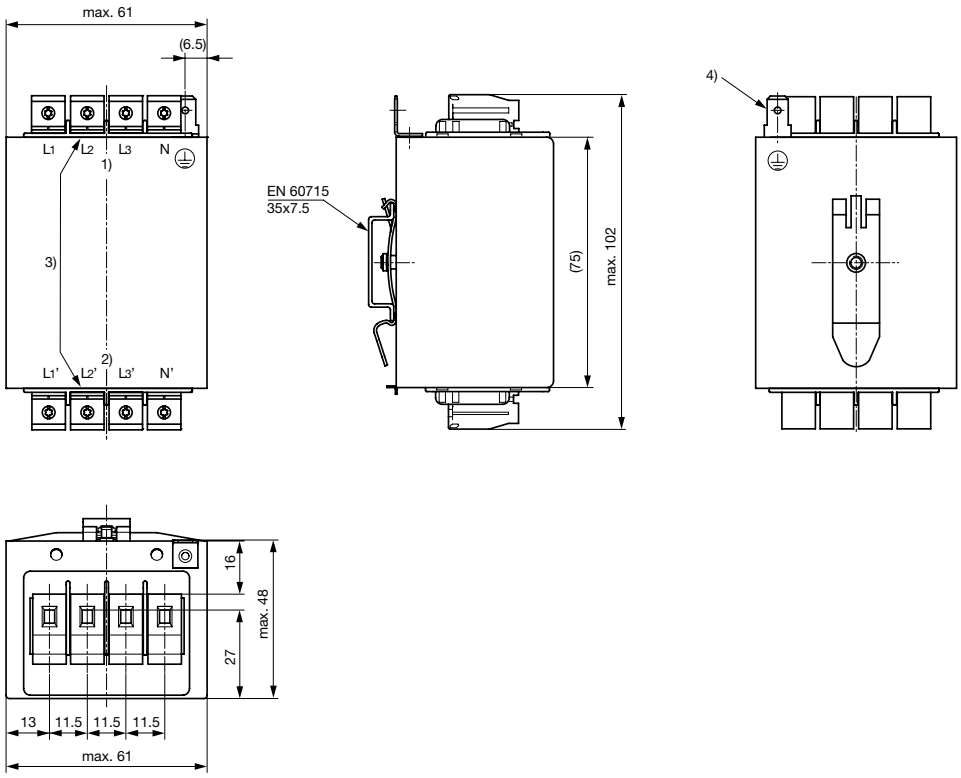
Organization	Design	Standard	Description
IEC	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
CE	CE declaration of conformity	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.
UKCA	UKCA declaration of conformity	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.
RoHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
China RoHS	China RoHS	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.
REACH	REACH	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]

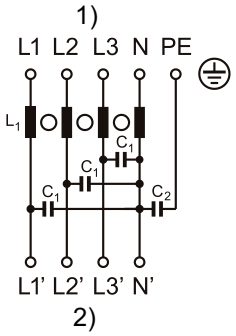


1) Line
2) Load
3) Tightening torque 0.6-0.8 Nm, Screw 4mm²
4) Quick connect terminal 6.3x0.8mm

Technical data to the filter components

Rated Current [A]	Rated Voltage [VAC]	L [mH]	C1 [nF]	C2 [nF]
10	277 - 480	0.4	100	4.7
20	277 - 480	0.15	100	22
3	277 - 480	1	100	4.7
6	277 - 480	0.5	100	4.7

Diagrams

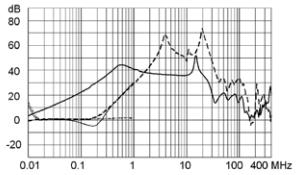


1) Line
2) Load

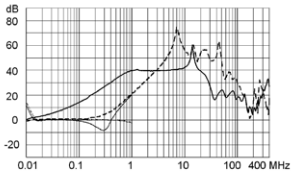
Attenuation Loss . . . . 0.1/100Ω differential mode ..... 100/0.1Ω differential mode - - - - 50Ω differential mode _____ 50Ω common mode

Industrial version

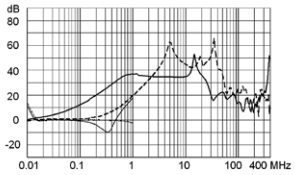
3 A



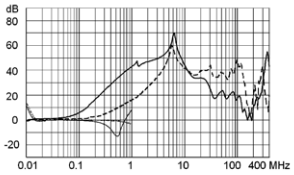
6 A



10 A



20 A



Variants

Rated Current [A]	Power Dissipation [W]	Leakage Current [mA] @ 440V,	Contact Resistance [mΩ]	Weight [g]	Screw clamps [mm2] 2)	Order Number
10	3.2	0.02	8	395 g	4	FMAD-MRYB-1010
20	5.8	0.08	3.6	420 g	4	FMAD-MRYB-2010
3	1.4	0.02	38	385 g	4	FMAD-MRYB-0310
6	1.7	0.02	11.5	385 g	4	FMAD-MRYB-0610

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 mm² values can be found in the general product information
https://www.schurter.com/en/FAQ#10

Packaging unit 5 Pcs

27.02.2025