

EMC filter surge protection device - SFP 1-20/230AC - 2859987

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Device protection, according to type 3/class III, with network interference suppression filter to prevent high-frequency interference voltages, for 1-phase power supply networks with separate N and PE (3-conductor system: L1, N, PE), with remote indication contact.

Product Description


Device protection with interference filter

Your advantages

- ✓ Can be installed in industrial environments
- ✓ Combined protective circuit for absorbing transient surge voltages and high-frequency interference voltages
- ✓ Thermal monitoring of the protective circuit
- ✓ Disconnection status signaled via floating remote indication contact
- ✓ Integrated power display switches off automatically when there is a malfunction due to overload.



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 098175
GTIN	4046356098175
Weight per Piece (excluding packing)	623.400 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	86.6 mm
Width	112 mm
Depth	79 mm

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Technical data

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Permissible humidity (operation)	5 % ... 95 %

General

EN type	T3
Number of ports	Two
Mode of protection	L-N
	L-PE
	N-PE
Mounting type	DIN rail: 35 mm
Color	black
	silver
Housing material	Aluminum
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, one-piece
Number of positions	2
Surge protection fault message	Optical, remote indicator contact
For country-specific use in	D, A, I, NL, S, E, FIN, P

Protective circuit

Nominal voltage U_N	240 V AC (TN)
	240 V AC (TT - only in use with RCD)
	240 V AC (IT - only in use with RCD)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	264 V AC
Rated load current I_L	20 A (40 °C)
Residual current I_{PE}	≤ 0.6 mA
Nominal discharge current I_n (8/20) μ s	5 kA
Standby power consumption P_C	≤ 25 VA (at U_{REF})
	≤ 27.5 VA (at U_C)
Reference test voltage U_{REF}	264 V AC
Combination wave U_{OC}	10 kV (5 kA)
Voltage protection level U_p	≤ 1 kV
TOV behavior at U_T (L-N)	350 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)

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Protective circuit

TOV behavior at U_T (L-PE)	457 V AC (5 s / withstand mode)
	350 V AC (120 min / withstand mode)
	1464 V AC (200 ms / safe failure mode)
TOV behavior at U_T (N-PE)	1200 V AC (200 ms / safe failure mode)
Response time t_A	≤ 25 ns
Capacity (L-N)	1 μ F ± 10 %
	10 nF ± 10 % (X2-275 V)
Capacity (L-PE)	2.2 nF ± 20 % (Y2-250 V)
Capacity (L-PEN)	2.2 nF ± 20 % (Y2-250 V)
Max. required back-up fuse	20 A (MCB B/general purpose)
	16 A (IT - MCB B/general purpose)
Input attenuation aE, sym.	20 dB (≥ 100 kHz / 50 Ω)
Input attenuation aE, asym.	30 dB (≥ 1 MHz / 50 Ω)
Short-circuit current rating I_{SCCR}	5 kA AC (TN/TT)
	1 kA AC (IT)

Indicator/remote signaling

Switching function	PDT contact
Operating voltage	12 V AC ... 250 V AC
	250 V DC (250 mA DC)
Operating current	100 mA AC ... 1 A AC
	1 A DC (48 V DC)
Connection method	Pluggable screw connection
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section solid	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	26 ... 16
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm

Connection data

Connection method	Screw terminal blocks
Conductor cross section flexible	2.5 mm ² ... 4 mm ²
Conductor cross section solid	2.5 mm ² ... 6 mm ²
Conductor cross section AWG	14 ... 10
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
	4.5 lb _f -in. ... 5.5 lb _f -in.

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Connection data

Stripping length	8 mm
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Protective circuit, filter

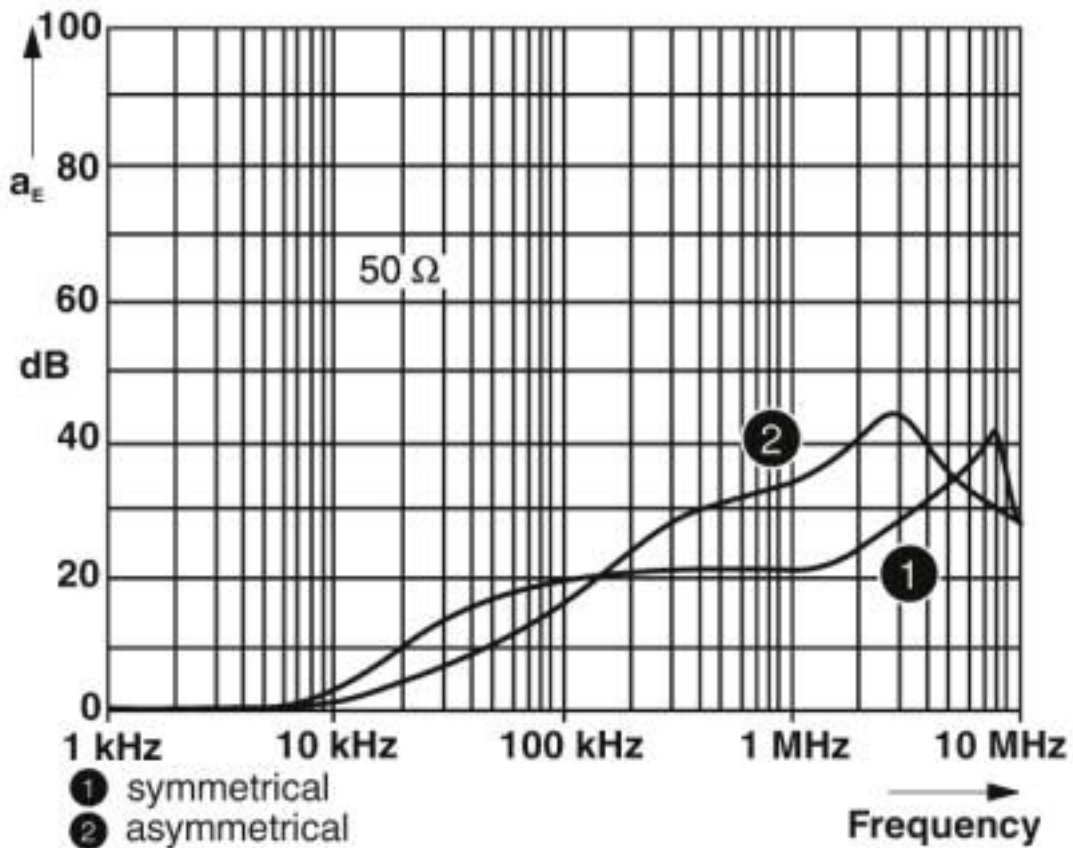
Discharge resistance	820 k Ω
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

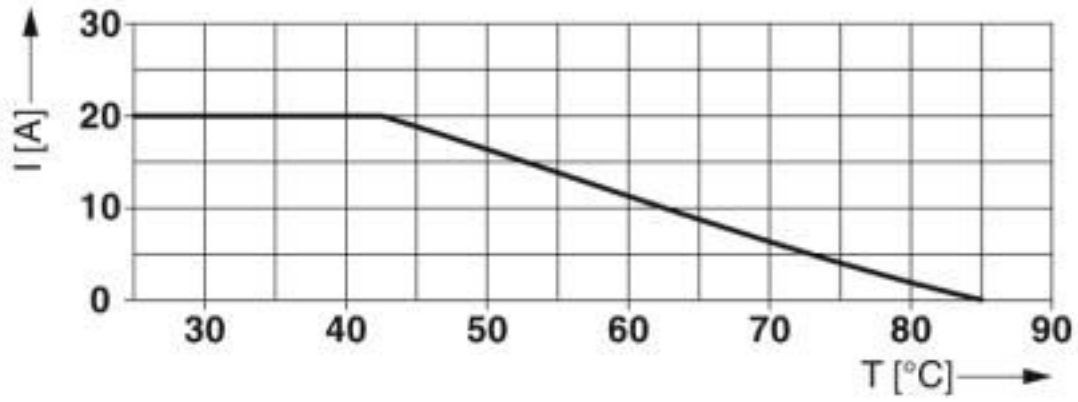
Drawings

Diagram

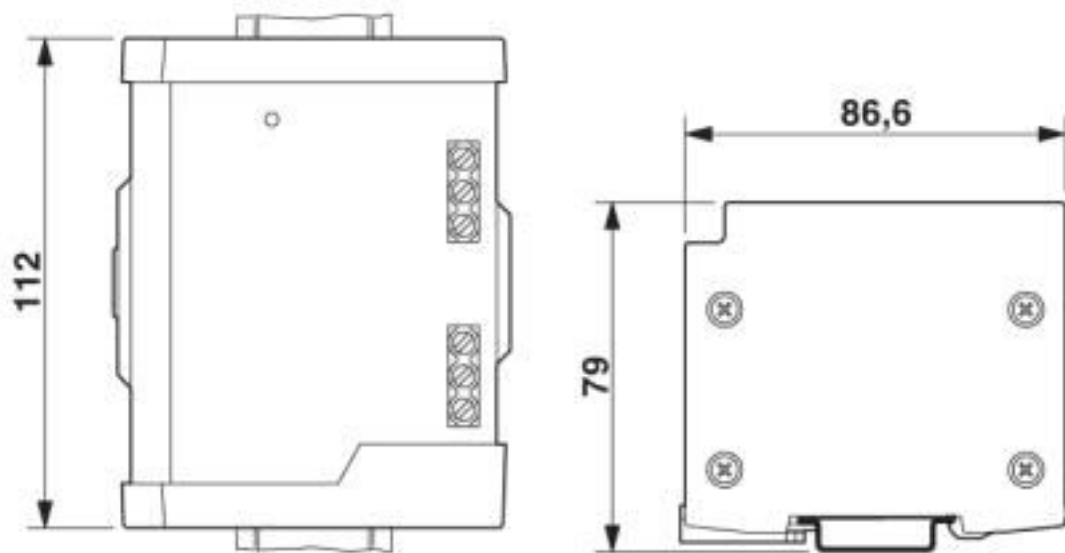


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Diagram

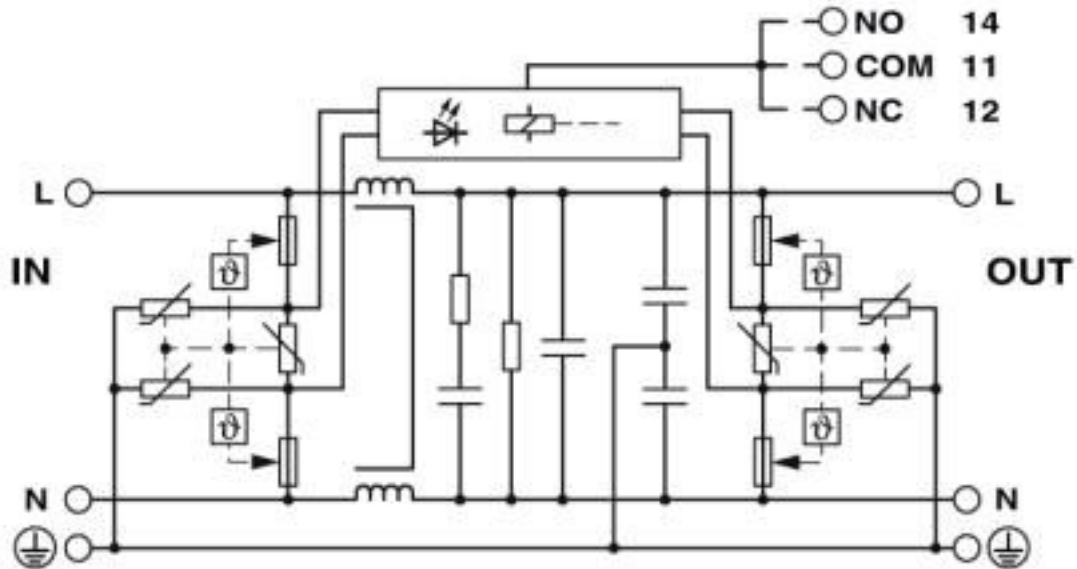


Dimensional drawing



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Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27130806
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130806
eCl@ss 8.0	27130806
eCl@ss 9.0	27130806

ETIM

ETIM 2.0	EC000942
ETIM 3.0	EC000942
ETIM 4.0	EC000942
ETIM 5.0	EC000942
ETIM 6.0	EC000942
ETIM 7.0	EC000942

UNSPSC

UNSPSC 6.01	30212010
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Classifications

UNSPSC

UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

Approvals

Approvals

Approvals

EAC / EAC

Ex Approvals

Approval details

EAC		EAC-Zulassung
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EAC		RU C- DE.A*30.B01561
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