SFP 1-15/120AC - EMC filter surge protection device

2920683

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Device protection, according to type 3/class III, with mains interference 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

- Optimized protective effect with combined protective circuit for absorbing transient overvoltages for attenuating high-frequency interference
- Symmetrical design of the protective circuit with surge protection components on the input and output sides of the filter
- Protection against excessive heating with thermal monitoring of the protective circuit
- Versatile in use with universal circuit design

Commercial data

Item number	2920683
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL06
Product key	CLC131
Catalog page	Page 209 (C-4-2019)
GTIN	4046356158565
Weight per piece (including packing)	611.3 g
Weight per piece (excluding packing)	571.28 g
Customs tariff number	85363010
Country of origin	DE

Technical data

Notes

General

Note	For IT systems: only install the device in 120 V IT systems with common HV/LV grounding system.

Product properties

Product type	EMC filters
Product family	SFP
Type	DIN rail module, one-piece
Number of positions	2
For country-specific use in	USA, CN, BR
Surge protection fault message	Optical, remote indicator contact

Insulation characteristics

Overvoltage category	III
Pollution degree	2
IEC test classification	III
	T3
EN type	T3
Number of ports	Two

Electrical properties

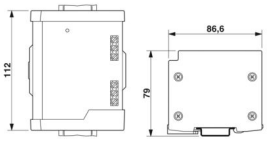
Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	Changeover 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 data

Connection method	Screw terminal blocks
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
	4.5 lb_f-in. ... 5.5 lb_f-in.
Conductor cross section flexible	2.5 mm² ... 4 mm²
Conductor cross section rigid	2.5 mm² ... 6 mm²
Conductor cross section AWG	14 ... 10

Dimensions

Dimensional drawing	
Width	112 mm
Height	86.6 mm
Depth	79 mm

Material specifications

Color	black (RAL 9005)
	Silver
Flammability rating according to UL 94	V-0
Insulating material	ABS
Housing material	Aluminum

Mechanical properties

Mechanical data

Open side panel	No

Protective circuit

Mode of protection	L-N
	L-PE
	N-PE
Direction of action	L-N & L(N)-PE
Nominal voltage U_N	120 V AC (TN)
	120 V AC (TT - only in use with RCD)
	120 V AC (IT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	150 V AC
Rated load current I_L	15 A (50 °C)
Residual current I_{PE}	≤ 0.6 mA
Standby power consumption P_C	≤ 7.50 VA (at U_{REF})
	≤ 10.00 VA (at U_C)
Reference test voltage U_{REF}	132 V AC
Nominal discharge current I_n (8/20) µs	3 kA
Combination wave U_{OC}	6 kV (3 kA)
Voltage protection level U_p	≤ 0.45 kV
TOV behavior at U_T (L-N)	175 V AC (5 s / withstand mode)
	240 V AC (5 s / safe failure mode)
	208 V AC (120 min / safe failure mode)
	208 V AC (5 s / withstand mode)

TOV behavior at U_T (L-PE)	175 V AC (120 min / withstand mode)
	1332 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 µF ±10 %
	10 nF ±10 % (X2-275 V)
Capacity (L-PE)	2.2 nF ±20 % (Y2-250 V)
Capacity (N-PE)	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)

Filter data

Discharge resistance	820 kΩ

Environmental and real-life conditions

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 %

Approvals

UL specifications

Maximum continuous operating voltage MCOV (L-N)	150 V AC
Maximum continuous operating voltage MCOV (L-G)	150 V AC
Maximum continuous operating voltage MCOV (N-G)	150 V AC
Short-circuit current rating (SCCR)	5 kA
Voltage protection rating VPR (L-N)	500 V
Voltage protection rating VPR (L-G)	500 V
Voltage protection rating VPR (N-G)	500 V
Nominal discharge current I_n	3 kA
Mode of protection	L-N
	L-G
	N-G
Power distribution system	Single phase
Nominal frequency	50/60 Hz
SPD Type	2CA

UL indicator/remote signaling

Operating voltage	12 V AC ... 250 V AC

DC operating voltage	250 V DC (250 mA DC)
AC operating current	100 mA AC ... 1 A AC
DC operating current	1 A DC (48 V DC)

UL connection data

Tightening torque	5 lb_f-in. ... 7 lb_f-in.
Conductor cross section AWG	12 ... 10

Standards and regulations

Air clearances and creepage distances

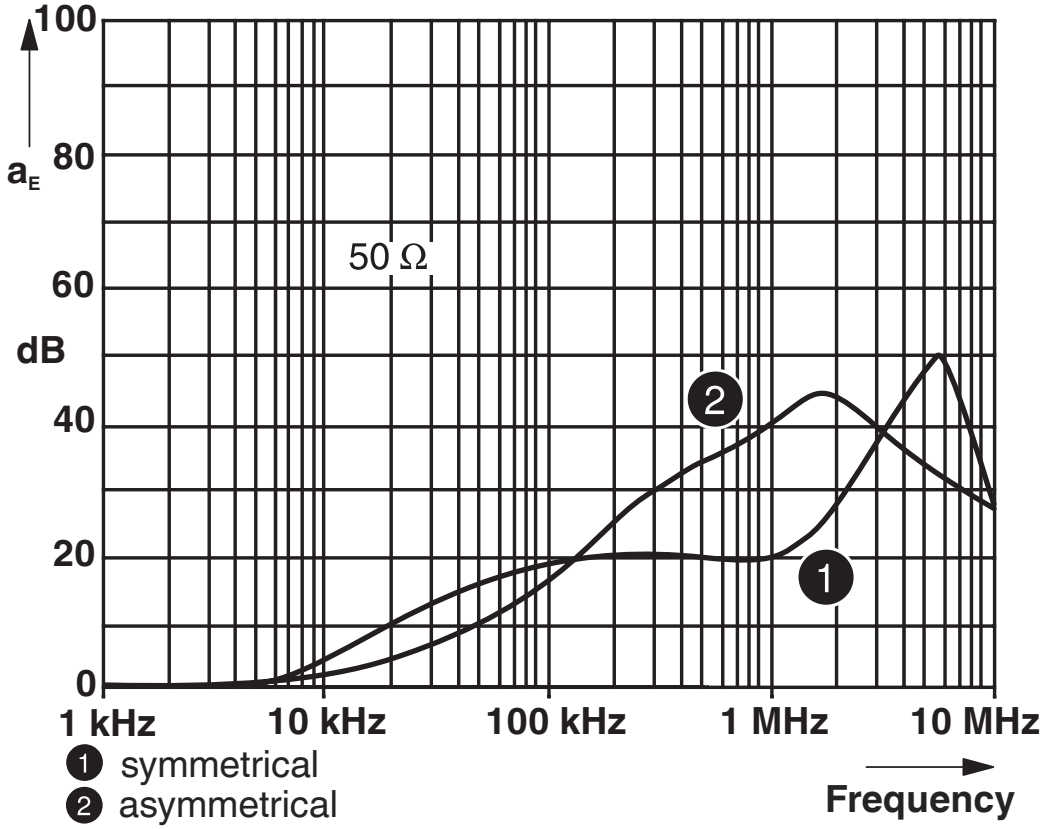
Standards/regulations	DIN VDE 0110-1 / IEC 60664-1 / IEC 61643-1
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

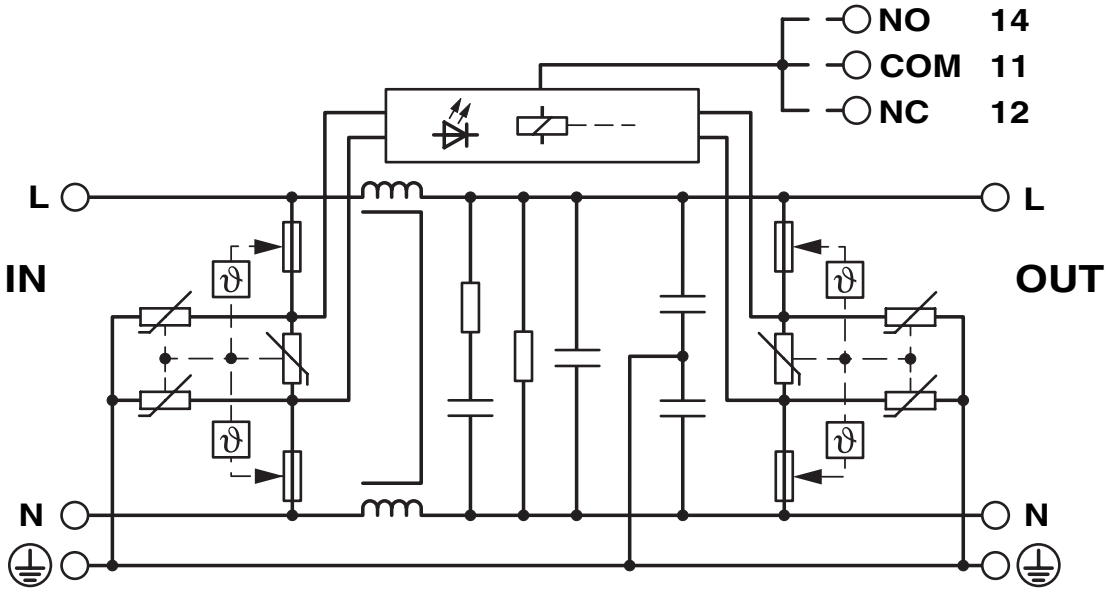
Mounting type	DIN rail: 35 mm

Drawings

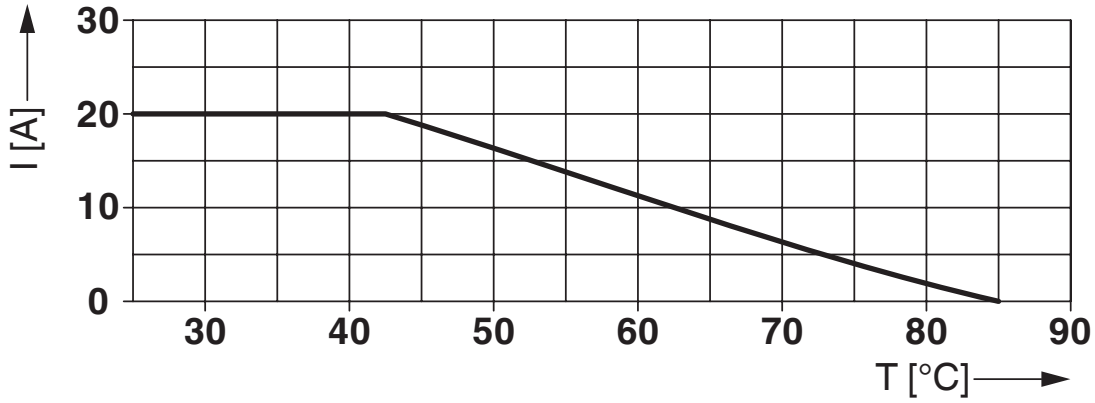
Diagram



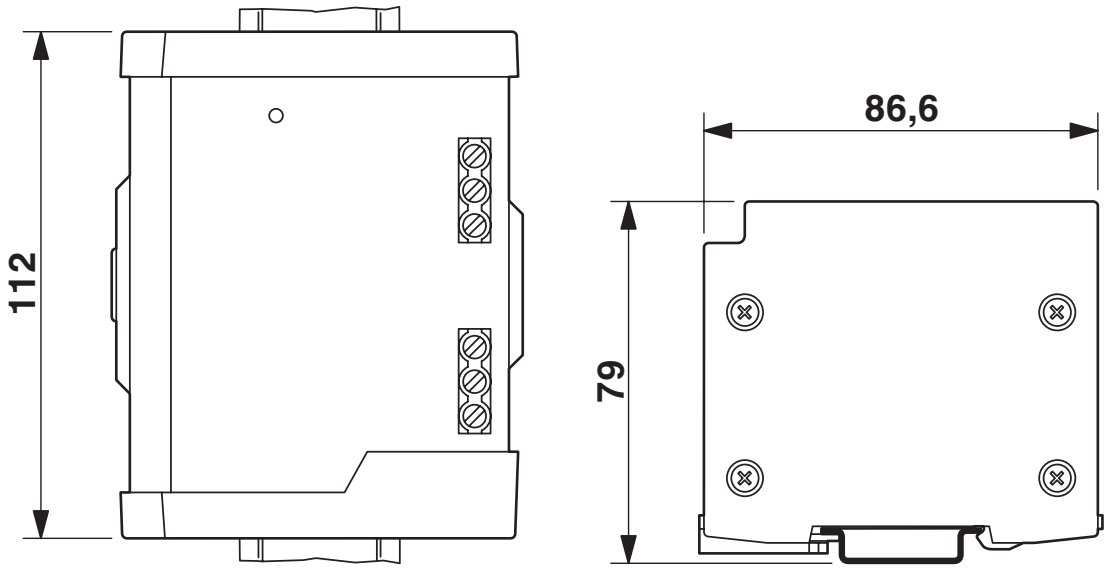
Circuit diagram



Diagram



Dimensional drawing



Approvals

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EAC
Approval ID: RU C-DE.*09.B.00169

CSA
Approval ID: 13631

CSAus
Approval ID: 13631

UAE-RoHS
Approval ID: 23-10-88892

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Classifications

ECLASS

ECLASS-11.0	27130806
ECLASS-13.0	27171203

ETIM

ETIM 9.0	EC000942

UNSPSC

UNSPSC 21.0	39121600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a)

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
SCIP	88f39971-ceb6-4b21-a181-ac7e1d301152

Accessories

SZS 0,6X3,5 VDE - Screwdriver

1212602

https://www.phoenixcontact.com/us/products/1212602

Screwdriver, slot-headed, VDE insulated, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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