

EMC filter surge protection device - SFP 1-10/120AC - 2920670

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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

Product Features

- 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
Weight per Piece (excluding packing)	608.6 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	93 mm
Width	112 mm
Depth	79 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C

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Technical data

Ambient conditions

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

General

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012
IEC test classification	III
	T3
EN type	T3
Number of ports	Two
SPD design	Voltage-limiting type
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	Rail-mountable module, one-piece
Number of positions	2
Surge protection fault message	Optical, remote indicator contact
For country-specific use in	USA, CN, BR

Protective circuit

Nominal voltage U_N	120 V AC (TN)
	120 V AC (TT - only in use with RCD)
	120 V AC (IT - only in use with RCD)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	150 V AC
Nominal current I_N	10 A (60°C)
Rated load current I_L	10 A (60°C)
Residual current I_{PE}	≤ 0.6 mA
Nominal discharge current I_n (8/20) μ s	3 kA
Standby power consumption P_C	≤ 7.5 VA (at U_{REF})
	≤ 10 VA (at U_C)
Reference test voltage U_{REF}	132 V AC

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Protective circuit

Combination wave U_{OC}	6 kV (3 kA)
Voltage protection level U_p	≤ 0.5 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)
TOV behavior at U_T (L-PE)	208 V AC (5 s / withstand mode) 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 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

Connection name	Remote fault indicator contact
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 1 A (48 V DC)
Connection method	Pluggable screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section AWG	26 ... 16

Connection data

Connection method	Screw terminal blocks
Conductor cross section AWG	14 ... 10
Screw thread	M3

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Connection data

Tightening torque	0.5 Nm ... 0.6 Nm
	4.5 lb _f -in. ... 5.5 lb _f -in.
Stripping length	8 mm

UL specifications

SPD Type	2CA
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
Mode of protection	L-N
	L-G
	N-G
Power distribution system	1
Nominal frequency	50/60 Hz
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
Short-circuit current rating (SCCR)	5 kA

Protective circuit, filter

Discharge resistor	820 kΩ
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Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130806
eCl@ss 7.0	27130806
eCl@ss 8.0	27130806
eCl@ss 9.0	27130806

ETIM

ETIM 2.0	EC000942
ETIM 3.0	EC000942

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Classifications

ETIM

ETIM 4.0	EC000942
ETIM 5.0	EC000942

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

Approvals submitted

Approval details

UL Recognized

cUL Recognized

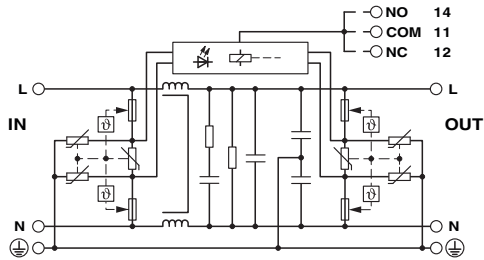
EAC

cULus Recognized

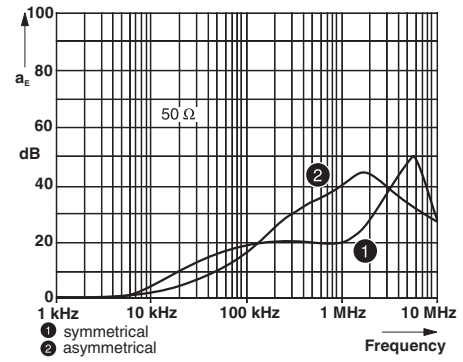
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Drawings

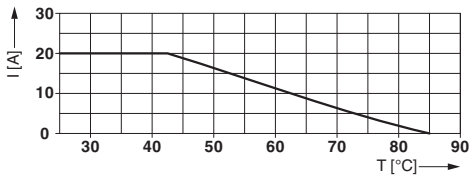
Circuit diagram



Diagram



Diagram



Dimensional drawing

