SFP2-1S-1-20A-230AC-PT - EMC filter surge protection device

1292413

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EMC filter (mains filter) for single-phase AC systems, for mounting on NS 35, integrated surge protective device (type 2 SPD), nominal voltage: 230 V AC, nominal current: 20 A

Your advantages

- Reliable protection of sensitive equipment against high-frequency conducted interference and against surge voltage and surge current pulses
- Effective attenuation with current-coupled coils and X and Y capacitors
- Versatile in use with universal circuit design
- Effective surge protection on the input and output side of the EMC filter
- User-friendly handling thanks to easy assembly and installation with Push-in connection technology (PT)

ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	1292413
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CLC161
Product key	CLC161
GTIN	4063151525545
Weight per piece (including packing)	812 g
Weight per piece (excluding packing)	620 g
Customs tariff number	85480090
Country of origin	Information on the country of origin is provided with the delivery.

Technical data

Notes

General

Note	Only for use in IT systems between L-PE if the exposed conductive parts of the equipment of the low-voltage electrical installation are connected to the grounding system of the transformer station. (common grounding of the HV transformer station and the exposed conductive parts of the LV consumer installation. RE = RA in accordance with IEC 60364-4-44:2007 Figure 44.A1 and Table 44.A1).

Product properties

Product type	EMC filters
IEC power supply system	TN
	TT
	IT
Type	DIN rail module, one-piece
Number of positions	2
Surge protection fault message	Optical, remote indicator contact

Insulation characteristics

Overvoltage category	III
Pollution degree	2
IEC test classification	T2
EN type	T2
Number of ports	Two

Electrical properties

Maximum power dissipation for nominal condition	≤ 6 W

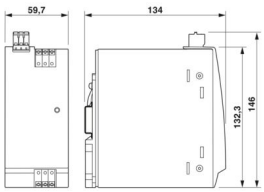
Indicator/remote signaling

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	Push-in connection
Conductor cross-section flexible	0.5 mm² ... 6 mm²
Conductor cross-section rigid	0.5 mm² ... 4 mm²
Conductor cross-section AWG	20 ... 10

Dimensions

Dimensional drawing	
Width	60 mm
Height	130 mm
Depth	133 mm

Material specifications

Color	light gray (RAL 7035)
Flammability rating according to UL 94	V-0
Insulating material	PC
Housing material	PC-GF10
	Metal

Mechanical properties

Mechanical data

Open side panel	No

Protective circuit

Mode of protection	L-N
	L-PE
	N-PE
Nominal voltage U_N	240 V AC (TN)
	240 V AC (TT - only in use with RCD)
	240 V AC (IT - see note)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C	264 V AC
Rated load current I_L	20 A (50 °C)
Protective conductor current I_{PE}	≤ 0.5 mA
Reference test voltage U_{REF}	264 V AC
Nominal discharge current I_n (8/20) µs	5 kA
Voltage protection level U_p	≤ 1.1 kV
TOV behavior at U_T (L-N)	457 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)
TOV behavior at U_T (L-PE)	457 V AC (5 s / withstand mode)
	457 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	≤ 100 ns
Capacity (L-N)	2x 1 µF ±20 % (X2-250 V)
	10 nF ±20 % (X2-275 V)
Capacity (L-PE)	2.2 nF ±20 % (Y2-250 V)
Capacitance (N-PE)	2.2 nF ±20 % (Y2-250 V)
Max. required back-up fuse	20 A (MCB B)
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}	6 kA AC

Filter data

Discharge resistance	940 kΩ (±1 %)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Altitude	≤ 2000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	15g (Half-sine / 6 ms / 100x ±X, ±Y, ±Z)
Vibration (operation)	1g (1-150 Hz/10 cycles/XYZ)

Standards and regulations

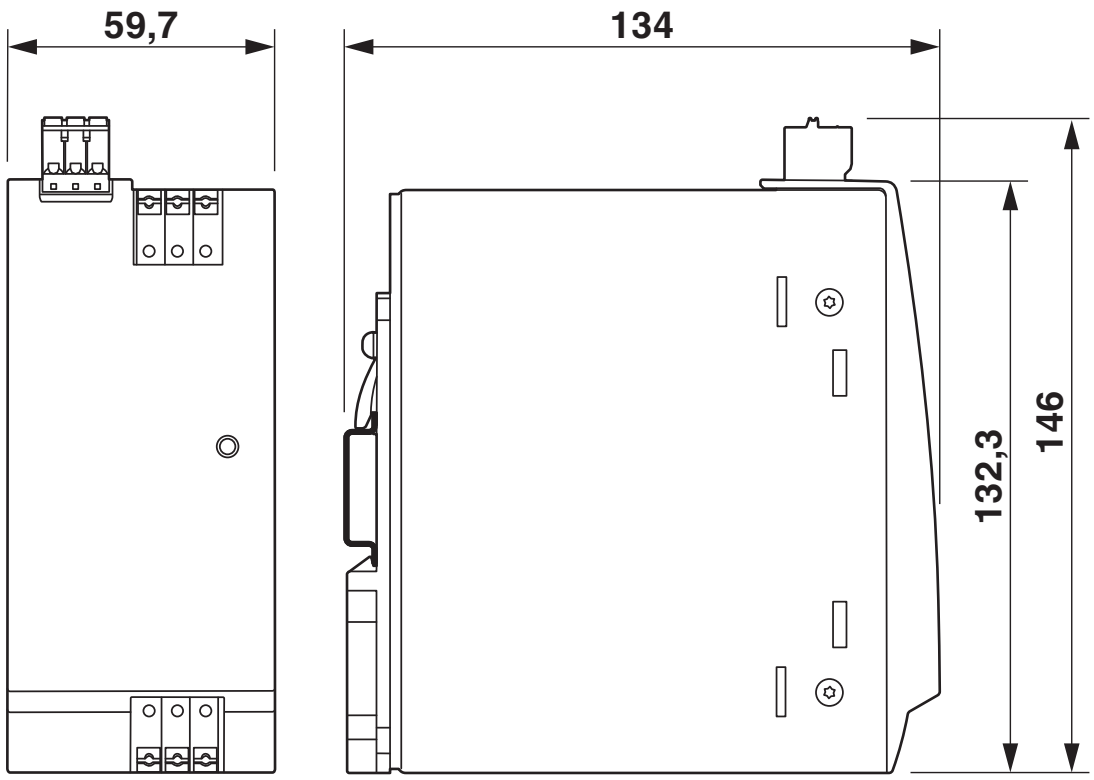
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012 + A11:2018
Standards/specifications	EN 60939-2
Note	2006 + AMD1:2023

Mounting

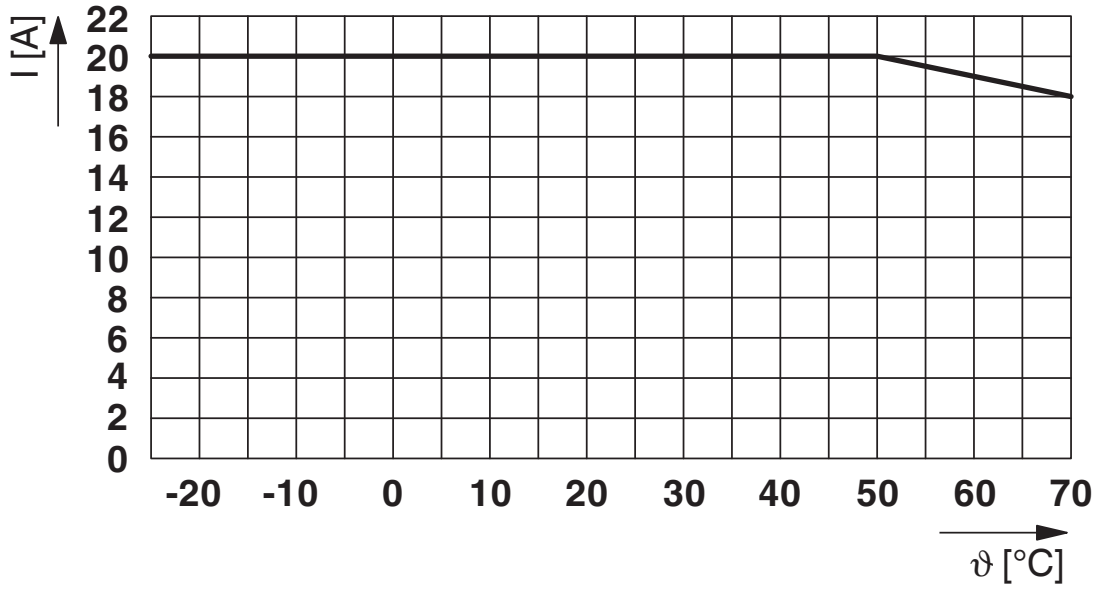
Mounting type	DIN rail: 35 mm

Drawings

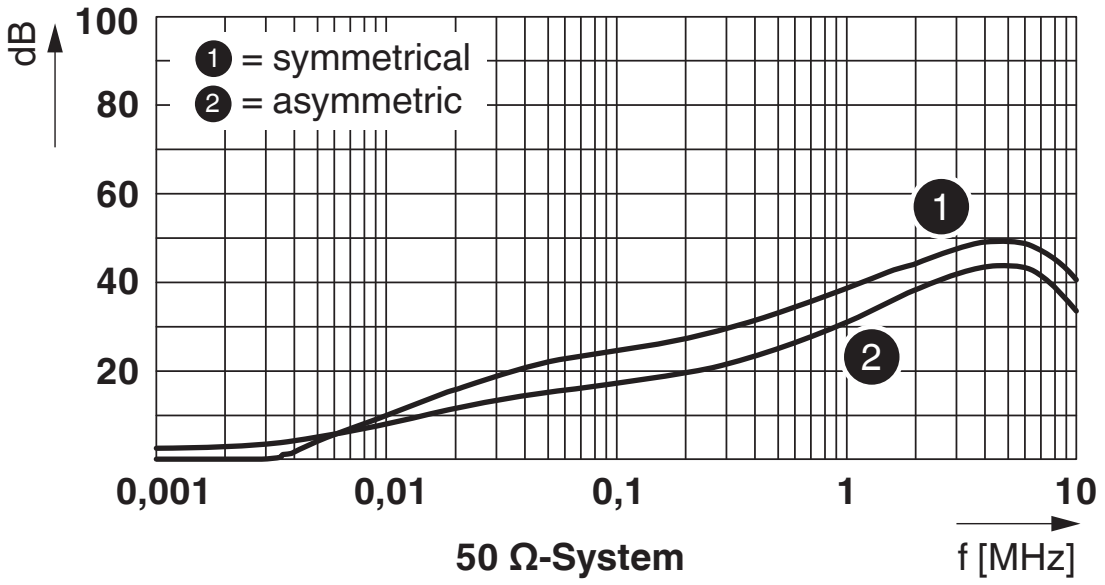
Dimensional drawing



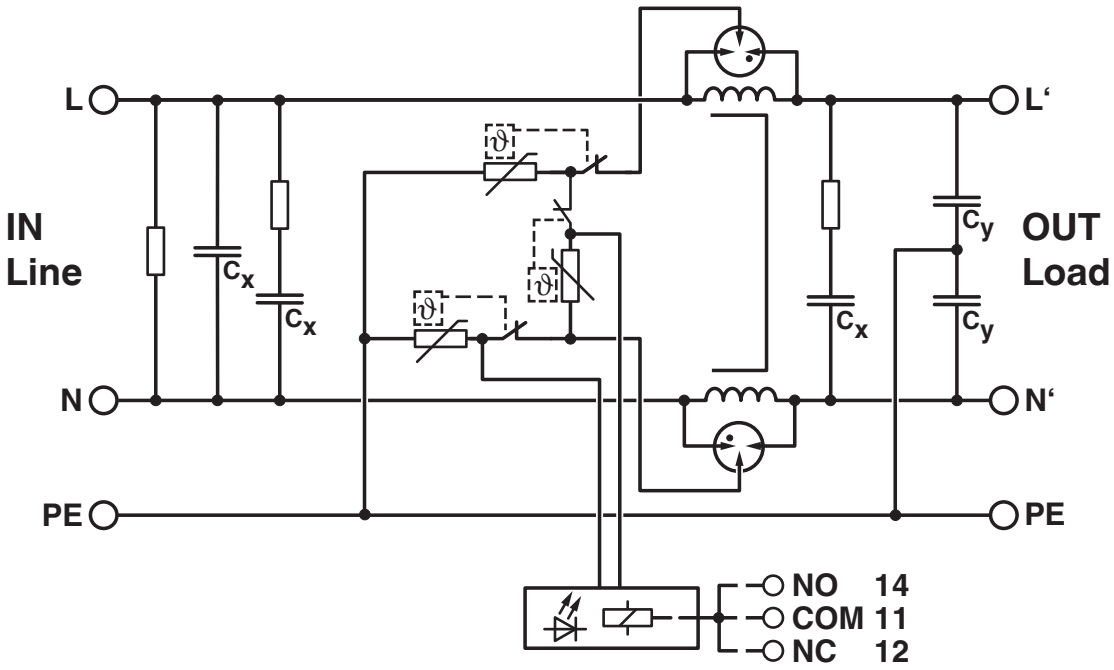
Diagram



Diagram



Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/au/products/1292413

VDE Zeichengenehmigung
Approval ID: 40060084

Classifications

ECLASS

ECLASS-13.0	27420208
ECLASS-15.0	27420208

ETIM

ETIM 10.0	EC002564

UNSPSC

UNSPSC 21.0	39121500

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a)

China RoHS

Environment friendly use period (EFUP)	EFUP-25
	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)

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