

# SFP 1-20/230AC


Order No.: 2859987



<http://eshop.phoenixcontact.sk/phoenix/treeViewClick.do?UID=2859987>

Device surge protection filter to limit powerful surge voltages, mounting on NS 35.



Commercial data	
EAN	 4 046356 098175
Pack	1 pcs.
Customs tariff	85363010
Gross weight in pieces	0.6163 kg
Catalog page information	Page 146 (C-6-2013)

## Product notes

WEEE/RoHS-compliant since:  
11.07.2006



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## Product description

Device protection with interference filter

## Technical data

### Dimensions

Height	93 mm
Width	112 mm
Depth	79 mm

### Ambient conditions

Degree of protection	IP20
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Ambient temperature (operation)	-40 °C ... 70 °C

### General

Housing material	ABS, V0(UL-94)
Inflammability class according to UL 94	V0
Color	aluminum
Standards for air and creepage distances	DIN VDE 0110-1 IEC 60664-1 IEC 61643-1
Type	Rail-mountable module, one-piece
Mounting type	DIN rail: 35 mm
Number of positions	2
For country-specific use in	D, A, I, NL, S, E, FIN, P
Direction of action	L-N & L(N)-PE

### Protective circuit

IEC test classification	III T3
EN type	T3
Nominal voltage $U_N$	230 V AC
Arrester rated voltage $U_C$ (L-N)	264 V AC
Nominal frequency $f_N$	50 Hz 60 Hz
Nominal current $I_N$	20 A (40°C)
Residual current $I_{PE}$	$\leq 0.57$ mA
Nominal discharge current $I_n$ (8/20) $\mu$ s (L-N)	5 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s (L-PE)	5 kA
Max. discharge current $I_{max}$ (8/20) $\mu$ s maximum (L-N)	10 kA
Max. discharge current $I_{max}$ (8/20) $\mu$ s maximum (L-PE)	10 kA
Combined surge $U_{oc}$	10 kV
Voltage protection level $U_p$ (L-N)	$\leq 1$ kV
Voltage protection level $U_p$ (L-PE)	$\leq 1$ kV

Voltage protection level $U_p$ (N-PE)	$\leq 1$ kV
Response time $t_A$ (L-N)	$\leq 25$ ns
Response time $t_A$ (L-PE)	$\leq 25$ ns
Response time $t_A$ (N-PE)	$\leq 25$ ns
Inductivity in series	2x 1 mH $\pm 30$ % (with current compensation)
Capacity (L-N)	1 $\mu$ F $\pm 10$ % (X2-275 V)
Capacity (L-PE)	2.2 nF $\pm 20$ % (Y2-250 V)
Capacity (L-PEN)	2.2 nF $\pm 20$ % (Y2-250 V)
Max. required back-up fuse	20 A (gL / gG)
Input attenuation aE, sym.	20 dB ( $\geq 100$ kHz / 50 $\Omega$ )
Input attenuation aE, asym.	30 dB ( $\geq 1$ MHz / 50 $\Omega$ )
Surge protection fault message	Remote indicator contact

**Non-heating apparatus connection, power supply**

Connection name	Input/output
Connection method	Screw terminal blocks
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Connection method	3-conductor (shielded)
Screw thread	M3
Stripping length	8 mm
Conductor cross section stranded min.	4 mm <sup>2</sup>
Conductor cross section stranded max.	4 mm <sup>2</sup>
Conductor cross section solid min.	4 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	12
Conductor cross section AWG/kcmil max	10

**Remote indicator contact**

Connection name	Remote fault indicator contact
Switching function	PDT, 1-pos.
Connection method	Pluggable screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section stranded min.	0.14 mm <sup>2</sup>

Conductor cross section stranded max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max	16
Maximum operating voltage U <sub>max.</sub> AC	250 V AC
Max. operating current I <sub>max</sub>	1 A (250 V AC)
	0.25 A (250 V DC)
	1 A (48 V DC)

**Standards and Regulations**

Standards/regulations	IEC 61643-1
	EN 61643-11/A11

**Protective circuit, filter**

Discharge resistor	≤ 680 kΩ
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**Certificates**

Certification

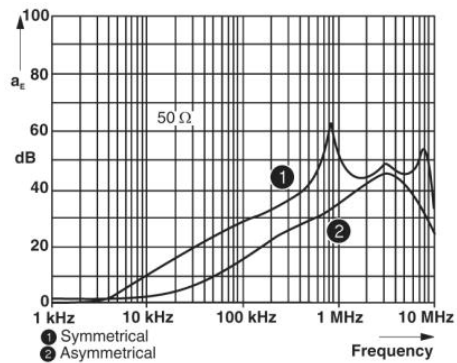
GOST

Certifications applied for:

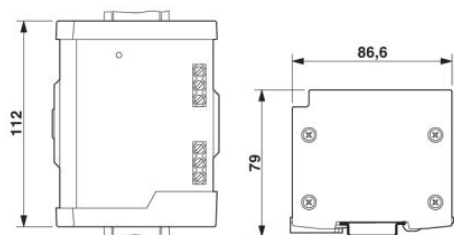
Certification Ex:

## Drawings

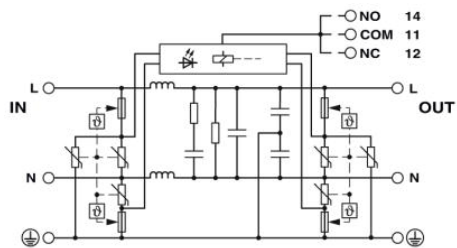
### Diagram



### Dimensioned drawing



### Circuit diagram



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