

# SFP 1-10/120AC

Order No.: 2920670



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

## Commercial data

EAN	4046356158480
Pack	1 pcs.
Customs tariff	85363010
Weight/Piece	0.6278 KG

## Product description

Device protection with interference filter

## Technical data

### Standards

Housing material	ABS, V0(UL-94)
Inflammability class acc. to UL 94	V0
Color	aluminum
Degree of protection	IP20
Design	Rail-mountable module, one-piece
Mounting type	DIN rail 35 mm
Number of positions	2
Ambient temperature (operation)	-40 °C ... 85 °C
For country-specific use in	USA, CN, BR

Direction of action	L-N & L(N)-PE
Width	112.00 mm
Height	79.00 mm
Length	93.00 mm
<b>Protective circuit</b>	
IEC category	III
EN type	T3
Nominal voltage $U_N$	120 V AC
Arrester rated voltage $U_c$ (L-N)	200 V DC
	150 V AC
Arrester rated voltage $U_c$ (L-PE)	200 V DC
	150 V AC
Nominal frequency $f_N$	50 Hz
	60 Hz
Nominal current $I_N$	10 A ( $\leq 62^\circ\text{C}$ )
Operating effective current $I_c$ at $U_c$	$\leq 10$ mA
Discharge current to PE at $U_c$	$\leq 0.5$ mA
Nominal discharge surge current $I_n$ (8/20) $\mu\text{s}$ (L-N)	3 kA
Nominal discharge surge current $I_n$ (8/20) $\mu\text{s}$ (L-PE)	3 kA
Max. discharge surge current $I_{\text{max}}$ (8/20) $\mu\text{s}$ maximum (L-N)	10 kA
Max. discharge surge current $I_{\text{max}}$ (8/20) $\mu\text{s}$ maximum (L-PE)	10 kA
Combined surge $U_{oc}$	6 kV (3 kA)
Energy absorption symmetrical	170 J
Energy absorption, asymmetrical	2x 170 J
Protection level $U_p$ (L-N)	$\leq 450$ V (at 6 kV/3 kA)
Protection level $U_p$ (L-PE)	$\leq 450$ V (at 6 kV/3 kA)
Protection level $U_p$ (N-PE)	$\leq 450$ V (at 6 kV/3 kA)
Residual voltage at $I_n$ , (L-N)	$\leq 450$ V
Residual voltage at $I_n$ , (L-PE)	$\leq 450$ V
Residual voltage at $I_n$ , (N-PE)	$\leq 450$ V
Clamping voltage SVR (L-N)	$\leq 400$ V (at 6 kV/500 A)
Clamping voltage SVR (L-PE)	$\leq 400$ V (at 6 kV/500 A)
Response time $t_A$ (L-N)	$\leq 25$ ns

Response time tA (L-PE)	≤ 25 ns
Response time tA (N-PE)	≤ 25 ns
Inductivity in series	2x 1 mH ±30 % (with current compensation)
Capacity (L-N)	2 µF ±10 % (X2, FOW X2-250V)
Capacity (L-PE)	2.2 nF ±20 % (Y, FOW X2-250V)
Capacity (L-PEN)	2.2 nF ±20 % (Y, FOW X2-250V)
Max. required back-up fuse	20 A (gL / gG)
Input attenuation aE, sym.	40 dB (≥ 500 kHz / 50 Ω)
Input attenuation aE, asym.	30 dB (≥ 1 MHz / 50 Ω)
Message surge protection faulty	Remote indicator contact

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

Connection name	Input/output
Type of connection	Screw terminal blocks
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Connection system	3-conductor (shielded)
Screw thread	M3
Tightening torque, min	0.5 Nm
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	4 mm <sup>2</sup>
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	10

**Remote indicator contact**

Connection name	Remote fault indicator contact
Schaltfunktion_Int	PDT contact
Type of connection	Pluggable screw connection
Screw thread	M2
Tightening torque, min	0.25 Nm
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 $U_{max}$ AC	250 V AC
Maximum operating voltage $U_{max}$ DC	300 V DC
Max. operating current $I_{max}$	1 A (for 48 V DC)
	1 A (for 250 V AC)
	0.25 A (For 250 V DC)

**Connection, protective circuit**

Standards/regulations	IEC 61643-1
	EN 61643-11
	UL 1449
	UL 1283

**Protective circuit, filter**

Discharge resistor	$\leq 390 \text{ k}\Omega$
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**Certificates / Approvals**

Certification CSA, CUL, GOST, UCSA, UL

**CUL**

Nominal voltage $U_N$	120 V
Nominal current $I_N$	20 A
AWG/kcmil	12-10

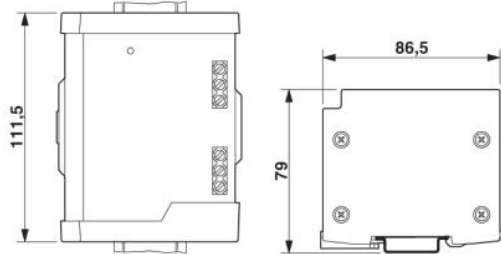
**UL**

Nominal voltage $U_N$	120 V
Nominal current $I_N$	20 A
AWG/kcmil	12-10

## Drawings

### Dimensioned drawing

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### Circuit diagram

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