

## HSA A-1P

- Surge arresters type T3 intended for use in installation and floor boxes and cable trays.
- Additional protection of socket circuits, which are treated with surge protection and high-frequency filters (HSAF, HSAF3).
- Can be used to protect LED lights.
- Installed at the boundaries of LPZ 2 – LPZ 3, as close as possible to the protected device (no further than 5 m).
- In front of HSA A-1P must be installed a lightning current and surge arrester T1 and T2 from HAKEL company.

Type		HSA A-1P
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T3
Number of poles		2
Rated operating AC voltage	$U_N$	230 V
Maximum continuous operating voltage AC	$U_C$	275 V
Open circuit voltage of the combination wave generator (L/N, L/PE)	$U_{OC}$	6 kV
Open circuit voltage of the combination wave generator (N/PE)	$U_{OC}$	10 kV
Voltage protection level at $U_{OC}$ (L/N)	$U_p$	< 1 kV
Voltage protection level at $U_{OC}$ (L/PE, N/PE)	$U_p$	< 1.3 kV
Nominal discharge current for class II test (8/20) L/N, L/PE	$I_n$	3 kA
Nominal discharge current for class II test (8/20) N/PE	$I_n$	5 kA
Temporary overvoltage test (TOV) for $t_T = 5$ s (L/N)	$U_T$	337 V
Temporary overvoltage test (TOV) for $t_T = 120$ min (L/N)	$U_T$	440 V
Temporary overvoltage test (TOV) for $t_T = 0.2$ s (N/PE)	$U_T$	1 200 V
Response time (L/N)	$t_A$	< 25 ns
Response time (L/PE, N/PE)	$t_A$	< 100 ns
Maximal back-up fuse		16 A gL/gG
Residual current	$I_{PE}$	$\leq 5 \mu A$
Lightning protection zone		LPZ 2-3
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	$\vartheta$	$-40 \div 70$ °C
Humidity range	RH	$5 \div 95$ %
Recommended cross-section of connected conductors	S	2.5 mm <sup>2</sup>
Installation		In the installation box, For window sill gutter 45 x 45 mm
Operating position		Any
Product placement environment		Internal
Signalling at the device		Acoustic
Importance of local signalling		OK – no piezo siren FAULT – piezo siren sound
Remote signalling		No

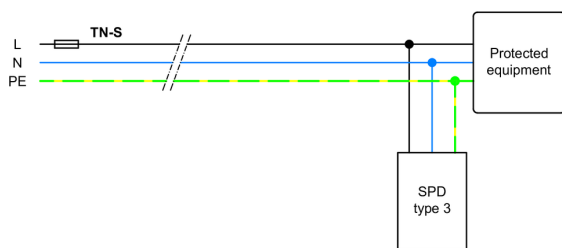
Type		HSAА-1P
Includes EMI / EMC filter		No
Modular design		No
Lifetime		> 100 000 h
<b>Designed according to standards</b>		
Requirements and test methods for SPDs connected to low-voltage power systems		IEC 61643-11:2011
Safety of Flammability of Plastic Materials		UL 94
<b>Application standards</b>		
Protection against lightning		IEC 62305:2010
Selection and erection of electrical equipment – Switchgear and controlgear		HD 60364-5-53:2022
Selection and application principles for SPDs connected to low-voltage power systems		CLC/TS 61643-12:2009
<b>Ordering, packaging and additional data</b>		
Mass	m	16 g
Mass (including the packaging)	m	27 g
Packaging dimensions (H x W x D)		26 x 98 x 73 mm
Packaging value	V	0.19 dm <sup>3</sup>
ETIM group		EG000021
ETIM class		EC000942
Customs tariff no.		85363010
EAN code		8590681117163
<b>Art. number</b>		<b>32 007</b>



The link in the QR code leads to the online presentation of the **HSAА-1P**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit [www.hakil.com](http://www.hakil.com)



### Application wiring diagram (installation)



### Internal diagram

