





## **HSAA-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 HSAA-1P must be installed a lightning current and surge arrester T1 and T2 from HAKEL company.

Туре		HSAA-1P
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		Т3
Number of poles		2
Rated operating AC voltage	$U_N$	230 V
Maximum continuous operating voltage AC	$U_{c}$	275 V
Nominal discharge current for class II test (8/20) L/N, L/PE	l <sub>n</sub>	3 kA
Nominal discharge current for class II test (8/20) N/PE	l <sub>n</sub>	5 kA
Open circuit voltage of the combination wave generator (L/N, L/PE)	U <sub>oc</sub>	6 kV
Open circuit voltage of the combination wave generator (N/PE)	$U_{oc}$	10 kV
Voltage protection level at U <sub>OC</sub> (L/N)	Up	< 1 kV
Voltage protection level at U <sub>OC</sub> (L/PE, N/PE)	$U_p$	< 1.3 kV
Temporary overvoltage test value (TOV) for $t_T = 5 \text{ s}$ (L/N)	$U_{T}$	337 V
Temporary overvoltage test value (TOV) for $t_T = 0.2 s$ (N/PE)	$U_T$	1 200 V
Response time (L/N)	t <sub>A</sub>	< 25 ns
Response time (L/PE, N/PE)	t <sub>A</sub>	< 100 ns
Maximal back-up fuse		16 A gL/gG
Lightning protection zone		LPZ2, LPZ3
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	θ	-40 ÷ 70 °C
Installation		For window sill gutter 45 x 45 mm, In the installation box
Operating position		Any
Signalling at the device		Acoustic
Importance of local signaling		OK – no piezo siren FAULT – piezo siren sound
Remote signalling		No
Includes EMI / EMC filter		No
Modular design		No
Lifetime		> 100 000 h
Designed according to standards		
Requirements and test methods for SPDs connected to low-voltage power systems		IEC 61643-11:2011
Safety of Flammability of Plastic Materials		UL 94



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## **Application standards**

Art. number

Protection against lightning		IEC 62305:2010
Selection and erection of electrical equipment – Devices for protection against transient overvoltages		HD 60364-5-534:2016
Selection and application principles for SPDs connected to low-voltage power systems		IEC 61643-12:2008
Ordering, packaging and additional data		
Mass	m	16 g
Mass (including the packaging)	m	27 g
Packaging dimensions (H x W x D)		98 x 26 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

## Internal diagram Application wiring diagram (installation)



