

HLSA25-320/3+1

- Lightning impulse current and surge arresters type T1+T2.
- The products consist of varistors with big discharge ability.
- HLSA25 in configurations 1+1, 3+1 are additionally combined with a gas discharge tube which ensures zero leakage current through the PE conductor.
- Suitable for objects with considerable levels of protection LPL I and LPL II.
- Installed at the boundaries of LPZ 0 – LPZ 1 and higher zones, closest to where overhead line enters the building i.e. in the main distribution boards.
- If the product contains two PE (or PEN) terminals, it must not be used as a PE (PEN) bridge.
- **S** indication specifies a version with remote monitoring.

Type		HLSA25-320/3+1
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T1, T2
System		TN-S, TT
Number of poles		4
Rated operating AC voltage	U_N	230 V
Maximum continuous operating voltage AC	U_C	320 V
Rated load current for „V“ connection	I_L	125 A
Maximum discharge current (8/20)	I_{max}	50 kA
Impulse discharge current for class I test (10/350) L/N	I_{imp}	25 kA
Charge (L/N)	Q	12.5 As
Specific energy for class I test (L/N)	W/R	156 kJ/Ω
Impulse discharge current for class I test (10/350) N/PE	I_{imp}	100 kA
Charge (N/PE)	Q	50 As
Specific energy for class I test (N/PE)	W/R	2 500 kJ/Ω
Total discharge current (10/350) L1+L2+L3+N->PE	I_{Total}	100 kA
Total discharge current (8/20) L1+L2+L3+N->PE	I_{Total}	100 kA
Nominal discharge current for class II test (8/20) L/N	I_n	25 kA
Nominal discharge current for class II test (8/20) N/PE	I_n	100 kA
Voltage protection level at I_n (L/N)	U_p	< 1.35 kV
Voltage protection level at I_n (N/PE)	U_p	< 1.5 kV
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 (N/PE)	t_A	< 100 ns
Maximal back-up fuse		250 A gL/gG
Maximal back-up fuse („V“ connection)		125 A gL/gG
Residual current	I_{PE}	≤ 5 μA
Short-circuit current rating at maximum back-up fuse	I_{SCCR}	80 kA _{rms}
Follow current interrupt rating (N/PE)	I_{fi}	0.1 kA _{rms}

Type		HLSA25-320/3+1
Lightning protection zone		LPZ 0-1, LPZ 1-2
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	θ	-40 ÷ 70 °C
Humidity range	RH	5 ÷ 95 %
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to „V“ connection) for T1	S	6 mm ² (L, N) 16 mm ² (PE, PEN)
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to „V“ connection) for T2	S	2.5 mm ² (L, N) 6 mm ² (PE, PEN)
Power conductor stripping length		15 mm
Clamp fastening range (solid conductor)		2.5 ÷ 35 mm ²
Clamp fastening range (stranded conductor)		2.5 ÷ 25 mm ²
Tightening torque		3 Nm
Installation		On DIN rail 35 mm
Modular width		8 TE
Width		140.8 mm
Height		90 mm
Depth		65.8 mm
Operating position		Any
Product placement environment		Internal
Signalling at the device		Optic
Importance of local signalling		OK – clear target FAULT – red target
Remote signalling		No
Pluggable version		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
Application standards		
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
Ordering, packaging and additional data		
Mass	m	1.07 kg
Mass (including the packaging)	m	1.114 kg
Packaging dimensions (H x W x D)		71 x 177 x 106 mm
Packaging value	V	1.33 dm ³
Customs tariff no.		85363010
EAN code		8590681165928
Art. number		10 424

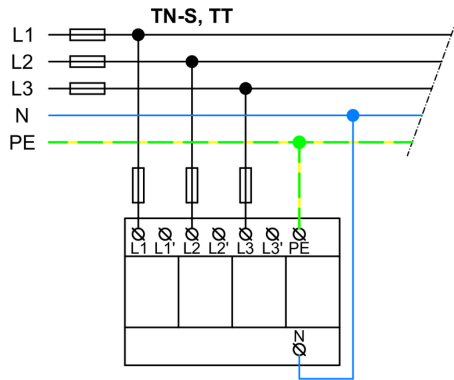


The link in the QR code leads to the online presentation of the **HLSA25-320/3+1**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit www.hakel.com



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Application wiring diagram (installation)



Internal diagram

