

HLSA25-275/2+1

- Lightning impulse current and surge arresters type T1+T2+T3.
- The products consist of varistors with big discharge ability.
- HLSA25 in configurations 1+1, 3+1 and HLSA25G 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.
- In case of the installation of a type T1+T2+T3 in the main switchboard, it is also necessary to install type 2 and 3 in any additional distribution boards in the electrical installation.
- 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.

Туре		HLSA25-275/2+1
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T1, T2, T3
System		TN-S, TT
Number of poles		3
Rated operating AC voltage	U _N	230 V
Maximum continuous operating voltage AC	Uc	275 V
Rated load current for "V" connection	ΙL	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}	50 kA
Charge (N/PE)	Q	25 As
Specific energy for class I test (N/PE)	W/R	625 kJ/Ω
Total discharge current (10/350) L1+L2+N->PE	I _{Total}	50 kA
Total discharge current (8/20) L1+L2+N->PE	I _{Total}	100 kA
Nominal discharge current for class II test (8/20) L/N	l _n	25 kA
Nominal discharge current for class II test (8/20) N/PE	I _n	50 kA
Open circuit voltage of the combination wave generator	U _{oc}	6 kV
Voltage protection level at In (L/N)	U _p	< 1.2 kV
Voltage protection level at In (N/PE)	Up	< 1.3 kV
Temporary overvoltage test (TOV) for $t_T = 5 \text{ s} (L/N)$	U _T	337 V
Temporary overvoltage test (TOV) for $t_T = 120 \text{ min} (L/N)$	U _T	440 V
Temporary overvoltage test (TOV) for $t_T = 0.2 \text{ s}$ (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



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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)	l _{fi}	0.1 kA _{rms}
ightning protection zone		LPZ 0-1, LPZ 1-2, LPZ 2-3
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 mm² (L, N) 16 mm² (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 mm² (L, N) 6 mm² (PE, PEN)
Clamp fastening range (solid conductor)		2.5 ÷ 35 mm ²
Clamp fastening range (stranded conductor)		2.5 ÷ 25 mm ²
Tightening moment		3 Nm
Installation		On DIN rail 35 mm
Modular width		6 TE
Operating position		Any
Product placement environment		Internal
Signalling at the device		Optic
Importance of local signaling		OK – clear target FAULT – red target
Remote signalling		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
		0_0.
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	840 g
Mass (including the packaging)	m	884 g
Packaging dimensions (H x W x D)		71 x 177 x 106 mm
Packaging value	V	1.33 dm ³
ETIM group		EG000021
ETIM class		EC001457
Customs tariff no.		85363010
EAN code		8590681166390
Art. number		10 471

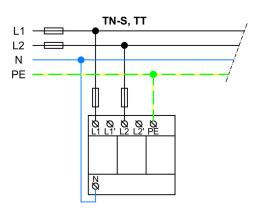


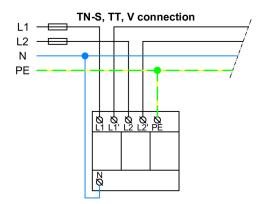
The link in the QR code leads to the online presentation of the **HLSA25-275/2+1**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit **www.hakel.com**



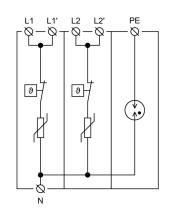


Application wiring diagram (installation)





Internal diagram



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