

HLSA12,5-440/2+0

- Lightning impulse current and surge arresters type T1+T2 ensure the equipotential bonding, eliminate the effects of lightning current and reduce switching, induced and residual overvoltage in single-phase and three-phase power supply systems.
- Suitable for objects with considerable levels of protection LPL III and LPL IV, such as small administration complexes, residential buildings, family houses or properties and halls without the incidence of persons and indoor equipment.
- 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.
- The products consist of varistors with big discharge ability.
- Configurations 1+1 and 3+1 are additionally combined with a gas discharge tube which ensures zero leakage current through the PE conductor.
- 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.

Test class according to EN 61643-11:2012 (IEC 61643-11:2011) System Number of poles Rated operating AC voltage Maximum continuous operating voltage AC Maximum discharge current (8/20) Impulse discharge current for class I test (10/350) Charge Specific energy for class I test	U _N U _C I _{max} I _{imp} Q W/R	T1, T2 TN-S 2 400 V 440 V 50 kA 12.5 kA 6.25 As
Number of poles Rated operating AC voltage Maximum continuous operating voltage AC Maximum discharge current (8/20) Impulse discharge current for class I test (10/350) Charge	U _C I _{max} I _{imp} Q	2 400 V 440 V 50 kA 12.5 kA
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Impulse discharge current for class I test (10/350) Charge	I _{imp} Q	12.5 kA
Charge	Q	
		6.25 As
Specific energy for class I test	W/R	
opening energy for class i test		39 kJ/Ω
Total discharge current (10/350) L+N->PE	I _{Total}	25 kA
Total discharge current (8/20) L+N->PE	I _{Total}	100 kA
Nominal discharge current for class II test (8/20)	I _n	20 kA
Open circuit voltage of the combination wave generator	U _{oc}	6 kV
Voltage protection level at I _n	U_p	< 1.8 kV
Temporary overvoltage test (TOV) for $t_T = 5 \text{ s}$	U_T	580 V
Response time	t _A	< 25 ns
Maximal back-up fuse		160 A gL/gG
Short-circuit current rating at maximum back-up fuse	I _{SCCR}	60 kA _{rms}
Lightning 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
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to "V" connection) for T1	2 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	2 S	2.5 mm² (L, N) 6 mm² (PE, PEN)
Clamp fastening range (solid conductor)		1.5 ÷ 25 mm ²



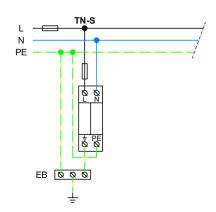
Clamp fastening range (stranded conductor) 1.5 + 16 mm² Tightening moment 3 Nm Installation On DIN rail 35 mm Modular width 4 TE Operating position Any Signalling at the device Optic Importance of local signaling OK - clear target FAULT - red t	Туре		HLSA12,5-440/2+0
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	Art. number		10 335



The link in the QR code leads to the online presentation of the **HLSA12,5-440/2+0**. 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

