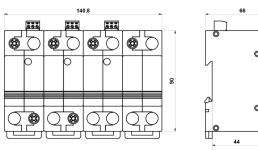
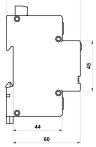
### **Lightning arresters T1**









# HLA50-255/4+0 S

- Lightning impulse current arresters type T1 ensure the equipotential bonding and eliminate the effects of lightning current in single-phase and three-phase power supply systems.
- Products contain multiple non-exhausting spark gaps, thanks to which they are able to discharge the highest lightning impulse current.
- Suitable for objects with considerable levels of protection LPL I and LPL II, such as big industrial complexes and properties of particular importance - hospitals, banks, power plants.
- Installed as close as possible the overhead line enters the building i.e. the electric power substation, electrometer or the main distribution boards.
- If the product contains two PE (or PEN) terminals, it must not be used as a PE (PEN) bridge.
- LED indication specifies a version with LED fault signalisation.
- S indication specifies a version with remote monitoring and LED fault signalisation.

Туре		HLA50-255/4+0 S
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T1
System		TN-S
Number of poles		4
Rated operating AC voltage	U <sub>N</sub>	230 V
Maximum continuous operating voltage AC	Uc	255 V
Impulse discharge current for class I test (10/350)	I <sub>imp</sub>	50 kA
Charge	Q	25 As
Specific energy for class I test	W/R	625 kJ/Ω
Total discharge current (10/350) L1+L2+L3+N->PE	I <sub>Total</sub>	200 kA
Nominal discharge current for class II test (8/20)	I <sub>n</sub>	50 kA
Voltage protection level at I <sub>imp</sub>	Up	< 2 kV
Temporary overvoltage test (TOV) for $t_T = 5 s$	UT	337 V
Temporary overvoltage test (TOV) for $t_T = 120 \text{ min}$	U <sub>T</sub>	440 V
Response time	t <sub>A</sub>	< 100 ns
Maximal back-up fuse		500 A gL/gG
Short-circuit current rating at maximum back-up fuse	I <sub>SCCR</sub>	25 kA <sub>rms</sub>
Follow current interrupt rating	l <sub>fi</sub>	25 kA <sub>rms</sub>
Lightning protection zone		LPZ 0-1, LPZ 1-2
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	e	-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)
Clamp fastening range (solid conductor)		$2.5 \div 25 \text{ mm}^2$
Clamp fastening range (stranded conductor)		$2.5 \div 16 \text{ mm}^2$
Tightening moment		4 Nm
Installation		On DIN rail 35 mm

## Lightning arresters T1



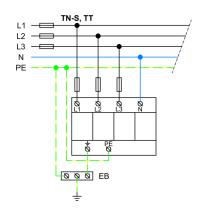
Туре		HLA50-255/4+0 S
Modular width		8 TE
Operating position		Any
Product placement environment		Internal
Signalling at the device		Optic
Importance of local signaling		OK – green light on FAULT – red light on
Remote signalling		Yes
Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 $\mbox{mm}^2)$		AC: 250 V / 0.5 A, DC: 250 V / 0.1 A
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
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	980 g
Mass (including the packaging)	m	1.024 kg
Packaging dimensions (H x W x D)		71 x 177 x 106 mm
Packaging value	V	1.33 dm <sup>3</sup>
ETIM group		EG000021
ETIM class		EC000381
Customs tariff no.		85363010
EAN code		8590681114858
Art. number		10 978



**The link in the QR code** leads to the online presentation of the **HLA50-255/4+0 S**. 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

