

## HLA50-440/3+0

- 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.

Type		HLA50-440/3+0
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T1
System		TN-C
Number of poles		3
Rated operating AC voltage	$U_N$	400 V
Maximum continuous operating voltage AC	$U_C$	440 V
Impulse discharge current for class I test (10/350)	$I_{imp}$	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->PEN	$I_{Total}$	150 kA
Nominal discharge current for class II test (8/20)	$I_n$	50 kA
Voltage protection level at $I_{imp}$	$U_p$	< 2.5 kV
Temporary overvoltage test (TOV) for $t_T = 5$ s	$U_T$	581 V
Temporary overvoltage test (TOV) for $t_T = 120$ min	$U_T$	762 V
Response time	$t_A$	< 100 ns
Maximal back-up fuse		500 A gL/gG
Short-circuit current rating at maximum back-up fuse	$I_{SCCR}$	3 kA <sub>rms</sub>
Follow current interrupt rating	$I_{fi}$	3 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	$\vartheta$	-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 <sup>2</sup> (L, N) 16 mm <sup>2</sup> (PE, PEN)
Clamp fastening range (solid conductor)		2.5 ÷ 25 mm <sup>2</sup>
Clamp fastening range (stranded conductor)		2.5 ÷ 16 mm <sup>2</sup>
Tightening moment		4 Nm
Installation		On DIN rail 35 mm

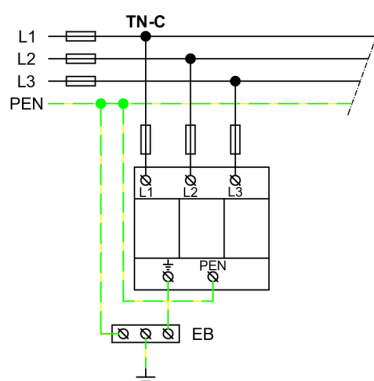
Type	HLA50-440/3+0	
Modular width	6 TE	
Operating position	Any	
Product placement environment	Internal	
Signalling at the device	None	
Remote signalling	No	
Modular design	No	
Lifetime	> 100 000 h	
<b>Designed according to standards</b>		
Requirements and test methods for SPDs connected to low-voltage power systems	IEC 61643-11:2011	
Safety of Flammability of Plastic Materials	UL 94	
<b>Application standards</b>		
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	
<b>Ordering, packaging and additional data</b>		
Mass	m	690 g
Mass (including the packaging)	m	734 g
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	8590681114698	
<b>Art. number</b>	<b>10 953</b>	



The link in the QR code leads to the online presentation of the **HLA50-440/3+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](http://www.hakel.com)



### Application wiring diagram (installation)



### Internal diagram

