

## HLA50-440/2+0 LED

- 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  |             | HLA50-440/2+0 LED  |
|---|-------------|--|
| Test class according to EN 61643-11:2012 (IEC 61643-11:2011)  |             | T1   |
| System  |             | TN-S   |
| Number of poles   |             | 2  |
| 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) L+N->PE  | $I_{Total}$ | 100 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)<br>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  |

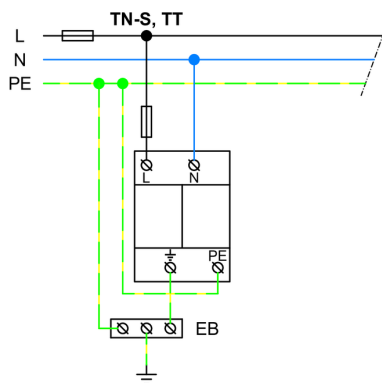
|  |   |  |
|--|---|--|
| <b>Type</b>  |   | <b>HLA50-440/2+0 LED</b>                       |
| Modular width  |   | 4 TE   |
| Operating position   |   | Any  |
| Product placement environment  |   | Internal                                       |
| Signalling at the device   |   | Optic  |
| Importance of local signaling  |   | OK – green light on<br>FAULT – green light off |
| 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 | 470 g  |
| Mass (including the packaging)   | m | 498 g  |
| Packaging dimensions (H x W x D)   |   | 74 x 112 x 73 mm                               |
| Packaging value  | V | 0.61 dm <sup>3</sup>                           |
| ETIM group   |   | EG000021                                       |
| ETIM class   |   | EC000381                                       |
| Customs tariff no.   |   | 85363010                                       |
| EAN code   |   | 8590681168349                                  |
| <b>Art. number</b>   |   | <b>10 963</b>                                  |



The link in the QR code leads to the online presentation of the **HLA50-440/2+0 LED**. 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.hakil.com](http://www.hakil.com)



## Application wiring diagram (installation)



## Internal diagram

