

## HLSA25-275/4+0 S

- 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.

| Type   | HLSA25-275/4+0 S          |                      |
|--|---------------------------|----------------------|
| Test class according to EN 61643-11:2012 (IEC 61643-11:2011) | T1, T2, T3                |                      |
| System   | TN-S                      |                      |
| Number of poles  | 4                         |                      |
| Rated operating AC voltage                                   | $U_N$                     | 230 V                |
| Maximum continuous operating voltage AC                      | $U_C$                     | 275 V                |
| Rated load current for „V“ connection                        | $I_L$                     | 125 A                |
| Maximum discharge current (8/20)                             | $I_{max}$                 | 50 kA                |
| Impulse discharge current for class I test (10/350)          | $I_{imp}$                 | 25 kA                |
| Charge   | $Q$                       | 12.5 As              |
| Specific energy for class I test                             | W/R                       | 156 kJ/Ω             |
| Total discharge current (10/350) L1+L2+L3+N->PE              | $I_{Total}$               | 100 kA               |
| Total discharge current (8/20) L1+L2+L3+N->PE                | $I_{Total}$               | 200 kA               |
| Nominal discharge current for class II test (8/20)           | $I_n$                     | 25 kA                |
| Open circuit voltage of the combination wave generator       | $U_{OC}$                  | 6 kV                 |
| Voltage protection level at $I_n$                            | $U_p$                     | < 1.2 kV             |
| Temporary overvoltage test (TOV) for $t_T = 5$ s             | $U_T$                     | 337 V                |
| Temporary overvoltage test (TOV) for $t_T = 120$ min         | $U_T$                     | 440 V                |
| Response time  | $t_A$                     | < 25 ns              |
| Maximal back-up fuse   | 250 A gL/gG               |                      |
| Maximal back-up fuse („V“ connection)                        | 125 A gL/gG               |                      |
| Residual current   | $I_{PE}$                  | ≤ 300 μA             |
| Short-circuit current rating at maximum back-up fuse         | $I_{SCCR}$                | 80 kA <sub>rms</sub> |
| 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          |
| Humidity range   | RH                        | 5 ÷ 95 %             |

| Type  |   | HLSA25-275/4+0 S  |
|---|---|---|
| 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)  |
| 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 mm <sup>2</sup> (L, N)<br>6 mm <sup>2</sup> (PE, PEN) |
| Clamp fastening range (solid conductor)   |   | 2.5 ÷ 35 mm <sup>2</sup>                                  |
| Clamp fastening range (stranded conductor)  |   | 2.5 ÷ 25 mm <sup>2</sup>                                  |
| Tightening moment   |   | 3 Nm  |
| Installation  |   | On DIN rail 35 mm   |
| Modular width   |   | 8 TE  |
| Operating position  |   | Any   |
| Product placement environment   |   | Internal  |
| Signalling at the device  |   | Optic   |
| Importance of local signaling   |   | OK – clear target<br>FAULT – red target                   |
| Remote signalling   |   | Yes   |
| Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 mm <sup>2</sup> )              |   | AC: 250 V / 1.5 A, DC: 250 V / 0.1 A                      |
| 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 | 1.132 kg  |
| Mass (including the packaging)  | m | 1.176 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  |   | EC001457  |
| Customs tariff no.  |   | 85363010  |
| EAN code  |   | 8590681114261   |
| <b>Art. number</b>  |   | <b>10 461</b>   |

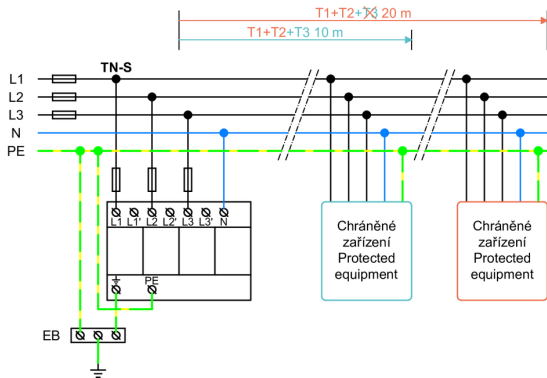
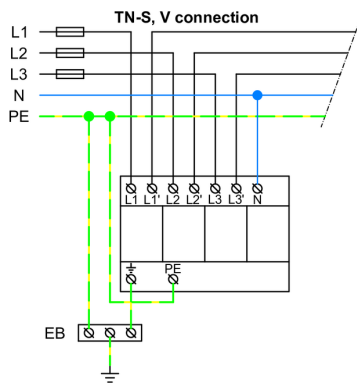
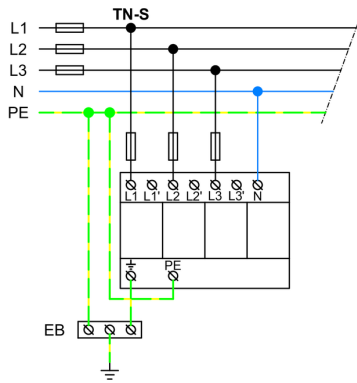


The link in the QR code leads to the online presentation of the **HLSA25-275/4+0 S**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit [www.hakil.com](http://www.hakil.com)



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## Application wiring diagram (installation)



## Internal diagram

