



HSAD16/24VDC S

- Two-port surge arresters type T3 for serial connection.
- Intended for protection of electronic appliances against the effects of switching, induced and residual overvoltage in DC power supply systems.
- Contains an improved thermal fuse which ensures timely disconnection of the device from the power grid during overheating and thus prevents damage.
- Activation of the thermal fuse is signalled by an integral indicator light.

| 52.5 | 65.8 |
|------------|------|
| Ń Ś | |
| | |
| 8 | D 8 |
| | |
| <u> </u> | |
| <u>000</u> | 44 |
| | 60 |

- Installed at the boundaries of LPZ 2 LPZ 3, as close as possible to the protected device (no further than 5 m).
- In front of HSAD16/*VDC S must be installed a lightning current and surge arrester T1 and T2 from HAKEL company.
- S indication specifies a version with remote monitoring.

| Туре | | HSAD16/24VDC S |
|--|--------------------|---------------------------|
| Test class according to EN 61643-11:2012 (IEC 61643-11:2011) | | Т3 |
| System | | DC |
| Rated operating DC voltage | U _N | 24 V |
| Maximum continuous operating voltage DC | U _c | 28.8 V |
| Rated load current | ١ | 16 A |
| Open circuit voltage of the combination wave generator | U _{oc} | 4 kV |
| Voltage protection level at U _{OC} (+/-) | Up | < 0.25 kV |
| Voltage protection level at U_{OC} (±/PE) | Up | < 0.6 kV |
| Nominal discharge current for class II test (8/20) | l _n | 2 kA |
| Total discharge current (8/20) ±->PE | I _{Total} | 4 kA |
| Response time (+/-) | t _A | < 25 ns |
| Response time (±/PE) | t _A | < 100 ns |
| Maximal back-up fuse | | 16 A gL/gG |
| Residual current | I _{PE} | ≤ 5 μA |
| Short-circuit current rating at maximum back-up fuse | ISCCR | 6 kA _{rms} |
| Lightning protection zone | | LPZ 2-3 |
| Housing material | | Polyamid PA6, UL94 V-0 |
| Degree of protection | | IP20 |
| Operating temperature | θ | -40 ÷ 55 °C |
| Humidity range | RH | 5 ÷ 95 % |
| Recommended cross-section of connected conductors | S | 2.5 mm ² |
| Clamp fastening range (solid conductor) | | $0.2 \div 6 \text{ mm}^2$ |
| Clamp fastening range (stranded conductor) | | $0.2 \div 4 \text{ mm}^2$ |
| Tightening moment | | 0,5 Nm |
| Installation | | On DIN rail 35 mm |
| Modular width | | 3 TE |
| Operating position | | Any |



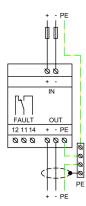
| Туре | | HSAD16/24VDC S |
|---|---|--|
| Product placement environment | | Internal |
| Signalling at the device | | Optic |
| Importance of local signaling | | OK – red light off FAULT – red light on |
| Remote signalling | | Yes |
| Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 $\mbox{mm}^2)$ | | AC: 250 V / 1.5 A, DC: 250 V / 0.1 A |
| Includes EMI / EMC filter | | No |
| 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 | 95 g |
| Mass (including the packaging) | m | 119 g |
| Packaging dimensions (H x W x D) | | 60 x 113 x 73 mm |
| Packaging value | V | 0.5 dm ³ |
| ETIM group | | EG000021 |
| ETIM class | | EC000942 |
| Customs tariff no. | | 85363010 |
| EAN code | | 8590681163207 |
| Art. number | | 30 285 |



The link in the QR code leads to the online presentation of the **HSAD16/24VDC 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

