

HSAF3/50 S

- Two-port surge arresters type T3 with high-frequency filters for serial connection.
- Intended for protection of electronic appliances against the effects of switching, induced and residual overvoltage in LV power supply systems.
- Contains an improved thermal fuse, which ensures timely disconnection of HSAF* S and HSAF3*S from the power grid during the MOV's overheating and thus prevents damage to the HSAF* S and HSAF3*S.
- Installed at the boundaries of LPZ 2 LPZ 3, as close to the device to be protected as possible (no further than 5 m).
- In front of HSAF* S and HSAF3*S must be installed a lightning current and surge arrester T1 and T2 from HAKEL company.
- Mounted on the main board of a switchboard using four screws.
- **S** indication specifies a version with remote monitoring.

| Туре | | HSAF3/50 S |
|--|--------------------|------------------|
| Test class according to EN 61643-11:2012 (IEC 61643-11:2011) | | Т3 |
| System | | TN-C-S, 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 | IL | 50 A |
| Open circuit voltage of the combination wave generator (L/N, L/PE) | U _{oc} | 6 kV |
| Open circuit voltage of the combination wave generator (N/PE) | U _{oc} | 10 kV |
| Voltage protection level at U _{oc} (L/N) | U_p | < 0.85 kV |
| Voltage protection level at U _{oc} (L/PE) | U_p | < 1.5 kV |
| Voltage protection level at U _{OC} (N/PE) | U_p | < 1.2 kV |
| Nominal discharge current for class II test (8/20) L/N, L/PE | I _n | 3 kA |
| Nominal discharge current for class II test (8/20) N/PE | I _n | 5 kA |
| Total discharge current (8/20) L1+L2+L3+N->PE | I _{Total} | 12 kA |
| Asymmetrical attenuation of filter at f = 4 MHz | | > 80 dB |
| Asymmetrical attenuation of filter at f = 0.15 ÷ 30 MHz | | > 35 dB |
| Temporary overvoltage test (TOV) for $t_T = 5 \text{ s (L/N)}$ | U _T | 337 V |
| Temporary overvoltage test (TOV) for $t_T = 120 \text{ min (L/N)}$ | U _T | 440 V |
| Temporary overvoltage test (TOV) for $t_T = 0.2 \text{ s}$ (N/PE) | U _T | 1 200 V |
| Response time (L/N) | t _A | < 25 ns |
| Response time (L/PE, N/PE) | t _A | < 100 ns |
| Power dissipation | Pz | < 9 W |
| Maximal back-up fuse | | 50 A gL/gG |
| Residual current | I _{PE} | ≤ 5 µA |
| Lightning protection zone | | LPZ 2-3 |
| Housing material | | Steel plate 1 mm |
| Degree of protection | | IP20 |
| Operating temperature | θ | -40 ÷ 55 °C |

Surge arresters T3 with EMI/RFI filter for AC systems



| Humidity range | Туре | | HSAF3/50 S |
|--|--|----|--------------------------------------|
| Clamp fastening range (solid conductor) 2.5 ÷ 35 mm² Clamp fastening range (stranded conductor) 2.5 ÷ 25 mm² Tightening moment 3 Nm Installation Using the M4 screws on the chassis Operating position Any Product placement environment Internal Signalling at the device Optic Importance of local signaling OK - red light off FAULT - red light on FAULT - red light on Paul (S) (recommended cross-section of remote monitoring max. 1 mm²) Yes Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 mm²) No Includes EMI / EMC filter Yes Wodular design No Lifetime > 100 0000 h Designed according to standards IEC 61643-11:2011 Requirements and test methods for SPDs connected to low-voltage power systems IEC 61643-11:2011 Methods of measurement of the suppression characteristics of passive EMC filtering devices EN 55017:2011 / CISPR 17:2011 Application standards IEC 62305:2010 Protection against lightning IEC 62305:2010 Selection and erection of electrical equipment – Switchgear and controlgear CLC/TS 61643-12:2009 Ord | Humidity range | RH | 5 ÷ 95 % |
| Clamp fastening range (stranded conductor) 2.5 ÷ 25 mm² Tightening moment 3 Nm Installation Using the 44 screws on the chassis Operating position Any Product placement environment Internal Signalling at the device Optic Importance of local signaling OK - red light off FAULT - red | Recommended cross-section of connected conductors | S | 10 mm ² |
| Tightening moment 3 Nm Installation Using the M4 screws on the chassis Operating position Any Product placement environment Internal Signalling at the device Optic Importance of local signaling OK - red light off FALT - red light on FALT - | Clamp fastening range (solid conductor) | | 2.5 ÷ 35 mm ² |
| Installation Using the M4 screws on the chassis Operating position Any Product placement environment Internal Signalling at the device Optic Importance of local signaling OK - red light off FAULT - red light on FAULT - red light on Pault - Pault - red light on Pault - Pault - red light on Pault - Pault | Clamp fastening range (stranded conductor) | | 2.5 ÷ 25 mm² |
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| EAN code 8590681116982 | ETIM class | | EC000942 |
| | Customs tariff no. | | 85363030 |
| Art. number 30 191 | EAN code | | 8590681116982 |
| | Art. number | | 30 191 |

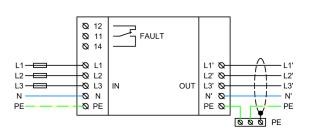


The link in the QR code leads to the online presentation of the **HSAF3/50 S**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit **www.hakel.com**





Application wiring diagram (installation)



Internal diagram

