

HSAF25

- Two-stage 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 generated in LV power supply systems.
- Contain an improved thermal fuse, which ensures timely disconnection of HSAF* S from the power grid during the MOV's overheating and thus prevents damage to the HSAF* 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 must be installed a lightning current and surge arrester T1 and T2 from HAKEL company.
- **S** indication specifies a version with remote monitoring.

Туре		HSAF25
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		Т3
System		TN-C-S, TN-S
Number of poles		2
Rated operating AC voltage	U_N	230 V
Maximum continuous operating voltage AC	U _c	275 V
Rated load current	Ι _Γ	25 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	< 0.8 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) L+N->PE	I _{Total}	6 kA
Asymmetrical attenuation of filter at f = 4 MHz		> 80 dB
Asymmetrical attenuation of filter at $f = 0.15 \div 30 \text{ MHz}$		> 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	< 3 W
Maximal back-up fuse		25 A gL/gG
Residual current	I _{PE}	≤ 1 800 µA
Short-circuit current rating at maximum back-up fuse	I _{SCCR}	6 kA _{rms}
Lightning protection zone		LPZ 2-3
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20

Surge arresters T3 with EMI/RFI filter for AC systems



Туре		HSAF25
Operating temperature	Э	-40 ÷ 55 °C
Humidity range	RH	5 ÷ 95 %
Recommended cross-section of connected conductors	S	4 mm ²
Clamp fastening range (solid conductor)		2.5 ÷ 16 mm ²
Clamp fastening range (stranded conductor)		2.5 ÷ 10 mm ²
Tightening moment		1,2 Nm
Installation		On DIN rail 35 mm
Modular width		4 TE
Operating position		Any
Product placement environment		Internal
Signalling at the device		Optic
Importance of local signaling		OK – red light off FAULT – red light on
Remote signalling		No
Includes EMI / EMC filter		Yes
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
Methods of measurement of the suppression characteristics of passive EMC filtering devices		EN 55017:2011 / CISPR 17:2011
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	225 g
Mass (including the packaging)	m	253 g
Packaging dimensions (H x W x D)		74 x 112 x 73 mm
Packaging value	٧	0.61 dm ³
ETIM group		EG000021
ETIM class		EC000942
Customs tariff no.		85363030
EAN code		0500004405000
		8590681167236

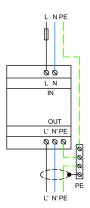


The link in the QR code leads to the online presentation of the **HSAF25**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit **www.hakel.com**





Application wiring diagram (installation)



Internal diagram

