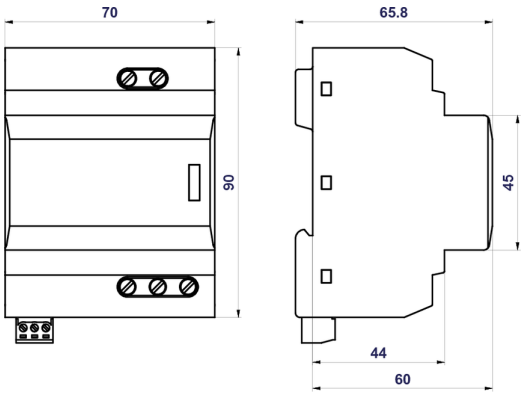
hakel®
Hz in Hearts



HSAF16/30VDC 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 DC power supply systems.
- Contain an improved thermal fuse, which ensures timely disconnection of HSAF*VDC S from the power grid during the MOV's overheating and thus prevents damage to the HSAF*VDC 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*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.

Type		HSAF16/30VDC S
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T3
System		DC
Rated operating DC voltage	U_N	30 V
Maximum continuous operating voltage DC	U_C	36 V
Rated load current	I_L	16 A
Open circuit voltage of the combination wave generator (+/-, ±/PE)	U_{OC}	4 kV
Voltage protection level at U_{OC} (+/-)	U_p	< 0.4 kV
Voltage protection level at U_{OC} (±/PE)	U_p	< 0.3 kV
Nominal discharge current for class II test (8/20) +/-, ±/PE	I_n	2 kA
Total discharge current (8/20) ±->PE	I_{Total}	4 kA
Asymmetrical attenuation of filter at f = 4 MHz		> 80 dB
Asymmetrical attenuation of filter at f = 0.15 ÷ 30 MHz		> 35 dB
Response time (+/-)	t_A	< 25 ns
Response time (±/PE)	t_A	< 100 ns
Power dissipation	Pz	< 3.5 W
Maximal back-up fuse		16 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
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 ÷ 6 mm^2
Clamp fastening range (stranded conductor)		0.2 ÷ 4 mm^2
Tightening moment		1,2 Nm
Installation		On DIN rail 35 mm

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Type		HSAF16/30VDC S
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		Yes
Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 mm^2)		AC: 250 V / 1.5 A, DC: 250 V / 0.1 A
Includes EMI / EMC filter		Yes
Pluggable version		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	180 g
Mass (including the packaging)	m	204 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		8590681161432
Art. number		**30 345**

The link in the QR code leads to the online presentation of the **HSAF16/30VDC 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**

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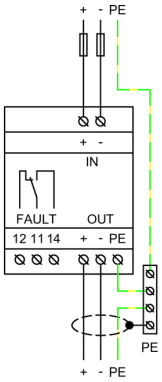
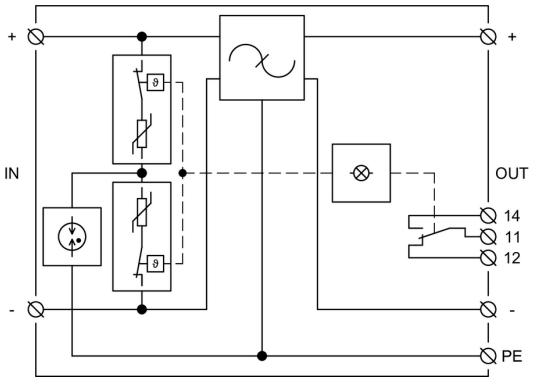
Application wiring diagram (installation)



Internal diagram



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