

HSAF3/400 S

- Three-phase, two-stage surge arresters type T2+T3 equipped 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.
- Remote monitoring is solved on the basis of a potential-free swithing contact.
- Any installation position without affecting function and parameters.
- Produced in basic version for mounting straight onto the switchboard's construction by screws M8.
- **S** indication specifies a version with remote monitoring.

Type	HSAF3/400 S	
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)	T2, T3	
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	320 V
Rated load current L1, L2, L3 conductors	I_L	400 A
Rated load current N conductor	I_L	200 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	< 1.25 kV
Nominal discharge current for class II test (8/20) L/N, L/PE	I_n	20 kA
Nominal discharge current for class II test (8/20) N/PE	I_n	50 kA
Maximum discharge current (8/20)	I_{max}	40 kA
Impulse discharge current for class I test (10/350) N/PE	I_{imp}	50 kA
Total discharge current (8/20) L1+L2+L3+N->PE	I_{Total}	50 kA
Asymmetrical attenuation of filter at $f = 1.5$ MHz	> 70 dB	
Asymmetrical attenuation of filter at $f = 0.15 \div 30$ MHz	> 30 dB	
Temporary overvoltage test (TOV) for $t_T = 5$ s (L/N)	U_T	337 V
Temporary overvoltage test (TOV) for $t_T = 120$ min (L/N)	U_T	440 V
Temporary overvoltage test (TOV) for $t_T = 0.2$ 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	< 125 W
Maximal back-up fuse	400 A gL/gG	
Residual current	I_{PE}	$\leq 5 \mu A$
Follow current interrupt rating (N/PE)	I_{fi}	0.1 kA _{rms}
Lightning protection zone	LPZ 1-2, LPZ 2-3	
Housing material	Steel plate 0.8 mm	
Degree of protection	IP20	

Type		HSAF3/400 S
Operating temperature	θ	-40 ÷ 55 °C
Humidity range	RH	5 ÷ 95 %
Recommended cross-section of connected conductors	S	240 mm ²
Clamp fastening range (solid conductor)		35 ÷ 240 mm ²
Clamp fastening range (stranded conductor)		35 ÷ 240 mm ²
Tightening moment		40 Nm
Installation		Using the M8 screws on the chassis
Operating position		Any
Product placement environment		Internal
Signalling at the device		None
Remote signalling		Yes
Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 mm ²)		AC: 250 V / 0.5 A, DC: 250 V / 0.1 A
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

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	10 kg
Mass (including the packaging)	m	10.75 kg
Packaging dimensions (H x W x D)		200 x 600 x 400 mm
Packaging value	V	48 dm ³
ETIM group		EG000021
ETIM class		EC000942
Customs tariff no.		85363090
EAN code		8590681123003
Art. number		30 308

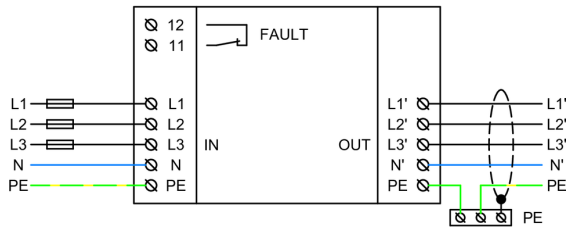


The link in the QR code leads to the online presentation of the HSAF3/400 S. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit www.hakil.com



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Application wiring diagram (installation)



Internal diagram

