

PI-3k16/320

- 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		PI-3k16/320
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	320 V
Rated load current	IL	16 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	< 1.2 kV
Voltage protection level at U _{OC} (L/PE)	U_p	< 1.7 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	In	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	< 7.5 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

Surge arresters T3 with EMI/RFI filter for AC systems



Operating temperature 9 4.0 + 55 °C Humidity range RH 5 + 95 % Recommended cross-section of connected conductors S 2.5 mm² Clamp fastening range (solid conductor) 0.5 ÷ 6 mm² Clamp fastening range (stranded conductor) 0.5 ÷ 6 mm² Clamp fastening range (stranded conductor) 0.5 h m Installation On DIN rail 35 mm Modular width 9 TE Operating position Any Product placement environment Internal Signalling at the device Optic Importance of local signalling OK - red retracted target Fault—red extended target FAULT—red extended target Potential fires esignal contact (S) (recommended cross-section of remote monitoring max 1 mm²) AC : 250 V / 0.5 A, DC: 250 V / 0.1 A Includes EMI / EMC filter Yes 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 dovices EN 55017:2011 / CISPR 17:2011 Salety of Flammability of Plastic Materials UL 94 Appli	Туре		PI-3k16/320
Recommended cross-section of connected conductors 0.5 ÷ 6 mm²	Operating temperature	9	-40 ÷ 55 °C
Recommended cross-section of connected conductors S 2.5 mm² Clamp fastening range (solid conductor) 0.5 ÷ 4 mm² Clamp fastening range (stranded conductor) 0.5 × 4 mm² Tightening moment 0,5 Nm Installation On DIN rail 35 mm Modular width 9 TE Operating position Any Product placement environment Internal Signalling at the device Optic Importance of local signaling OK - red retracted target FAULT - red extended target FAULT - red extended target Femote signalling Yes Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 mm²) AC: 250 V / 0.5 A, DC: 250 V / 0.1 A Includes EMI / EMC filter Yes No No Lifetime > 100 000 h Designed according to standards IEC 61843-11:2011 Requirements and test methods for SPDs connected to low-voltage power systems IEC 61843-11:2011 Methods of measurement of the suppression characteristics of passive EMC filtering devices EN 55017:2011 / CISPR 17:2011 Satety of Flammability of Plastic Materials U.9 4	Humidity range	RH	5 ÷ 95 %
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Installation	Clamp fastening range (stranded conductor)		0.5 ÷ 4 mm ²
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Art. number 30 310	EAN code		8590681121153
	Art. number		30 310

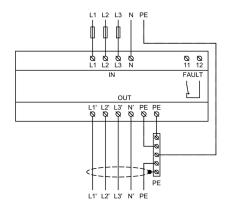


The link in the QR code leads to the online presentation of the **PI-3k16/320**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit **www.hakel.com**





Application wiring diagram (installation)



Internal diagram

