Pl-k50

PI-k50 is one-phase surge arrester type 3, according to EN 61643-11 ed. 2 and IEC 61643-11 and which is equipped with high-frequency filter. It is designed for applications in TN-S systems. PI-k150 is intended to protect one-phase electronic appliances in low voltage power supply systems against transient overvoltage and high-frequency disturbance. The varistors function failure is indicated by target disconnection of mechanical thermal fuses which react to the varistors overheating above c. 120°C.

While mounting PI-k50 surge arrester it is necessary to ensure that the ventilation holes in their housing are not covered. These arresters are to be placed as near to the protected appliance as possible, for example near to the electronic control systems of NC machines, electronics of robotic production and other sensitive electronic appliances. It is recommended to connect the protected appliance by appropriately dimensioned and shielded conductor. Position of applied HAKEL SPD can be horizontal, vertical, turned 90 and also 180 degrees and this does not affect SPD's function or mentioned parameters. PI-k32, PI-k50, PI-k63, PI-k80, PI-k120 and PI-k150 are standardly manufactured with DS switching contact.
They can be manufactured in a comprehensive range of the Nominal voltages UN= 6, 12, 24, 48, 60, 80, 110, 120, 130, 160 a 230V (AC/DC).

PARAMETERS

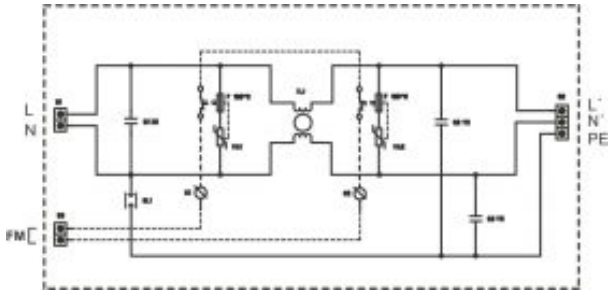
Typ		PI-k50
Test class according to EN 61643-11:2012 and IEC 61643-11:2011		TYP3, CLASS III
Network type		TN-S
Nominal voltage	U_N	230 V AC
Maximum continuous operating voltage	U_C	275 V AC
PI-k50		50 A
Nominal discharge current for class II test (8/20)	I_n	3 kA (L/N, L/PE) 5 kA (N/PE)
Open circuit voltage	U_{oc}	6 kV (L/N, L/PE) 10 kV (N/PE)
Voltage protection level at U_{OC}	U_p	< 850 V (L/N) < 1,5 kV (L/PE) < 1,2 kV (N/PE)
Temporary overvoltage (TOV) L/N	U_T	335 V/ 5 s
Temporary overvoltage (TOV) N/PE	U_T	1200 V/ 0,2 s
Asymmetrical attenuation of filter (band-stop filter)		min. 80 dB at 4 MHz min. 40 dB (0,15 - 30 MHz)
Filters constans at C_x	C_X	680 nF
Filters constans at C_y	C_Y	22 nF
Filters constans at $_L$	L	2,2 mH
Power loss at winding temp. 20°C		< 7 W
Response time	t_A	< 25 ns (L/N) < 100 ns (L/PE, N/PE)
Back-up fuse		50 A
LPZ		2-3
Housing material		metal plate 0,8 mm
Degree of protection of enclosure		IP20
Operating temperature	ϑ	-40°C ... +55° C
Recommended section of the connected conductors	S	25 mm^2 Cu
Method of assembly		DIN rail 35 mm or by screws M4 on chassis
Failure signalisation (S)		pushed in - ok / pushed out - failure

Potential free signal contact (DS) (recommended cross-section of remote monitoring max.1 mm^2)		AC: 250 V / 0,5 A, DC: 250 V / 0,1 A
Lifetime		min. 100 000 h
Weight	m	970 g
Article number		
PI-k50		**30 100**

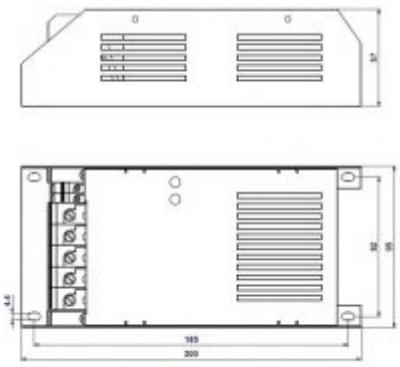
PI-k50

Product image

Internal wiring diagram



Dimension drawing



Installation diagram