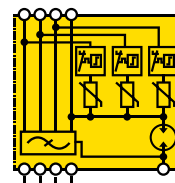




Surge Protective Devices: ZOTUP SPDs with interference filter for direct and indirect lightning effects



ILF 4P 250/400 is a multimode SPD for direct and indirect lightning effects with integrated interference filter for high frequency disturbances, typically installed in in three phase plus neutral TN- or TT-systems for the protection of Control Rooms, Data Centers or EDPs, with the following features and benefits.

- **Impulse test classification: Test Class I, II and III** (according to IEC 61643-11 ed.1) and **T1, T2 and T3** (according to EN 61643-11/A11);
- Although a special inductor ensures an effective attenuation of high frequency interferences capacity, it has an insignificant energy insertion loss if compared with the equivalent one of an insulation transformer;
- Suitable for protection of electronic equipment in harsh environments where even partial lightning currents are to be expected.

Model ILF 4P...

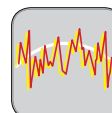
CODE		250 219 374	400 219 344
Nominal ac system Voltage	U_N	230/400 V ac	
Maximum Continuous operating voltage	U_c	335/570 V ac	
Rated load current	I_L	250 A	400 A
Test class (acc. to IEC 61643-11 ed. 1 (2011-03))		I, II and III	
Type (acc. to EN 61643-11/A11)		T1, T2 and T3	
Total discharge current (10/350 μ s) (L1+L2+L3+N-PE)	$I_{Total\ 10/350}$	50 kA	
Impulse discharge current (10/350 μ s) (L-N)	I_{imp}	12,5 kA	
Impulse discharge current (10/350 μ s) (N-PE)	I_{imp}	50 kA	
Total discharge icurrent (8/20 μ s) (L1+L2+L3+N-PE)	$I_{Total\ 8/20}$	100 kA	
Nominal discharge current (8/20 μ s)	I_n	25 kA	
Combination wave impulse (L1+L2+L3+N-PE)	$U_{cc\ total}$	6 kV / 3 kA	
Combination wave impulse (L-N)	U_{cc}	6 kV / 3 kA	
Voltage protection level at a discharge current of (8/20 μ s)	5 kA	$U_p \leq 825\ V$	$\leq 850\ V$
	12,5 kA	$U_p \leq 875\ V$	$\leq 900\ V$
	20 kA	$U_p \leq 925\ V$	$\leq 950\ V$
	25 kA	$U_p \leq 975\ V$	$\leq 1000\ V$
Voltage protection level at combination wave impulse	(L-N)	$U_p \leq 850\ V$	$\leq 900\ V$
	(N-PE)	$U_p \leq 1250\ V$	$\leq 1500\ V$
Response time (L-N)	t_a	$\leq 25\ ns$	
Response time (N-PE)	t_a	$\leq 100\ ns$	
End of Life (L-N)		OCFM (open circuit failure mode)	
Temporary OverVoltage (TOV) withstand (L-N; L/N-PE)		335 V 5 s; (1200+230) V / 200 ms	
Short Circuit Current rating with max. backup protection	I_{scor}	50 kA rms	
Follow current interrupt rating		NFC No Follow Current®	
Asymmetric attenuation 50 Ω / 50 Ω	f	at 2 MHz: $\geq 78\ dB$	at 2 MHz: $\geq 73\ dB$
Symmetric attenuation 50 Ω / 50 Ω	f	at 0,2 MHz: $\geq 73\ dB$	at 0,2 MHz: $\geq 71\ dB$
Filter components	$C_{X1\ e\ C_{X2}}$	2,2 μF	2,2 μF
	C_Y	2 x 50 nF	2 x 50 nF
	$R_X\ e\ R_Y$	1 M Ω	1 M Ω
	L_{SIM}	4,3 μH	2,4 μH
	L_{ASIM}	2,3 mH	1,1 mH
Power dissipation at 20°C (ventilated)		$\leq 160\ W$	$\leq 380\ W$
Max. back-up protection with fuse, if not already provided in the upstream installation		250 A	400 A
Operating temperature range		- 40 ... + 55 °C	
Terminal - Conductor size		35-240 mm ² (35-120 mm ² / 26 Nm; 150-240 mm / 55 Nm)	5-240 mm ² (35-120 mm ² / 26 Nm; 150-240 mm / 55 Nm)
Mounting		vertical on a panel / wall (natural convection required)	
Enclosure material		metal	
Pollution Degree	PD	2	
Degree of protection	IP	10	
Remote signal contact		NC (max. 1,5 mm ² flexible; ac: 250 V/0,5 A; dc: 125 V/0,2 A; 75 V/0,5 A)	
Approximate weight		9,6 kg	11 kg
Dimensions		l 530 x h 202 x d 160 mm	

TECHNICAL DATA

ILF 4P ...



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Asymmetric and symmetric attenuation characteristics

