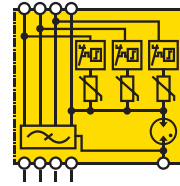




# Surge Arrester: SPD for direct and indirect lightning strikes with network filter



**ILF 4P 250/400 is a multipole SPD for direct and indirect lightning strikes with integrated network filter for high frequency transients with the following applications, features and benefits.**

**Typical installation: in supply circuits input of Control Room, Data Center and EDP.**

- Lightning currents discharge capacity up to 50 kA (10/350) 4 poles.
- Maximum continuous operating voltage  $U_c$  is calibrated to TOV for a total immunity.
- Although a special inductor ensures an effective attenuation of high frequency interferences, it does not reduce high tension and it has an insignificant energy loss.
- It is suitable for protection of electronic equipment against overvoltages under category 1 test impulses.
- It is a Test Class I, II and III according to IEC 61643-11 ed. 1 (2011-03) or T1, T2 and T3 according to CEI EN 61643-1/A1.

**ILF 4P ...**

Type ILF 4P..		250	400
CODE		<b>219 374</b>	<b>219 344</b>
Nominal Supply Voltage	$U_N$	230/400 V~	230/400 V~
Maximum Continuous voltage Rating	$U_c$	335/570 V~	335/570 V~
Nominal load current	$I_L$	250 A	400 A
Test class according to IEC 61643-11 ed. 1 (2011-03)		I, II e III	I, II e III
Type according to CEI EN 61643-11/A11		T1, T2 e T3	T1, T2 e T3
Total discharge impulse current (10/350 $\mu$ s) [L1+L2+L3+N-PE]	$I_{Total\ 10/350}$	50 kA	50 kA
Discharge impulse current (10/350 $\mu$ s) [L>N]	$I_{imp}$	12,5 kA	12,5 kA
Discharge impulse current (10/350 $\mu$ s) [N>PE]	$I_{imp}$	50 kA	50 kA
Total discharge impulse current (8/20 $\mu$ s) [L1+L2+L3+N-PE]	$I_{Total\ 8/20}$	100 kA	100 kA
Nominal discharge current (8/20 $\mu$ s)	$I_n$	25/100 kA	25/100 kA
Combined total impulse [L1+L2+L3+N-PE]	$U_{cc\ Total}$	6 kV	6 kV
Combined impulse [L-N]	$U_{cc}$	6 kV	6 kV
Voltage protection level with I (8/20 $\mu$ s)	5kA $U_p$	$\leq 825$ V	$\leq 850$ V
	10kA $U_p$	$\leq 850$ V	$\leq 875$ V
	12,5kA $U_p$	$\leq 875$ 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 with combined impulse [L>N]	$U_p$	$\leq 850$ V	$\leq 900$ V
	[N>PE] $U_p$	$\leq 1250$ V	$\leq 1500$ V
Reaction time L>N	$t_a$	$\leq 25$ ns	$\leq 25$ ns
Reaction time N>PE	$t_a$	$\leq 100$ ns	$\leq 100$ ns
Maximum d.c. current with protection fuse	$I_{sccr}$	50 kA eff	50 kA eff
Prevents follow up current circulation		NFC No Follow Current®	NFC No Follow Current®
Asymmetric attenuation 50 $\Omega$ /50 $\Omega$	f	a 2 MHz: $\geq 78$ dB a 0,2 MHz: $\geq 73$ dB	a 2 MHz: $\geq 73$ dB a 0,2 MHz: $\geq 71$ dB
Asymmetric attenuation 50 $\Omega$ /50 $\Omega$	f		
Asymmetric attenuation 50 $\Omega$ /50 $\Omega$	f		
Asymmetric attenuation 50 $\Omega$ /50 $\Omega$	f		
Filter constants	$C_{x1}$ e $C_{x2}$	2,2 $\mu$ F	2,2 $\mu$ F
	$C_Y$	2 x 50 nF	2 x 50 nF
	$R_x$ e $R_y$	1 M $\Omega$	1 M $\Omega$
	$L_{SM}$	4,3 $\mu$ H	2,4 $\mu$ H
Dissipated power 20°C (ventilated)		$\leq 160$ W	$\leq 380$ W
Fuse/switch if not already present in the plant		250 A	400 A
Operating temperature range		- 40 ... + 55 °C	- 40 ... + 55 °C
Cross sectional area		35-240 mm <sup>2</sup> (35-120 mm <sup>2</sup> / 26 Nm; 150-240 mm / 55 Nm)	5-240 mm <sup>2</sup> (35-120 mm <sup>2</sup> / 26 Nm; 150-240 mm / 55 Nm)
For mounting on		to wall (holes for vertical cooling)	to wall (holes for vertical cooling)
Enclosure material		metallic	metallic
Degree of protection	IP	10	10
Remote signalling contact		NC	NC
Approximate weight		9,6 kg	11 kg
Size		b530 x h202 x p160mm	b530 x h202 x p160mm

**TECHNICAL DATA**



# Surge Arrester: SPD for direct and indirect lightning strikes with network filter



## Asymmetric and symmetric characteristic attenuation curve

