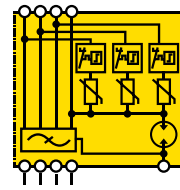
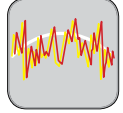




Surge Protective Devices: ZOTUPFILTER



ILF 4P ...

ILF 4P 250/400 is a multimode SPD against direct and indirect lightning effects with integrated interference filter for high frequency disturbances, typically installed in in three phase plus neutral TN 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 (2011-03)** and **Type 1, Type 2 and Type 3** according to **EN 61643-11(2012-10)**;
- Although a special inductor ensures an effective attenuation of high frequency interferences, it has an insignificant energy insertion loss as compared to the no-load losses and the efficiency of an insulation transformer.

TECHNICAL DATA

| Model ILF 4P ... | | 250 | 400 | |
|---|---------------------|--|---|--|
| CODE | | 219 374 | 219 344 | |
| Nominal ac system Voltage | U_N | 230/400 V - 50 Hz | | |
| Maximum Continuous operating voltage | U_c | 335/570 V ac | | |
| Rated load current | I_L | 250 A | 400 A | |
| Test Class according to IEC 61643-11 Ed.1 (2011-03) | | I, II and III | | |
| Type according to EN 61643-11 (2012-10) | | 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 current (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 (L/N-PE) | U_{cc} | 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) | 1kA | U_p | ≤ 800 V | ≤ 825 V |
| | 5 kA | U_p | ≤ 825 V | ≤ 850 V |
| | 12,5 kA | U_p | ≤ 875 V | ≤ 900 V |
| | 20 kA | U_p | ≤ 925 V | ≤ 950 V |
| | 25 kA | U_p | ≤ 975 V | ≤ 1000 V |
| Voltage protection level at combination wave impulse | (L-N) | U_p | ≤ 850 V | ≤ 900 V |
| | (N-PE) | U_p | ≤ 1250 V | ≤ 1500 V |
| Response time (L-N) | t_a | ≤ 25 ns | | |
| Response time (N-PE) | t_a | ≤ 100 ns | | |
| End of Life (L-N) | | OCFM (open circuit failure mode) | | |
| Behaviour in case of Temporary OverVoltage (TOV): | L/N-PE | U_T | 335 V / 5 s, withstand (W); 440 V / 120 min, safe (S) | |
| Short Circuit Current rating with max. backup protection | | I_{scrr} | 50 kA rms | |
| Follow current interrupt rating | | | NFC No Follow Current® | |
| Asymmetric attenuation 50 Ω / 50 Ω | f | at 2 MHz: ≥ 78 dB | | at 2 MHz: ≥ 73 dB |
| Symmetric attenuation 50 Ω / 50 Ω | f | at 0,2 MHz: ≥ 73 dB | | at 0,2 MHz: ≥ 71 dB |
| Filter components | C_{x1}, C_{x2} | 2,2 μ F | | 2,2 μ F |
| | C_Y | 2 x 50 nF | | 2 x 50 nF |
| | R_x, R_y | 1 M Ω | | 1 M Ω |
| | L_{SYM} | 4,3 μ H | | 2,4 μ H |
| | L_{ASYM} | 2,3 mH | | 1,1 mH |
| Power dissipation at 20°C (ventilated) | | ≤ 160 W | | ≤ 380 W |
| Max. back-up protection with fuse, if not already provided in the upstream installation | | 250 A gG | | 400 A gG |
| 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 / Degree of protection | PD / IP | 2 / 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 | | I 530 x h 202 x d 160 mm | | |
| GTIN (EAN) | | 8054890320955 | | 8054890320924 |



Asymmetric and symmetric attenuation characteristics

