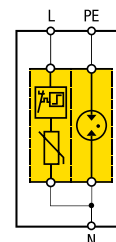
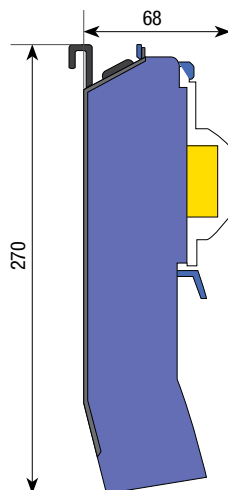


Surge Protective Devices: ZOTUPLED



LLP 7/30 230 ff 1+1

LLP (LED Lighting Protection) systems is a ready to install assembly of a voltage limiting and a voltage switching SPD providing two modes of protection in a protective housing for mounting inside the opening at the pole base, with the following features and benefits:

- Combination type SPD for the protection of street lighting luminaires against direct and indirect lightning effects;
- **Backup protection is not required with an upstream CB ≤ 160 A or up to an Isccr ≤ 5 kA rms;**
- **Easy wiring inside of the openings at the pole base with a size of 186 x 45 mm (minimum diameter of the pole 101 mm);**
- The special SPD case material allows to match with "Pollution Degree 3" requirements.

Model LLP 7/30 ...

230 ff 1+1

CODE		242 191		
Nominal ac system voltage	U _N	230/400 V ac		
Modes of protection (number of poles)		1+1 (L-N + N-PE)		
Max Continuous Operating Voltage	U _c	335 V ac		
Test Class according to IEC 61643-11 Ed.1 (2011-03)		I and II		
Type according to EN 61643-11 (2012-10)		T1 and T2		
Impulse discharge current (10/350 μs) (L-N)	I _{imp}	8 kA		
Impulse discharge current (10/350 μs) (N-PE)	I _{imp}	52 kA		
Charge (L-N)	Q	3,6 As		
Charge (N-PE)	Q	26 As		
Nominal discharge current (8/20 μs) (L-N)	I _n	30 kA		
Nominal discharge current (8/20 μs) (N-PE)	I _n	52 kA		
Max. discharge current (8/20 μs) (L-N)	I _{max}	40 kA		
Max. discharge current (8/20 μs) (N-PE)	I _{max}	70 kA		
Voltage protection level (L-N) at a discharge current of	1 kA	U _p	≤ 0,83 kV	≤ 1,50 kV
	5 kA	U _p	≤ 1,00 kV	≤ 1,50 kV
	20 kA	U _p	≤ 1,35 kV	≤ 1,50 kV
	25 kA	U _p	≤ 1,45 kV	≤ 1,50 kV
	30 kA	U _p	≤ 1,60 kV	≤ 1,60 kV
Voltage protection level (N-PE)		U _p	≤ 1,50 kV	
Response time (L-N / N-PE)		t _a	≤ 25 ns / ≤ 100 ns	
End of life			OCFM (open circuit failure mode)	
Behaviour of failure mode in case of Temporary OverVoltage (TOV):	L-N	U _T	440 V / 120 min, withstand (W)	
	N-PE	U _T	1200 V / 200 ms, withstand (W)	
Short Circuit Current rating without backup protection (internal disconnecter)		I _{sc}	5 kA rms	
Short Circuit Current rating with max. backup protection fuse (L)		I _{sc}	100 kA rms	
Max. back-up protection with up-stream CB with a max. let-through energy of (max. prospective short circuit current depends on the CB breaking capability).			160 A (max. 4,50 x 10 ⁵ A ² s)	
Max. back-up protection with FUZE at prospective short circuit currents of			125 A gG (5 ÷ 100 kA rms)	
Follow current interrupt rating			NFC No Follow Current®	
Status indicator (indication of disconnecter operation)			3 colours with progressive performance indication	
Operating temperature range / Humidity			-40 ... +80 °C (extended) / 5% ... 95%	
Terminal-Conductor size			4-35 mm ² flexible / 4-50 mm ² semi rigid	
Mounting			35 x 7,5 mm top hat DIN rail IEC/EN 60715	
Case material / Flammability grade			BMC / V-0 in accordance with UL 94	
Pollution degree / Degree of protection		PD / IP	3 / 54 (built-in)	
Approximate weight			300 g	
Dimensions			168 x h 270 x d 44 mm	
Certifications / Quality Mark			CB, STC issued by OVE / KEMA-KEUR	
GTIN (EAN)			8054890321822	

TECHNICAL DATA