



Surge protector for LED lighting system Class 1

CITEL

MLP1-230L-P/20K



Specially developed spd with combined protection for 2-phase power supply (control phase):

- Many variants available depending on application
- With screw terminals or cable wiring
- IP65 versions
- For protection class I or II application
- Developed for Uoc: 20 kV and I_{max}: 20 kA for highest outdoor requirements according to IEEE & ANSI
- Optical error signalling



	Electrical Characteristics		
	SPD type	2 (or 3)	
	Network	220-240 V Single-phase	
	AC system	TT-TN	
	Nominal line voltage	Un	230-277 Vac
	Max. AC operating voltage	Uc	320 Vac
	Max. frequency	f max.	10 MHz
	Max. load current @25°C	IL	5 A
	Temporary Over Voltage (TOV) Characteristics - 5 sec. Without disconnection	UT	335 Vac withstand
	Temporary Over Voltage (TOV) Characteristics - 120 mn Without disconnection or with safety disconnection	UT	440 Vac disconnection
	Residual Current Leakage current to Ground	I _{pe}	None
	Follow current	I _f	None
	Nominal discharge current 15 x 8/20 μs impulses	I _n	10 kA
	Max. discharge current max. withstand @ 8/20 μs by pole	I _{max}	20 kA
	Total Maximum discharge current max. total withstand @ 8/20 μs	I _{max} Total	20 kA
	Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50μs - 8/20μs	Uoc	20 kV
	Withstand on overvoltages IEEE C62.41.1		10 kV / 10 kA
	Protection mode(s)		Common/Differential mode
	Protection level L/N @ I _n (8/20μs)	Up L/N	1.5 kV
	Protection level L/PE @ I _n (8/20μs)	Up L/PE	1.5 kV
Protection level CM/DM @ I _n (8/20μs)	Up mc /md	1.5 kV / 1.5 kV	
Admissible short-circuit current	I _{sc}	10 000 A	
Mechanical Characteristics			
Technology		MOV+GDT	
Connection to Network		By screw terminal: 1.5mm ² max.	
Mounting		On plate	
Housing material		Thermoplastic UL94 V-0	
Operating temperature	Tu	-40/+85°C	
Protection rating		IP20	
Failsafe mode		Disconnection and AC line cut-off	
Disconnection indicator		LED green OFF and AC network cut-off	
Voltage/operating indicator		Green Led ON	
Remote signaling of disconnection		No	
Dimensions		See diagram	
Weight		0.086 kg	
Disconnectors			
Thermal disconnector		Internal	
Installation ground fault breaker		Type 'S' or delayed	
Standards			
Standards compliance		IEC 61643-11 / EN 61643-11 / UL1449 ed.5	
Part number		721213	

