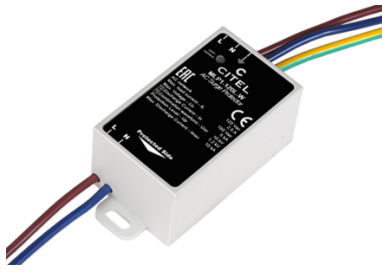




# CITEL

## Surge protector for LED lighting system Class 1

### MLP1-120L-W



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: 10 kV and I<sub>max</sub>: 10 kA for highest outdoor requirements according to IEEE & ANSI
- Optical error signalling



	<b>Electrical Characteristics</b>																																																										
<p>V : Varistor Ft: Thermal fuse GSG: Specific gas tube LED: Status indicator t*: Thermal system disconnection</p>	<table border="1"> <tr><td>SPD type</td><td></td><td>2+3</td></tr> <tr><td>Network</td><td></td><td>110-120 V single-phase</td></tr> <tr><td>AC system</td><td></td><td>TT-TN</td></tr> <tr><td>Nominal line voltage</td><td>U<sub>n</sub></td><td>110-120 Vac</td></tr> <tr><td>Max. AC operating voltage</td><td>U<sub>c</sub></td><td>180 Vac</td></tr> <tr><td>Max. load current @25°C</td><td>I<sub>L</sub></td><td>2.5 A</td></tr> <tr><td>Temporary Over Voltage (TOV) Characteristics - 5 sec. Without disconnection</td><td>UT</td><td>175 Vac withstand</td></tr> <tr><td>Temporary Over Voltage (TOV) Characteristics - 120 mn Without disconnection or with safety disconnection</td><td>UT</td><td>230 Vac disconnection</td></tr> <tr><td>Residual Current Leakage current to Ground</td><td>I<sub>pe</sub></td><td>None</td></tr> <tr><td>Follow current</td><td>I<sub>f</sub></td><td>None</td></tr> <tr><td>Nominal discharge current 15 x 8/20 μs impulses</td><td>I<sub>n</sub></td><td>5 kA</td></tr> <tr><td>Max. discharge current max. withstand @ 8/20 μs by pole</td><td>I<sub>max</sub></td><td>10 kA</td></tr> <tr><td>Total Maximum discharge current max. total withstand @ 8/20 μs</td><td>I<sub>max</sub> Total</td><td>20 kA</td></tr> <tr><td>Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50μs - 8/20μs</td><td>U<sub>oc</sub></td><td>10 kV / 5 kA</td></tr> <tr><td>Withstand on overvoltages IEEE C62.41.1</td><td></td><td>10 kV / 10 kA</td></tr> <tr><td>Protection mode(s)</td><td></td><td>Common/Differential mode</td></tr> <tr><td>Protection level L/N @ I<sub>n</sub> (8/20μs)</td><td>U<sub>p</sub> L/N</td><td>1.5 kV</td></tr> <tr><td>Protection level L/PE @ I<sub>n</sub> (8/20μs)</td><td>U<sub>p</sub> L/PE</td><td>1.2 kV</td></tr> <tr><td>Admissible short-circuit current</td><td>I<sub>sc</sub></td><td>10 000 A</td></tr> </table>		SPD type		2+3	Network		110-120 V single-phase	AC system		TT-TN	Nominal line voltage	U <sub>n</sub>	110-120 Vac	Max. AC operating voltage	U <sub>c</sub>	180 Vac	Max. load current @25°C	I <sub>L</sub>	2.5 A	Temporary Over Voltage (TOV) Characteristics - 5 sec. Without disconnection	UT	175 Vac withstand	Temporary Over Voltage (TOV) Characteristics - 120 mn Without disconnection or with safety disconnection	UT	230 Vac disconnection	Residual Current Leakage current to Ground	I <sub>pe</sub>	None	Follow current	I <sub>f</sub>	None	Nominal discharge current 15 x 8/20 μs impulses	I <sub>n</sub>	5 kA	Max. discharge current max. withstand @ 8/20 μs by pole	I <sub>max</sub>	10 kA	Total Maximum discharge current max. total withstand @ 8/20 μs	I <sub>max</sub> Total	20 kA	Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50μs - 8/20μs	U <sub>oc</sub>	10 kV / 5 kA	Withstand on overvoltages IEEE C62.41.1		10 kV / 10 kA	Protection mode(s)		Common/Differential mode	Protection level L/N @ I <sub>n</sub> (8/20μs)	U <sub>p</sub> L/N	1.5 kV	Protection level L/PE @ I <sub>n</sub> (8/20μs)	U <sub>p</sub> L/PE	1.2 kV	Admissible short-circuit current	I <sub>sc</sub>	10 000 A
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	<b>Mechanical Characteristics</b>																																																										
	Technology	MOV+GDT																																																									
	Connection to Network	By screw terminal: 1.5mm <sup>2</sup> max.																																																									
	Mounting	On plate																																																									
	Housing material	Thermoplastic UL94 V-0																																																									
	Operating temperature	T <sub>u</sub> -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																																																									
	<b>Disconnectors</b>																																																										
	Thermal disconnector	Internal																																																									
	Installation ground fault breaker	Type 'S' or delayed																																																									
	<b>Standards</b>																																																										
	Standards compliance	IEC 61643-11 / EN 61643-11 / UL1449 ed.5																																																									
	Part number	711111																																																									

