

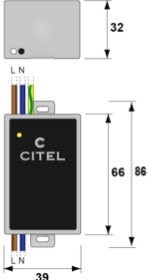
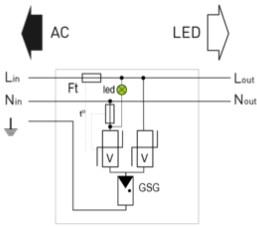
## MLP1-120L-W



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  $U_{oc}$ : 10 kV and  $I_{max}$ : 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"> <tbody> <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><math>U_n</math></td> <td>110-120 Vac</td> </tr> <tr> <td>Max. AC operating voltage</td> <td><math>U_c</math></td> <td>180 Vac</td> </tr> <tr> <td>Max. load current @25°C</td> <td><math>I_L</math></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><math>I_{pe}</math></td> <td>None</td> </tr> <tr> <td>Follow current</td> <td><math>I_f</math></td> <td>None</td> </tr> <tr> <td>Nominal discharge current 15 x 8/20 <math>\mu</math>s impulses</td> <td><math>I_n</math></td> <td>5 kA</td> </tr> <tr> <td>Max. discharge current max. withstand @ 8/20 <math>\mu</math>s by pole</td> <td><math>I_{max}</math></td> <td>10 kA</td> </tr> <tr> <td>Total Maximum discharge current max. total withstand @ 8/20 <math>\mu</math>s</td> <td><math>I_{max}</math> Total</td> <td>20 kA</td> </tr> <tr> <td>Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50<math>\mu</math>s - 8/20<math>\mu</math>s</td> <td><math>U_{oc}</math></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 @ <math>I_n</math> (8/20<math>\mu</math>s)</td> <td><math>U_p</math> L/N</td> <td>1.5 kV</td> </tr> <tr> <td>Protection level L/PE @ <math>I_n</math> (8/20<math>\mu</math>s)</td> <td><math>U_p</math> L/PE</td> <td>1.2 kV</td> </tr> <tr> <td>Admissible short-circuit current</td> <td><math>I_{sc}</math></td> <td>10 000 A</td> </tr> </tbody> </table>		SPD type		2+3	Network		110-120 V single-phase	AC system		TT-TN	Nominal line voltage	$U_n$	110-120 Vac	Max. AC operating voltage	$U_c$	180 Vac	Max. load current @25°C	$I_L$	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	$I_{pe}$	None	Follow current	$I_f$	None	Nominal discharge current 15 x 8/20 $\mu$ s impulses	$I_n$	5 kA	Max. discharge current max. withstand @ 8/20 $\mu$ s by pole	$I_{max}$	10 kA	Total Maximum discharge current max. total withstand @ 8/20 $\mu$ s	$I_{max}$ Total	20 kA	Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50 $\mu$ s - 8/20 $\mu$ s	$U_{oc}$	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 @ $I_n$ (8/20 $\mu$ s)	$U_p$ L/N	1.5 kV	Protection level L/PE @ $I_n$ (8/20 $\mu$ s)	$U_p$ L/PE	1.2 kV	Admissible short-circuit current	$I_{sc}$	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	$T_u$ -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																																																									