
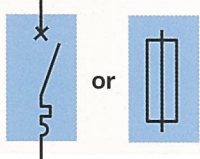





Installation rules for SPDs: choice of associated  
breaking devices (fuse/circuit breaker)

Choice of disconnecter

Surge arresters must be associated with upstream short-circuit protection and residual current protection against indirect contact (usually already present in the installation).

	Function	Application
	Protection against indirect contact	<ul style="list-style-type: none"> <li>Residual current circuit-breaker compulsory for TT systems</li> <li>Residual current circuit-breaker possible for TN-S, IT and TN-C-S systems</li> <li>Residual current circuit-breaker forbidden for TN-C systems</li> </ul> <p>If a residual current circuit-breaker is used, it is preferable to use a type S.</p> <p>Otherwise there is a risk of nuisance tripping. This does not affect the effectiveness of the surge arrester, but may cause the circuit to be opened.</p>
	Protection against fault currents	<p>The breaking device associated with the surge arrester can be either a circuit breaker or a fuse.</p> <p>Its rating should take into consideration the surge arrester's characteristics and the short-circuit current of the installation.</p>
	Thermal protection	Thermal protection is integrated into the surge arrester.

Maximum circuit-breaker or fuse protection rating depending on  $I_{max}$  and  $I_{imp}$  of the surge arrester.

		
<b>Type 1 surge arresters</b>	<b>Circuit-breaker (curve C)</b>	<b>Fuse (gG)</b>
<b>25 kA (10/350): OVR T1</b>	-	≤ 125 A
<b>Type 1+2 surge arresters</b>	<b>Circuit-breaker (curve C)</b>	<b>Fuse (gG)</b>
<b>7 kA (10/350): OVR T1+2</b>		
• $I_p = 300$ A to 1 kA	40 A (1)	32 A
• $I_p = 1$ kA and above	63 A (2)	32 A
<b>Type 2 surge arresters</b>	<b>Circuit-breaker (curve C)</b>	<b>Fuse (gG)</b>
<b>70 kA (8/20)</b>		
• $I_p = 300$ A to 1 kA	40 A (1)	32 A
• $I_p = 1$ kA and above	63 A (2)	32 A
<b>40 kA (8/20)</b>		
• $I_p = 300$ A to 1 kA	40 A (1)	32 A
• $I_p = 1$ kA and above	63 A (2)	32 A
<b>15 kA (8/20)</b>		
• $I_p = 300$ A to 1 kA	40 A (1)	32 A
• $I_p = 1$ kA and above	63 A (2)	32 A

(1) Series S 200 L or S 941 N.

(2) Series S 200 L and S 200 / S 200 M.