Symbols

Switching symbol	Description
SPD	Overvoltage protection device (SPD: surge protective device)
4	Lightning arresters, type 1
	Surge arrester type 2 or type 3
	Tripped spark gap
\square	Varistors
	Spark gap
	Gas-filled surge arrester
	Plug-in contact
×	Suppressor diode

BETA Protecting Overvoltage Protection Devices

Configuration

Selection of overvoltage protection devices

Selection of overvoltage			
Situation	Systems	Basic protection	
Which type of building do you want to protect? Generally speaking, all our devices are suitable for resi- dential buildings, office build- ings, industrial and commercial buildings.		For installation upstream of counters in main distribution in combined main/sub-distribution boards	ition boards
Low risk buildings	TN-S and TT systems	Surge arresters, type 2 Narrow design 5SD7 424-0, 5SD7 424-1 Wide design 5SD7 464-0, 5SD7 464-1 With or without remote signaling	
 No outer lightning protection Power supply over ground conductor 	TN-C systems	Surge arresters, type 2 Narrow design 5SD7 423-0, 5SD7 423-1 Wide design 5SD7 463-0, 5SD7 463-1 With or without remote signaling	
High-risk buildings	TN-S and TT systems	Lightning arresters, type 1 5SD7 414-1 With remote signaling	
- Outer lightning protection system	TN-C systems	Lightning arresters, type 1 5SD7 413-1 With remote signaling 5SD7411-1	
- Power supply over overhead lines	TN-S and TT systems	Combination surge arresters, type 1 and type 2 5SD7 444-1 With remote signaling	
- Grounded aerial built-on accessories	TN-C systems	Combination surge arresters, type 1 and type 2 5SD7 443-1 With remote signaling 5SD7441-1	
	IT systems Without N-conductor incorporated in the cable IT systems With N-conductor incorporated in the cable	Typically, IT systems are only installed in special building sections. There are generally still TN-C, TN- S or TT systems in the area of the main distribution board. In this case, the protective devices shown above must be installed.	

BETA Protecting Overvoltage Protection Devices

Configuration

Medium protection	Fine protection			
For installation upstream of counters in main distribution boards or in combined main/sub-distribution boards	For installation directly upstream of the terminal equipment			
Surge arresters, type 2	Surge arresters, type 3			
Narrow design 5SD7 424-0, 5SD7 424-1	For installation in sub-distribution boards or control cabinets			
Standard design	5SD7 432-x and 5SD7 434-1			
5SD7 464-0, 5SD7 464-1	With remote signaling			
With or without remote signaling Only required if the distance between the main and sub-distribution boards is > 10	m			
Surge arresters, type 2 Narrow design				
5SD7 423-0, 5SD7 423-1				
Standard design 5SD7 463-0, 5SD7 463-1				
With or without remote signaling				
Only required if the distance between the main and sub-distribution boards is > 10 m				
Surge arresters, type 2	_			
Narrow design 5SD7 424-0, 5SD7 424-1				
Standard design				
5SD7 464-0, 5SD7 464-1 With or without remote signaling				
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Surge arresters, type 2				
Narrow design 5SD7 423-0, 5SD7 423-1				
Standard design 5SD7 463-0, 5SD7 463-1				
With or without remote signaling				
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Surge arresters, type 2 Narrow design				
5SD7 424-0, 5SD7 424-1				
Standard design 5SD7 464-0, 5SD7 464-1				
With or without remote signaling				
Only required if the distance between the main and sub-distribution boards is > 10 m				
Surge arresters, type 2				
Narrow design 5SD7 423-0, 5SD7 423-1				
Standard design				
5SD7 463-0, 5SD7 463-1 With or without remote signaling				
Only required if the distance between the main and sub-distribution boards is > 10 m				
Surge arresters, type 2				
5SD7 473-0, 5SD7 473-1 3-pole (3+0 circuit)				
$U_c = 500 \text{ VAC}$ With or without remote signaling				
Surge arresters, type 2 5SD7 485-0, 5SD7 485-1				
4-pole (4+0 circuit)				
$U_c = 440 \text{ VAC}$ With or without remote signaling				