




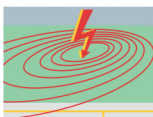


Overvoltage Protection Devices

Introduction

Overview

Devices	Page	Application	Standards
	6/3	<p>With plug-in protective modules for TN-C, TN-S and TT systems.</p> <p>Rated voltage 350 V AC for lightning currents from 25 kA to 100 kA.</p> <p>All versions with remote signaling contact.</p> <p>For installation in main distribution boards, upstream or downstream of the counter.</p>	EN 61643-11
	6/5	<p>With plug-in protective modules for TN-C, TN-S and TT systems.</p> <p>Rated voltage 350 V AC for lightning currents from 25 kA to 100 kA.</p> <p>All versions with remote signaling contact.</p> <p>For installation in main distribution boards downstream of the counter.</p>	EN 61643-11
	6/7	<p>With plug-in protective modules for TN-C, TN-S and TT systems.</p> <p>Rated voltage 335 V AC for lightning currents or discharge surge currents up to 50 kA.</p> <p>Versions with or without remote signaling.</p>	EN 61643-11
	6/9	<p>With plug-in protective modules for TN-C, TN-S and TT systems.</p> <p>Rated voltage 350 V AC, rated discharge surge current 20 kA and discharge surge current 40 kA.</p> <p>For installation in sub-distribution boards.</p>	EN 61643-11
	6/13	<p>With plug-in protective modules for single-phase and three-phase systems. Rated voltage, single-phase 24 V, 120 V, 230 V AC and three-phase 230/400 V AC.</p> <p>For installation as close as possible upstream from the terminal equipment.</p>	EN 61643-11
 I201_13815	6/14	<p>Everything you need to know about overvoltage protection: function, mounting and technical connections.</p>	

Overview

Type 1 lightning arresters are the most powerful overvoltage protection. They protect low-voltage systems against any overvoltage or high impulse currents that may be triggered by a direct or indirect lightning strike.

All lightning arresters are fitted with a mechanical fault indication, which does not require an extra power supply.

The lightning conductors can therefore also be used in the precounter area.

The protective modules are available as connectors. The majority of lightning arresters have a remote signaling contact, which signals if the device fails.

Technical specifications

		5SD7411-2	5SD7412-1	5SD7413-1	5SD7414-1
Standards		IEC 61643-11, EN 61643-11			
Approvals		KEMA, UL/cUL			
Rated voltage U_N	V AC	690	240	240/415	
Rated arrester voltage U_C	V AC	800	350	350	350
Lightning impulse current I_{imp} (10/350 s)					
• L-N or L-(PE)N, 1P/3P	kA	35	25	25/75	25/75
• N-PE	kA	--	100	--	100
Rated discharge surge current I_n (8/20 s)					
• L-N or L-(PE)N, 1P/3P	kA	35	25	25/75	25/75
• N-PE	kA	--	100	--	100
Protection level U_p					
• L-(PE)N	kV	4.50	1.50	1.50	1.50
• L-PE	kV	--	2.50	--	2.50
• N-PE	kV	--	1.50	--	1.50
Follow current discharge capacity I_{fl} (AC)					
• L-N or L-(PE)N for 264 V/350 V	kA	--	50/25	50/25	50/25
• N-PE	A	--	100	--	100
Response time t_A					
• L-N or L-(PE)N	ns	100	100	100	100
• L-(N)-PE	ns	--	100	--	100
Max. back-up fuse acc. to IEC 61643-1					
• For stub wiring	A	400 gL/gG	315 gL/gG	315 gL/gG	315 gL/gG
• For V-wiring	A	125 gL/gG	125 gL/gG	125 gL/gG	125 gL/gG
Short-circuit withstand current With max. back-up fuse	kA	50	50	50	50
Temperature range	°C	-40 ... +80			
Degree of protection		IP20, with connected conductors			
Conductor cross-section					
• Finely stranded	mm ²	16 ... 50	2.5 ... 25	2.5 ... 25	2.5 ... 25
• Solid	mm ²	16 ... 50	2.5 ... 35	2.5 ... 35	2.5 ... 35