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Low-Voltage Power Distribution and Electrical Installation Technology

Overvoltage Protection Devices

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Catalog Extract LV 10

Edition 2025

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Catalog LV 10 · 2025

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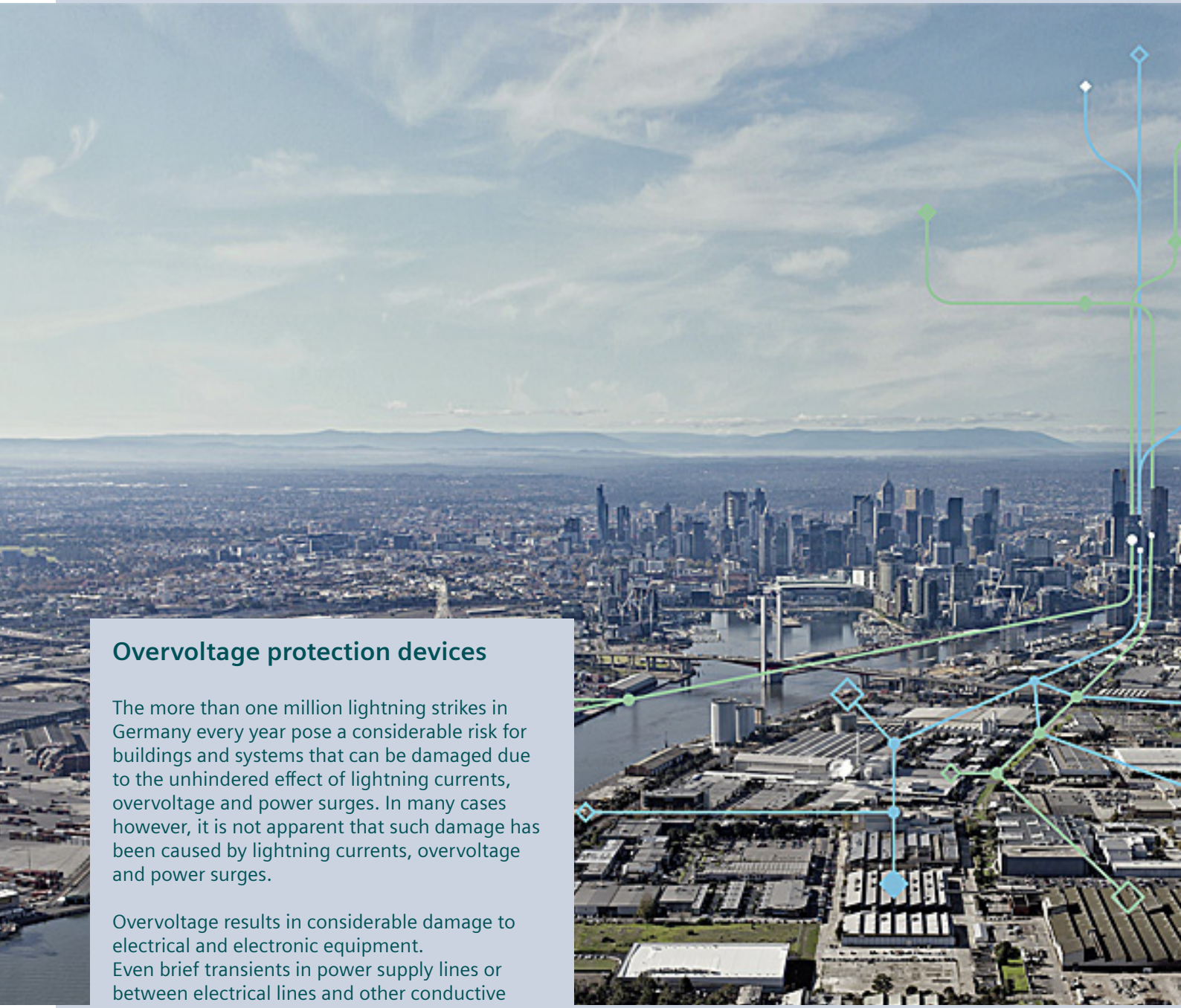
Low-Voltage Power Distribution and Electrical Installation Technology



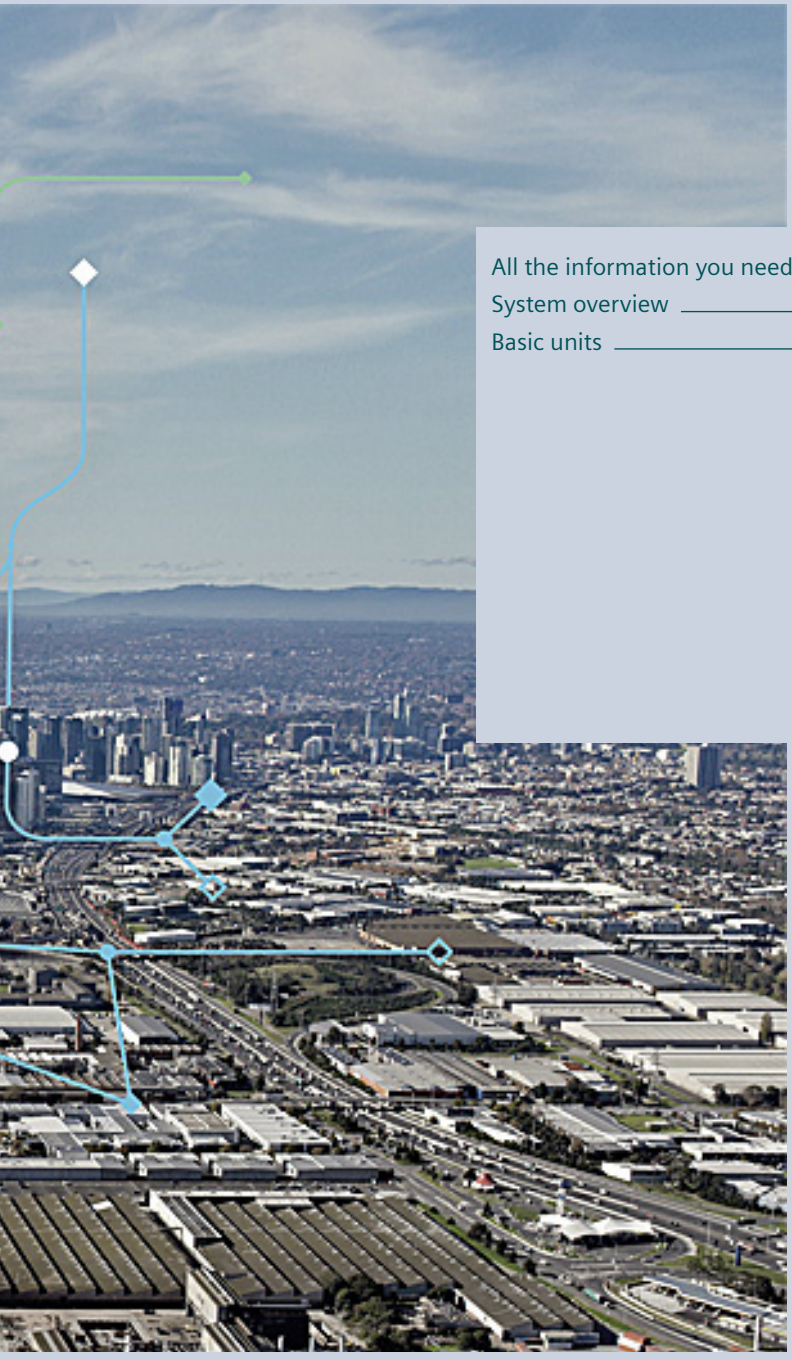
Overvoltage protection devices

The more than one million lightning strikes in Germany every year pose a considerable risk for buildings and systems that can be damaged due to the unhindered effect of lightning currents, overvoltage and power surges. In many cases however, it is not apparent that such damage has been caused by lightning currents, overvoltage and power surges.

Overvoltage results in considerable damage to electrical and electronic equipment.
Even brief transients in power supply lines or between electrical lines and other conductive parts (e.g. grounded metallic parts, ground) are sufficient to cause such damage. The damage patterns of destroyed lines, printed circuit boards or switchgear demonstrate this. Such damage can be prevented employing suitable overvoltage protection means.

Reliably protected by Siemens lightning and surge arresters !

Overvoltage Protection Devices



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- Technology Primer
  - Overvoltage protection devices **(109756965)**

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- Protection concept (WT-LVBPC)

Technical overview – Overvoltage protection devices

The fast way to get you to our online services

This page provides you with comprehensive information and links on overvoltage protection devices
www.siemens.com/lowvoltage/product-support (109769084)

System overview

Basic units

5SD74 lightning arresters, type 1

5SD74 combination surge arresters, type 1 + type 2

5SD74 combination surge arresters with integrated back-up fuse

5SD74 surge arresters, type 1 + type 2 + type 3 for 40 mm busbar system

5SD74 combination surge arresters, type 1/type 2

5SD74 surge arresters, type 2 (standard design)

5SD74 surge arresters, type 3

5SD74 surge arresters, type 1 (UL) new

Spare part plugs

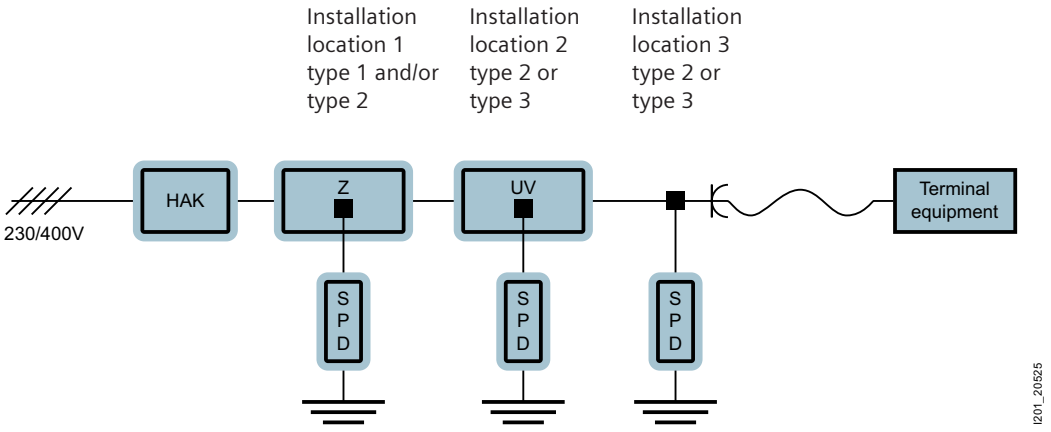
N-PE

L-N, L-PEN (type 1)

L-PEN

Note:
You will find a detailed range of accessories with the basic units.

Installation locations for surge protection devices (SPDs)



HAK: Main terminal box Z/HV: In or close to the central meter system/main distribution board UV: Subdistribution board

Installation location 1 must be as close as possible to the supply point for the electrical system, so that the downstream installations are protected. The SPDs at installation locations 2 and 3 shall not be used without SPDs at installation location 1, and they must be coordinated with these SPDs (i.e. SPDs all from the same manufacturer).

5SD74 lightning arresters, type 1

	For TN-C systems and IT networks	For TN-C systems	For TN-S and TT systems	
Protection paths	L-PE	L-PEN	L-N, L-PE and N-PE	L-N, L-PE and N-PE
Rated voltage U_n	690 V AC	240/415 V AC	240 V AC	240/415 V AC
Maximum continuous voltage U_c	800 V AC	350 V AC	350 V AC	350 V AC
				

Circuit	Mounting width				
With remote signaling					
1 + 0	– [1]	5SD7411-2	–	–	–
1 + 1	4 MW	–	–	5SD7412-1	–
3 + 0	6 MW	–	5SD7413-1	–	–
3 + 1	8 MW	–	–	–	5SD7414-1

[1] No modular installation device.

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Further technical specifications

		5SD7411-2	5SD7412-1	5SD7413-1	5SD7414-1
Standards					
Standards		IEC 61643-11; EN 61643-11			
Approvals		–	KEMA, UL/cUL		
Voltage					
Protection level U_p	L-N and L-PEN	≤ 4.50 kV	≤ 1.50 kV		
	L-PE	–	≤ 2.50 kV	–	≤ 2.50 kV
	N-PE	–	≤ 1.50 kV	–	≤ 1.50 kV
Current					
Lightning impulse current I_{imp} (10/350 µs)	L-N and L-PEN, 1P/3P	35 kA	25 kA	25/75 kA	
	N-PE	–	100 kA	–	100 kA
Rated discharge surge current I_n (8/20 µs)	L-N and L-PEN, 1P/3P	35 kA	25 kA	25/75 kA	
	N-PE	–	100 kA	–	100 kA
Follow current discharge capacity I_{fi} (AC)	L-N and L-PEN for 264/350 V	–	50/25 kA		
	N-PE	–	100 A	–	100 A
Function					
Response time t_A	L-N and L-PEN	≤ 100 ns			
	L-N and N-PE	–	≤ 100 ns	–	≤ 100 ns
Connections					
Conductor cross-section	Finely stranded	16 ... 50 mm²	2.5 ... 25 mm²		
	Solid	16 ... 50 mm²	2.5 ... 35 mm²		
Protection devices					
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	400 A	315 A		
	For V wiring (gL/gG)	125 A	125 A		
Short-circuit strength	With max. back-up fuse	50 kA	50 kA		
Ambient conditions					
Degree of protection		IP20, with connected conductors			
Temperature range		–40 ... +80 °C			

System overview, 6/4

Accessories

Spare part plugs

Protection paths	Basic units	Article No.
N-PE	5SD7412-1 and 5SD7414-1	5SD7418-0
L-N and L-PEN	For 5SD7412-1, 5SD7413-1 and 5SD7414-1	5SD7418-1

System overview, 6/4

5SD74 combination surge arresters, type 1 + type 2

	For TN-C systems	For TN-S and TT systems	
Protection paths	L-PEN	L-N, L-PE and N-PE	L-N, L-PE and N-PE
Rated voltage U_n	240/415 V AC	240 V AC	240 V AC
Maximum continuous voltage U_c	350 V AC	350 V AC	350 V AC
			

Circuit	Mounting width			
With remote signaling				
1 + 1	4 MW	–	5SD7442-1	–
3 + 0	6 MW	5SD7443-1	–	–
3 + 1	8 MW	–	–	5SD7444-1

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Further technical specifications

		5SD7442-1	5SD7443-1	5SD7444-1
Standards				
Standards		IEC 61643-11; DIN EN 61643-11		
Approvals		KEMA, UL/cUL		
Voltage				
Protection level U_p	L-N and L-PEN	≤ 1.50 kV		
	L-PE	≤ 2.20 kV	–	≤ 2.20 kV
	N-PE	≤ 1.50 kV	–	≤ 1.50 kV
Current				
Lightning impulse current I_{imp} (10/350 µs)	L-N and L-PEN	25 kA		
	N-PE	100 kA	–	100 kA
Rated discharge surge current I_n (8/20 µs)	L-N and L-PEN	25 kA		
	N-PE	100 kA	–	100 kA
Follow current discharge capacity I_{fi} (AC)	L-N and L-PEN	25 kA		
	N-PE	100 A	–	100 A
Function				
Response time t_A	L-N and L-PEN	≤ 25 ns		
	L-N and N-PE	≤ 100 ns	–	≤ 100 ns
Connections				
Conductor cross-section	Finely stranded	2.5 … 25 mm²		
	Solid	2.5 … 35 mm²		
Protection devices				
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	315 A		
	For V wiring (gL/gG)	125 A		
Short-circuit strength	With max. back-up fuse	25 kA		
Ambient conditions				
Degree of protection		IP20, with connected conductors		
Temperature range		–40 … +80 °C		
Display				
Visual function/fault indication		Yes		

System overview, 6/4

Accessories

Spare part plugs

Protection paths	Type	Basic units	Article No.
N-PE	–	5SD7442-1 and 5SD7444-1	5SD7418-0
L-N and L-PEN	1	5SD7442-1, 5SD7443-1 and 5SD7444-1	5SD7448-1
	2	5SD7442-1, 5SD7443-1 and 5SD7444-1	5SD7428-1

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System overview, 6/4

5SD74 combination surge arresters with integrated back-up fuse

	For TN-S and TT systems
Protection paths	L-N
Rated voltage U_n	230 V AC
Maximum continuous voltage U_c	255 V AC

Circuit	Mounting width	
1+0	2 MW	5SD7441-1KF00

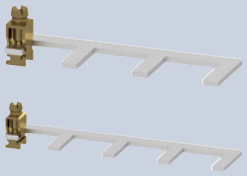
Further technical specifications

		5SD7441-1KF00
Standards		
Standards		EN 61643-11/... IEC 61643-11
Approvals		KEMA
Voltage		
Protection level U_p	L-N and L-N/PE	≤ 1.50 kV
Current		
Lightning impulse current I_{imp} (10/350 µs)	L-N and L-N/PE	25 kA
Rated discharge surge current I_n (8/20 µs)	L-N and L-N/PE	25 kA
Follow current discharge capacity I_{fi} (AC)	L-N and L-N/PE	50 kA
Function		
Response time t_A	L-N and L-N/PE	≤ 100 ns
Connections		
Conductor cross-section	Finely stranded	25 mm²
	Solid/stranded	35 mm²
Protection devices		
Max. back-up fuse		None necessary because integrated coordinated back-up fuse contained in the device
Ambient conditions		
Degree of protection		IP20, with connected conductors
Temperature range		–40 ... +80 °C

System overview, 6/4

Accessories

Connection bars



Version	Number of poles	Article No.
1-phase	3-pole	5SD7490-6
	4-pole	5SD7490-7

System overview, 6/4

5SD74 surge arresters, type 1 + type 2 + type 3 for 40 mm busbar system

	For TN-C systems			
Protection paths	L-PEN			
Lightning impulse current I_{imp} (10/350 µs)	12.5 kA		7.5 kA	
Rated voltage U_n	240/415 V AC	240/415 V AC	240/415 V AC	240/415 V AC
Maximum continuous voltage U_c	300 V AC	300 V AC	300 V AC	300 V AC
				
Circuit **Mounting width**				
With remote signaling				
3 + 0 47 mm	5SD7443-8KK21	–	5SD7443-8KK11	–
3 + 1 47 mm	–	–	–	–
With remote signaling and phase tap				
3 + 0 47 mm	–	5SD7443-8KK22	–	5SD7443-8KK12
3 + 1 47 mm	–	–	–	–

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Further technical specifications

		5SD7443-8KK21	5SD7443-8KK22	5SD7443-8KK11	5SD7443-8KK12
Standards					
Standards		IEC 61643-11			
Approvals		VDE			
Voltage					
Protection level U_p	L-N and L-PEN	≤ 1.50 kV			
	L-N/N-PE	–			≤ 1.5/1.5 kV
Current					
Lightning impulse current I_{imp} (10/350 µs)	L-N/N-PEN and N-PE	12.5 kA		7.5 kA	
Rated discharge surge current I_n (8/20 µs)	L-N/L-PEN and N-PE	20 kA			
Follow current discharge capacity I_{fi} (AC)	N-PE	–			
Connections					
Conductor cross-section	Finely stranded	25 mm²			
	Solid	35 mm²			
Type of mounting					
40 mm busbar system		5 and 10 mm			
Protection devices					
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	315 A			
Short-circuit strength	With max. back-up fuse	25 kA			
Ambient conditions					
Degree of protection		IP20			
Temperature range		–40 ... +80 °C			
Display					
Visual function/fault indication		Yes			

System overview, 6/4

For TN-S and TT systems			
L-N, L-PE and N-PE			
12.5 kA		7.5 kA	
240/415 V AC	240/415 V AC	240/415 V AC	240/415 V AC
300 V AC	300 V AC	300 V AC	300 V AC
			
–	–	–	–
5SD7444-8KK21	–	5SD7444-8KK11	–
–	–	–	–
–	5SD7444-8KK22	–	5SD7444-8KK12

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5SD7444-8KK21	5SD7444-8KK22	5SD7444-8KK11	5SD7444-8KK12
12.5 kA		7.5 kA	
20/80 kA			
100 A RMS			

System overview, 6/4

5SD74 combination surge arresters, type 1/type 2

	For TN-C systems and IT networks	For TN-C systems	For TN-S and TT systems		For photovoltaic systems
Protection paths	L-PE	L-PEN	L-N, L-PE and N-PE	L-N, L-PE and N-PE	(L+) – (L–)
Rated voltage U_n	690 V AC	240/415 V AC	240 V AC	240/415 V AC	–
Maximum continuous voltage U_c	800 V AC	335 V AC	335 V AC	335 V AC	1000 V DC
					

Circuit	Mounting width					Plug-in
With remote signaling						
1 + 0	– [1]	5SD7411-2	–	–	–	–
3 + 0	3 MW	–	5SD7413-3	–	–	
3 + 1	4 MW	–	–	–	5SD7414-3	–
Without remote signaling						
1 + 1	2 MW	–	–	5SD7412-2	–	–
3 + 0	3 MW	–	5SD7413-2	–	–	5SD7483-6
3 + 1	4 MW	–	–	–	5SD7414-2	–

[1] No modular installation device.

Further technical specifications

		5SD7411-2	5SD7412-2	5SD7413-2 5SD7413-3	5SD7414-2 5SD7414-3	5SD7483-6
Standards						
Standards		IEC 61643-11				EN 61643-31
Approvals		–	KEMA			
Voltage						
Protection level U_p	L-N and L-PEN	≤ 4.50 kV	≤ 1.20 kV			≤ 3.50 kV
	L-PE	–			≤ 2.0 kV	–
	N-PE	–	≤ 1.70 kV	–	≤ 1.70 kV	–
Current						
Lightning impulse current I_{imp} (10/350 µs)	L-N and L-PEN	35 kA	12.5 kA			≤ 5 kA
	N-PE	–	50 kA	–	50 kA	–
Rated discharge surge current I_n (8/20 µs)	L-N and L-PEN	35 kA	12.5 kA			15 kA
	N-PE	–	50 kA	–		
Max. discharge surge current $I_{max.}$ (8/20 µs)	L-N	100 kA	12.5 kA	50 kA		40 kA
	N-PE	–	50 kA	–	50 kA	–
Function						
Response time t_A	L-N and L-PEN	< 100 ns	≤ 25 ns			
	L-N and N-PE	–	≤ 100 ns	–	≤ 100 ns	≤ 25 ns
Connections						
Conductor cross-section	Finely stranded	16 … 50 mm²	1.5 … 25 mm²			
	Solid	16 … 50 mm²	1.5 … 35 mm²			
Protection devices						
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	400 A	160 A			–
	For V wiring (gL/gG)	125 A	80 A			–
Short-circuit strength	With max. back-up fuse	50 kA	25 kA			–
Ambient conditions						
Degree of protection		IP20, with connected conductors				
Temperature range		–40 … +80 °C				

System overview, 6/4

Accessories

Spare part plugs

	Protection paths	Type	Basic units	Article No.
	N-PE	–	5SD7412-2, 5SD7412-3, 5SD7414-2 and 5SD7414-3	5SD7418-2
	L-N and L-PEN	1	5SD7412-2, 5SD7412-3, 5SD7413-2, 5SD7413-3, 5SD7414-2 and 5SD7414-3	5SD7418-3
	L-PE (PV)	2	5SD7483-6	5SD7498-3

System overview, 6/4

5SD74 surge arresters, type 2

Standard design

	For TN and TT systems		For TN-C systems and IT networks	For TN-C systems	For IT networks	
Protection paths	N-PE	L-PEN and L-N	L-PEN and L-N	L-PEN	L-PEN and L-PE	L-PEN and L-PE
Rated voltage U_n	240/415 V AC	240/415 V AC	400/690 V AC	240/415 V AC	400/690 V AC	554/960 V AC
Maximum continuous voltage U_c	260 V AC	350 V AC	800 V AC	350 V AC	580 V AC	760 V AC
						
Circuit	**Mounting width**					
With remote signaling						
1 + 0	1 MW	–	5SD7461-1	–	–	–	–
	2 MW	–	–	5SD7481-1	–	–	–
3 + 0	3 MW	–	–	–	5SD7463-1	5SD7473-1	5SD7483-5
3 + 1	4 MW	–	–	–	–	–	–
Without remote signaling							
1 + 0	1 MW	5SD7481-0	5SD7461-0	–	–	–	–
3 + 0	3 MW	–	–	–	5SD7463-0	–	–
3 + 1	4 MW	–	–	–	–	–	–

Further technical specifications

		5SD7481-0	5SD7461-0 5SD7461-1	5SD7481-1	5SD7463-0 5SD7463-1	5SD7464-0 5SD7464-1	5SD7473-1	5SD7483-5
Standards								
Standards		IEC 61643-11; DIN EN 61643-11						
Approvals		KEMA					–	KEMA, UL/cUL
Voltage								
Protection level U_p	L-N and L-PEN	–	≤ 1.50 kV	≤ 5 kV	≤ 1.50 kV	≤ 1.60 kV	≤ 2.50 kV	≤ 2.90 kV
	L-PE	–				≤ 1.90 kV	–	
	N-PE	≤ 1.50 kV	–			≤ 1.50 kV	–	
Current								
Rated discharge surge current I_n (8/20 µs)	L-N and L-PEN	–	20 kA	15 kA	20 kA		15 kA	
	N-PE	20 kA	–			20 kA	–	
Max. discharge surge current $I_{max.}$ (8/20 µs)	L-N	–	40 kA	30 kA	40 kA		30 kA	
	N-PE	40 kA	–			40 kA	–	
Function								
Response time t_A	L-N and L-PEN	–	≤ 25 ns	≤ 100 ns	≤ 25 ns			
	L-N and N-PE	≤ 100 ns	–			≤ 100 ns	–	
Connections								
Conductor cross-section	Finely stranded	1.5 ... 25 mm²						
	Solid	1.5 ... 35 mm²						
Protection devices								
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	–	125 A	100 A	125 A			100 A
	For V wiring (gL/gG)	–		80 A				
Short-circuit strength	With max. back-up fuse	25 kA						
Ambient conditions								
Degree of protection		IP20, with connected conductors						
Temperature range		–40 ... +80 °C						

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System overview, 6/4

For TN-S and TT systems	Fuse bases for photovoltaic fuses	
L-N, L-PE and N-PE	(L+) – (L–); (L+) – PE; (L–) – PE	(L+) – (L–); (L+) – PE; (L–) – PE
240/415 V AC	–	–
350 V AC (L-N, L-PE) 260 V AC (N-PE)	1000 V DC	600 V DC
		
–	–	–
–	–	–
–	–	–
5SD7464-1	–	–
–	–	–
–	5SD7483-0KK02	5SD7483-0KK01
5SD7464-0	–	–

5SD7483-0KK01 5SD7483-0KK02
EN 61643-31
KEMA
≤ 3.70 kV
–
–
15 kA
–
40 kA
–
≤ 25 ns
≤ 25 ns
1.5 ... 25 mm²
1.5 ... 35 mm²
–
–
–
IP20, with connected conductors
–40 ... +80 °C

Accessories

Spare part plugs

	Protection paths	Basic units	Article No.
	N-PE	5SD7481-0, 5SD7464-0 und 5SD7464-1	5SD7488-0
	L-N and L-PEN	5SD7461-0, 5SD7461-1, 5SD7463-0, 5SD7463-1, 5SD7464-0 und 5SD7464-1	5SD7468-1
	L-PEN	5SD7481-1 und 5SD7483-5	5SD7488-2
		5SD7481-1	5SD7488-4
	L-PE (PV)	5SD7483-0KK02	5SD7498-4
		5SD7483-0KK01	5SD7498-5

System overview, 6/4

5SD74 surge arresters, type 2

Narrow design

	For TN-S and TT systems	
Protection paths	L-N and N-PE	L-N and N-PE
Rated voltage U_n	240 V AC	240/415 V AC
Rated arrester voltage U_C; L-N, N-PE, L-(PE)N	350 V AC	350 V AC
Rated arrester voltage U_C; N-PE	264 V AC	264 V AC
		
Circuit / **Mounting width**		
With remote signaling		
1 + 1 / 24 mm (1 1/3 MW)	5SD7422-1	–
3 + 1 / 48 mm (2 2/3 MW)	–	5SD7424-1
Without remote signaling		
1 + 1 / 24 mm (1 1/3 MW)	5SD7422-0	–
3 + 1 / 48 mm (2 2/3 MW)	–	5SD7424-0

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Further technical specifications

		5SD7422-0 5SD7422-1	5SD7424-0 5SD7424-1
Standards			
Standards		IEC 61643-11; DIN EN 61643-11	
Approvals		KEMA/UL/cUL	
Voltage			
Protection level U_p	L-N and L-PEN	≤ 1.50 kV	
	L-PE	≤ 1.90 kV	
	N-PE	≤ 1.50 kV	
Current			
Rated discharge surge current I_n (8/20 µs)	L-N and L-PEN	20 kA	
	N-PE	20 kA	
Max. discharge surge current $I_{max.}$ (8/20 µs)	L-N	40 kA	
	N-PE	40 kA	
Function			
Response time t_A	L-N and L-PEN	≤ 25 ns	
	L-N and N-PE	≤ 100 ns	
Connections			
Conductor cross-section	Finely stranded	2.5 ... 16 mm²	
	Solid	2.5 ... 25 mm²	
Protection devices			
Max. back-up fuse acc. to IEC 61643-1	For stub wiring (gL/gG)	315 A	
	For V wiring (gL/gG)	63 A	
Short-circuit strength	With max. back-up fuse	25 kA	
Ambient conditions			
Degree of protection		IP20, with connected conductors	
Temperature range		–40 ... +80 °C	

System overview, 6/4

Accessories

Spare part plugs

	Protection paths	Basic units	Article No.
	N-PE	5SD7422-0, 5SD7422-1, 5SD7424-0 and 5SD7424-1	5SD7428-0
	L-N and L-PEN	5SD7422-0, 5SD7422-1, 5SD7424-0 and 5SD7424-1	5SD7428-1

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5SD74 surge arresters, type 3

		For TN-S and TT systems		
Protection paths		L-N, L-PE, N-PE, (L+) – (L–) and (L+/L–) – PE	L-N, L-PE, N-PE, (L+) – (L–) and (L+/L–) – PE	L-N, L-PE, N-PE, (L+) – (L–) and (L+/L–) – PE
Rated voltage U_n		24 V AC	120 V AC	230 V AC
Rated arrester voltage U_C		34 V AC	150 V AC	264 V AC
				
Circuit	**Mounting width**			
With remote signaling				
1 + 0	1 MW	5SD7432-5	5SD7432-6	5SD7432-7

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Further technical specifications

		5SD7432-5	5SD7432-6	5SD7432-7
Standards				
Standards		IEC 61643-11; DIN EN 61643-11		
Approvals		KEMA/UR	KEMA/UL	KEMA/UR
Voltage				
Protection level U_p	L-N, L-PE and N-PE	≤ 200/≤ 600 V	≤ 750/≤ 850 V	≤ 1250/≤ 1400 V
Current				
Rated load current I_L (at 30 °C)		26 A		
Rated discharge surge current I_n (8/20 µs)		1 kA	5 kA	
Combined surge U_{oc}		2 kV	6 kV	
Function				
Response time t_A		≤ 100 ns		
Connections				
Conductor cross-section	Finely stranded	0.2 … 2.5 mm²		
	Solid	0.2 … 4 mm²		
Protection devices				
Required back-up fuse, max.	(gG/B/C)	25 A		
Ambient conditions				
Degree of protection		IP20, with connected conductors		
Temperature range		–40 … +80 °C		
Display				
Visual function/fault indication		Yes		

System overview, 6/4

5SD74 surge arresters, type 1 (UL) new

Without CE marking

	For wye (star)				For delta
Protection paths	L-G and L-L	L-N, L-G, L-L and N-G	L-G and L-L	L-N, L-G, L-L and N-G	L-G and L-L
Rated voltage U_n: L-N	–	277 V AC	–	347 V AC	–
L-G	277 V AC	277 V AC	347 V AC	347 V AC	480 V AC
L-L	480 V AC	480 V AC	600 V AC	600 V AC	480 V AC
N-G	–	0 V AC	–	0 V AC	–
Rated arrester voltage U_C: L-N	–	385 V AC	–	510 V AC	–
L-G	385 V AC	565 V AC	510 V AC	690 V AC	550 V AC
L-L	770 V AC	770 V AC	1020 V AC	1020 V AC	1100 V AC
N-G	–	180 V AC	–	180 V AC	–
					

Circuit	Mounting width					
With remote signaling						
3 + 0	3 TE	5SD7413-1KU02	–	5SD7413-1KU03	–	5SD7413-1KU04
3 + 1	4 TE	–	5SD7414-1KU02	–	5SD7414-1KU03	–

Further technical specifications		**5SD7413-1KU02**	**5SD7414-1KU02**	**5SD7413-1KU03**	**5SD7414-1KU03**	**5SD7413-1KU04**
Standards						
Standards		ANSI UL 1449; CSA C22.2 No. 269.1				
Approvals		UL, CSA				
Voltage						
Protection level U_p	L-N	–	≤ 1.20 kV	–	≤ 1.50 kV	–
	L-G	≤ 1.20 kV	≤ 1.80 kV	≤ 1.50 kV	≤ 2.0 kV	≤ 1.80 kV
	L-L	≤ 2.50 kV	≤ 2.50 kV	≤ 3.0 kV	≤ 3.0 kV	≤ 3.0 kV
	N-G	–	≤ 0.60 kV	–	≤ 0.60 kV	–
Current						
Rated discharge surge current I_n (8/20 µs)	L-N, L-G and L-L	20 kA				
	N-G	20 kA				
Max. discharge surge current I_{max} (8/20 µs)	L-N, L-G and L-L	50 kA				
	N-G	50 kA				
Connections						
Conductor cross-section	Finely stranded/ Solid	2.5 … 25 mm²				
	Busbar	16 mm²				
	Remote signaling contact	0.34 … 1.5 mm²				
Protection devices						
Short-circuit strength		200 kA				
Ambient conditions						
Degree of protection		IP20				
Temperature range		–40 … +85 °C				
Display						
Visual/ Electrical function/fault indication		Yes				

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System overview, 6/4

Appendix

A

Conditions of sale and delivery

1. General Provisions

By using this catalog you can purchase hard- and software products as well as services (together hereinafter referred to as "products") described therein from Siemens Aktiengesellschaft subject to the following Terms and Conditions of Sale and Delivery (hereinafter referred to as "T&C"). Note, for products purchased from any Siemens entity having a registered office outside of Germany, the respective terms and conditions of sale and delivery of the respective Siemens entity apply exclusively. The following T&C apply exclusively for orders placed with Siemens Aktiengesellschaft, Germany.

1.1 For customers with a seat or registered office in European Union

For customers with a seat or registered office in European Union, the following terms and conditions apply subordinate to T&C:

- for products, which include specific terms and conditions in the text of the product description, these specific terms and conditions shall apply and subordinate thereto,
- for stand-alone software products and software products forming a part of a product or project, the "General Conditions for Software Products for Infrastructure & Industry Business (German law)"[1)] and/or
- for consulting services the "Allgemeine Geschäftsbedingungen für Beratungsleistungen für Infrastructure & Industry Geschäft (Deutsches Recht)"[1)] (available only in German) and/or
- for other services, the "Supplementary Terms and Conditions for Services for Infrastructure & Industry Business (German Law) ("BL")"[1)] and/or
- for other products the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry"[1)].
  In case such products should contain Open Source Software, the conditions of which shall prevail over the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry"[1)], the Product will be given a note as to which special conditions apply to this open source software. This shall apply mutatis mutandis for notices referring to other third-party software components.

1.2 For customers with a seat or registered office outside European Union

For customers with a seat or registered office outside European Union, the following terms and conditions apply subordinate to T&C:

- for products, which include specific terms and conditions in the description text, these specific terms and conditions shall apply and subordinate thereto,
- for consulting services the "Standard Terms and Conditions for Consulting Services for Infrastructure & Industry Business (Swiss Law)"[1)] and/or
- for other services the "International Terms & Conditions for Services"[1)] supplemented by "Software Licensing Conditions"[1)] and/or
- for other products the "International Terms & Conditions for Products"[1)] supplemented by "Software Licensing Conditions"[1)]

1.3 For customers with master or framework agreement

To the extent products offered are covered by an existing master or framework agreement, the terms and conditions of that agreement shall apply instead of T&C.

2. Additional Terms and Conditions

The dimensions are in mm. In Germany, according to the German law on units in measuring technology, data in inches apply only to devices for export.

Illustrations are not binding.

Insofar as there are no remarks on the individual pages of this catalog – especially with regard to data, dimensions and weights given – these are subject to change without prior notice.

[1)] The text of the Terms and Conditions of Siemens AG can be downloaded at https://mall.industry.siemens.com/legal/ww/en/terms_of_trade_en.pdf

3. Export Control and Sanctions Compliance

3.1 General

Customer shall comply with all applicable sanctions, embargoes and (re-)export control laws and regulations, and, in any event, with those of the European Union, the United States of America and any locally applicable jurisdiction (collectively "Export Regulations").

3.2 Checks for Products

Prior to any transaction by customer concerning products (including hardware, documentation and technology) delivered by Siemens, or products (including maintenance and technical support) performed by Siemens with a third party, customer shall check and certify by appropriate measures that

- (i) the customer's use, transfer, or distribution of such products, the brokering of contracts or the provision of other economic resources in connection with products will not be in violation of any Export Regulations, also taking into account any prohibitions to circumvent these (e.g., by undue diversion)
- (ii) the products are not intended or provided for prohibited or unauthorized non-civilian purposes (e.g. armaments, nuclear technology, weapons, or any other usage in the field of defense and military);
- (iii) customer has screened all direct and indirect parties involved in the receipt, use, transfer, or distribution of the products against all applicable restricted party lists of the Export Regulations concerning trading with entities, persons and organizations listed therein and
- (iv) products within the scope of items-related restrictions, as specified in the respective annexes to the Export Regulations, will not, unless permitted by the Export Regulations, be
  (a) exported, directly or indirectly (e.g., via Eurasian Economic Union (EAEU) countries), to Russia or Belarus, or
  (b) resold to any third party business partner that does not take a prior commitment not to export such products to Russia or Belarus.

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Customer shall not, unless permitted by the Export Regulations or respective governmental licenses or approvals,

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3.4 Semiconductor Development

Customer will not, without advance written authorization from Siemens, use offerings for the development or production of integrated circuits at any semiconductor fabrication facility located in China meeting the criteria specified in the U.S. Export Administration Regulations, 15 C.F.R. 744.23.

3.5 Information

Upon request by Siemens, customer shall promptly provide Siemens with all information pertaining to users, the intended use and the location of use or the final destination (in the case of hardware, documentation and technology) of the products. Customer will notify Siemens prior to customer disclosing any information to Siemens that is defense-related or requires controlled or special data handling pursuant to applicable government regulations, and will use the disclosure tools and methods specified by Siemens.

3.6 Reservation

Siemens shall not be obligated to fulfill this agreement if such fulfillment is prevented by any impediments arising out of national or international foreign trade or customs requirements or any embargoes or other sanctions. Customer acknowledges that Siemens may be obliged under the Export Regulations to limit or suspend access by customer and/or users to products.

4. Miscellaneous

Errors excepted and subject to change without prior notice.

Link directory

Catalog LV 10

General information

Information on low-voltage power distribution and electrical installation technology	www.siemens.com/lowvoltage
Tender specifications	www.siemens.com/tenderspecifications
Conversion tool	www.siemens.com/conversion-tool
Image database	www.siemens.com/lowvoltage/picturedb
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Siemens EcoTech	www.siemens.com/SiemensEcoTech www.siemens.com/lowvoltage/SiemensEcoTech
SENTRON product phase-out	www.siemens.com/info-sentron

Catalogs and further information

LV 10
Low-Voltage Power Distribution and Electrical Installation Technology
SENTRON • SIVACON • ALPHA

PDF (E86060-K8280-A101-B9-7600)

ET D1
Switches and Socket Outlets
DELTA

PDF (SIEP-C10409-00-7600)

LV 13
3WA Air Circuit Breakers
SENTRON

PDF (E86060-K8280-B101-A4-7600)

SiePortal
Information and Ordering Platform on the Internet:

sieportal.siemens.com

LV 18
Air Circuit Breakers and Molded Case Circuit Breakers with UL Certification
SENTRON

PDF (E86060-K8280-E347-B2-7600)

SITRAIN
Digital Industry Academy

www.siemens.com/sitrain

IC 10
Industrial Controls
SIRIUS

PDF (E86060-K1010-A101-B7-7600)

Siemens TIA Selection Tool
for the selection, configuration and ordering of TIA products and devices

www.siemens.com/tst

The catalogs listed above and additional catalogs are available in PDF format at
www.siemens.com/lowvoltage/catalogs

Further information on low-voltage power distribution and electrical installation technology is available on the Internet at **www.siemens.com/lowvoltage**

Cybersecurity information

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

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