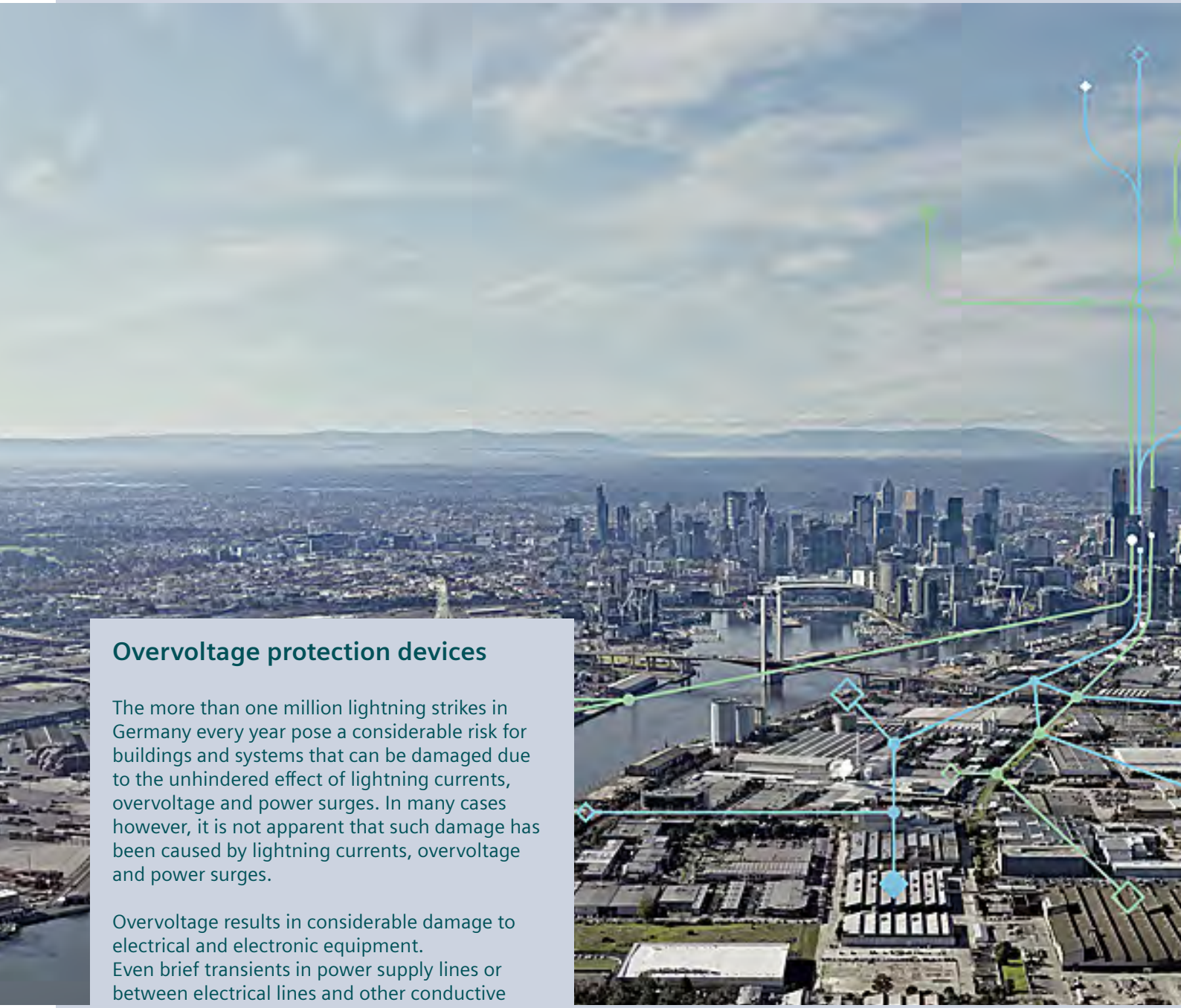
5TT3 timers for industrial applications

		Multifunction timers	Delay timers
Programmable for:		• Response delay • Passing make contact function • Pulse generator, delayed • Clock generator, starting with impulse • OFF-delay • Pulse converter • Passing break contact function • Response delay/OFF-delay	–
			
Contacts	**Mounting width**		
1 CO	1 MW	5TT3185	5TT3181

Further technical specifications

		5TT3185	5TT3181
Standards			
Standards		EN 60255; DIN VDE 0435-110	
Supply			
Rated operational current I_e		4 A	8 A
Rated operational voltage U_e		250 V AC	
Rated control supply voltage U_c		12 ... 240 V AC	220 ... 240 V AC
		12 ... 240 V DC	–
Primary operating range	U_c 230 V AC, 50/60 Hz	0.8 ... 1.1 × U_c	
Rated frequency f_n		45 ... 400 Hz	50/60 Hz
Rated power dissipation P_v		Approx. 3 VA	Approx. 5 VA
Contacts			
Contact gap		µm contact	
Minimum contact load		10 V/300 mA	
Electrical endurance	Switching cycles	1.5×10^5	–
	At AC-15	–	1.5×10^5
Safety			
Rated impulse voltage U_{imp}	Input/output	> 4 kV	
Function			
Setting range		1 s ... 300 h	
Recovery time		15 ... 80 ms	Approx. 40 ms
Connections			
Terminals	± Screw (Pozidriv)	PZ2	
Conductor cross-sections of main conducting path	Rigid	Max. 2 × 2.5 mm²	
	Flexible, with end sleeve	Min. 2 × 1.5 mm²	
Ambient conditions			
Permissible ambient temperature		–40 ... +60 °C	
Resistance to climate	Acc. to EN 60068-1	40/60/4	

System overview, page 5/4



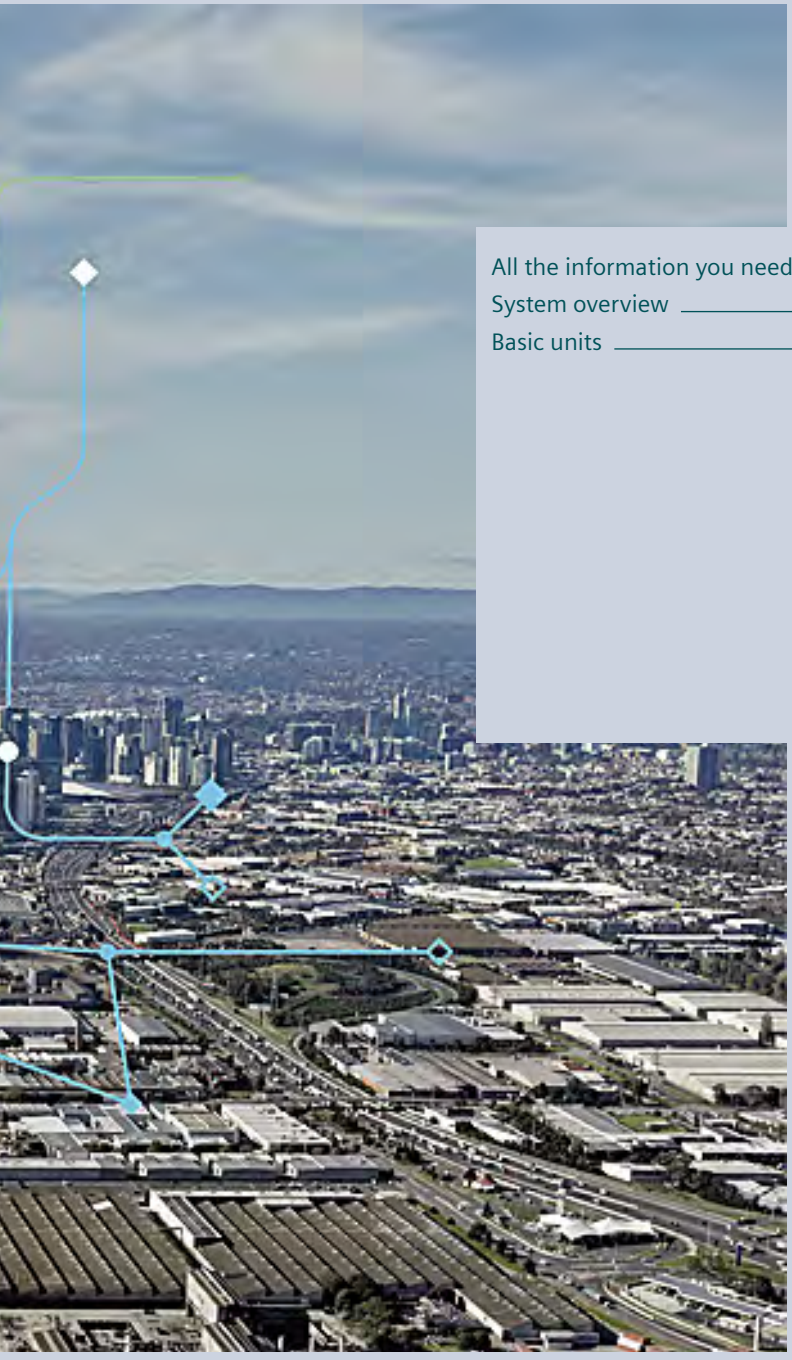
Overvoltage protection devices

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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System overview 6/4
Basic units 6/6
5SD74 lightning arresters, type 1 6/6
5SD74 combination surge arresters, type 1 + type 2 6/8
5SD74 combination surge arresters with integrated back-up fuse 6/10
5SD74 surge arresters, type 1 + type 2 + type 3 for 40 mm busbar system 6/12
5SD74 combination surge arresters, type 1/type 2 6/14
5SD74 surge arresters, type 2 6/16
5SD74 surge arresters, type 3 6/20
5SD74 surge arresters, type 1 (UL) 6/21

A multitude of additional information ...

Information + ordering

All the important things at a glance

For information about overvoltage protection devices, please visit our website
www.siemens.com/overvoltage-protection

Your product in detail

The SiePortal platform (knowledge base) provides comprehensive information
www.siemens.com/lowvoltage/product-support

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

The relevant tender specifications can be found at
www.siemens.com/tenderspecifications

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- Overvoltage protection devices **sie.ag/3ZMwRuw**

Direct forwarding to the individual products in SiePortal by clicking on the article number in the catalog or entering this web address incl. article number
www.siemens.com/product_catalog_SIEP?Article No.

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… can be found in our online services

Commissioning + operation

Your product in detail

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www.siemens.com/lowvoltage/product-support

- Operating instructions
- Certificates

Online Support app available for download from the **App Store** and **Play Store**
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www.siemens.com/support-app

Provision of 3D data (step and u3d data formats)
- SiePortal (product catalog)
  www.siemens.com/lowvoltage/product-catalog
- Image database
  www.siemens.com/lowvoltage/picturedb

Engineering data for CAD or CAE systems are available in the CAx Download Manager at
www.siemens.com/cax

Manuals

Manuals can be found in SiePortal at
www.siemens.com/lowvoltage/manuals

- Configuration Manual
  – Overvoltage protection devices **(45315289)**

Face-to-face or online training

Our training courses can be found at
www.siemens.com/sitrain-lowvoltage

- Basic principles of electrical engineering (WT-LVBGET)
- 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)

Spare part plugs

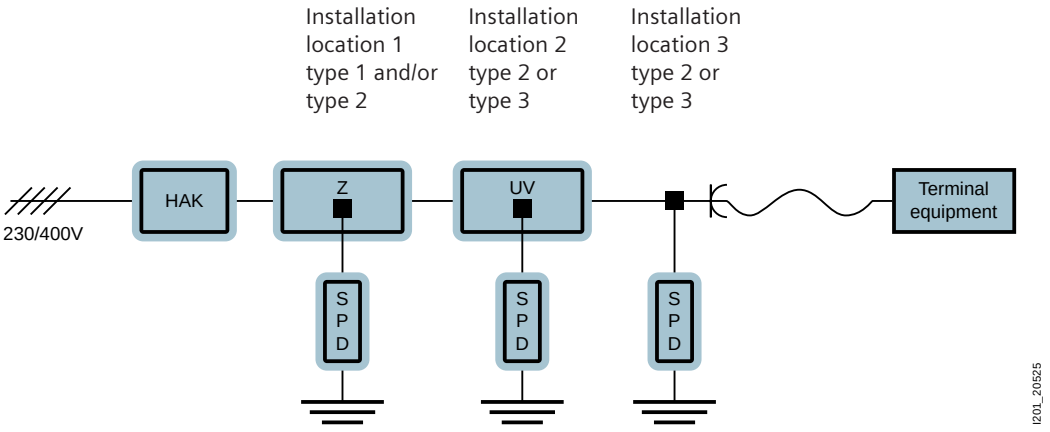
N-PE

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, page 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, page 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, page 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, page 6/4

5SD74 combination surge arresters with integrated back-up fuse

		For TN-S and TT systems	
	Protection paths	L-N	N-PE
	Rated voltage U_n	230 V AC	–
	Maximum continuous voltage U_c	255 V AC	–
			
Circuit	**Mounting width**		
1+0	2 MW	5SD7441-1KF00	–
N-PE new	2 MW	–	5SD7401-1

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Further technical specifications

		5SD7441-1KF00	5SD7401-1
Standards			
Standards		EN 61643-11/... IEC 61643-11	
Approvals		KEMA	
Voltage			
Protection level U_p	L-N and L-N/PE	≤ 1,50 kV	–
	N-PE	–	≤ 1,50 kV
Current			
Lightning impulse current I_{imp} (10/350 µs)	L-N and L-N/PE	25 kA	–
	N-PE	–	100 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	–
	N-PE	–	100 kA
Function			
Response time t_A	L-N and L-N/PE	≤ 100 ns	–
	N-PE	–	≤ 100 ns
Connections			
Conductor cross-section	Finely stranded	35 mm²	25 mm²
	Solid/stranded	50 mm²	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, page 6/4

Accessories

Connection bars

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

System overview, page 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, page 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, page 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, page 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, page 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	–	–	–	–	–	–

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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						

System overview, page 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, page 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	

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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		

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5SD74 surge arresters, type 1 (UL)

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	–

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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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