



surge arrester type, 2, requirement class C, Uc 350 V, protective modules, plug-in, 2-pole, 1+1 circuit for TN-S and TT systems, with FRN display, narrow design

General data	
standard	IEC 61643-11: 2011, EN 61643-11: 2012
product designation	Surge protection device
<b>SPD classification according to EN 61643-11</b>	
• Test Class I, Type 1	No
• Test Class II, Type 2	Yes
• Test Class III, Type 3	No
number of SPD ports	1
design of the product	Surge arrester
design of pole	1+N/PE
designation of the protective paths	L-N, N-PE
accessories	1 x 5SD7428-1 + 1 x 5SD7428-0
fastening method	TH35 DIN rail
material of the enclosure	PBT
size of surge arrester	1,4 MW
degree of pollution	2
overvoltage category according to IEC 61010-1	III
protection class IP at connection all terminals	IP20
shock acceleration	30 gn
vibrational acceleration at 5 Hz ... 500 Hz limited to 2,5 h per axis	5 gn
relative humidity during operation	5 ... 95 %
installation altitude at height above sea level maximum	2 000 m
width	25.4 mm
height	98 mm
depth	71.5 mm
net weight	236 g
Electrical data	
type of distribution system	TT, TN-S
<b>operating voltage</b>	
• at AC	230 V
value range of the operating frequency	50 / 60 Hz
<b>continuous operating voltage</b>	
• at AC maximum	350 V
• between N and PE at AC maximum	264 V
• between L and (PE)N at AC maximum	350 V
discharge current at (8/20) $\mu$ s	20 kA
discharge current 1 phase at (8/20) $\mu$ s maximum	40 kA
<b>follow current extinguishing capability</b>	

• between N and PE	100 A (264 V a.c.)
short-circuit rating (SCCR) at 264 V	25 kA
<b>protection level</b>	
• maximum	1.5 kV
• between N and L	1.4 kV
• between PE and N and/or L	1.5 kV
<b>residual voltage</b>	
• between L and (PE)N	
— at rated value of discharge current maximum	1.5 kV
— at 10 kA maximum	1.3 kV
— at 5 kA maximum	1.2 kV
— at 4 kA maximum	1.1 kV
— at 2 kA maximum	1 kV
• between N and PE	
— at rated value of discharge current maximum	0.5 kV
— at 10 kA maximum	0.5 kV
— at 5 kA maximum	0.5 kV
— at 4 kA maximum	0.5 kV
— at 2 kA maximum	0.5 kV
<b>response value of the surge voltage at 6 kV at (1.2/50) µs</b>	
• between N and PE	1.5 kV
• response time between L and (PE)N	25 ns
• response time between N and PE	100 ns
adjustable response factor of tripping current	1.6
fuse protection type at V-shaped connection	63 A AC (gG)
fuse protection type for T-conductor	315 A AC (gG)
<b>Connections/ Terminals</b>	
type of electrical connection	Screw terminal
stripped length	16 mm
tightening torque	4.3 ... 4.7 N·m
<b>connectable conductor cross-section</b>	
• for finely stranded conductor	2.5 ... 16 mm <sup>2</sup>
• for rigid conductor	2.5 ... 25 mm <sup>2</sup>
• finely stranded	2.5 ... 16 mm <sup>2</sup>
AWG number as coded connectable conductor cross section	12 ... 4
design of the thread of the connection screw	M5
signal design	Optical, remote signaling contact
<b>Indicator/remote signaling</b>	
product component remote signaling contact	Yes
switching function of the remote signaling contacts	PDT contact
operating voltage of the remote signaling contacts at AC	5 ... 250 V
operational current of the remote signaling contacts at AC	5 mA ... 1 A
connection type of remote signaling contact	M2
connectable conductor cross-section for remote signaling contacts for rigid conductor	0.14 ... 1.5 mm <sup>2</sup>
connectable conductor cross-section for remote signaling contacts for finely stranded conductor	0.14 ... 1.5 mm <sup>2</sup>
AWG number as coded connectable conductor cross section for remote signaling contacts	28 ... 16
tightening torque for remote signaling contacts	0.25 N·m
stripped length of the cable for remote signaling contacts	7 mm
<b>NEMA/UL - Data</b>	
type of surge protective device (SPD) according to UL	4CA
type of distribution system according to UL	1
type of distribution system	TT, TN-S
designation of the protective paths according to UL	L-N, L-G, N-G
<b>TOV behavior</b>	
• at TOV test voltage (L-N)	415 V AC (5 s / withstand mode) / 440 V AC (120 min / safe failure mode)
• at TOV test voltage (N-PE)	1200 V (200 ms / withstand mode)

<b>Measured Limiting Voltage (MLV)</b>	
• between L and Ground (GND)	2.08 kV
• between L and N	2 kV
• between N and Ground (GND)	0.95 kV
<b>Maximum Continuous Operating Voltage (MCOV)</b>	
• between L and Ground (GND)	350 V
• between L and N	350 V
• between N and Ground (GND)	264 V
<b>discharge current</b>	
• between N and Ground (GND) according to UL rated value	20 kA
• between L and N according to UL rated value	20 kA
• between L and Ground (GND) according to UL rated value	20 kA
<b>AWG number as coded connectable conductor cross section</b>	
• according to UL	14 ... 2
• for remote signaling contacts according to UL	30 ... 14
operating voltage of the remote signaling contacts according to UL	125 V
operational current of the remote signaling contacts at AC according to UL	1 A
<b>ambient temperature</b>	
• during operation	-40 ... +80 °C
• during storage	-40 ... +80 °C
installation altitude above sea level according to UL	6 562 ft
gross weight [lb] according to UL	0.51 lb(av)
net weight [lb] according to UL	0.46 lb(av)
combustibility class according to UL 94	V0
standards according to UL	UL 1449 edition 4

**Approvals Certificates**

<b>General Product Approval</b>	<b>other</b>
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[Confirmation](#)

<b>other</b>	<b>Environment</b>
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**Further information**

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SD7422-1>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

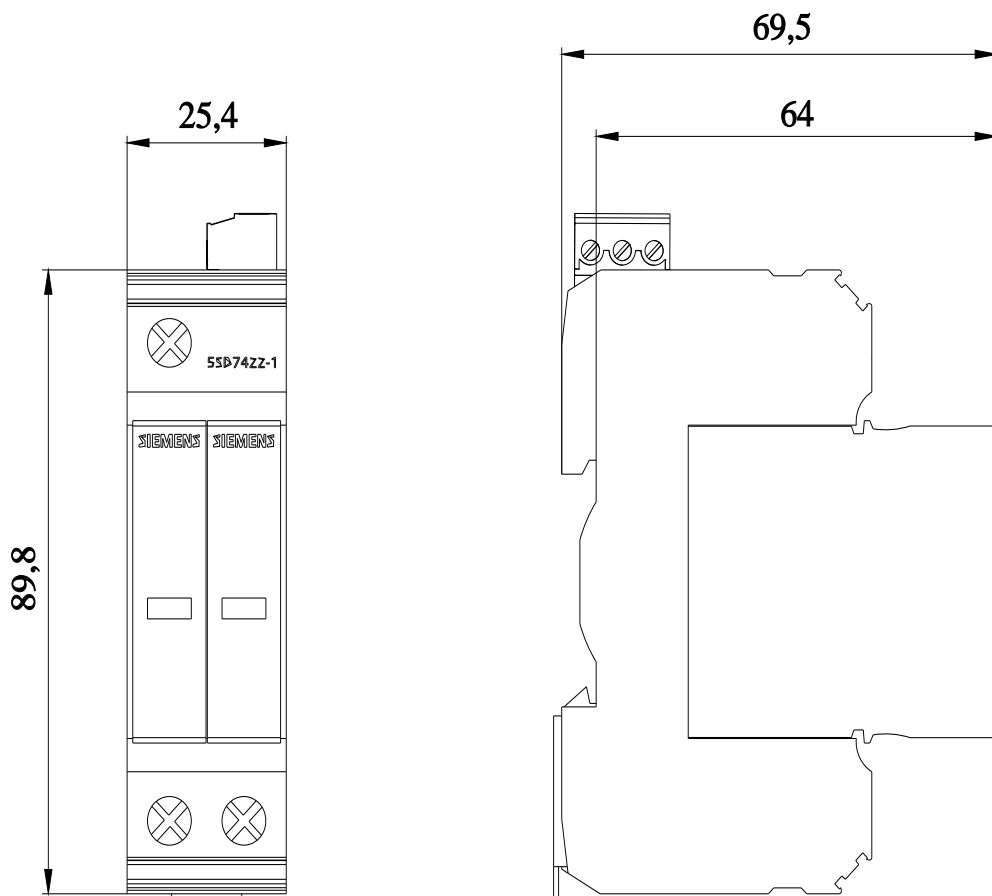
<https://support.industry.siemens.com/cs/ww/en/ps/5SD7422-1>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SD7422-1](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7422-1)

CAX-Online-Generator

<https://www.siemens.com/cax>



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