SIEMENS

Data sheet 5SD7422-1

Surge arrester Type 2 Requirement class C, UC 350V Pluggable protective modules 2-pole, 1+1 circuit for TN-S and TT systems with FRN display, narrow Design

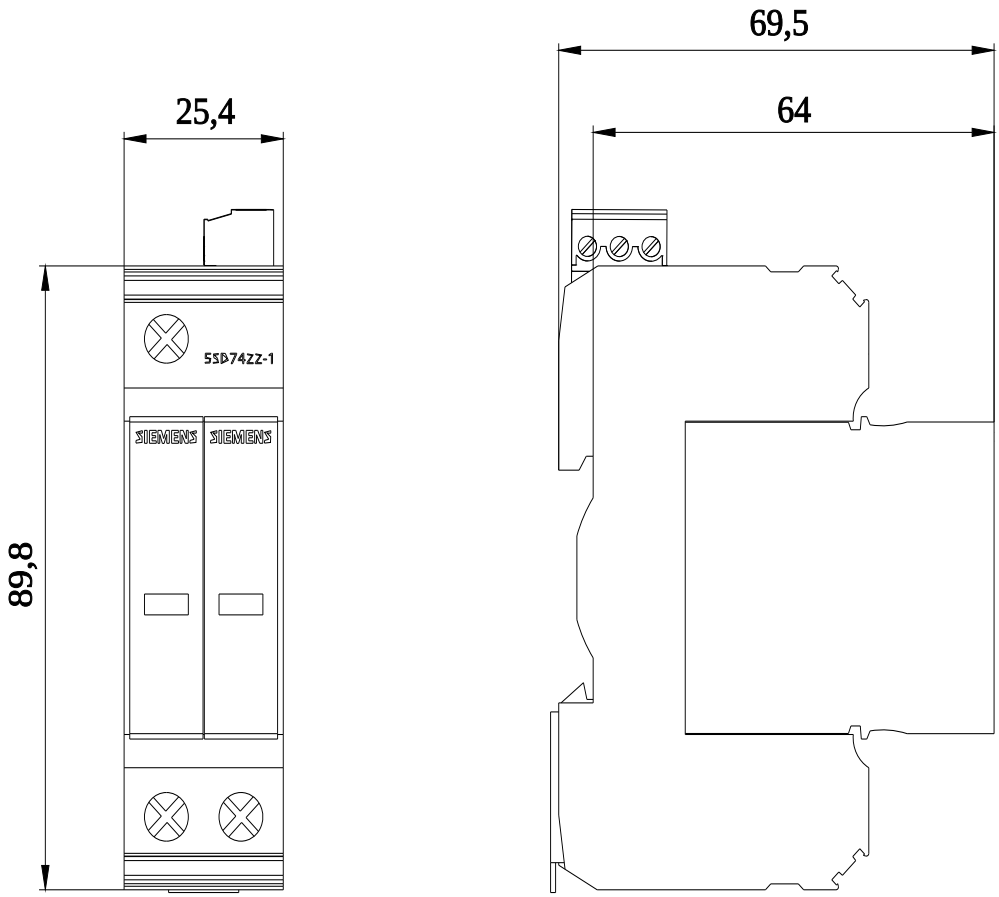
General data	
standard	IEC 61643-11: 2011, EN 61643-11: 2012
product designation	Surge protection device
SPD classification / according to EN 61643-11	
● Test Class I, Type 1	No
● Test Class II, Type 2	Yes
● Test Class III, Type 3	No
number of SPD ports	1
design of the product	Surge arrester
design of pole	1+N/PE
designation of the protective paths	L-N, N-PE
accessories	1 x 5SD7428-1 + 1 x 5SD7428-0
fastening method	DIN rail NS 35
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	210 g
Electrical data	
type of distribution system	TT, TN-S
operating voltage	
● at AC	230 V
value range / of the operating frequency	50 / 60 Hz
continuous operating voltage	
● 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) µs	20 kA
discharge current / 1 phase / at (8/20) µs / maximum	40 kA
follow current extinguishing capability	
● between N and PE	100 A (264 V a.c.)

short-circuit rating (SCCR) / at 264 V	25 kA
protection level	
● maximum	1.5 kV
● between N and L	1.4 kV
● between PE and N and/or L	1.5 kV
residual voltage	
● 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
response value of the surge voltage / at 6 kV / at (1.2/50) µs	
● 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-connector	315 A AC (gG)
Connections/ Terminals	
type of electrical connection	Screw terminal
stripped length	16 mm
tightening torque	4.3 ... 4.7 N·m
connectable conductor cross-section	
● for finely stranded conductor	2.5 ... 16 mm²
● for rigid conductor	2.5 ... 25 mm²
● finely stranded	2.5 ... 16 mm²
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
Indicator/remote signaling	
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 mm²
connectable conductor cross-section / for finely stranded conductor / for remote signaling contacts ...	0.14 ... 1.5 mm²
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
NEMA/UL - Data	
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
TOV behavior	
● 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)
Measured Limiting Voltage (MLV)	
● between L and Ground (GND)	2.08 kV

● between L and N	2 kV
● between N and Ground (GND)	0.95 kV
Maximum Continuous Operating Voltage (MCOV)	
● between L and Ground (GND)	350 V
● between L and N	350 V
● between N and Ground (GND)	264 V
leakage current	
● 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
AWG number / as coded connectable conductor cross section	
● 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
ambient temperature	
● 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
net weight [lb] / according to UL	0.46 lb
combustibility class according to UL 94	V0
standards / according to UL	UL 1449 edition 4

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information- and Downloadcenter (Catalogs, Brochures,…)
http://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, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7422-1
CAx-Online-Generator
http://www.siemens.com/cax



last modified: 3/12/2024