SIEMENS

Data sheet 5SD7413-1

Lightning arresters, type 1 Requirement class B, UC 350V Pluggable protective modules 3-pole, 3+0 circuit for TNC systems with remote display

Article number

General data	
standard	IEC 61643-11: 2011, EN 61643-11: 2012
product designation	Surge protection device
SPD classification / acc. to EN 61643-11	
• Test Class I, Type 1	Yes
• Test Class II, Type 2	Yes
• Test Class III, Type 3	No
number of SPD ports	1
Product version	Lightning arresters
design of pole	3
designation of the protective paths	L-PEN
Accessories	3 x 5SD7418-1
mounting type	DIN rail NS 35
material / of the enclosure	PBT
size of surge arrester	6MW
Degree of pollution	2
overvoltage category / acc. to IEC 61010-1	III
protection class IP / at connection all terminals	IP20

shock acceleration	25 gn
vibrational acceleration / at 5 Hz ... 500 Hz / limited to 2,5 h / per axis	5 gn
Numerische Liste	-40 °C ... 80 °C
ambient temperature / during storage and transport	-40 °C ... 80 °C
relative humidity / during operation	5 % ... 95 %
installation altitude / at height above sea level / maximum	2 000 m
Width	106.8 mm
Height	94.8 mm
depth	71.1 mm
net weight	1 108 g

Electrical data

type of distribution system	TN-C
operating voltage	240 / 415 V AC
operating voltage	230 V
operating frequency	50/60 Hz
continuous operating voltage	
• maximum	350 V
load current	125 A (< 55°C)
discharge current	
• at (8/20) µs	25 kA
• 1 phase / at (8/20) µs	50 kA
total lightning impulse current / at (10/350) µs	75 kA
lightning current peak value / at (10/350) µs	25 kA
charge of the lightning surge / at (10/350) µs	12.5 A·s
follow current extinguishing capability	50 kA
short-circuit rating (SCCR) / at 264 V	50 kA
protection level	1.5 kV
• maximum	1.5 kV
• residual voltage / at rated value of discharge current / maximum	1.5 kV
response value of the surge voltage / at 6 kV / at (1.2/50) µs	1.5 kV
• Response time	100 ns
adjustable response factor / of trip current	1.6
fuse protection type / at V-shaped connection	125 A AC (gG)
fuse protection type / for T-connector	315 A AC (gG)

Connections/ Terminals

type of electrical connection	Screw terminal
wire stripping length	18 mm
tightening torque	4.3 ... 4.7
wire stripping length	18 mm

connectable conductor cross-section	
• for finely stranded conductor	2.5 ... 25
• for rigid conductor	2.5 ... 35
• finely stranded	2.5 ... 25
AWG number / as coded connectable conductor cross section	13 ... 2
design of the thread / of the connection screw	M5
signal design	Optical, remote signaling contact

Indicator/remote signaling

switching function / of the remote-signaling contacts	PDT contact
operating voltage / of the remote-signaling contacts	
• at AC	12 ... 250
• at DC	125 V (200 mA DC)
operating current / of the remote-signaling contacts	
• at AC	10 mA ... 1 A
• at DC	1 A DC (30 V DC)
connection type of remote signaling contact	M2
connectable conductor cross-section	
• for remote signaling contacts / for rigid conductor	0.14 ... 1.5
• for finely stranded conductor / for remote signaling contacts	0.14 ... 1.5
AWG number / as coded connectable conductor cross section / for remote signaling contacts / minimum	28
AWG number / as coded connectable conductor cross section / for remote signaling contacts / maximum	15
tightening torque / for remote signaling contacts	0.25 N·m
wire stripping 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	3D
type of distribution system	TN-C
designation of the protective paths / according to UL	L-L, L-G
TOV behavior	
• at TOV test voltage	415 V AC (5 s / withstand mode) / 457 V AC (120 min withstand mode)
Measured Limiting Voltage (MLV) / between L and L	2.45 kV
Measured Limiting Voltage (MLV) / between L and Ground (GND)	1.35 kV

Maximum Continuous Operating Voltage (MCOV) / between L and L	528 V
Maximum Continuous Operating Voltage (MCOV) / between L and Ground (GND)	264 V
leakage current / according to UL	20 kA
leakage current / according to UL	20 kA
sequential current • between L and Ground (GND) / according to UL	10 kA (264 V AC)
AWG number / as coded connectable conductor cross section / for remote signaling contacts / according to UL / minimum	30
AWG number / as coded connectable conductor cross section / for remote signaling contacts / according to UL / maximum	14
installation altitude above sea level / according to UL	6 562 ft
gross weight [lb] / according to UL	2.88 lb
net weight [lb] / according to UL	2.44 lb
combustibility class acc. to UL 94	V0
standards / according to UL	UL 1449 edition 4
operating voltage / of the remote-signaling contacts / according to UL	125 V
operating current / of the remote-signaling contacts / at AC / according to UL	1 A
AWG number / as coded connectable conductor cross section / according to UL / minimum	12
AWG number / as coded connectable conductor cross section / according to UL / maximum	2

Further information

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=5SD7413-1

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SD7413-1

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7413-1

CAx-Online-Generator
http://www.siemens.com/cax