

Surge arrester Type 2 Requirement class C, UC 350V Pluggable protective modules 4-pole, 3+1 circuit for TN-S and TT systems Narrow design



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	
<ul style="list-style-type: none"> <li>• Test Class I, Type 1</li> <li>• Test Class II, Type 2</li> <li>• Test Class III, Type 3</li> </ul>	<p>No</p> <p>Yes</p> <p>No</p>
Number of SPD ports	1
Product version	Surge arrester
Design of pole	3+N/PE
Designation of the protective paths	L-N, N-PE
Accessories	3 x 5SD7428-1 + 1 x 5SD7428-0
Mounting type	DIN rail NS 35
Material / of the enclosure	PBT
Size of surge arrester	2,7 MW
Degree of pollution	2
Overvoltage category / acc. 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
Ambient temperature / during operation	-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	49.2 mm
Height	90 mm
Depth	71.5 mm
Net weight	382 g

### Electrical data

Type of distribution system	TT, TN-S
Operating voltage	240 / 415 V AC
Operating voltage	230 V
Operating frequency	50/60 Hz
Continuous operating voltage	
• maximum	350 V
• between N and PE	264 V
• between L and (PE)N	350 V
Load current	40 A
Protective conductor current	1 µA (255 V AC)
Discharge current	
• at (8/20) µs	20 kA
• 1 phase / at (8/20) µs	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) $\mu$ s	
• between N and PE	1.5 kV
Response time	
• between L and (PE)N	25 ns
• between N and PE	100 ns
Settable response factor / of trip 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
Wire stripping length	16 mm
Tightening torque	4.3 ... 4.7
Wire stripping length	16 mm
Connectable conductor cross-section	
• for finely stranded conductor	2.5 ... 16
• for rigid conductor	2.5 ... 25
• finely stranded	2.5 ... 16
AWG number / as coded connectable conductor cross section	12 ... 4
Design of the thread / of the connection screw	M5
Signal design	optical

### NEMA/UL - Data

Type of surge protective device (SPD) / according to UL	4CA
Type of distribution system / according to UL	3Y
Type of distribution system	TT, TN-S
Designation of the protective paths / according to UL	L-L, 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 L	3.28 kV
Measured Limiting Voltage (MLV) / between L and Ground (GND)	2.08 kV
Measured Limiting Voltage (MLV) / between L and N	2 kV

Measured Limiting Voltage (MLV) / between N and Ground (GND)	0.95 kV
Maximum Continuous Operating Voltage (MCOV) / between L and L	700 V
Maximum Continuous Operating Voltage (MCOV) / between L and Ground (GND)	350 V
Maximum Continuous Operating Voltage (MCOV) / between L and N	350 V
Maximum Continuous Operating Voltage (MCOV) / between N and Ground (GND)	264 V
Leakage current / according to UL	20 kA
Leakage current / according to UL	20 kA
Leakage current / according to UL	20 kA
Leakage current / according to UL	20 kA
Sequential current <ul style="list-style-type: none"> <li>• between N and Ground (GND) / according to UL</li> </ul>	200 A (264 V AC)
Installation altitude above sea level / according to UL	6 562 ft
Gross weight [lb] / according to UL	0.9 lb
Net weight [lb] / according to UL	0.84 lb
Combustibility class acc. to UL 94	V0
Standards / according to UL	UL 1449 edition 4
AWG number / as coded connectable conductor cross section / according to UL / minimum	14
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=5SD7424-0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SD7424-0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SD7424-0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7424-0)

##### CAX-Online-Generator

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

