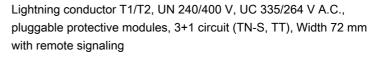
SIEMENS

Data sheet 5SD7414-3





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
Design of the product	Combination surge arresters
Design of pole	3+N/PE
Designation of the protective paths	L-N, L-PE, N-PE
accessories	3 x 5SD7418-3 + 1 x 5SD7418-2
Mounting type	DIN rail NS 35
Material / of the enclosure	PA 6.6 / PBT
Size of surge arrester	4 TE
Degree of pollution	2
Overvoltage category / acc. to IEC 61010-1	III
Protection class IP / at connection all terminals	IP20

30 gn
7.5 gn
-40 °C 80 °C
-40 °C 80 °C
5 % 95 %
2 000 m
71.2 mm
98.7 mm
77.5 mm
641 g

Electrical data	
Type of distribution system	TT, TN-S
Operating voltage	240 / 415 V AC
Continuous operating voltage	
● between N and PE	264 V
● between L and (PE)N	335 V
Load current	80 A
Protective conductor current	5 μA (255 V AC)
Apparent power consumption / maximum	810 mVA
Discharge current	
● between L and (PE)N / at (8/20) μs	12.5 kA
• between L and N / at (8/20) μs	50 kA
 between L and PE / at (8/20) μs 	50 kA
 between L and PE / at (8/20) μs 	12.5 kA
• between N and PE / at (8/20) µs	50 kA
• between N and PE / at (8/20) µs	50 kA
Total discharge current / at (8/20) μs	50 kA
Total lightning impulse current / at (10/350) μs	50 kA
Lightning current peak value / at (10/350) µs	
 Lightning current peak value / between L and PE 	12.5 kA
 Lightning current peak value / between N and PE 	50 kA
 Lightning current peak value / between L and N 	12.5 kA
Charge of the lightning surge / at (10/350) µs	
 Charge of the lightning surge / between L and N 	6.25 A·s
 Charge of the lightning surge / between L and PE 	6.25 A·s
 Charge of the lightning surge / between N and PE 	25 A·s

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	2010
between L and N	1.2 kV
between L and PE	2 kV
between N and L	1.2 kV
	1.7 kV
between N and PE	
between PE and N and/or L Paridual values.	1.7 kV
Residual voltage	
between L and (PE)N	40114
 — at rated value of discharge current / maximum 	1.2 kV
— at 10 kA / maximum	1.1 kV
— at 5 kA / maximum	1 kV
— at 3 kA / maximum	0.9 kV
• between L and PE	
 at rated value of discharge current / maximum 	2 kV
— at 10 kA / maximum	1.5 kV
— at 5 kA / maximum	1.2 kV
— at 3 kA / maximum	1.1 kV
● between N and PE	
 at rated value of discharge current / maximum 	0.6 kV
— at 10 kA / maximum	0.5 kV
— at 5 kA / maximum	0.5 kV
— at 3 kA / maximum	0.4 kV
Response value of the surge voltage / at 6 kV / at (1.2/50) µs	
between N and PE	1.7 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	80 A AC (gG)
Fuse protection type / for T-connector	160 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 	1.5 25
for rigid conductor	1.5 35
• finely stranded	1.5 25
AWG number / as coded connectable conductor cross section	15 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	5 250
• at DC	30 V
Operating current / of the remote-signaling contacts	
• at AC	5 mA 1.5 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	16
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 distribution system	TT, TN-S
TOV behavior	
at TOV test voltage (L-N)	415 V AC (5 s / withstand mode)
• at TOV test voltage (N-PE)	1200 V (200 ms / withstand mode)
Combustibility class acc. to UL 94	V0

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=5SD7414-3

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/5SD7414-3

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7414-3

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