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Data sheet 5SD7414-2

Lightning conductor T1/T2, UN 240/400 V, UC 335/264 V A.C., pluggable protective modules, 3+1 circuit (TN-S, TT), Width 72 mm



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	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

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Shock acceleration	30 gn
Vibrational acceleration / at 5 Hz ... 500 Hz / limited to 2,5 h / per axis	7.5 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	71.2 mm
Height	89.9 mm
Depth	77.5 mm
Net weight	634 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	335 V
• 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

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• 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	
• between L and N	1.2 kV
• between L and PE	2 kV
• between N and L	1.2 kV
• between N and PE	1.7 kV
• between PE and N and/or L	1.7 kV
Residual voltage	
• between L and (PE)N	
— 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

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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

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=5SD7414-2

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SD7414-2

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

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

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