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Data sheet 5SD7414-3



lightning arrester type 1/type 2, Un 240/400 V, Uc 335/264 V AC, protective modules, plug-in, 3+1 circuit (TN-S, TT), width 72 mm, with remote signaling,

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	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
fastening method	TH35 DIN rail
material of the enclosure	PA 6.6 / PBT
size of surge arrester	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	7.5 gn
relative humidity during operation	5 ... 95 %
installation altitude at height above sea level maximum	2 000 m
width	71.2 mm
height	98.7 mm
depth	77.5 mm
Electrical data	
type of distribution system	TN-S, TT
operating voltage	
● at AC	230 V
value range of the operating frequency	50 / 60 Hz
continuous operating voltage	
● at AC maximum	335 V
● between N and PE at AC maximum	264 V
● between L and (PE)N at AC maximum	335 V
apparent power consumption maximum	810 mVA
total discharge current at (8/20) µs	50 kA
discharge current	
● between L and (PE)N at (8/20) µs	12.5 kA

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● 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 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 flash at (10/350) µs	
● charge of the flash between L and N	6.25 A·s
● charge of the flash between L and PE	6.25 A·s
● charge of the flash between N and PE	25 A·s
specific energy of the flash at (10/350) µs	
● between L and N	39 kJ/?
● between L and PE	39 kJ/?
● between N and PE	625 kJ/?
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 maximum	1.2 kV
● between L and PE maximum	2 kV
● between N and L	1.2 kV
● between N and PE maximum	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
● response time between N and PE	100 ns
adjustable response factor of tripping 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
stripped length	16 mm
tightening torque	4.3 ... 4.7 N·m
connectable conductor cross-section	
● for finely stranded conductor	1.5 ... 25 mm²
● for rigid conductor	1.5 ... 35 mm²
● finely stranded	1.5 ... 25 mm²

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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	
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 ... 1.5 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 remote signaling contacts for finely stranded conductor	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 distribution system	TN-S, TT
ambient temperature	
● during operation	-40 ... +80 °C
● during storage	-40 ... +80 °C
combustibility class according to UL 94	V0

Approvals Certificates

General Product Approval

Miscellaneous

Confirmation

other

Confirmation

Environment

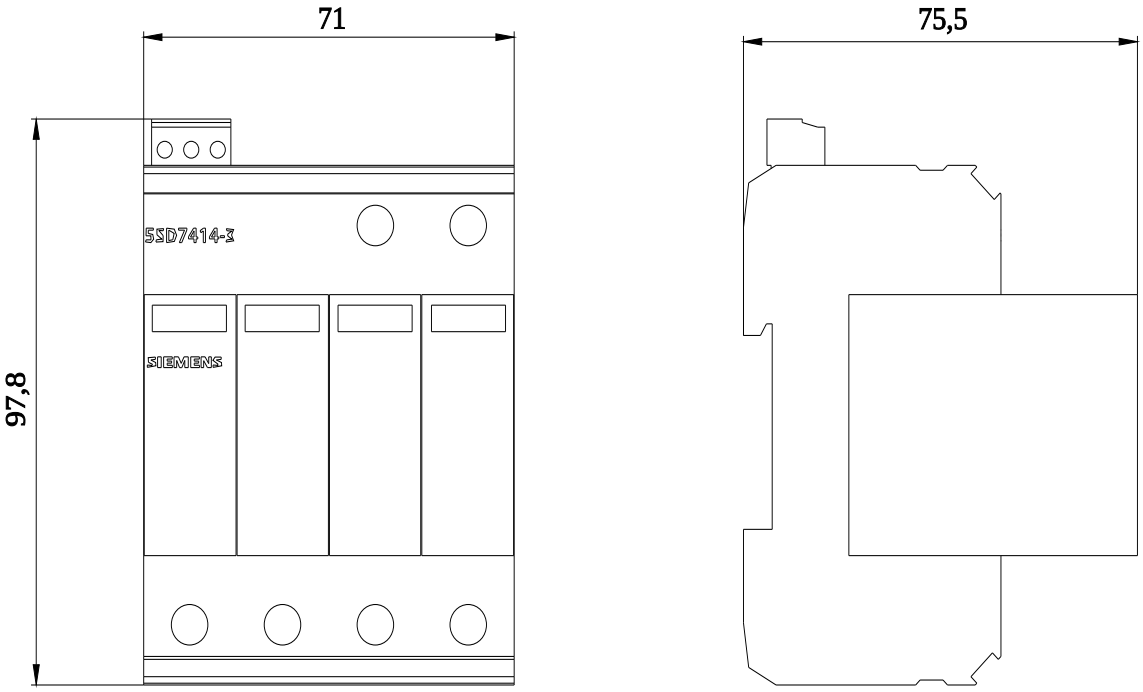
Environmental Confirmations

Environmental Confirmations

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://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, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7414-3
CAx-Online-Generator
https://www.siemens.com/cax

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