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Data sheet 5SD7444-1

combination arrester type 1+2 requirement class B+C, Uc 350 V, protective modules, plug-in, 4-pole, 3+1 circuit for TN-S and TT systems, with remote display



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	Arrester combination
design of pole	3+N/PE
designation of the protective paths	L-N, L-PE, N-PE
accessories	3 x 5SD7428-1 + 1 x 5SD7418-0 + 3 x 5SD7448-1
fastening method	TH35 DIN rail
material of the enclosure	PBT
degree of pollution	2
overvoltage category according 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
relative humidity during operation	5 ... 95 %
installation altitude at height above sea level maximum	2 000 m
width	142.8 mm
height	95 mm
depth	71.5 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	350 V
● between N and PE at AC maximum	350 V
● between L and (PE)N at AC maximum	350 V
apparent power consumption maximum	300 mVA
discharge current	
● between L and (PE)N at (8/20) µs	25 kA
● between L and PE at (8/20) µs	25 kA
● between N and PE at (8/20) µs	100 kA

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lightning current peak value at (10/350) µs	
● lightning current peak value between L and PE	25 kA
● lightning current peak value between N and PE	100 kA
● lightning current peak value between L and N	25 kA
charge of the flash at (10/350) µs	
● charge of the flash between L and N	12.5 A·s
● charge of the flash between L and PE	12.5 A·s
● charge of the flash between N and PE	50 A·s
specific energy of the flash at (10/350) µs	
● between L and N	160 kJ/?
● between L and PE	160 kJ/?
● between N and PE	2 500 kJ/?
follow current extinguishing capability	
● between N and PE	100 A (350 V AC)
● between L and N	25 kA (264 V AC), 3 kA (350 V AC)
short-circuit rating (SCCR) at 264 V	25 kA
protection level	
● between L and N maximum	1.5 kV
● between L and PE maximum	2.2 kV
● between N and PE maximum	1.5 kV
residual voltage	
● between L and (PE)N	
— at rated value of discharge current maximum	1.5 kV
— at 10 kA maximum	1.2 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	2.2 kV
— at 10 kA maximum	2 kV
— at 5 kA maximum	1.8 kV
— at 3 kA maximum	1.6 kV
● between N and PE	
— at rated value of discharge current maximum	1.5 kV
— at 10 kA maximum	1 kV
— at 5 kA maximum	0.9 kV
— at 3 kA maximum	0.8 kV
response value of the surge voltage at 6 kV at (1.2/50) µs	
● between L and N	1.5 kV
● between L and PE	2.2 kV
● between N and PE	1.5 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	125 A AC (gG)
fuse protection type for T-connector	315 A AC (gG)
Connections/ Terminals	
type of electrical connection	Screw terminal
stripped length	18 mm
tightening torque	4.3 ... 4.7 N·m
connectable conductor cross-section	
● for finely stranded conductor	2.5 ... 25 mm²
● for rigid conductor	2.5 ... 35 mm²
● finely stranded	2.5 ... 25 mm²
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	
product component remote signaling contact	Yes

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switching function of the remote signaling contacts	PDT contact
operating voltage of the remote signaling contacts at AC	12 ... 250 V
operational current of the remote signaling contacts at AC	10 mA ... 1 A
connection type of remote signaling contact	M2 screw thread
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 surge protective device (SPD) according to UL	4CA
type of distribution system according to UL	3Y
type of distribution system	TN-S, TT
designation of the protective paths according to UL	L-L, L-N, L-G, N-G
Measured Limiting Voltage (MLV)	
● between L and L	2.47 kV
● between L and Ground (GND)	1.55 kV
● between L and N	1.34 kV
● between N and Ground (GND)	1.08 kV
Maximum Continuous Operating Voltage (MCOV)	
● between L and L	528 V
● between L and Ground (GND)	528 V
● between L and N	264 V
● between N and Ground (GND)	264 V
discharge current	
● between N and Ground (GND) according to UL rated value	20 kA
● between L and N according to UL rated value	20 kA
● between L and Ground (GND) according to UL rated value	20 kA
● between L and L according to UL rated value	20 kA
AWG number as coded connectable conductor cross section	
● according to UL	12 ... 2
● for remote signaling contacts according to UL	30 ... 14
operating voltage of the remote signaling contacts according to UL	125 V
operational current of the remote signaling contacts at AC according to UL	1 A
ambient temperature	
● during operation	-40 ... +80 °C
● during storage	-40 ... +80 °C
installation altitude above sea level according to UL	6 562 ft
combustibility class according to UL 94	V0
standards according to UL	UL 1449 edition 4

Approvals Certificates

General Product Approval				other
KEMA	cULus	EAC	Confirmation	CE EG-Konf.	Confirmation

other	Environment

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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

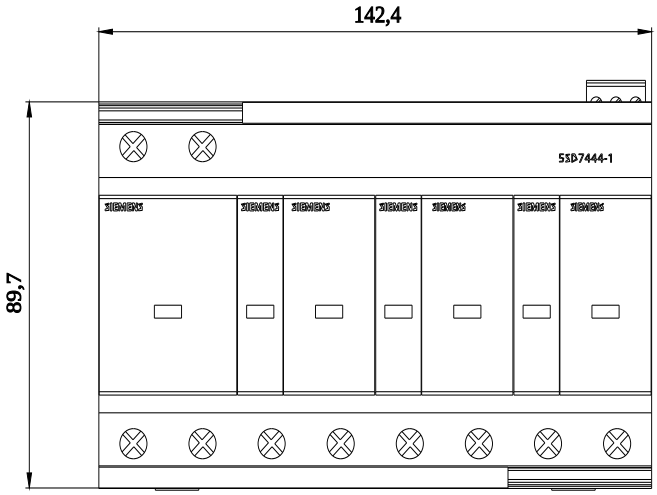
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/lowvoltage/catalogs

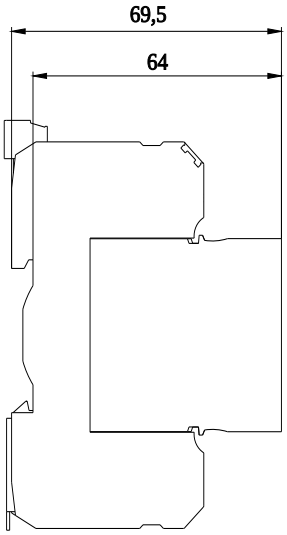
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SD7444-1

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SD7444-1

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7444-1

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





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