SIEMENS

Data sheet 5SD7444-8KK21



combination arrester type 1+2 requirement class B+C, Uc 300 V, Iimp=12.5 kA 4-pole, 3+1 circuit for TN-S and TT systems, for 40 mm busbar system 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	Yes
number of SPD ports	1
design of the product	Arrester combination
design of pole	3+N/PE
designation of the protective paths	L-N, N-PE
fastening method	busbar mounting 40 mm
material of the enclosure	Durethan
degree of pollution	2
overvoltage category according to IEC 61010-1	II
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	4.96 gn
relative humidity during operation	5 ... 95 %
installation altitude at height above sea level maximum	4 000 m
width	47 mm
height	224 mm
depth	74 mm
net weight	805 g
Electrical data	
type of distribution system	TT, TN-S
operating voltage	
● at AC	230 V
value range of the operating frequency	50 / 60 Hz
continuous operating voltage	
● at AC maximum	300 V
● between L and (PE)N at AC maximum	300 V
apparent power consumption maximum	1.5 mVA
discharge current at (8/20) µs	20 kA
discharge current 1 phase at (8/20) µs maximum	50 kA
discharge current	
● between L and (PE)N at (8/20) µs	20 kA
● between N and PE at (8/20) µs	100 kA

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● between N and PE at (8/20) µs	80 kA
lightning current peak value at (10/350) µs	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 N and PE	25 A·s
specific energy of the flash at (10/350) µs	
● between L and N	39 kJ/?
● between N and PE	625 kJ/?
follow current extinguishing capability	
● between N and PE	100 A
short-circuit rating (SCCR) at 264 V	25 kA
protection level	1.5 kV
● maximum	1.5 kV
● between L and N maximum	1.5 kV
● between N and L	1.5 kV
● between N and PE maximum	1.5 kV
● between PE and N and/or L	1.5 kV
residual voltage	
● at rated value of discharge current maximum	1.5 kV
● at 5 kA maximum	1.1 kV
● between L and (PE)N	
— at rated value of discharge current maximum	1.5 kV
— at 5 kA maximum	1.1 kV
● between N and PE	
— at rated value of discharge current maximum	1.5 kV
— at 5 kA maximum	1.1 kV
response value of the surge voltage at 6 kV at (1.2/50) µs	1.5 kV
● between L and N	1.5 kV
● between N and PE	1.5 kV
● **Response time**	100 ns
● response time between L and (PE)N	100 ns
● response time between N and PE	100 ns
fuse protection type at V-shaped connection	315 A AC (gG)
fuse protection type for T-connector	315 A AC (gG)
Connections/ Terminals	
type of electrical connection	plug-in technology for busbar 40 mm
tightening torque	4.5 N·m
connectable conductor cross-section	
● for finely stranded conductor	10 ... 25 mm²
● for rigid conductor	10 ... 35 mm²
● finely stranded	10 ... 25 mm²
AWG number as coded connectable conductor cross section	12 ... 2
design of the thread of the connection screw	M6
signal design	Optical, remote signaling contact
Indicator/remote signaling	
product component remote signaling contact	Yes
switching function of the remote signaling contacts	NO / NC
operating voltage of the remote signaling contacts at AC	125 ... 250 V
operational current of the remote signaling contacts at AC	1 mA ... 1 A
connection type of remote signaling contact	screwless /push in
connectable conductor cross-section for remote signaling contacts for rigid conductor	0.25 ... 1.5 mm²
connectable conductor cross-section for remote signaling contacts for finely stranded conductor	0.25 ... 1.5 mm²
AWG number as coded connectable conductor cross section for remote signaling contacts	24 ... 16
stripped length of the cable for remote signaling contacts	12 mm

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NEMA/UL - Data	
type of distribution system	TT, TN-S
TOV behavior	
● at TOV test voltage	442 V AC (120 min / withstand mode)
● at TOV test voltage (L-N)	442 V AC (120 min / withstand mode)
● at TOV test voltage (N-PE)	1200 V (200 ms / withstand mode)
AWG number as coded connectable conductor cross section	
● for remote signaling contacts according to UL	24 ... 16
ambient temperature	
● during operation	-40 ... +85 °C
● during storage	-40 ... +80 °C
combustibility class according to UL 94	V0

Approvals Certificates

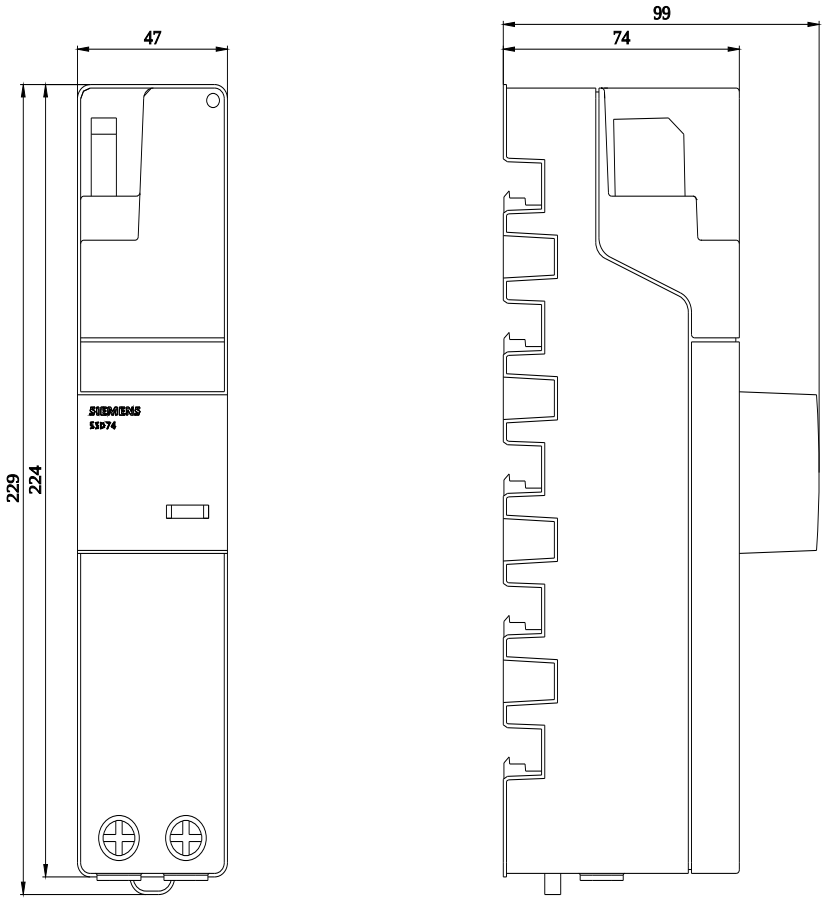
General Product Approval					other
Confirmation	UKCA	CE EG-Konf.	DVE VDE	EAC	Confirmation

other	Environment	
产品合格 QC PASS	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=5SD7444-8KK21
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SD7444-8KK21
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7444-8KK21
CAx-Online-Generator
https://www.siemens.com/cax

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