

Combination arrester type 1+2 Requirement class B+C, UC 350V
Pluggable protective modules 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	DIN rail NS 35
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
net weight	1 236 g

Electrical data

type of distribution system	TT, TN-S
operating voltage	230 V
continuous operating voltage	
• maximum	350 V
• between N and PE	350 V
• between L and (PE)N	350 V
apparent power consumption / maximum	300 mVA
discharge current	
• between L and (PE)N / at (8/20) μ s	25 kA
• between L and PE / at (8/20) μ s	25 kA
• between N and PE / at (8/20) μ s	100 kA
lightning current peak value / at (10/350) μ s	
• 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) μ s	
• 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) μ s	
• between L and N	160
• between L and PE	160
• between N and PE	2 500
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	1.5 kV
• between L and PE	2.2 kV
• between N and PE	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) μ s	
• 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
stripped length	18 mm
connectable conductor cross-section	
• for finely stranded conductor	2.5 ... 25
• for rigid conductor	2.5 ... 35
• finely stranded	2.5 ... 25
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

switching function / of the remote signaling contacts	PDT contact
operating voltage / of the remote signaling contacts / at AC	12 ... 250
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

• 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
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	TT, TN-S
designation of the protective paths / according to UL	L-L, L-N, L-G, N-G
TOV behavior	
• at TOV test voltage (L-N)	415 V AC (5 s / withstand mode) / 457 V AC (120 min / safe failure mode)
• at TOV test voltage (N-PE)	1200 V (200 ms / withstand mode)
Measured Limiting Voltage (MLV) / between L and L	2.47 kV
Measured Limiting Voltage (MLV) / between L and Ground (GND)	1.55 kV
Measured Limiting Voltage (MLV) / between L and N	1.34 kV
Measured Limiting Voltage (MLV) / between N and Ground (GND)	1.08 kV
Maximum Continuous Operating Voltage (MCOV) / between L and L	528 V
Maximum Continuous Operating Voltage (MCOV) / between L and Ground (GND)	528 V
Maximum Continuous Operating Voltage (MCOV) / between L and N	264 V
Maximum Continuous Operating Voltage (MCOV) / between N and Ground (GND)	264 V
leakage current / according to UL	20 kA
leakage current / according to UL	20 kA
leakage current / according to UL	20 kA
leakage current / according to UL	20 kA
AWG number / as coded connectable conductor cross section / for remote signaling contacts / according to UL / minimum	30
AWG number / as coded connectable conductor cross section / for remote signaling contacts / according to UL / maximum	14
installation altitude above sea level / according to UL	6 562 ft
gross weight [lb] / according to UL	3.15 lb
net weight [lb] / according to UL	2.72 lb
combustibility class according to UL 94	V0
standards / according to UL	UL 1449 edition 4
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
AWG number / as coded connectable conductor cross section / according to UL / minimum	12
AWG number / as coded connectable conductor cross section / according to UL / maximum	2

Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=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, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7444-1

CAx-Online-Generator

<http://www.siemens.com/cax>

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