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Data sheet 5SD7442-1



Combination arrester type 1+2 Requirement class B+C, UC 350V Pluggable protective modules 2-pole, 1+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	1/N/PE
designation of the protective paths	L-N, L-PE, N-PE
accessories	1 x 5SD7428-1 + 1 x 5SD7418-0 + 1 x 5SD7448-1
fastening method	DIN rail NS 35
material of the enclosure	PBT
size of surge arrester	4 TE
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	71.5 mm
height	95 mm
depth	71.5 mm
net weight	666 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	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	100 mVA
discharge current	
 between L and (PE)N at (8/20) μs 	25 kA
 between L and PE at (8/20) μs 	25 kA

a between N and DE at (0/00)	100 kA
• between N and PE at (8/20) μs	100 kA
lightning current peak value at (10/350) μs	OF LA
 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	1.0 KV
	4.5.127
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	- p. 1.2., ramata a.g. tag cantaot
product component remote signaling contact	Yes
switching function of the remote signaling contacts	PDT contact
switching function of the remote signaling contacts	LDT COURSE

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
IEMA/UL - Data	
type of surge protective device (SPD) according to UL	4CA
type of distribution system according to UL	18
type of distribution system	TT, TN-S
designation of the protective paths according to UL	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 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 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
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
gross weight [lb] according to UL	1.63 lb(av)
net weight [lb] according to UL	1.53 lb(av)
combustibility class according to UL 94	V0
standards according to UL	UL 1449 edition 4
Approvals Certificates	

General Product Approval



Confirmation









other Environment

<u>Confirmation</u> <u>Miscellaneous</u>

Environmental Confirmations

Environmental Confirmations

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=5SD7442-1

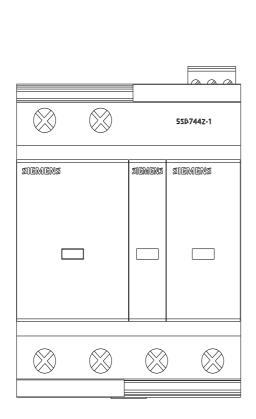
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

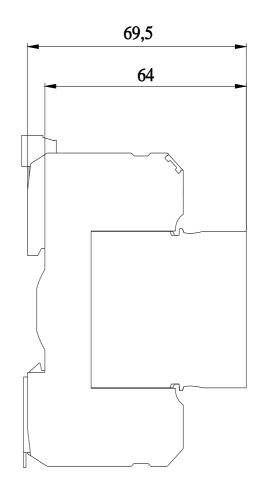
https://support.industry.siemens.com/cs/ww/en/ps/5SD7442-1

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax en.aspx?mlfb=5SD7442-1

CAx-Online-Generator

http://www.siemens.com/cax





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Data sheet 5SD7443-1

Combination arrester type 1+2 Requirement class B+C, UC 350V Pluggable protective modules 3-pole, 3+0 circuit for TNC 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
designation of the protective paths	L-PEN
accessories	3 x 5SD7428-1 + 3 x 5SD7448-1
fastening method	DIN rail NS 35
material of the enclosure	PBT
size of surge arrester	6MW
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	106.9 mm
height	95 mm
depth	71.5 mm
net weight	1 076 g
Electrical data	
type of distribution system	TN-C
operating voltage	
• at AC	230 V
value range of the operating frequency	50 / 60 Hz
continuous operating voltage	
at AC maximum	350 V
apparent power consumption maximum	300 mVA
discharge current at (8/20) µs	25 kA
lightning current peak value at (10/350) μs	25 kA
charge of the flash at (10/350) µs	12.5 A·s
specific energy of the flash at (10/350) µs	160 kJ/?
follow current extinguishing capability	25 kA (264 V AC), 3 kA (350 V AC)

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short-circuit rating (SCCR) at 264 V	25 kA
protection level	
maximum	1.5 kV
residual voltage	
 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
response value of the surge voltage at 6 kV at (1.2/50) μs	1.5 kV
Response time	25 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 mm ²
finely stranded	2.5 25 mm ²
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
	Optical, remote signaling contact
Indicator/remote signaling	V
product component remote signaling contact	Yes
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 mm ²
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	28 16
remote signaling contacts	0.25 N·m
tightening torque for remote signaling contacts	
stripped length of the cable for remote signaling contacts	7 mm
NEMA/UL - Data	104
type of surge protective device (SPD) according to UL	4CA
type of distribution system according to UL	3D
type of distribution system	TN-C
designation of the protective paths according to UL	L-L, L-G
TOV behavior	
at TOV test voltage	415 V AC (5 s / withstand mode) / 457 V AC (120 min / safe failure mode)
Measured Limiting Voltage (MLV)	
between L and L	2.45 kV
between L and Ground (GND)	1.34 kV
Maximum Continuous Operating Voltage (MCOV)	
between L and L	528 V
between L and Ground (GND)	264 V
discharge current	
 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	125 V
UL	

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
gross weight [lb] according to UL	2.45 lb(av)
net weight [lb] according to UL	2.08 lb(av)
combustibility class according to UL 94	V0
standards according to UL	UL 1449 edition 4

Approvals Certificates

General Product Approval



Confirmation









other Environment

<u>Confirmation</u> <u>Miscellaneous</u> <u>Environmental Con-</u> <u>firmations</u> <u>firmations</u>

Further information

Information on the packaging

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

Information- and Downloadcenter (Catalogs, Brochures,...)

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 $Service \& Support \ (Manuals, \ Certificates, \ Characteristics, \ FAQs, ...)$

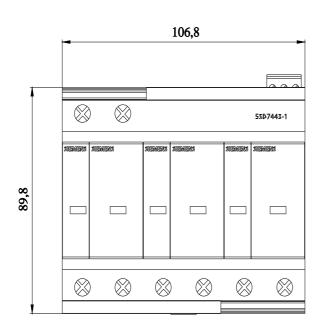
https://support.industry.siemens.com/cs/ww/en/ps/5SD7443-1

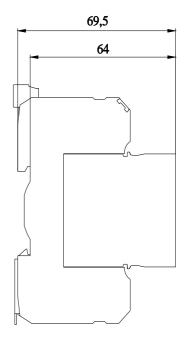
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7443-1

CAx-Online-Generator

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Data sheet 5SD7444-1

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



IEC 61643-11: 2011, EN 61643-11: 2012 product designation Surp protection device Fost Class II, Type 1	General data	
SPD classification according to EN 61643-11 Yes • Test Class II, 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+NPE design of pole 3+NPE design of the productive paths L.N. L-PE. N-PE accessories 3 x SSD7428-1 + 1 x SSD7418-0 + 3 x SSD7448-1 fastening method DIN 7all NS 35 material of the enclosure PBT degree of pollution 2 overvollage 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 5 m 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 1 372 g Electric	standard	IEC 61643-11: 2011, EN 61643-11: 2012
• Test Class I, Type 1 • Test Class II, Type 3	product designation	Surge protection device
• Test Class II, Type 2 • Test Class III, Type 3 No number of SPD ports design of the product Arrester combination design of pole designation of the protective paths Accessories 3 x SSD7428-1 + 1 x SSD7418-0 + 3 x SSD7448-1 fastening method material of the enclosure degree of pollution 2 overvoltage category according to IEC 61010-1 protection class IP at connection all terminals hock acceleration vibrational acceleration at 5 Hz 500 Hz limited to 2,5 h per axis installation allutude at height above sea level maximum depth field the weight felotrical data yee of distribution system operating voltage • at AC value range of the operating frequency obstween L and (PE)N at (AC maximum between L and (PE)N at (AC mosimum between L and (PE)N at (AC 20) μs between L and (PE)N at (AC 20) μs obstween L and PE at (AC 20) μs obstween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and (PE)N at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and (PE)N at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at (AC 20) μs obstraction and subtween L and PE at	SPD classification according to EN 61643-11	
• Test Class III, Type 3 number of SPD ports design of the product design of pole designation of the protective paths accessories 3 x SSD7428-1 + 1 x SSD7418-0 + 3 x SSD7448-1 dastening method material of the enclosure PPT degree of pollution overvoltage category according to IEC 61010-1 protection class IP at connection all terminals shock acceleration shock acceleration shock acceleration installation allitude at height above sea level maximum depth height height for distribution system T1, Th.S prating of distribution system or at AC maximum between L and (PE)N at (AC maximum between L and (PE)N at (A(20) μs between L and PE at (A(20) μs	• Test Class I, Type 1	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, L-PE, N-PE accessories 3 x SSD7428-1 + 1 x SSD7418-0 + 3 x SSD7448-1 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 1 372 g Electrical data type of distribution system TT, TN-S operating voltage at AC at AC 20 V value range of the operating frequency 50 / 60 Hz continuous operating volta	• Test Class II, Type 2	Yes
design of the product Arrester combination	Test Class III, Type 3	No
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 2000 m width 142.8 mm height 95 mm depth 71.5 mm net weight 1 372 g Electrical data TT, TN-S operating voltage • at AC • at AC 230 V value range of the operating frequency 50 / 60 Hz continuous operating voltage • at AC maximum • between N and PE at AC maximum 350 V • between L and (PE)N at (8/20) μs 25 kA <	number of SPD ports	1
designation of the protective paths	design of the product	Arrester combination
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 relative humidity during operation 5 5% installation altitude at height above sea level maximum 2 000 m width 142.8 mm height 95 mm depth 71.5 mm net weight 1372 g literatival data type of distribution system TT, TN-S operating voltage	design of pole	3+N/PE
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 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 1372 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 350 V • between L and (PE)N at AC maximum 350 V apparent power consumption maximum (discharge current) • between L and (PE)N at (8/20) µs 25 kA • between L and (PE)N at (8/20) µs 25 kA	designation of the protective paths	L-N, L-PE, N-PE
material of the enclosure degree of pollution 2 overvoltage category according to IEC 61010-1 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 relative humidity during operation installation altitude at height above sea level maximum 2 000 m width 142.8 mm height 495 mm depth 71.5 mm net weight 137.2 g Electrical data type of distribution system TT, TN-S operating voltage at AC value range of the operating frequency 60 / 60 Hz continuous operating voltage at AC maximum 550 V apparent power consumption maximum discharge current between L and (PE)N at (8/20) µs	accessories	3 x 5SD7428-1 + 1 x 5SD7418-0 + 3 x 5SD7448-1
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 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 1372 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 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)N at (8/20) µs 25 kA • between L and (PE)N at (8/20) µs 25 kA	fastening method	DIN rail NS 35
overvoltage category according to IEC 61010-1 protection class IP at connection all terminals IP20 shock acceleration vibrational acceleration at 5 Hz 500 Hz limited to 2,5 h per axis 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 1 372 g Electrical data TT, TN-S operating voltage • at AC value range of the operating frequency continuous operating voltage • at AC maximum • between N and PE at AC maximum 350 V apparent power consumption maximum discharge current • between L and (PE)N at (8/20) µs • between L and PE at (8/20) µs	material of the enclosure	PBT
protection class IP at connection all terminals shock acceleration 25 gn vibrational acceleration at 5 Hz 500 Hz limited to 2,5 h per axis relative humidity during operation installation altitude at height above sea level maximum 2 000 m width 142.8 mm height 95 mm depth 71.5 mm net weight 1 372 g Flectrical data type of distribution system operating voltage at AC value range of the operating frequency at AC maximum at AC maximum between N and PE at AC maximum between L and (PE)N at AC maximum obetween L and (PE)N at (8/20) µs between L and PE at (8/20) µs 25 kA between L and PE at (8/20) µs 25 kA	degree of pollution	2
shock acceleration 25 gn vibrational acceleration at 5 Hz 500 Hz limited to 2,5 h per axis 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 1 372 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 350 V between N and PE at AC maximum 350 V apparent power consumption maximum 350 V apparent power consumption maximum 350 V discharge current between L and (PE)N at (8/20) µs 25 kA between L and PE at (8/20) µs 25 kA	overvoltage category according to IEC 61010-1	III
vibrational acceleration at 5 Hz 500 Hz limited to 2,5 h per axis relative humidity during operation installation altitude at height above sea level maximum width 142.8 mm height 42.8 mm height 5 95 mm depth 71.5 mm net weight 1 372 g Electrical data type of distribution system TT, TN-S operating voltage at AC value range of the operating frequency at AC aximum between N and PE at AC maximum between N and PE at AC maximum between L and (PE)N at (8/20) µs between L and (PE)N at (8/20) µs between L and PE at (8/20) µs between L and PE at (8/20) µs 25 kA	protection class IP at connection all terminals	IP20
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 1372 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 350 V • between N and PE at AC maximum 350 V operating power consumption maximum 350 V apparent power consumption maximum 350 V discharge current • between L and (PE)N at (8/20) µs • between L and PE at (8/20) µs	shock acceleration	25 gn
installation altitude at height above sea level maximum width 142.8 mm height 95 mm depth 71.5 mm net weight 1372 g Electrical data type of distribution system operating voltage • at AC value range of the operating frequency continuous operating voltage • at AC maximum • between N and PE at AC maximum 350 V apparent power consumption maximum 350 V apparent power consumption maximum 350 W discharge current • between L and (PE)N at (8/20) µs • between L and (PE)N at (8/20) µs • between L and PE at (8/20) µs		5 gn
width height 95 mm depth 71.5 mm net weight 1 372 g Electrical data type of distribution system TT, TN-S operating voltage • at AC value range of the operating frequency continuous operating voltage • at AC maximum • between N and PE at AC maximum spearent power consumption maximum discharge current • between L and (PE)N at (8/20) µs • between L and (PE)N at (8/20) µs • between L and PE at (8/20) µs	relative humidity during operation	5 95 %
height 95 mm depth 71.5 mm net weight 1372 g Electrical data type of distribution system TT, TN-S operating voltage	installation altitude at height above sea level maximum	2 000 m
depth 71.5 mm net weight 1372 g Electrical data type of distribution system TT, TN-S operating voltage	width	142.8 mm
net weight 1 372 g Electrical data type of distribution system TT, TN-S operating voltage	height	95 mm
type of distribution system TT, TN-S operating voltage • at AC value range of the operating frequency • at AC maximum • between N and PE at AC maximum apparent power consumption maximum • between L and (PE)N at (8/20) µs • between L and PE at (8/20) µs	depth	71.5 mm
type of distribution system operating voltage at AC value range of the operating frequency continuous operating voltage at AC maximum between N and PE at AC maximum between L and (PE)N at AC maximum obetween L and (PE)N at (8/20) µs between L and PE at (8/20) µs between L and PE at (8/20) µs 230 V 230 V 25 kA	net weight	1 372 g
operating voltage • at AC value range of the operating frequency 50 / 60 Hz continuous operating voltage • at AC maximum • between N and PE at AC maximum • 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 • between L and PE at (8/20) µs 25 kA	Electrical data	
at AC value range of the operating frequency 50 / 60 Hz continuous operating voltage	type of distribution system	TT, TN-S
value range of the operating frequency continuous operating voltage at AC maximum between N and PE at AC maximum between L and (PE)N at AC maximum apparent power consumption maximum discharge current between L and (PE)N at (8/20) µs between L and PE at (8/20) µs 25 kA between L and PE at (8/20) µs 25 kA	operating voltage	
continuous operating voltage • at AC maximum • between N and PE at AC maximum • 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 • between L and PE at (8/20) µs 25 kA	• at AC	230 V
 at AC maximum between N and PE at AC maximum between L and (PE)N at AC maximum 350 V apparent power consumption maximum discharge current between L and (PE)N at (8/20) µs between L and PE at (8/20) µs 25 kA between L and PE at (8/20) µs 	value range of the operating frequency	50 / 60 Hz
between N and PE at AC maximum 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 between L and PE at (8/20) µs 25 kA	continuous operating voltage	
between L and (PE)N at AC maximum apparent power consumption maximum discharge current • between L and (PE)N at (8/20) μs • between L and PE at (8/20) μs 25 kA between L and PE at (8/20) μs	• at AC maximum	350 V
apparent power consumption maximum discharge current • between L and (PE)N at (8/20) µs • between L and PE at (8/20) µs 25 kA 25 kA	 between N and PE at AC maximum 	350 V
discharge current • between L and (PE)N at (8/20) μs • between L and PE at (8/20) μs 25 kA 25 kA	between L and (PE)N at AC maximum	350 V
 between L and (PE)N at (8/20) μs between L and PE at (8/20) μs 25 kA 	apparent power consumption maximum	300 mVA
• between L and PE at (8/20) μs 25 kA	discharge current	
	 between L and (PE)N at (8/20) µs 	25 kA
 between N and PE at (8/20) μs 100 kA 	 between L and PE at (8/20) μs 	25 kA
	● between N and PE at (8/20) μs	100 kA

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
switching function of the remote signaling contacts	PDT contact

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	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
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	204 V
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
gross weight [lb] according to UL	3.15 lb(av)
net weight [lb] according to UL	2.72 lb(av)
combustibility class according to UL 94	V0
standards according to UL	UL 1449 edition 4
Approvals Certificates	

pprovals Certificates

General Product Approval



Confirmation









other Environment

Miscellaneous Confirmation Environmental Con-

Further information

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,...)

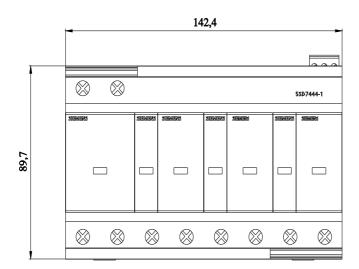
https://support.industry.siemens.com/cs/ww/en/ps/5SD7444-1

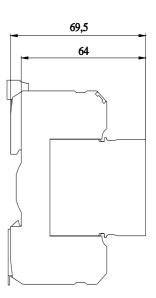
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ ...)$

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

CAx-Online-Generator

http://www.siemens.com/cax





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2/26/2025

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