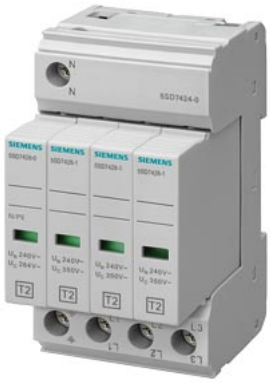
SIEMENS

Data sheet 5SD7424-0



Surge arrester Type 2 Requirement class C, UC 350V Pluggable protective modules 4-pole, 3+1 circuit for TN-S and TT systems Narrow design

General data	
standard	IEC 61643-11: 2011, EN 61643-11: 2012
product designation	Surge protection device
SPD classification / acc. to EN 61643-11	
● Test Class I, Type 1	No
● Test Class II, Type 2	Yes
● Test Class III, Type 3	No
number of SPD ports	1
Product version	Surge arrester
design of pole	3+N/PE
designation of the protective paths	L-N, N-PE
Accessories	3 x 5SD7428-1 + 1 x 5SD7428-0
fastening method	DIN rail NS 35
material / of the enclosure	PBT
size of surge arrester	2,7 MW
Degree of pollution	2
overvoltage category / acc. 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	5 gn
Ambient temperature / during operation / minimum permissible ... ambient temperature / during operation / maximum permissible	-40 °C ... 80 °C
ambient temperature / during storage and transport	-40 °C ... 80 °C
relative humidity / during operation	5 % ... 95 %
installation altitude / at height above sea level / maximum	2 000 m
Width	49.2 mm
Height	90 mm
depth	71.5 mm
net weight	382 g
Electrical data	
type of distribution system	TT, TN-S
operating voltage	240 / 415 V AC
operating voltage	230 V
operating frequency	50/60 Hz
continuous operating voltage	
● maximum	350 V

● between N and PE	264 V
● between L and (PE)N	350 V
load current	40 A
protective conductor current	1 µA (255 V AC)
discharge current	
● at (8/20) µs	20 kA
● 1 phase / at (8/20) µs	40 kA
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	
● maximum	1.5 kV
● between N and L	1.4 kV
● between PE and N and/or L	1.5 kV
residual voltage	
● between L and (PE)N	
— at rated value of discharge current / maximum	1.5 kV
— at 10 kA / maximum	1.3 kV
— at 5 kA / maximum	1.2 kV
— at 4 kA / maximum	1.1 kV
— at 2 kA / maximum	1 kV
● between N and PE	
— at rated value of discharge current / maximum	0.5 kV
— at 10 kA / maximum	0.5 kV
— at 5 kA / maximum	0.5 kV
— at 4 kA / maximum	0.5 kV
— at 2 kA / maximum	0.5 kV
response value of the surge voltage / at 6 kV / at (1.2/50) µs	
● 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	63 A AC (gG)
fuse protection type / for T-connector	315 A AC (gG)
Connections/ Terminals	
type of electrical connection	Screw terminal
stripped length	16 mm
tightening torque	4.3 ... 4.7
stripped length	16 mm
connectable conductor cross-section	
● for finely stranded conductor	2.5 ... 16
● for rigid conductor	2.5 ... 25
● finely stranded	2.5 ... 16
AWG number / as coded connectable conductor cross section	12 ... 4
design of the thread / of the connection screw	M5
signal design	optical
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) / 440 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	3.28 kV
Measured Limiting Voltage (MLV) / between L and Ground	2.08 kV

(GND)	
Measured Limiting Voltage (MLV) / between L and N	2 kV
Measured Limiting Voltage (MLV) / between N and Ground (GND)	0.95 kV
Maximum Continuous Operating Voltage (MCOV) / between L and L	700 V
Maximum Continuous Operating Voltage (MCOV) / between L and Ground (GND)	350 V
Maximum Continuous Operating Voltage (MCOV) / between L and N	350 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
sequential current	
● between N and Ground (GND) / according to UL	200 A (264 V AC)
installation altitude above sea level / according to UL	6 562 ft
gross weight [lb] / according to UL	0.9 lb
net weight [lb] / according to UL	0.84 lb
combustibility class acc. to UL 94	V0
standards / according to UL	UL 1449 edition 4
AWG number / as coded connectable conductor cross section / according to UL / minimum	14
AWG number / as coded connectable conductor cross section / according to UL / maximum	2

Further information

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=5SD7424-0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SD7424-0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7424-0