



Lightning arrester type 1, 12.5 kA, lightning protection class III and IV, for 3-wire networks (L, N, PE), UC 335V/264V AC (L-N/N-PE), Mechanical defect indication

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	Combination surge arresters
design of pole	1+N/PE
designation of the protective paths	L-N, L-PE, N-PE
accessories	1 x 5SD7418-3 + 1 x 5SD7418-2
fastening method	DIN rail NS 35
material / of the enclosure	PA 6.6 / PBT
size of surge arrester	2 TE
degree of pollution	2
overvoltage category / according 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	7.5 gn
relative humidity / during operation	5 % ... 95 %
installation altitude / at height above sea level / maximum	2 000 m
width	35.6 mm
height	89.9 mm
depth	77.5 mm
net weight	328 g

Electrical data

type of distribution system	TT, TN-S
operating voltage	230 V
continuous operating voltage	
• maximum	335 V
• between N and PE	264 V
• between L and (PE)N	335 V
apparent power consumption / maximum	270 mVA
discharge current	
• between L and (PE)N / at (8/20) μ s	12.5 kA
• between L and N / at (8/20) μ s	50 kA
• between N and PE / at (8/20) μ s	50 kA
• between N and PE / at (8/20) μ s	50 kA
total discharge current / at (8/20) μ s	50 kA
total lightning impulse current / at (10/350) μ s	25 kA

lightning current peak value / at (10/350) μ s	
• 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) μ s	
• 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) μ s	
• between L and N	39
• between N and PE	625
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	
• between L and N	1.2 kV
• between L and PE	2 kV
• between N and L	1.2 kV
• between N and PE	1.7 kV
residual voltage	
• between L and (PE)N	
— at rated value of discharge current / maximum	1.2 kV
— at 10 kA / maximum	1.1 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 kV
— at 10 kA / maximum	1.5 kV
— at 5 kA / maximum	1.2 kV
— at 3 kA / maximum	1.1 kV
• between N and PE	
— at rated value of discharge current / maximum	0.6 kV
— at 10 kA / maximum	0.5 kV
— at 5 kA / maximum	0.5 kV
— at 3 kA / maximum	0.4 kV
response value of the surge voltage / at 6 kV / at (1.2/50) μ s	
• between L and PE	1.7 kV
• between N and PE	1.7 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	80 A AC (gG)
fuse protection type / for T-connector	160 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	1.5 ... 25
• for rigid conductor	1.5 ... 35
• finely stranded	1.5 ... 25
AWG number / as coded connectable conductor cross section	15 ... 2
design of the thread / of the connection screw	M5
signal design	optical

NEMA/UL - Data

type of distribution system	TT, TN-S
TOV behavior	
• at TOV test voltage (L-N)	415 V AC (5 s / withstand mode)
• at TOV test voltage (N-PE)	1200 V (200 ms / withstand mode)
combustibility class according to UL 94	V0

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=5SD7412-2>

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

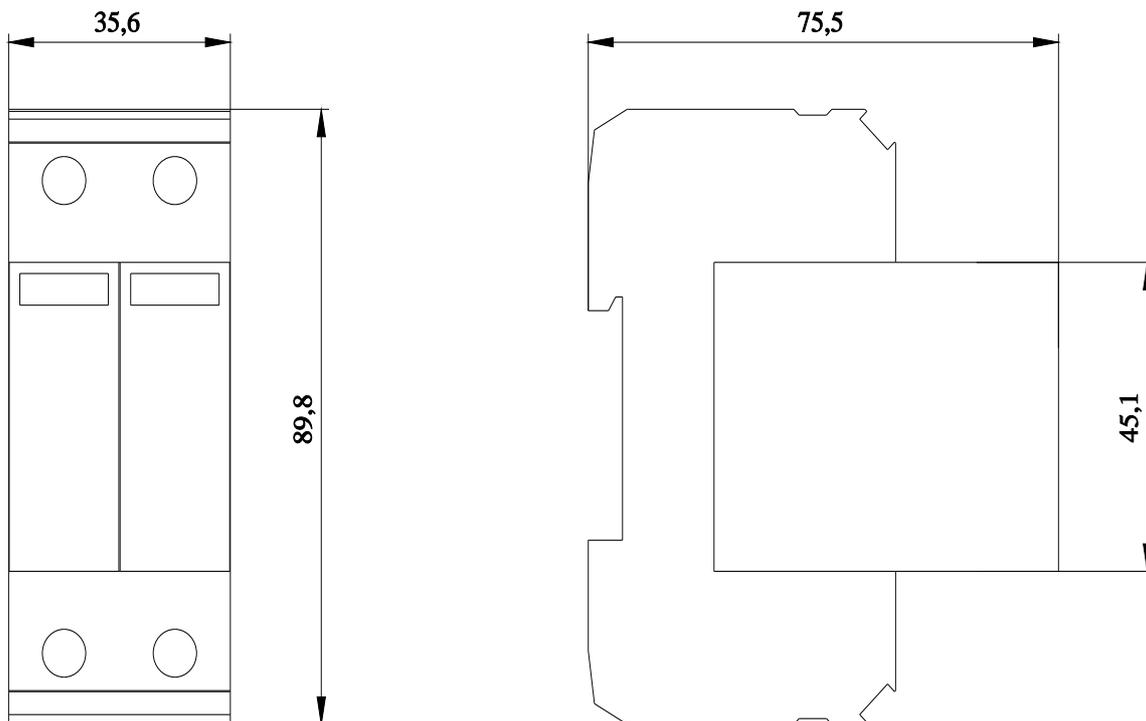
<https://support.industry.siemens.com/cs/ww/en/ps/5SD7412-2>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7412-2

CAX-Online-Generator

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



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