SIEMENS

Data sheet 5SD7481-1

Surge arrester, Type 2, pluggable protective modules, UC 800 V AC, 1-pole, Varistor connected in series and gas-filled spark gap with remote signaling

Article number

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
Design of the product	Surge arrester
Design of pole	1
Designation of the protective paths	L-PEN, L-PE
accessories	1 x 5SD7488-2 + 1 x 5SD7488-4
Mounting type	DIN rail NS 35
Material / of the enclosure	PA 6.6 / PBT
Degree of pollution	2
Overvoltage category / acc. 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
Ambient temperature / during operation	-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	35.6 mm
Height	97 mm
Depth	71.5 mm
Net weight	388 g

Electrical data	
Type of distribution system	TN-C, IT
Operating voltage	400 / 690 V AC ...90 V AC (IT)
Continuous operating voltage	
• maximum	800 V
Load current	80 A
Protective conductor current	3 µA (760 V AC)
Apparent power consumption / maximum	3 mVA
Discharge current	
• at (8/20) µs	15 kA
• 1 phase / at (8/20) µs	30 kA
Short-circuit rating (SCCR) / at 264 V	25 kA
Protection level	
• maximum	5 kV
Residual voltage	
• at rated value of discharge current / maximum	3 kV
• at 10 kA maximum	2.6 kV
• at 5 kA maximum	2.4 kV
• at 3 kA / maximum	2.3 kV
Response value of the surge voltage / at 6 kV / at (1.2/50) µs	5 kV
Response time	100 ns
Settable response factor / of trip current	1.6
Fuse protection type / at V-shaped connection	80 A AC (gG)
Fuse protection type / for T-connector	100 A AC (gG)

Connections/Terminals	
Type of electrical connection	Screw terminal
Wire stripping length	16 mm
Tightening torque	4.3 ... 4.7
Wire stripping length	16 mm
Connectable conductor cross-section	
• for finely stranded conductor	1.5 ... 25

• for rigid conductor	1.5 ... 35
AWG number / as coded connectable conductor cross section	15 ... 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	5 ... 250
• at DC	30 V
Operating current / of the remote-signaling contacts	
• at AC	5 mA ... 1.5 A
• at DC	1 A DC (30 V DC)
Connection type of remote signaling contact	M2
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
Wire stripping length / of the cable / for remote signaling contacts	7 mm

NEMA/UL - Data

Type of distribution system	TN-C, IT
TOV behavior	
• at TOV test voltage	1550 V AC (5 s / withstand mode)
Combustibility class acc. to UL 94	V0

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=5SD7481-1

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SD7481-1

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SD7481-1

CAx-Online-Generator
http://www.siemens.com/cax