

sg04813



Poles	Max. Continuous Operating Voltage U_c	I_n (8/20) μ s	Type Designation	Article No.	Units per package
Three phase supply / 4+0 connection (TN-S)					
4pole	280 VAC	4x20 kA	SPCT2-280/4	T3 tested 167596	1/30
4pole	335 VAC	4x20 kA	SPCT2-335/4	T3 tested 167601	1/30
4pole	385 VAC	4x20 kA	SPCT2-385/4	167606	1/30
4pole	460 VAC	4x20 kA	SPCT2-460/4	167611	1/30
4pole	580 VAC	4x20 kA	SPCT2-580/4	167616	1/30

Plug-in surge arrester SPCT2. Insert

sg08213



Insert (1pole/path)					
Insert	280 VAC	20 kA	SPCT2-280	T3 tested 167592	2/120
Insert	335 VAC	20 kA	SPCT2-335	T3 tested 167597	2/120
Insert	385 VAC	20 kA	SPCT2-385	167602	2/120
Insert	460 VAC	20 kA	SPCT2-460	167607	2/120
Insert	580 VAC	20 kA	SPCT2-580	167612	2/120
Insert	260 VAC	40 kA	SPCT2-NPE60	167617	2/120

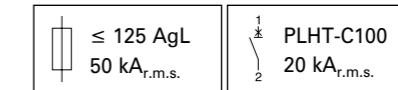
Description Surge Protective Class T2

- Field of application:
For the protection of low voltage distribution systems against transient overvoltage caused by direct and indirect lightning stroke and switching operations
- Test class **II** according to IEC 61643-11
- SPD-type **T2**, according to EN 61643-11
- Auxiliary switch ASAXSC-SPM for remote message transmission can be mounted onto the device
- SPCT 280 and 335 are additional class 3 tested

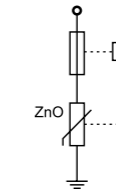
Technical Data

Inserts	SPCT2-075	SPCT2-135	SPCT2-175	SPCT2-280	SPCT2-335	SPCT2-385	SPCT2-460
Electrical							
Mechanical coding	x	x	x	x	x	x	x
Responding time (rate of voltage rise 5 kV/ μ s)	< 25 ns	< 25 ns	< 25 ns	< 25 ns	< 25 ns	< 25 ns	< 25 ns
Voltage protection level at nominal discharge current / U_{oc}	U_p < 750 V	< 900 V	< 1.0 kV	< 1.4 kV	< 1.5 kV	< 1.7 kV	< 1.9 kV
Voltage protection level at 5 kA (8/20) μ s	U_p 400 V	550 V	700 V	1000 V	1200 V	1350 V	1700 V
Max. continuous operating voltage	U_c 75 VAC	135 VAC	175 VAC	280 VAC	335 VAC	385 VAC	460 VAC
TOV test value (5 s)	U_T 87 VAC	174 VAC	= U_c	348 VAC	348 VAC	348 VAC	580 VAC
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Open circuit voltage	U_{oc} -	-	-	10 kV	5 kV	-	-
Nominal discharge current (8/20) μ s	I_n 20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Max. discharge current	I_{max} 30 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA
Follow current interrupt rating	I_{fi} -	-	-	-	-	-	-
Open Circuit Voltage	U_{oc} [T3] -	-	-	6 kV	6 kV	-	-
Voltage protection level	U_p [T3] -	-	-	900 V	1000 V	-	-

Maximum back-up fuse
Maximum short-circuit current



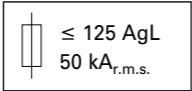
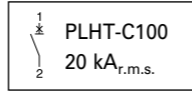
Connection diagram



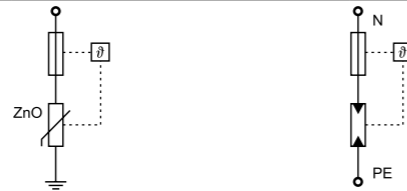
Mechanical

Frame size	45 mm
Device height	80 mm
Device width	
1pole	17.5 mm (1MU)
1+1pole, 2pole	35 mm (2MU)
3pole	52.5 mm (3TE)
3+1pole, 4pole	70 mm (4TE)
Mechanical coding	
1pole	x
1+1pole	yx
2pole	xx
3pole	xxx
3+1pole	yxxx
4pole	xxxx
Weight base 1P, 1+1P, 2P, 3P, 3+1P, 4P	53/120/120/180/240/240 g
Weight complete devices 1P, 1+1P, 2P, 3P, 3+1P, 4P	110/201/220/330/412/440 g
Permitted ambient temperature	-40°C to +70°C
Degree of protection	IP20
Upper and lower lift terminal capacity	4 - 25 mm ²
Upper and lower open mouthed terminals for busbar thickness up to	1.5 mm
Tightening torque of terminal screws	2.4 - 3 Nm
Quick fastening on DIN rail according to	IEC/EN 60715
Accessories: busbars 16 mm ²	Type ZV-KSBI ...

Technical Data

Inserts	SPCT2-580	SPCT2-NPE60
Electrical		
Mechanical coding	x	y
Responding time (rate of voltage rise 5 kV/μs)	< 25 ns	< 100 ns
Voltage protection level at nominal discharge current / U_{oc}	U_p 2100 V	< 1.5 kV
Voltage protection level at 5 kA (8/20) μs	U_p 2000 V	–
Max. continuous operating voltage	U_c 580 VAC	260 VAC
TOV test value	U_T = U_c (5 s)	1200 VAC (200 ms)
Rated frequency	50 Hz	50 Hz
Open circuit voltage	U_{oc} –	6 kV
Nominal discharge current (8/20) μs	I_n 15 kA	40 kA
Max. discharge current	I_{max} 40 kA	60 kA
Follow current interrupt rating	I_{fi} –	100 A _{r.m.s.}
Maximum back-up fuse		
Maximum short-circuit current		

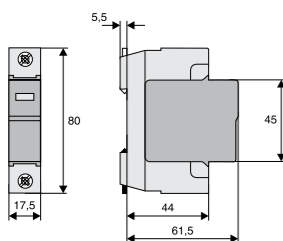
Connection diagram



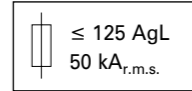

Mechanical

Frame size	45 mm
Device height	80 mm
Device width	
1 pole	17.5 mm (1MU)
1+1 pole, 2 pole	35 mm (2MU)
3 pole	52.5 mm (3TE)
3+1 pole, 4 pole	70 mm (4TE)
Mechanical coding	
1 pole	x
1+1 pole	yx
2 pole	xx
3 pole	xxx
3+1 pole	yxxx
4 pole	xxxx
Weight base 1P, 1+1P, 2P, 3P, 3+1P, 4P	53/120/120/180/240/240 g
Weight complete devices 1P, 1+1P, 2P, 3P, 3+1P, 4P	110/201/220/330/412/440 g
Permitted ambient temperature	-40°C to +70°C
Degree of protection	IP20
Upper and lower lift terminal capacity	4 - 25 mm ²
Upper and lower open mouthed terminals for busbar thickness up to	1.5 mm
Tightening torque of terminal screws	2.0 - 3 Nm
Quick fastening on DIN rail according to	IEC/EN 60715
Accessories: busbars 16 mm ²	Type ZV-KSBI ...

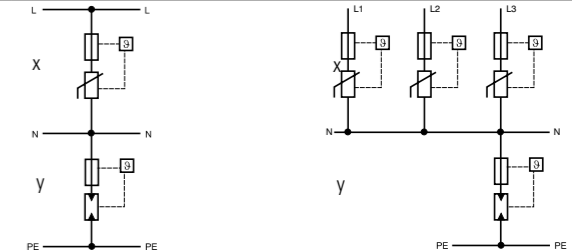
Dimensions (mm)



Technical Data

	SPCT2-1+NPE	SPCT2-3+NPE
Electrical		
Mechanical coding	yx	yxxx
Responding time (rate of voltage rise 5 kV/μs)	L-N/N-PE/L-PE	< 25ns/< 100ns/< 100ns
Max. continuous operating voltage	L-N/N-PE	U_c 335VAC/260VAC
TOV test value	U_T	280VAC/260VAC
5 s	L-N	415 VAC
200 ms	N-PE	1200 VAC
Rated frequency		50 Hz
Nominal discharge current (8/20) μs	L-N/N-PE/L-PE	I_n 20 kA
Voltage protection level at I_n	L-N/N-PE/L-PE	U_p ≤ 1600V/≤ 1000V/≤ 1650V
Max. discharge current (8/20) μs	L-N/N-PE/L-PE	I_{max} 40 kA
Follow current interrupt rating	N-PE	I_{fi} 100 A _{r.m.s.}
Maximum back-up fuse		
Maximum short-circuit current		

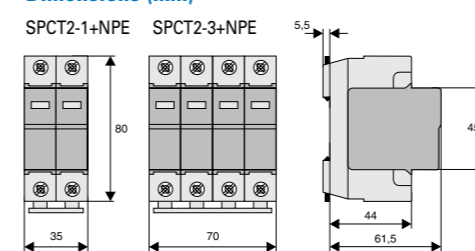
Connection diagram



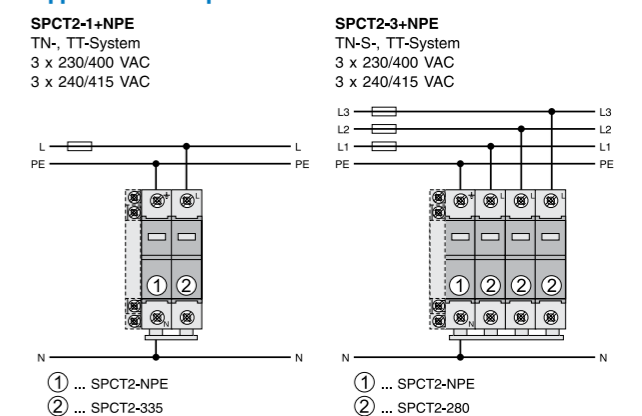
Mechanical

Mechanical coding of base	yx	yxxx
Frame size	45 mm	45 mm
Device height	80 mm	80 mm
Device width	35 mm	70 mm
Weight	201 g	412 g
Permitted ambient temperature	-40°C to +70°C	-40°C to +70°C
Degree of protection (built-in)	IP40	IP40
Upper and lower lift terminal capacity	1 - 25 mm ²	1 - 25 mm ²
Upper and lower open mouthed terminals for busbar thickness up to	1.5 mm	1.5 mm
Tightening torque of terminal screws	2.4 - 3 Nm	2.4 - 3 Nm
Quick fastening on DIN rail according to	IEC/EN 60715	IEC/EN 60715
Accessories: busbars 16 mm ²	Type ZV-KSBI ...	Type ZV-KSBI ...

Dimensions (mm)



Application Examples



Surge arrester Sets

SPCT2 class 2/3 tested with pre-fitted busbar (BB)

Surge Arrester Set SPCT2-335-3+NPE/BB

- The 3+1 circuit offers a universal solution for surge protection in low voltage distribution systems
- Suitable for TT- and TN-S-systems according to IEC 60364-5-53 Clause 534
- Remote message transmission is possible by mounting auxiliary switch ASAXSC-SPM
- Busbar connected, minimum installation work required

Content

SPCT2-335-3+NPE/BB

- 1 unit SPCT2-335-3+NPE	Surge arrester
- 1 unit ASLTT-63	Lead-through terminal
- busbar included	

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Description

- Test class 2 tested SPD
- Fulfills the minimum requirements for an application without external lightning protection system
- For TT, TN-C and TN-S supply systems
- Auxiliary contact and busbar available as an accessory

Types

SPE „NPE“

- Galvanic separated SPD path between neutral and protective earth
- Suitable for TT and TN-S systems due to the 3+1 connection