

# Surge Protection

## SPD Class C, Plug-in Surge Arresters SPCT2

- Field of application:  
For the protection of low voltage distribution systems against transient overvoltage caused by indirect lightning stroke and switching operations.
- Test class **II** according to IEC 61643-1+A1
- SPD-type **T2** according to EN 61643-11
- Auxiliary switch SPC-S-HK for remote message transmission can be mounted onto the device
- Suitable for busbar connection to all Xtra Combinations switchgear
- Busbars ZV-KSBI are available for all customary applications

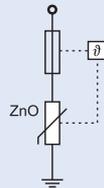
### Symbol



### Technical Data

Inserts	SPCT2-075	SPCT2-130	SPCT2-175	SPCT2-280	SPCT2-335	SPCT2-385	SPCT2-460
<b>Electrical</b>							
Mechanical coding	x	x	x	x	x	x	x
Responding time (rate of voltage rise 5 kV/μs)	< 25 ns						
Voltage protection level at nominal discharge current / $U_{oc}$	< 550 V	< 800 V	< 1.0 kV	< 1.4 kV	< 1.6 kV	< 1.8 kV	< 2.2 kV
Voltage protection level at 5 kA (8/20) μs	400 V	550 V	700 V	1000 V	1200 V	1350 V	1700 V
Maximum continuous operating voltage $U_c$	75 VAC	130 VAC	175 VAC	280 VAC	335 VAC	385 VAC	460 VAC
Temporary overvoltage test value $U_T$ (5 s)	= $U_c$	= $U_c$	= $U_c$	350 VAC	415 VAC	415 VAC	580 VAC
Rated frequency	50/60 Hz						
Open circuit voltage $U_{oc}$	–	–	–	10 kV	5 kV	–	–
Nominal discharge current (8/20) μs $I_n$	15 kA	20 kA	15 kA	20 kA	20 kA	20 kA	20 kA
Charge Q at $I_n$	0.43 As	0.57 As					
Specific energy at $I_n$	3.2 kJ/Ω	5.7 kJ/Ω					
Maximum discharge current $I_{max}$	30 kA	40 kA					
Follow current interrupt rating $I_{fi}$	–	–	–	–	–	–	–
Permissible back-up fuse							
Maximum short-circuit current							

### Connection diagram

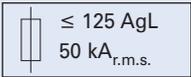


### Mechanical

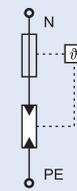
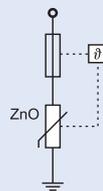
Frame size	45 mm
Device height	80 mm
Device width	
1-pole	17.5 mm (1MU)
1+1-pole	35 mm (2MU)
2-pole	35 mm (2MU)
3-pole	52.5 mm (3MU)
3+1-pole	70 mm (4MU)
4-pole	70 mm (4MU)
Mechanical coding	
1-pole	x
1+1-pole	yx
2-pole	xx
3-pole	xxx
3+1-pole	yxxx
4-pole	xxxx
Weight Base 1P, 1+1P, 2P, 3P, 3+1P, 4P	53/120/120/180/240/240 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 (built-in)	IP40
Upper and lower lift terminal capacity	4 - 25 mm <sup>2</sup>
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 <sup>2</sup>	Type ZV-KSBI ...

# Surge Protection

## Technical Data

Inserts	SPCT2-580	SPCT2-NPE
<b>Electrical</b>		
Mechanical coding	x	y
Responding time (rate of voltage rise 5 kV/ $\mu$ s)	< 25 ns	< 100 ns
Voltage protection level at nominal discharge current / $U_{oc}$	< 2.6 kV	< 1.0 kV
Voltage protection level at 5 kA (8/20) $\mu$ s	2000 V	–
Maximum continuous operating voltage $U_c$	580 VAC	260 VAC
Temporary overvoltage test value $U_T$	= $U_c$ (5 s)	1200 VAC (200 ms)
Rated frequency	50/60 Hz	50/60 Hz
Nominal discharge current (8/20) $\mu$ s $I_n$	20 kA	20 kA
Charge Q at $I_n$	0.57 As	0.57 As
Specific energy at $I_n$	5.7 kJ/ $\Omega$	5.7 kJ/ $\Omega$
Maximum discharge current $I_{max}$	40 kA	40 kA
Follow current interrupt rating $I_{fi}$	–	100 A <sub>r.m.s.</sub>
Permissible back-up fuse	 $\leq 125$ AgL 50 kA <sub>r.m.s.</sub>	 PLHT-C100 20 kA <sub>r.m.s.</sub>
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	35 mm (2MU)
2-pole	35 mm (2MU)
3-pole	52.5 mm (3MU)
3+1-pole	70 mm (4MU)
4-pole	70 mm (4MU)
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 (built-in)	IP40
Upper and lower lift terminal capacity	4 - 25 mm <sup>2</sup>
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 <sup>2</sup>	Type ZV-KSBI ...

## Dimensions (mm)

