ProSurge®
Surge Protection is Our Industry

SPD for AC Power Supply System

Class II / Type 2

Prosurge SP series are class II (IEC61643-11) pluggable SPD, designed for low-voltage power supply system protection against the damage from surges and spikes caused by lightning and other electrical sources.

It is a DIN-rail SPD featuring Prosurge's global patented fail-safe & self-protected technology, offering quick thermal response and perfect circuit cutoff function and providing fast and reliable protection for various power supply systems.

Built with window fault indication and optional remote alarm contact, it can monitor the operating status of the SPD itself.

Features:

- KEMA certificate Type2 (class II) to IEC61643-11 /EN 61643-11, UL listed Type 1 CA SPD
- Large surge capability up to 40KA 8/20 μ s
- Global patented thermal disconnector design with arc extinguishing device, fail-safe & self-protected, quick thermal response and perfect circuit cutoff function
- Low voltage protection level
- DIN-rail mounting configuration
- Degradation failure indication and optional remote signal contact
- UL 1449 4th 200kArms Short Circuit Current Rating (SCCR) - tested without external CB or fuse
- Pluggable module for easy replacement

Part No.	SP
Nominal discharge current(8/20) In	20 kA
Maximum discharge current(8/20) Imax	40 kA
Category IEC/VDE	II / C
Follow current	MOV model: Nil; GDT model: 100A self cutoff
Operating status/fault indication	Internal: green - normal ; red - failure
Wire Range	Single-strand 35mm²; multi-strand 25mm²
Mounting	35mm DIN-Rail
Degree of Protection	IP 20
Flammability	UL94 V0
Operating & Storage Temperature	- 40℃ to + 80℃
Remote alarm contact	NO/NC/C, Isolated Form C
Remote alarm contact capability Un/In	AC: 250V/0.5A DC: 250V/0.1A; 75V/0.5A
Remote alarm contact connecting wire	Max. 1.5mm² or # 16AWG

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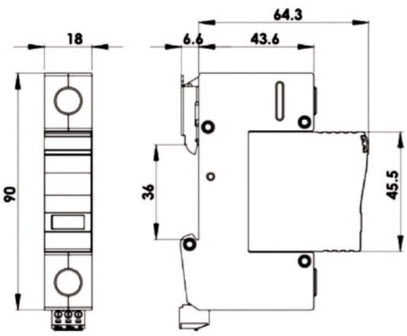
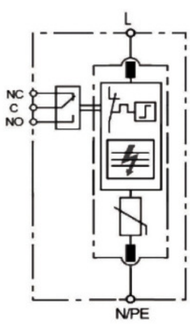
Single pole

Part No.	Pole	Maximum Continuous Operating Voltage, Uc (Vac)			Voltage Protection Level, Up (kV)			Application		
		L−N	L−G	N−G	L−N	L−G	N−G	L−N	L−G	N−G
SP150(−S)	1	150	150	150	0.8	0.8	0.8	✓	✓	✓
SP275(−S)	1	275	275	275	1.4	1.4	1.4	✓	✓	✓
SP275VT(−S)	1	275	275	275	1.4	1.4	1.4	✓	✓	✓
SP320(−S)	1	320	320	320	1.5	1.5	1.5	✓	✓	✓
SP320VT(−S)	1	320	320	320	1.5	1.5	1.5	✓	✓	✓
SP385(−S)	1	385	385	385	1.8	1.8	1.8	✓	✓	✓
SP255T(−S)	1	−	−	255	−	−	1.5	x	x	✓

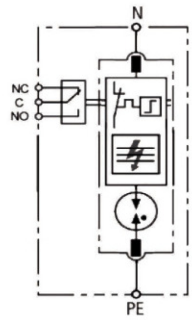
- Dimension drawing



- Basic circuit diagram



L−N/PE(1P)



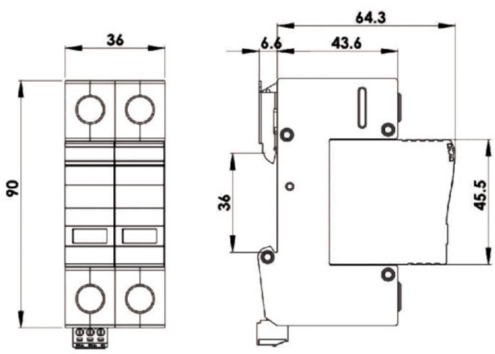
N−PE

For Single-phase TN / TT system

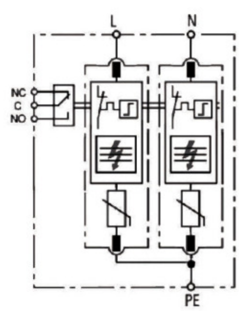
Part No.	Pole	Power distribution system	Nominal Voltage	Maximum Continuous Operating Voltage, Uc (Vac)			Voltage Protection Level, Up (kV)		
			(Vac)	L−N	L−G	N−G	L−N	L−G	N−G
SP150/2P(−S)	2	TN	110/120	−	150	150	−	0.8	0.8
SP150/PN(−S)	2	TN/TT		150	−	255*	0.8	−	1.5
SP275/2P(−S)	2	TN	220/230	−	275	275	−	1.4	1.4
SP275VT/2P(−S)	2			−	275	275	−	1.4	1.4
SP275/PN(−S)	2	TN/TT	220/230	275	−	255*	1.4	−	1.5
SP275VT/PN (−S)	2			275	−	255*	1.4	−	1.5
SP320/2P(−S)	2	TN	220~240	−	320	320	−	1.5	1.5
SP320VT/2P(−S)	2			−	320	320	−	1.5	1.5
SP320/PN(−S)	2	TN/TT	220~240	320	−	255*	1.5	−	1.5
SP320VT/PN (−S)	2			320	−	255*	1.5	−	1.5
SP385/2P(−S)	2	TN	220~240	−	385	385	−	1.8	1.8
SP385/PN(−S)	2	TN/TT		385	−	255*	1.8	−	1.5

*PN : GDT Module is used for N−PE pole

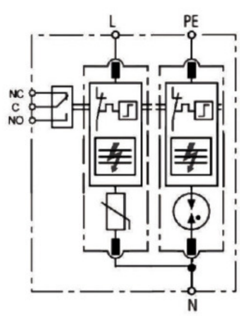
- Dimension drawing



- Basic circuit diagram



2+0 (2P)

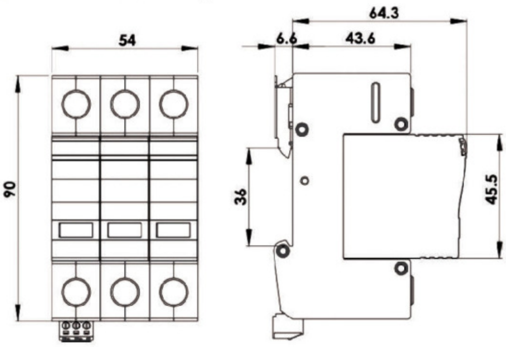


1+1(2P)

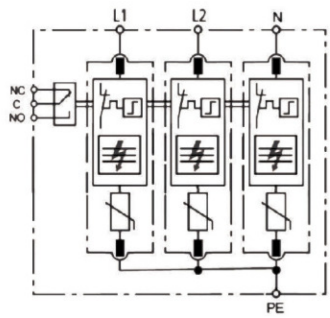
For Three-phase TN-C/IT system

Part No.	Pole	Power distribution system	Nominal Voltage	Maximum Continuous Operating Voltage, Uc (Vac)			Voltage Protection Level, Up (kV)		
			(Vac)	L-N	L-G	N-G	L-N	L-G	N-G
SP150/3P(-S)	3	TN-C/IT	110	–	150	–	–	0.8	–
SP275/3P(-S)	3		220/230	–	275	–	–	1.4	–
SP275VT/3P(-S)	3			–	275	–	–	1.4	–
SP320/3P(-S)	3		220~240	–	320	–	–	1.5	–
SP320VT/3P(-S)	3			–	320	–	–	1.5	–
SP385/3P(-S)	3		220~240	–	385	–	–	1.8	–

- Dimension drawing



- Basic circuit diagram



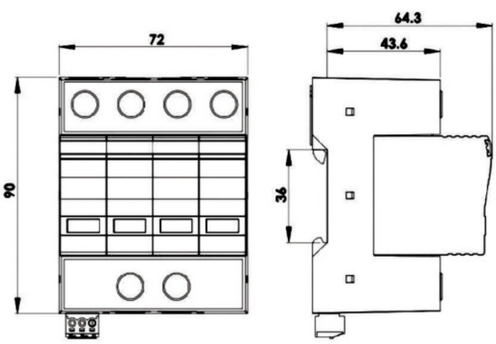
3+0 (3P)

For Three phase TN / TT system

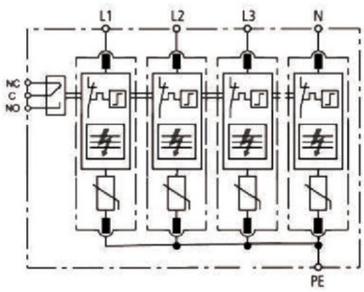
Part No.	Pole	Power distribution system	Nominal Voltage	Maximum Continuous Operating Voltage, Uc (Vac)			Voltage Protection Level, Up (kV)		
			(Vac)	L-N	L-G	N-G	L-N	L-G	N-G
SP150/4P(-S)	4	TN	110/120	–	150	150	–	0.8	0.8
SP150/3PN(-S)	4	TN/TT		150	–	255*	0.8	–	1.5
SP275/4P(-S)	4	TN	220/230	–	275	275	–	1.4	1.4
SP275VT/4P(-S)	4			–	275	275	–	1.4	1.4
SP275/3PN(-S)	4	TN/TT	220/230	275	–	255*	1.4	–	1.5
SP275VT/3PN(-S)	4			275	–	255*	1.4	–	1.5
SP320/4P(-S)	4	TN	220~240	–	320	320	–	1.5	1.5
SP320VT/4P(-S)	4			–	320	320	–	1.5	1.5
SP320/3PN(-S)	4	TN/TT	220~240	320	–	255*	1.5	–	1.5
SP320VT/3PN(-S)	4			320	–	255*	1.5	–	1.5
SP385/4P(-S)	4	TN	220~240	–	385	385	–	1.8	1.8
SP385/3PN(-S)	4	TN/TT		385	–	255*	1.8	–	1.5

*PN : GDT Module for N-PE pole

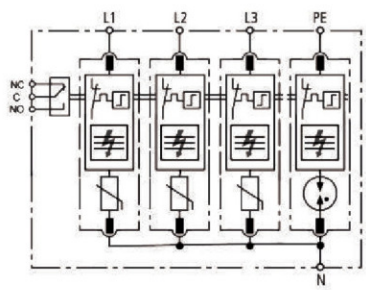
- Dimension drawing



- Basic circuit diagram



4+0(4P)



3+1(4P)