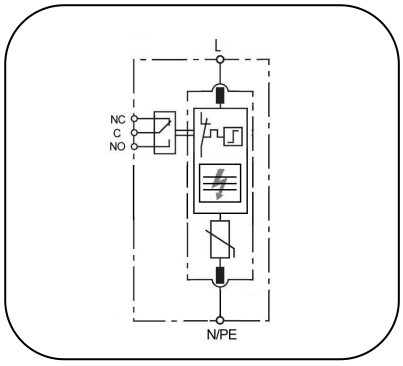
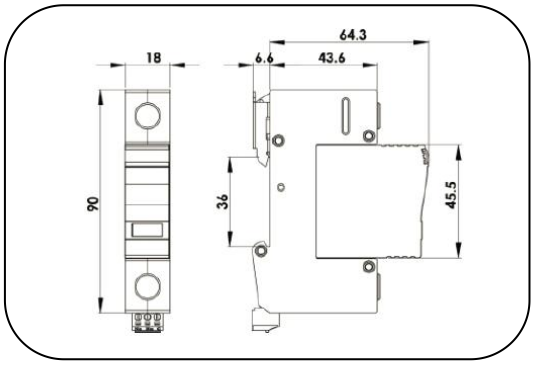
SURGE ARRESTERS – CLASS II

SP… (-S)



Basic circuit diagram



Dimension drawing

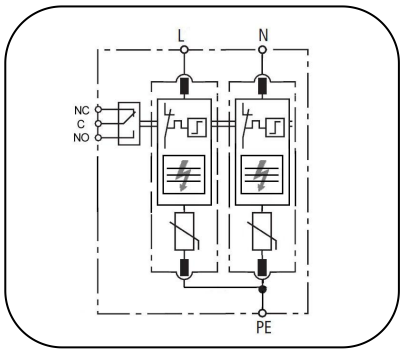
Type 2/Class II surge protective device is designed for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 1-2 and higher.

- KEMA certified T2 SPD per IEC/EN 61643-11.
- High surge current discharge capacity up to 40kA 8/20μs.
- High reliability due to global patented thermally protected MOV with reliable arc-extinguish (TPAE) technology.
- Pluggable module for easy replacement
- Degradation indication and optional remote signal contact.
- Comply with IEC/EN 61643-11, UL1449 4th, CSA C22.2 etc standards.

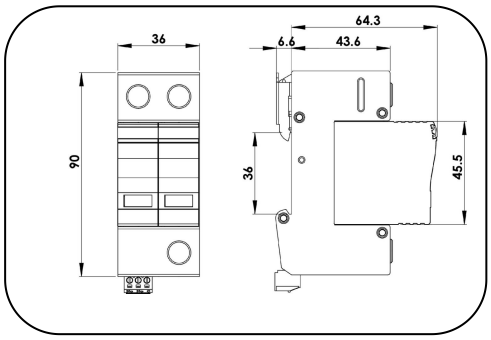
Model		SP150 (-S)	SP275 (-S)	SP320 (-S)	SP385 (-S)
In accordance with		IEC61643-11:2011; EN61643-11:2012;UL1449 4th			
Category IEC/VDE/EN		II/C/T2			
Max. continuous operating voltage (Vac/Vdc)	Uc	150/200V	275/350V	320/420/V	385/505V
Nominal discharge current(8/20us)	In	20kA			
Max. discharge current(8/20us)	Imax	40kA			
Voltage protection level @In	Up	⩽0.8kV	⩽1.4kV	⩽1.5kV	⩽1.8kV
Temporary Overvoltage TOV -Withstand mode	Utov	174V/5s	337V/5s	337V/5s	403V/5s
Residual current	Ipe	<0.1mA			
Follow current	If	No			
Response time	tA	≤25 ns			
Backup fuse(only required if not already provided in mains)		125A gL/gG			
Operating temperature range		- 40ºC ~ + 85ºC			
Cross-section of connection wire		Single-strand 35mm^2; multi-strand 25mm^2			
Mounting		35mm DIN-rail in accordance with EN 50022/DIN46277-3			
Enclosure material		thermoplastic; extinguishing degree UL94 V-0			
Degree of protection		IP20			
Installation width		1 module, DIN 43880			
Failure indiacation/Status		Internal green – normal ; red - failure			
Remote alarm contact		Optional			
Approvals, Certifications		KEMA/CE			
Additional data for Remote Alarm Contacts					
Remote alarm contact type		Isolated Form C			
Switching capability	Un/In	AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A			
Max. Size of connecting wire		Max. 1.5mm^2(or # 16AWG)			

SURGE ARRESTERS – CLASS II

SP…/2P(-S)



Basic circuit diagram



Dimension drawing

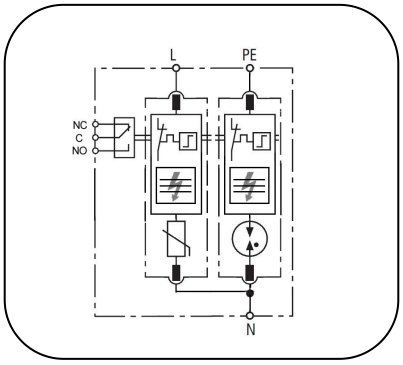
Type 2/Class II surge protective device is designed for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 1-2 and higher.

- KEMA certified T2 SPD per IEC/EN 61643-11.
- Prewired 2 poles SPD application for single phase protection.
- High surge current discharge capacity up to 40kA 8/20μs.
- High reliability due to global patented thermally protected MOV with reliable arc-extinguish (TPAE) technology.
- Pluggable module for easy replacement
- Degradation indication and optional remote signal contact.
- Comply with IEC/EN 61643-11, UL1449 4th,CSA C22.2 etc standards.

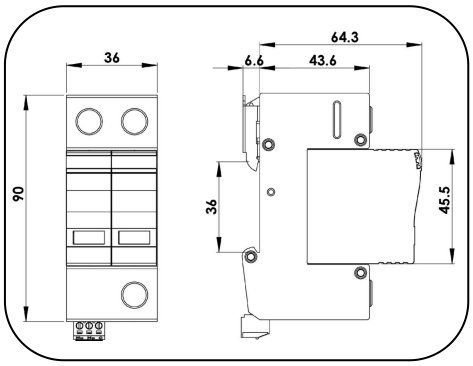
Model		SP150/2P(-S)	SP275/2P(-S)	SP320/2P(-S)	SP385/2P(-S)
In accordance with		IEC61643-11:2011; EN61643-11:2012;UL1449 4th			
Category IEC/VDE/EN		II/C/T2			
Max. continuous operating voltage (Vac/Vdc)	Uc	150/200V	275/350V	320/420/V	385/505V
Nominal discharge current(8/20us)	In	20kA			
Max. discharge current(8/20us)	Imax	40kA			
Voltage protection level @In IEC	Up	≤0.8kV	≤1.4kV	≤1.5kV	≤1.8kV
Temporary Overvoltage TOV -Withstand mode	Utov	174V/5s	337V/5s	337V/5s	403V/5s
Residual current	Ipe	<0.1mA			
Follow current	If	No			
Response time	tA	≤25 ns			
Backup fuse(only required if not already provided in mains)		125A gL/gG			
Operating temperature range		- 40°C ~ + 85°C			
Cross-section of connection wire		Single-strand 35mm²; multi-strand 25mm²			
Mounting		35mm DIN-rail in accordance with EN 50022/DIN46277-3			
Enclosure material		thermoplastic; extinguishing degree UL94 V-0			
Degree of protection		IP20			
Installation width		2 module, DIN 43880			
Failure indiacation/Status		Internal green – normal ; red - failure			
Remote alarm contact		Optional			
Approvals, Certifications		KEMA/CE			
Additional data for Remote Alarm Contacts					
Remote alarm contact type		Isolated Form C			
Switching capability	Un/In	AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A			
Max. Size of connecting wire		Max. 1.5mm²(or # 16AWG)			

SURGE ARRESTERS – CLASS II

SP…/PN(-S)



Basic circuit diagram



Dimension drawing

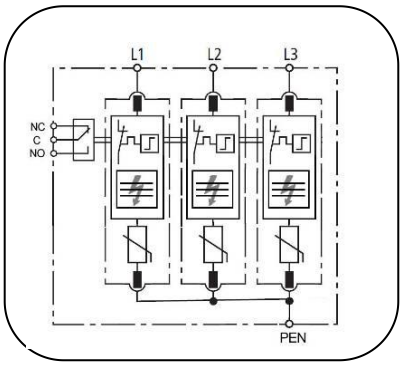
Type 2/Class II surge protective device is designed for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 1-2 and higher.

- KEMA certified T2 SPD per IEC/EN 61643-11.
- Prewired “1+1” circuit application for single phase TT/TN system protection
- High surge current discharge capacity up to 40kA 8/20μs.
- High reliability due to global patented thermally protected MOV with reliable arc-extinguish (TPAE) technology.
- Pluggable module for easy replacement
- Degradation indication and optional remote signal contact.
- Comply with IEC/EN 61643-11, UL1449 4th, CSA C22.2 etc standards.

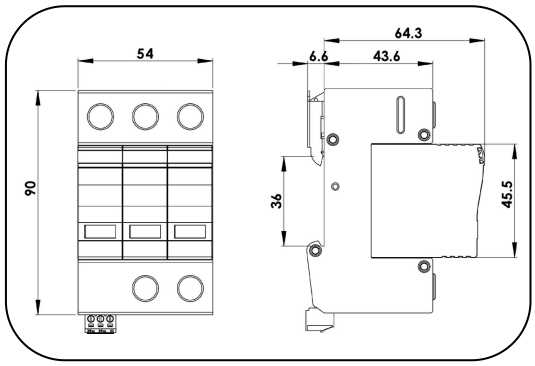
Model			SP150/PN(-S)	SP275/PN(-S)	SP320/PN(-S)	SP385/PN(-S)
In accordance with			IEC61643-11:2011; EN61643-11:2012;UL1449 4th			
Category IEC/VDE/EN			II/C/T2			
Max. continuous operating voltage	L-N (Vac/Vdc)	Uc	150/200V	275/350V	320/420V	385/505V
	N-PE(Vac)		255V	255V	255V	255V
Nominal discharge current(8/20us)		In	20kA			
Max. discharge current(8/20us)		Imax	40kA			
Voltage protection level	L-N @In	Up	⩽0.8kV	⩽1.4kV	⩽1.5kV	⩽1.8kV
	N-PE@1.2/50		⩽1.5kV	⩽1.5kV	⩽1.5kV	⩽1.5kV
Temporary Overvoltage TOV -Withstand mode	L-N	Utov	174V/5s	337V/5s	337V/5s	403V/5s
	N-PE		1200V/200ms	1200V/200ms	1200V/200ms	1200V/200ms
Residual current		Ipe	<0.1mA			
Follow current interrupt rating	N-PE	Ifi	100Arms @ 255Vac			
Response time		tA	≤25 ns (L-N); ≤100 ns (N-PE);			
Backup fuse(only required if not already provided in mains)			125A gL/gG			
Operating temperature range			- 40ºC ~ + 85ºC			
Cross-section of connection wire			Single-strand 35mm^2; multi-strand 25mm^2			
Mounting			35mm DIN-rail in accordance with EN 50022/DIN46277-3			
Enclosure material			thermoplastic; extinguishing degree UL94 V-0			
Degree of protection			IP20			
Installation width			2 module, DIN 43880			
Failure indiacation/Status			Internal green – normal ; red - failure			
Remote alarm contact			Optional			
Approvals, Certifications			KEMA/CE			
Additional data for Remote Alarm Contacts						
Remote alarm contact type			Isolated Form C			
Switching capability		Un/In	AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A			
Max. Size of connecting wire			Max. 1.5mm^2(or # 16AWG)			

SURGE ARRESTERS – CLASS II

SP…/3P(-S)



Basic circuit diagram



Dimension drawing

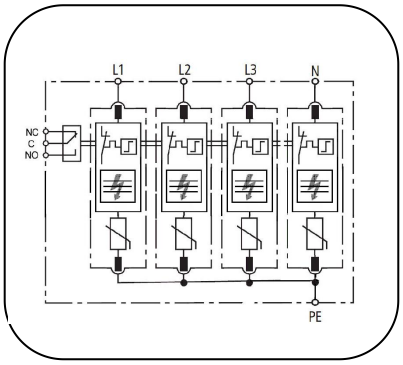
Type 2/Class II surge protective device is designed for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 1-2 and higher.

- KEMA certified T2 SPD per IEC/EN 61643-11.
- Prewired 3 poles SPD application for three phases TN-C/IT system protection.
- High surge current discharge capacity up to 40kA 8/20μs.
- High reliability due to global patented thermally protected MOV with reliable arc-extinguish (TPAE) technology.
- Pluggable module for easy replacement
- Degradation indication and optional remote signal contact.
- Comply with IEC/EN 61643-11, UL1449 4th, CSA C22.2 etc standards.

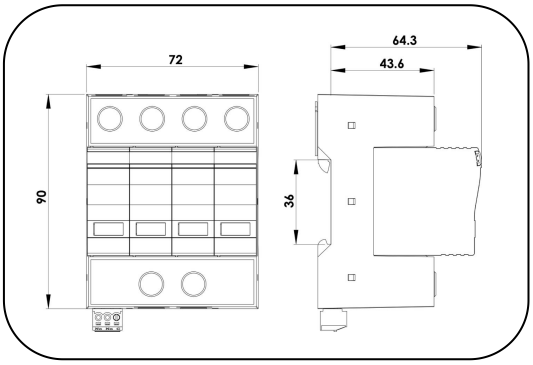
Model		SP150/3P-(S)	SP275/3P(-S)	SP320/3P(-S)	SP385/3P(-S)
In accordance with		IEC61643-11:2011; EN61643-11:2012;UL1449 4th			
Category IEC/VDE/EN		II/C/T2			
Max. continuous operating voltage (Vac/Vdc)	Uc	150/200V	275/350V	320/420/V	385/505V
Nominal discharge current(8/20us)	In	20kA			
Max. discharge current(8/20us)	Imax	40kA			
Voltage protection level @In	Up	⩽0.8kV	⩽1.4kV	⩽1.5kV	⩽1.8kV
Temporary Overvoltage TOV -Withstand mode	Utov	174V/5s	337V/5s	337V/5s	403V/5s
Residual current	Ipe	<0.1mA			
Follow current	If	No			
Response time	tA	≤25 ns			
Backup fuse(only required if not already provided in mains)		125A gL/gG			
Operating temperature range		- 40°C ~ + 85°C			
Cross-section of connection wire		Single-strand 35mm^2; multi-strand 25mm^2			
Mounting		35mm DIN-rail in accordance with EN 50022/DIN46277-3			
Enclosure material		thermoplastic; extinguishing degree UL94 V-0			
Degree of protection		IP20			
Installation width		3 module, DIN 43880			
Failure indiacation/Status		Internal green – normal ; red - failure			
Remote alarm contact		Optional			
Approvals, Certifications		KEMA/CE			
Additional data for Remote Alarm Contacts					
Remote alarm contact type		Isolated Form C			
Switching capability	Un/In	AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A			
Max. Size of connecting wire		Max. 1.5mm^2(or # 16AWG)			

SURGE ARRESTERS – CLASS II

SP…/4P(-S)



Basic circuit diagram



Dimension drawing

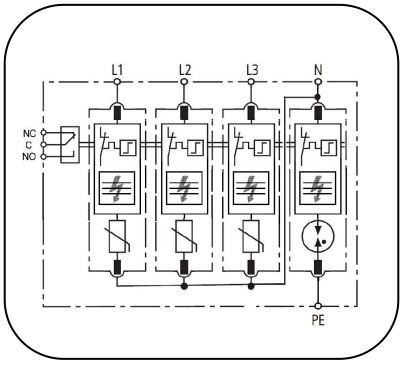
Type 2/Class II surge protective device is designed for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 1-2 and higher.

- KEMA certified T2 SPD per IEC/EN 61643-11.
- Prewired 4+0 circuit application for three phases TN/TT system protection.
- High surge current discharge capacity up to 40kA 8/20μs.
- High reliability due to global patented thermally protected MOV with reliable arc-extinguish (TPAE) technology.
- Pluggable module for easy replacement
- Degradation indication and optional remote signal contact.
- Comply with IEC/EN 61643-11, UL1449 4th, CSA C22.2 etc standards.

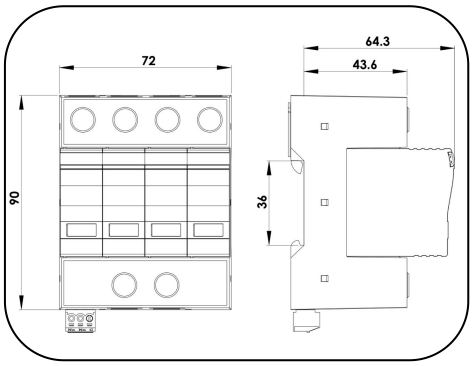
Model		SP150/4P-(S)	SP275/4P(-S)	SP320/4P(-S)	SP385/4P(-S)
In accordance with		IEC61643-11:2011; EN61643-11:2012;UL1449 4th			
Category IEC/VDE/EN		II/C/T2			
Max. continuous operating voltage (Vac/Vdc)	Uc	150/200V	275/350V	320/420/V	385/505V
Nominal discharge current(8/20us)	In	20kA			
Max. discharge current(8/20us)	Imax	40kA			
Voltage protection level @In	Up	⩽0.8kV	⩽1.4kV	⩽1.5kV	⩽1.8kV
Temporary Overvoltage TOV -Withstand mode	Utov	174V/5s	337V/5s	337V/5s	403V/5s
Residual current	Ipe	<0.1mA			
Follow current	If	No			
Response time	tA	≤25 ns			
Backup fuse(only required if not already provided in mains)		125A gL/gG			
Operating temperature range		- 40°C ~ + 85°C			
Cross-section of connection wire		Single-strand 35mm^2; multi-strand 25mm^2			
Mounting		35mm DIN-rail in accordance with EN 50022/DIN46277-3			
Enclosure material		thermoplastic; extinguishing degree UL94 V-0			
Degree of protection		IP20			
Installation width		4 module, DIN 43880			
Failure indiacation/Status		Internal green – normal ; red - failure			
Remote alarm contact		Optional			
Approvals, Certifications		KEMA/CE			
Additional data for Remote Alarm Contacts					
Remote alarm contact type		Isolated Form C			
Switching capability	Un/In	AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A			
Max. Size of connecting wire		Max. 1.5mm^2(or # 16AWG)			

SURGE ARRESTERS – CLASS II

SP…/3PN(-S)



Basic circuit diagram



Dimension drawing

Type 2/Class II surge protective device is designed for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 1-2 and higher.

- KEMA certified T2 SPD per IEC/EN 61643-11.
- Prewired “3+1” circuit application for three phases TT/TN system protection
- High surge current discharge capacity up to 40kA 8/20μs.
- High reliability due to global patented thermally protected MOV with reliable arc-extinguish (TPAE) technology.
- Pluggable module for easy replacement
- Degradation indication and optional remote signal contact.
- Comply with IEC/EN 61643-11, UL1449 4th, CSA C22.2 etc standards.

Model			SP150/3PN(-S)	SP275/3PN(-S)	SP320/3PN(-S)	SP385/3PN(-S)
In accordance with			IEC61643-11:2011; EN61643-11:2012;UL1449 4th			
Category IEC/VDE/EN			II/C/T2			
Max. continuous operating voltage	L-N (Vac/Vdc)	Uc	150/200V	275/350V	320/420V	385/505V
	N-PE(Vac)		255V	255V	255V	255V
Nominal discharge current(8/20us)		In	20kA			
Max. discharge current(8/20us)		Imax	40kA			
Voltage protection level	L-N @In	Up	⩽0.8kV	⩽1.4kV	⩽1.5kV	⩽1.8kV
	N-PE@1.2/50		⩽1.5KV	⩽1.5kV	⩽1.5KV	⩽1.5kV
Temporary Overvoltage TOV -Withstand mode	L-N	Utov	174V/5s	337V/5s	337V/5s	403V/5s
	N-PE		1200V/200ms	1200V/200ms	1200V/200ms	1200V/200ms
Residual current		Ipe	<0.1mA			
Follow current interrupt rating	N-PE	Ifi	100Arms @ 255Vac			
Response time		tA	≤25 ns (L-N); ≤100 ns (N-PE);			
Backup fuse(only required if not already provided in mains)			125A gL/gG			
Operating temperature range			- 40ºC ~ + 85ºC			
Cross-section of connection wire			Single-strand 35mm^2; multi-strand 25mm^2			
Mounting			35mm DIN-rail in accordance with EN 50022/DIN46277-3			
Enclosure material			thermoplastic; extinguishing degree UL94 V-0			
Degree of protection			IP20			
Installation width			4 module, DIN 43880			
Failure indiacation/Status			Internal green – normal ; red - failure			
Remote alarm contact			Optional			
Approvals, Certifications			KEMA/CE			
Additional data for Remote Alarm Contacts						
Remote alarm contact type			Isolated Form C			
Switching capability		Un/In	AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A			
Max. Size of connecting wire			Max. 1.5mm^2(or # 16AWG)			