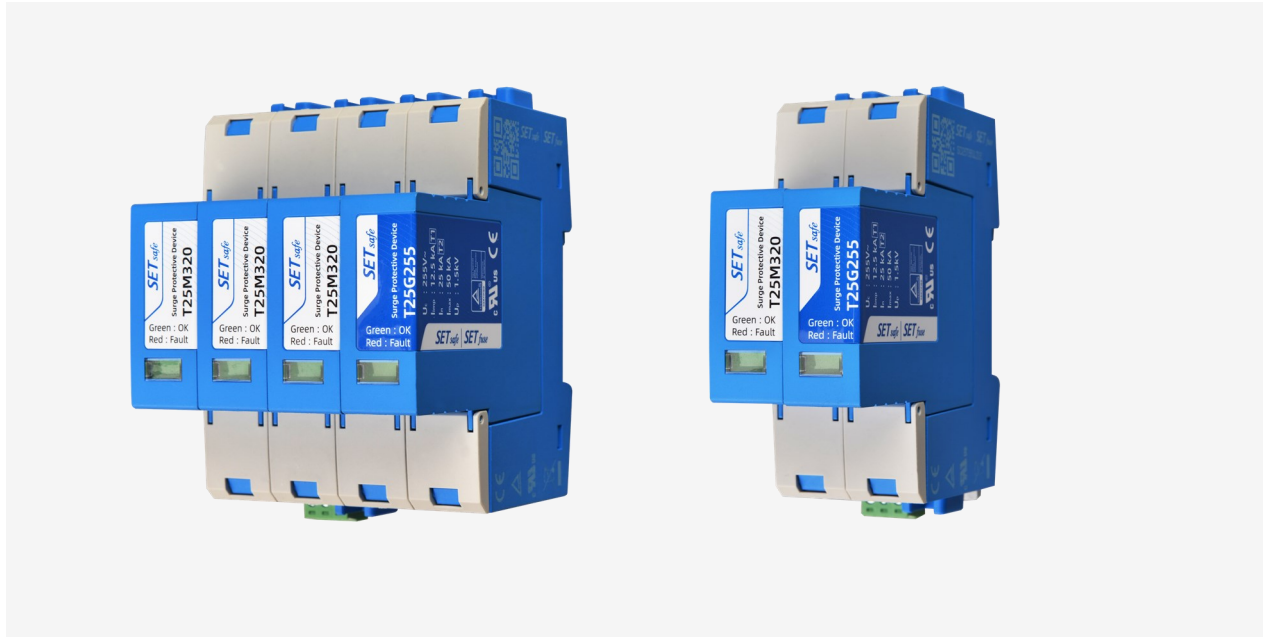
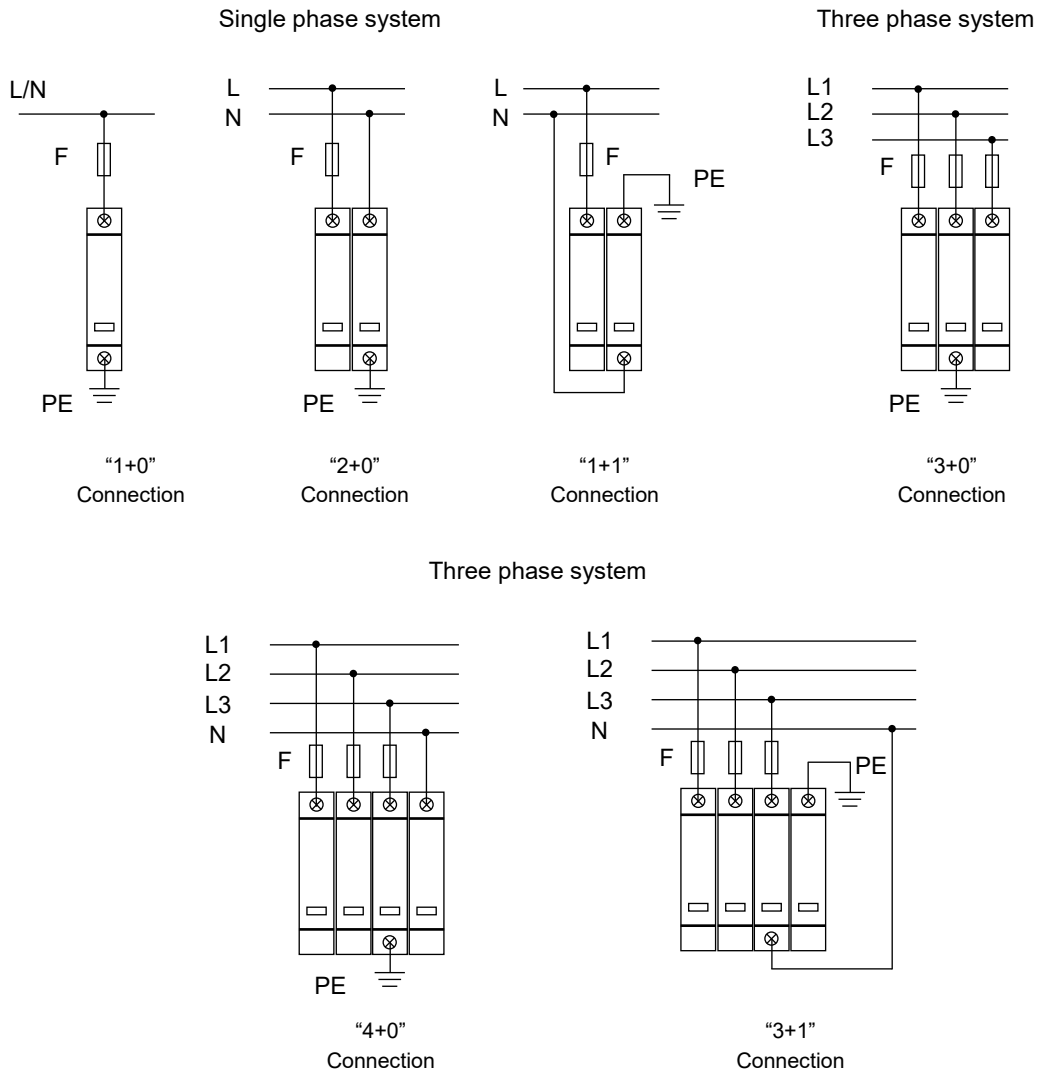


SPD Connected to LV Power Supply System

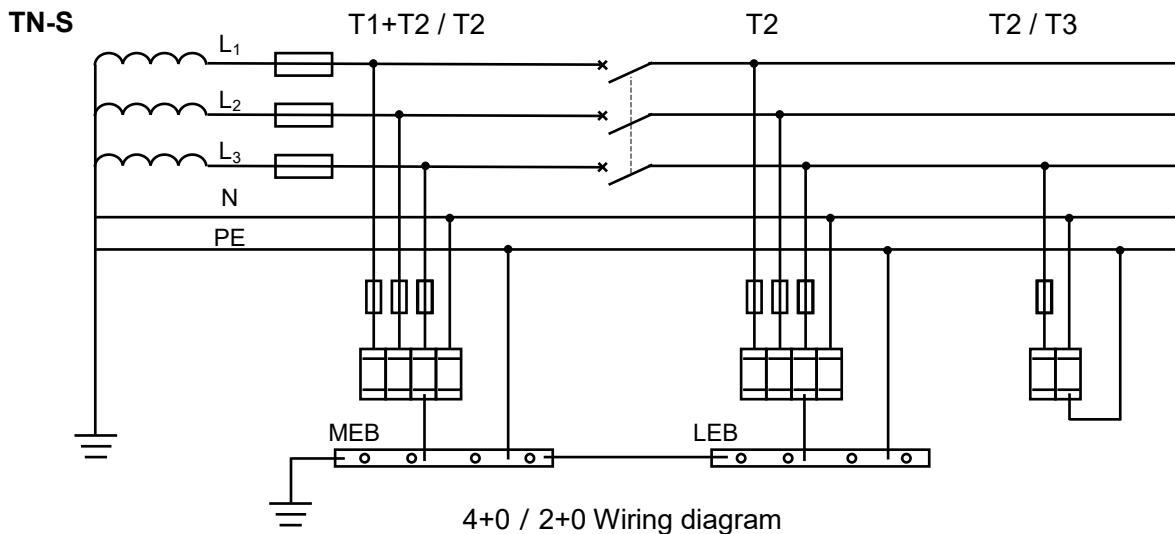


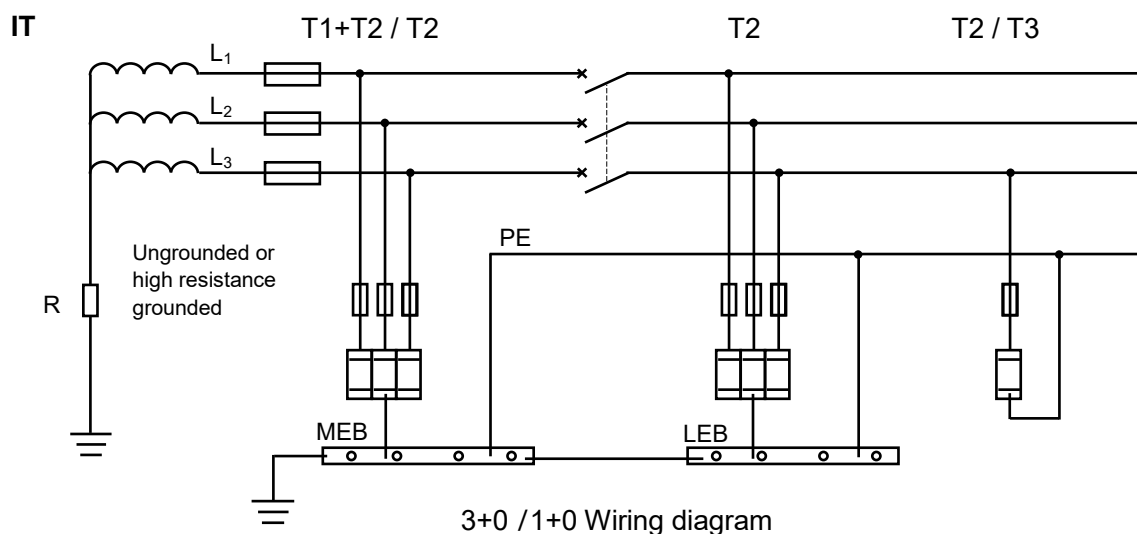
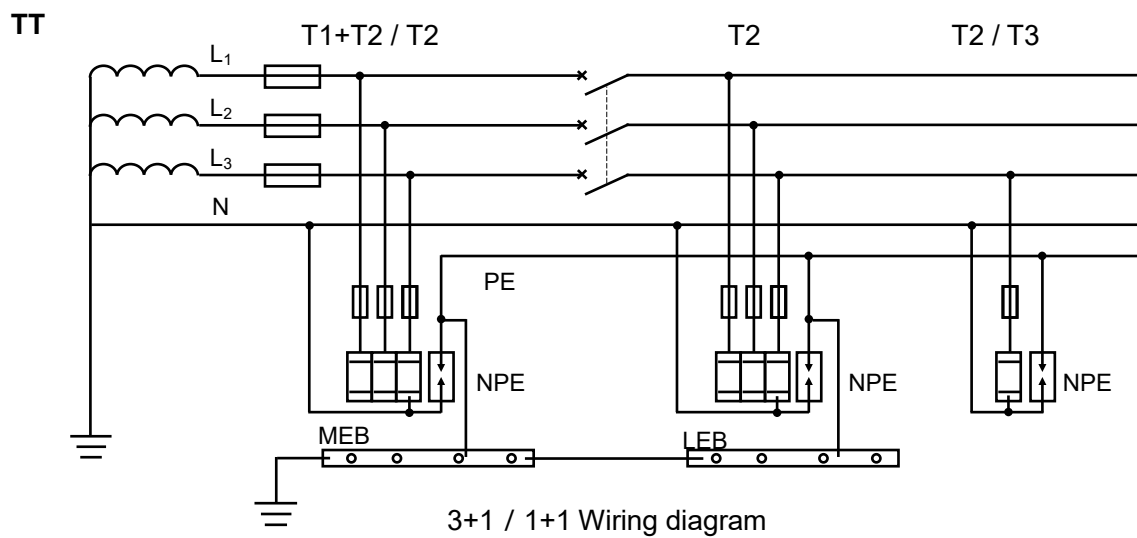
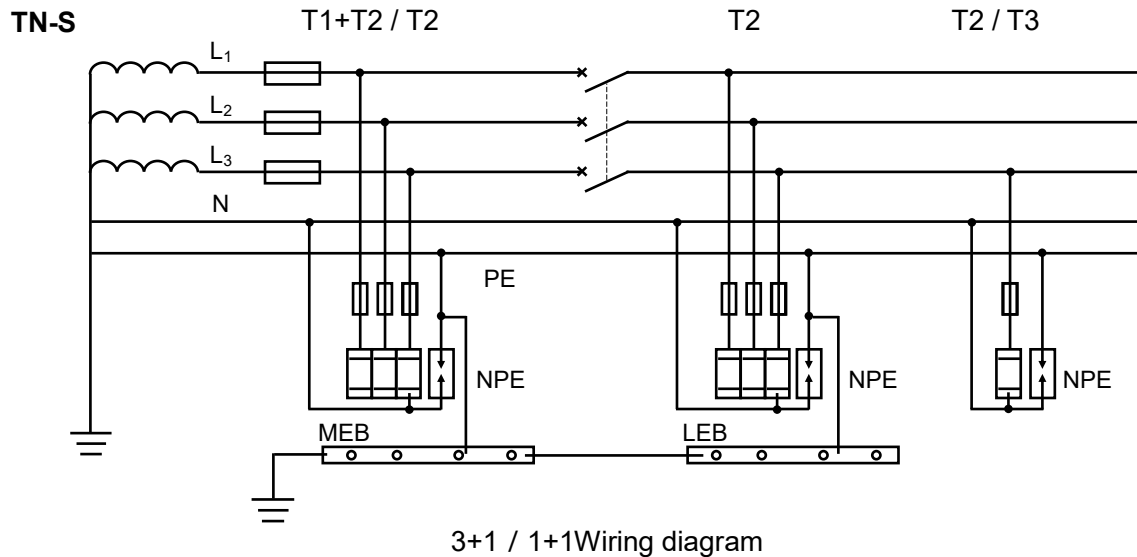
- AC / DC Power System
- New Energy
- Residential Building
- Telecommunications
- Internet Data Center (IDC)
- Distribution System

Wiring Diagram



Connection of SPD in networks



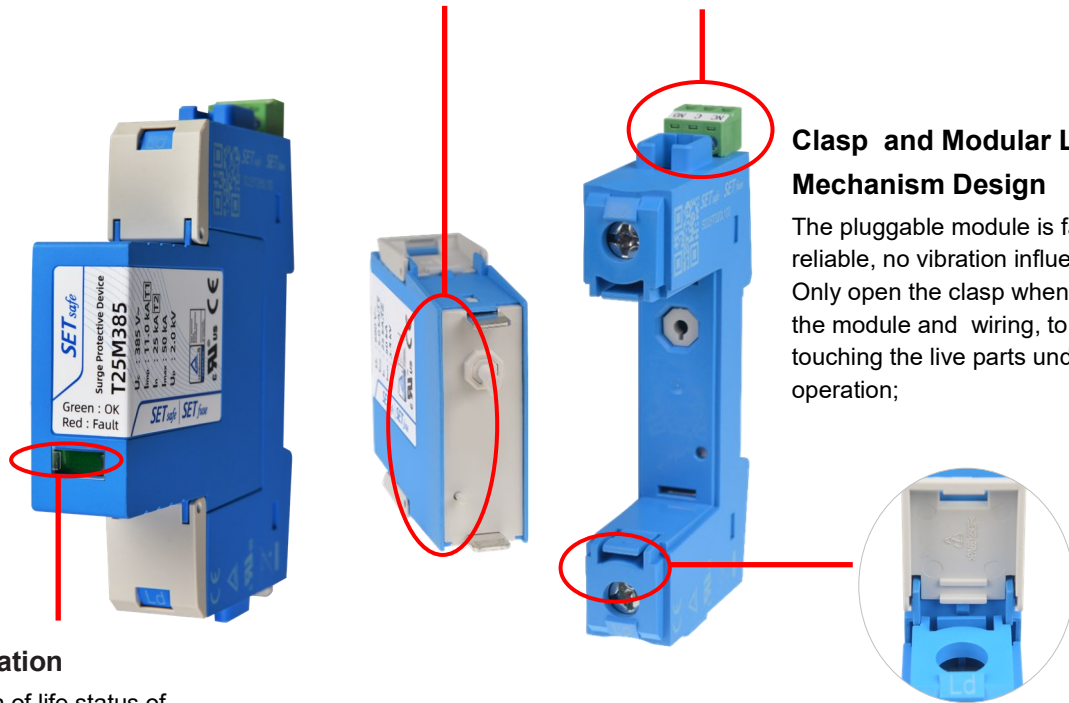


Features (SD25T)

Comply with UL 1449, IEC/EN 61643-11 and IEC/EN 61643-31

Pluggable Module
Easy for replacement

Remote Signaling
Optional in all ranges, for remote signaling of modular end of life



Clasp and Modular Locking Mechanism Design

The pluggable module is fasten and reliable, no vibration influence
Only open the clasp when replacing the module and wiring, to avoid touching the live parts under normal operation;

Failure Indication

Visual indication of life status of the protection device

Specifications

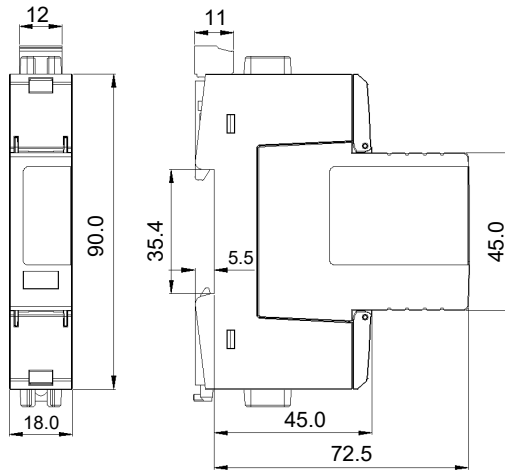
Features	Specifications
Degrees of Protection	IP20
Wiring Ability	(1.5 to 25) mm ² (Flexible) / 35 mm ² (Rigid)
Installation	35 mm DIN rail
Alarm	Remote + Indicator
Operating State / Fault Indication	Green / Red
Remote Indication Contacts	AC: 250 V / 0.5 A, DC: 250 V / 0.1 A
Cross-section of Remote Indication Conductors	1.5 mm
Max. Main-side Overcurrent Protection	200 A gL/gG
Short Current Rating I_{SCCR}	25 kA
According to Standard	UL 1449, EN 61643-11, EN 61643-31
Altitude	0 ~ 5000 m
Operational Temperature Range	(-40 to 85) °C

Glossary

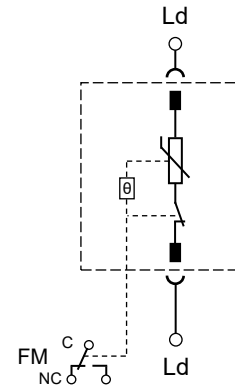
Item	Description
U_p	Voltage Protection Level Maximum voltage to be expected at the SPD terminals due to an impulse stress with defined voltage steepness and an impulse stress with a discharge current with given amplitude and wave shape. — (IEC 61643-11)
8/20 μ s	8/20 Current Impulse Current impulse with a nominal virtual front time of 8 μ s and a nominal time to half-value of 20 μ s. — (IEC 61643-11)
1.2/50 μ s	1.2/50 Voltage Impulse Voltage impulse with a nominal virtual front time of 1.2 μ s and a nominal time to half-value of 50 μ s. — (IEC 61643-11)
U_c	Maximum Continuous Operating Voltage Maximum r.m.s. voltage, which may be continuously applied to the SPD's mode of protection. — (IEC 61643-11)
I_n	Nominal Discharge Current Crest value of the current through the SPD having a current waveshape of 8/20 μ s. — (IEC 61643-11)
I_{imp}	Impulse Discharge Current for Class I Test Crest value of a discharge current through the SPD with specified charge transfer Q and specified energy W/R in the specified time. — (IEC 61643-11)
I_{max}	Maximum Discharge Current Crest value of a current through the SPD having an 8/20 μ s waveshape and magnitude according to the manufacturers specification. I_{max} is equal to or greater than I_n . — (IEC 61643-11)
Modes of Protection	Modes of Protection An intended current path, between terminals that contains protective components, e.g. line-to-line, line-to-earth, line-to-neutral, neutral-to-earth. — (IEC 61643-11)
IP	Degrees of Protection Provided by Enclosure (IP Code) Classification preceded by the symbol IP indicating the extent of protection provided by an enclosure against access to hazardous parts, against ingress of solid foreign objects and possibly harmful ingress of water.



Dimensions (mm)



Schematics



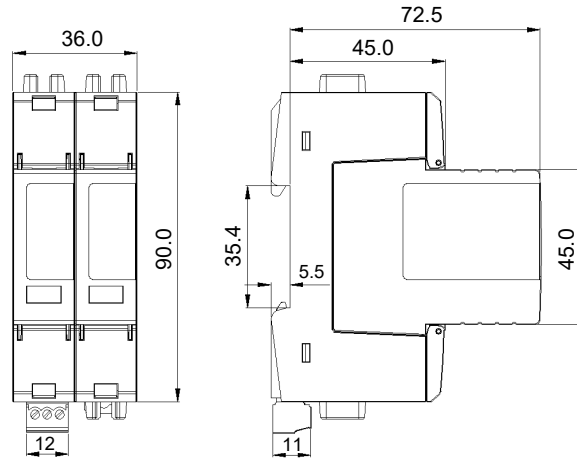
- For AC Single-phase System
- Class I and Class II SPD
- Over-temperature Protection, Overcurrent Protection, High Reliability

Specifications

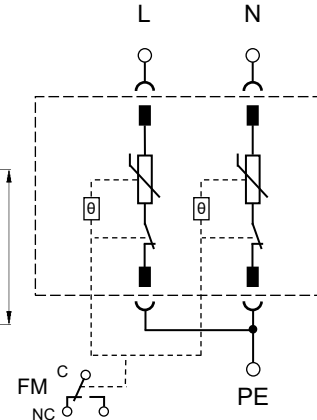
Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Impulse Discharge Current (10/350 μ s) (I_{imp})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25T150L100	120 VAC	150 VAC	25 kA	50 kA	12.5 kA	1.0 kV	1+0 (Ld - Ld)	T1+T2
SD25T175L100	120 VAC	175 VAC	25 kA	50 kA	12.5 kA	1.3 kV		
SD25T275L100	230 VAC	275 VAC	25 kA	50 kA	12.5 kA	1.5 kV		
SD25T320L100	230 VAC	320 VAC	25 kA	50 kA	11.0 kA	1.8 kV		
SD25T385L100	230 VAC	385 VAC	25 kA	50 kA	11.0 kA	2.0 kV		
SD25T440L100	277 VAC	440 VAC	25 kA	50 kA	10.0 kA	2.1 kV		
SD25T510L100	347 VAC	510 VAC	25 kA	50 kA	7.5 kA	2.5 kV		
SD25T550L100	480 VAC	550 VAC	25 kA	50 kA	7.5 kA	2.8 kV		
SD25T680L100	600 VAC	680 VAC	25 kA	50 kA	5.0 kA	3.2 kV		



Dimensions (mm)



Schematics



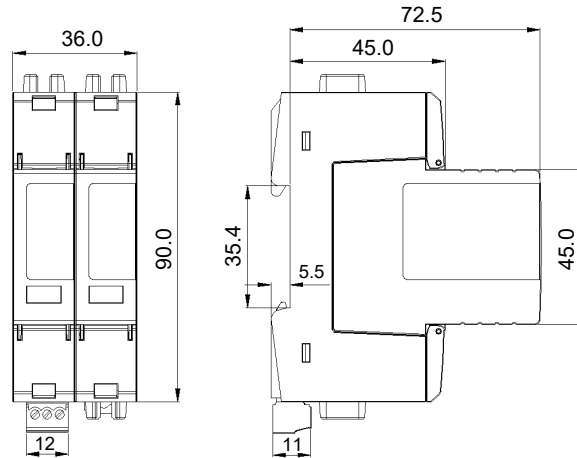
- For AC Single-phase System
- Class I and Class II SPD
- Over-temperature Protection, Overcurrent Protection, High Reliability

Specifications

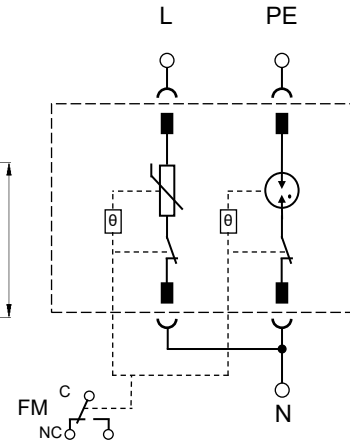
Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Impulse Discharge Current (10/350 μ s) (I_{imp})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25T150L205	120 VAC	150 VAC	25 kA	50 kA	12.5 kA	1.0 kV	2+0 (L - PE, N - PE)	T1+T2
SD25T175L205	120 VAC	175 VAC	25 kA	50 kA	12.5 kA	1.3 kV		
SD25T275L205	230 VAC	275 VAC	25 kA	50 kA	12.5 kA	1.5 kV		
SD25T320L205	230 VAC	320 VAC	25 kA	50 kA	11.0 kA	1.8 kV		
SD25T385L205	230 VAC	385 VAC	25 kA	50 kA	11.0 kA	2.0 kV		
SD25T440L205	277 VAC	440 VAC	25 kA	50 kA	10.0 kA	2.1 kV		
SD25T550L205	480 VAC	550 VAC	25 kA	50 kA	7.5 kA	2.8 kV		



Dimensions (mm)



Schematics



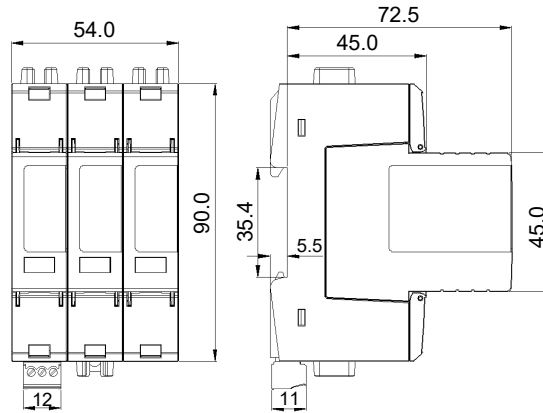
- For Use AC Single-phase System
- Class I and Class II SPD
- Over-temperature Protection, Overcurrent Protection, High Reliability

Specifications

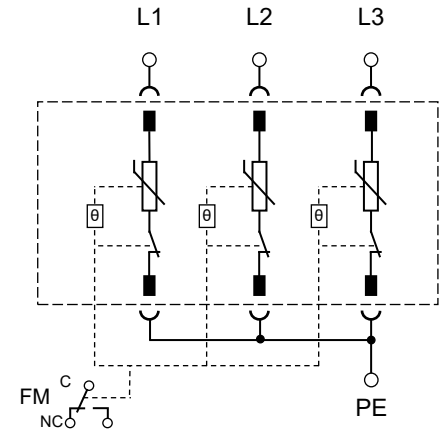
Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Impulse Discharge Current (10/350 μ s) (I_{imp})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25T150A203	120 VAC	L - N: 150 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 12.5 kA; N - PE: 12.5 kA	L - N: 1.0 kV; N - PE: 1.5 kV	1+1 (L - N, N - PE)	T1+T2
SD25T275A203	230 VAC	L - N: 275 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 12.5 kA; N - PE: 12.5 kA	L - N: 1.5 kV; N - PE: 1.5 kV		
SD25T320A203	230 VAC	L - N: 320 VAC; N-PE: 255 VAC	25 kA	50 kA	L - N: 11.0 kA; N - PE: 12.5 kA	L - N: 1.8 kV; N - PE: 1.5 kV		
SD25T385A203	230 VAC	L - N: 385 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 11.0 kA; N - PE: 12.5 kA	L - N: 2.0 kV; N - PE: 1.5 kV		



Dimensions (mm)



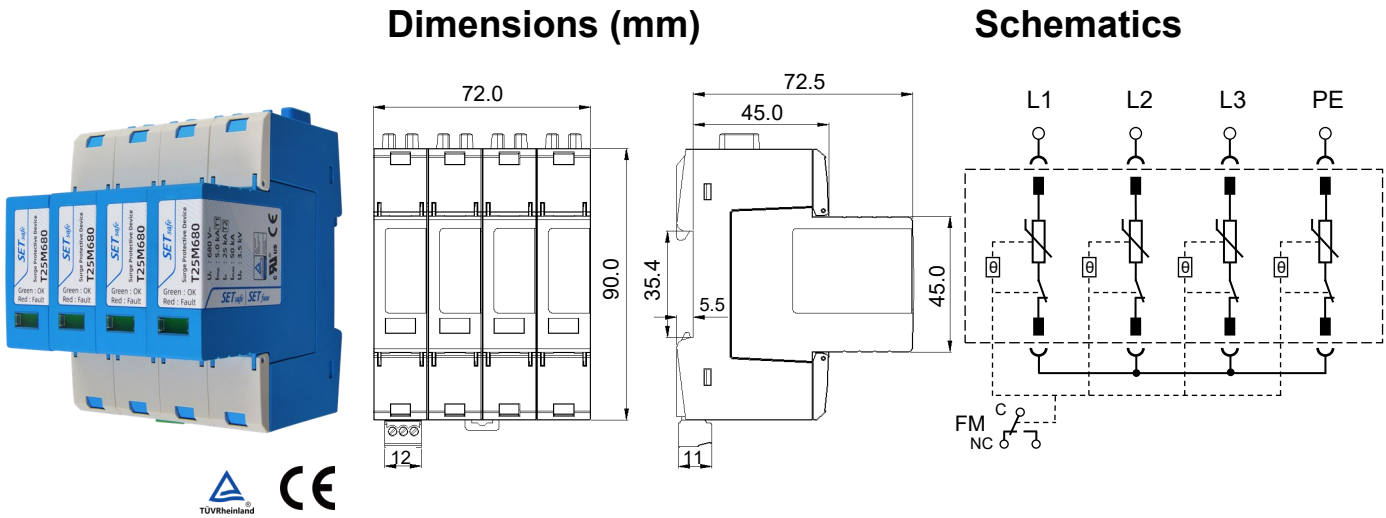
Schematics



- For AC Three-phase System
- Class I and Class II SPD
- Over-temperature Protection, Overcurrent Protection, High Reliability

Specifications

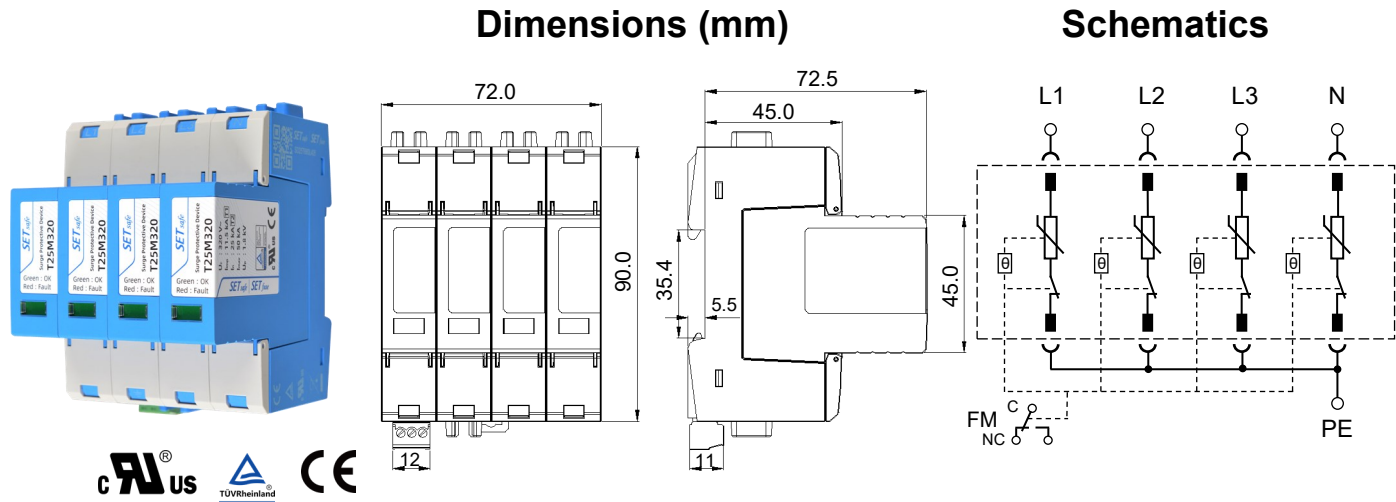
Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Impulse Discharge Current (10/350 μ s) (I_{imp})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25T150L306	120 / 208 VAC	150 VAC	25 kA	50 kA	12.5 kA	1.0 kV	3+0 (L - PE)	T1+T2
SD25T175L306	120 / 208 VAC	175 VAC	25 kA	50 kA	12.5 kA	1.3 kV		
SD25T320L306	230 / 400 VAC	320 VAC	25 kA	50 kA	11.0 kA	1.8 kV		
SD25T385L306	230 / 400 VAC	385 VAC	25 kA	50 kA	11.0 kA	2.0 kV		
SD25T440L306	277 / 480 VAC	440 VAC	25 kA	50 kA	10.0 kA	2.1 kV		
SD25T510L306	480 VAC	510 VAC	25 kA	50 kA	7.5 kA	2.5 kV		
SD25T550L306	480 VAC	550 VAC	25 kA	50 kA	7.5 kA	2.8 kV		
SD25T680L306	600 VAC	680 VAC	25 kA	50 kA	5.0 kA	3.2 kV		



- For AC output Surge Protection of PV System
- Class I and Class II SPD
- Over-temperature Protection, Overcurrent Protection, High Reliability

Specifications

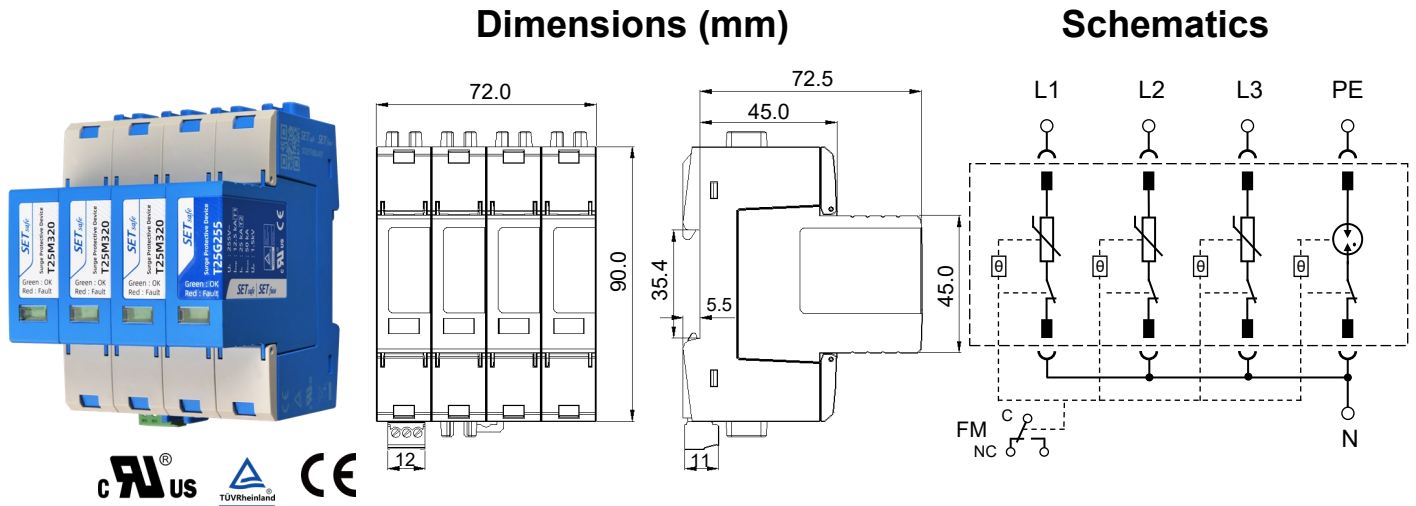
Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Impulse Discharge Current (10/350 μ s) (I_{imp})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25T760L306	400 / 690 VAC	880 VAC	25 kA	50 kA	10.0 kA	5.0 kV	3+0 (L - PE)	T1+T2
SD25T900L306	578 / 1000 VAC	1300 VAC	25 kA	50 kA	5.0 kA	6.4 kV		



- For AC Three-phase System
- Class I and Class II SPD
- Over-temperature Protection, Overcurrent Protection, High Reliability

Specifications

Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Impulse Discharge Current (10/350 μ s) (I_{imp})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25T150L405	120 / 208 VAC	150 VAC	25 kA	50 kA	12.5 kA	1.0 kV	4+0 (L - PE, N - PE)	T1+T2
SD25T175L405	120 / 208 VAC	175 VAC	25 kA	50 kA	12.5 kA	1.3 kV		
SD25T275L405	230 / 400 VAC	275 VAC	25 kA	50 kA	12.5 kA	1.5 kV		
SD25T320L405	230 / 400 VAC	320 VAC	25 kA	50 kA	11.0 kA	1.8 kV		
SD25T385L405	230 / 400 VAC	385 VAC	25 kA	50 kA	11.0 kA	2.0 kV		
SD25T440L405	277 / 480 VAC	440 VAC	25 kA	50 kA	10.0 kA	2.1 kV		
SD25T550L405	400 / 690 VAC	550 VAC	25 kA	50 kA	7.5 kA	2.8 kV		
SD25T680L405	400 / 690 VAC	680 VAC	25 kA	50 kA	5.0 kA	3.2 kV		



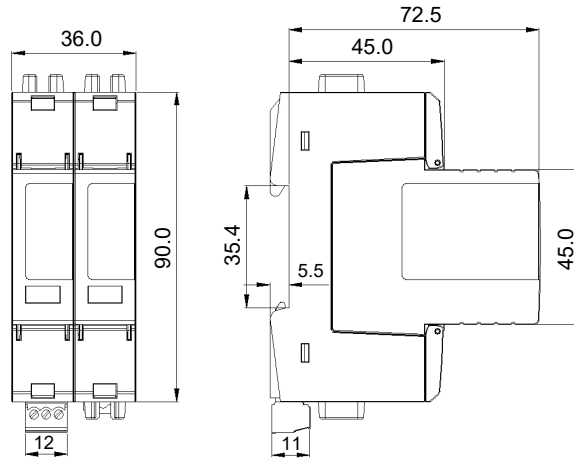
- For AC Three-phase System
- Class I and Class II SPD
- Over-temperature Protection, Overcurrent Protection, High Reliability

Specifications

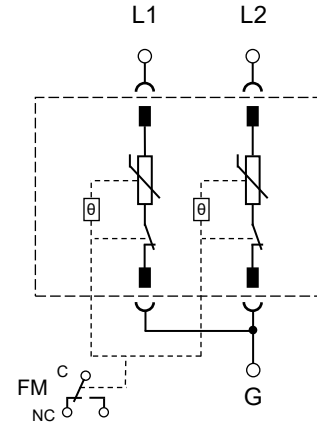
Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Impulse Discharge Current (10/350 μ s) (I_{imp})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25T150A404	120 / 208 VAC	L - N: 150 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 12.5 kA; N - PE: 12.5 kA	L - N: 1.0 kV; N - PE: 1.5 kV	3+1 (L - N, N - PE)	T1+T2
SD25T175A404	120 / 208 VAC	L - N: 175 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 12.5 kA; N - PE: 12.5 kA	L - N: 1.3 kV; N - PE: 1.5 kV		
SD25T275A404	230 / 400 VAC	L - N: 275 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 12.5 kA; N - PE: 12.5 kA	L - N: 1.5 kV; N - PE: 1.5 kV		
SD25T320A404	230 / 400 VAC	L - N: 320 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 11.0 kA; N - PE: 12.5 kA	L - N: 1.8 kV; N - PE: 1.5 kV		
SD25T385A404	230 / 400 VAC	L - N: 385 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 11.0 kA; N - PE: 12.5 kA	L - N: 2.0 kV; N - PE: 1.5 kV		



Dimensions (mm)



Schematics



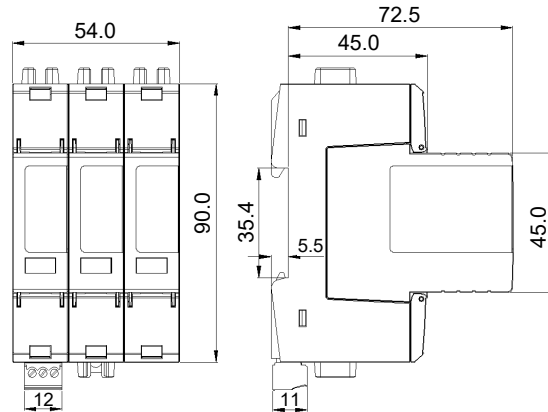
- For AC Split-phase System
- Comply with UL 1449

Specifications

Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25T150L201	120 / 240 VAC	150 VAC	25 kA	50 kA	1.0 kV	2+0 (L1 - G, L2 - G)	Type 4CA
SD25T175L201	120 / 240 VAC	175 VAC	25 kA	50 kA	1.3 kV		
SD25T320L201	240 / 480 VAC	320 VAC	25 kA	50 kA	1.8 kV		

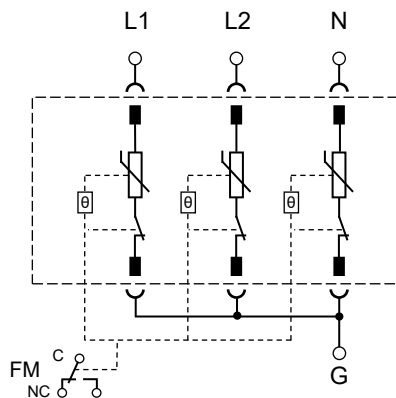


Dimensions (mm)

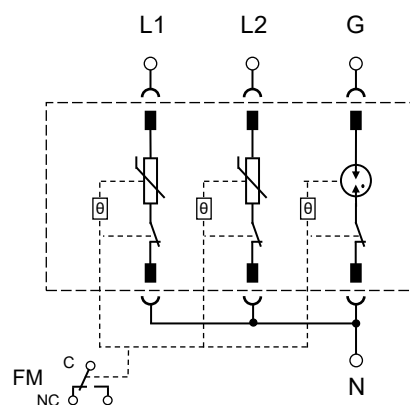


- For AC Split-phase System
- Comply with UL 1449

Schematics



SD25T150L302
SD25T175L302
SD25T385L302



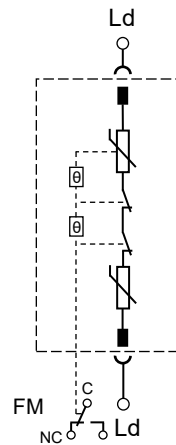
SD25T150A301
SD25T175A301
SD25T385A301

Specifications

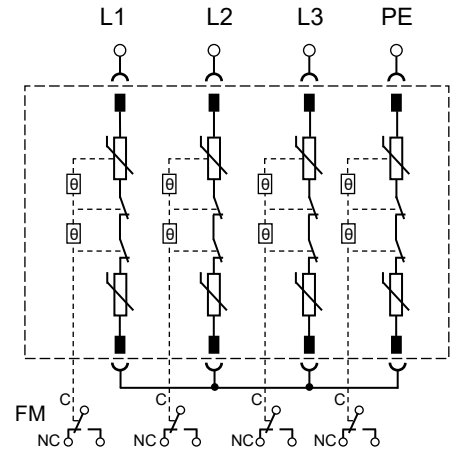
Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25T150L302	120 / 240 VAC	150 VAC	25 kA	50 kA	1.0 kV	L1 - G, L2 - G, N - G	Type 4CA
SD25T175L302	120 / 240 VAC	175 VAC	25 kA	50 kA	1.3 kV		
SD25T385L302	240 / 480 VAC	385 VAC	25 kA	50 kA	2.0 kV		
SD25T150A301	120 / 240 VAC	L-N: 150 VAC; N-PE: 255 VAC	25 kA	50 kA	L - N: 1.0 kV; N - PE: 1.5 kV	L1 - N, L2 - N, N - G	
SD25T175A301	120 / 240 VAC	L - N: 175 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 1.3 kV; N - PE: 1.5 kV		
SD25T385A301	240 / 480 VAC	L - N: 385 VAC; N - PE: 255 VAC	25 kA	50 kA	L - N: 2.0 kV; N - PE: 1.5 kV		



Schematics



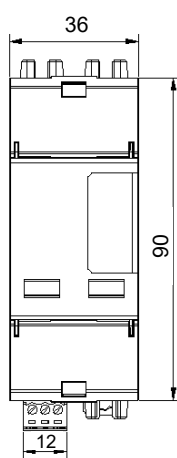
SD25TS690L100



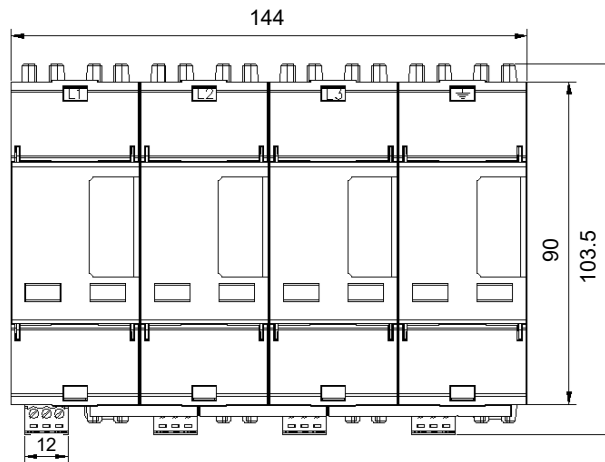
SD25TS900L306

- For AC output Surge Protection of PV System (SD25TS900L306)
- Class I and Class II SPD
- Over-temperature Protection, Overcurrent Protection, High Reliability

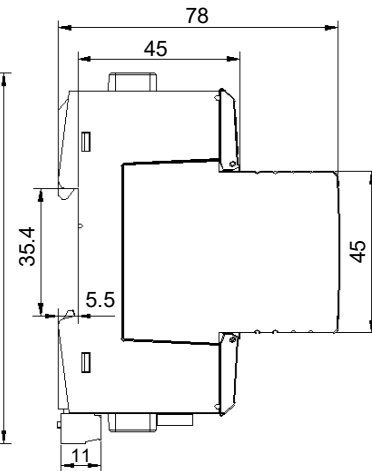
Dimensions (mm)



SD25TS690L100



SD25TS900L306



Specifications

Model	Nominal System Voltage (U_n)	Max. Continuous Operating Voltage (U_c)	Nominal Discharge Current (8/20 μ s) (I_n)	Max. Discharge Current (8/20 μ s) (I_{max})	Impulse Discharge Current (10/350 μ s) (I_{imp})	Voltage Protection Level (U_p)	Protection Mode	SPD Type
SD25TS690L100	480 VAC	690 VAC	25 kA	50 kA	11.0 kA	3.2 kV	1+0 (Ld - Ld)	T1+T2
SD25TS900L306	578 / 1000 VAC	1300 VAC	25 kA	50 kA	11.0 kA	6.4 kV	3+0 (L - PE)	



ATTENTION

Usage

1. Frequency range is from 47 Hz to 63 Hz.
2. The voltage applied continuously to the SPD must not exceed its maximum continuous operating voltage U_c .
3. When atmosphere press is from 80 kPa to 106 kPa, the related altitude shall be from 2000 m to - 500 m.
4. Do not touch the product body or wires directly when power is on, to avoid electric shock.

Replacement

As SPD is a non-repairable product, for safety sake, please use the same type of SPD for replacement.

Storage

Do not store SPD at high temperature, high humidity or corrosive gas environment, to avoid oxidation of the wires. Use them up within 1 year after receiving the goods.

Installation

1. Installation and startup may only be carried out by qualified personnel. The relevant country-specific regulations must be observed.
2. Check the device for external damage before installation. If the device is defective, it must not be used.
3. Pay attention to risk of electric shock. Please cutoff all electrical power before installation or service.
4. Lay the output cables to the surge protective devices (SPDs) as short as possible, without loops.
5. Please install proper backup protection devices in front of SPD.
6. Do not apply mechanical stress to the SPD body during or after the installation.

Maintenance

1. Check SPD status according to instructions before and after the thunderstorm season each year.
2. If the indicator of "failure state" appears, the SPD is damaged. Replace the SPD with same type.
3. Ensure electrical connections and mountings are correct before energizing the circuit.
4. SPD's quality is well controlled and strictly inspected before delivery. If non-functional ones are found during operation, please contact us early enough.