

Single Pole SPD

V60...-S



- T2 SPD with high energy MOV technology
- Max discharge current up to 60-65kA 8/20μs
- Pluggable module for easy replacement
- Reliable thermal disconnecter to be fail-safe.
- Degradation failure indication & optional remote signal contact.
- Comply with IEC/EN 61643-11, UL 1449 4th, IEEE C62.41, CSA C22.2

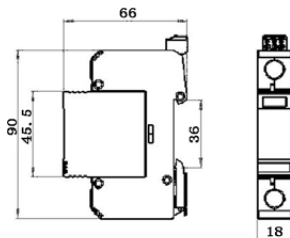


T1
T2
T3

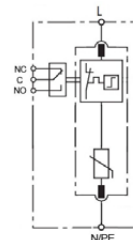
Model		V60/150(-S)	V60/175(-S)	V60/275(-S)	V60/320(-S)	V60/350(-S)	V60/385(-S)
Compliance		EN/IEC 61643-11/ UL 1449 4 th					
Category IEC/EN/UL		Class II / T2 / Type 1ca					
Max. Continuous Operating Voltage (AC/DC)	U _c	150V / 200V	175V / 225V	275V / 350V	320V / 420V	350V / 460V	385V / 505V
Technology		MOV Technology Thermal disconnecter					
Ports/Protection Mode		1 / L-PE or L-N or N-PE					
Nominal Discharge Current (8/20μs)	I _n	30kA					
Max. Discharge Current (8/20μs)	I _{max}	60kA (65kA optional)					
Voltage Protection Rating 6kV/3kA UL 1449	VPR	≤0.5kV	≤0.6kV	≤1.0kV	≤1.1kV	≤1.1kV	≤1.3kV
Voltage Protection Level @I _n IEC 61643-11	U _p	≤0.8kV	≤0.8kV	≤1.3kV	≤1.5kV	≤1.5kV	≤1.8kV
Temporary Overvoltage TOV —Withstand Mode	U _{tov}	174V/5s	228V/5s	335V/5s	335V/5s	385V/5s	403V/5s
Residual Current	I _{PE}	<0.1mA					
Short Circuit Current Rating per UL 1449	I _{scCR}	200kArms					
Short-Circuit Current Rating per IEC 61643	I _{sc}	10kArms					
Response Time	t _A	≤25ns					
Backup Fuse (only required if not already provided in mains)		160A gL/gG					
Environment		Temperature Range: - 40°C ~ +85°C; Humidity: ≤95%					
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 Indication /Status		RED- Failure					
Remote Alarm Contact		Yes					
Approvals, certification		CE					
Additional Data for Remote Alarm Contacts							
Remote Alarm Contact Type		Isolated Form C					
Switching Capability U _r /I _n		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)					

Note: Please see Page 33 and 34 for prewired multi-pole combination.

■ Dimension Drawing



■ Basic Circuit Diagram



Single Pole SPD

T60... -S



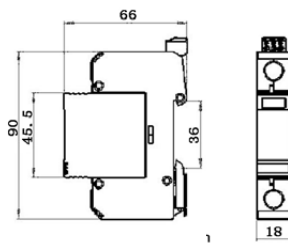
- T2 SPD for NPE mode protection with high energy GDT technology
- Max discharge current up to 60~65kA 8/20μs
- Pluggable module for easy replacement
- Reliable thermal disconnecter to be fail-safe.
- Degradation failure indication & optional remote signal contact.
- Comply with IEC/EN 61643-11, UL 1449 4th, IEEE C62.41



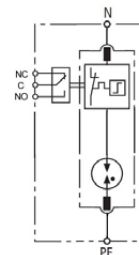
Model		T60/150-S	T60/255-S
Compliance		EN/IEC 61643-11, UL 1449 4 th	
Category IEC/EN/UL		Class II / T2 / Type 1ca	
Max. Continuous Operating Voltage (AC)	U _c	150V	255V
Technology		GDT technology Thermal disconnecter	
Ports/Protection Mode		1 / N-PE	
Nominal Discharge Current (8/20μs)	I _n	30kA	
Max. Discharge Current (8/20μs)	I _{max}	60kA (65kA optional)	
Voltage Protection Rating @6kV/3kA UL 1449	VPR	≤0.8kV	≤1.0kV
Voltage Protection Level @1.2/50μs IEC 61643-11	U _p	≤0.8kV	≤1.5kV
Temporary Overvoltage TOV —Withstand Mode	U _{lov}	1200V/200ms	1200V/200ms
Residual Current	I _{PE}	No	
Follow Current Interrupt Rating	I _{fi}	100A@255Vac	
Response Time	t _A	≤100ns	
Environment		Temperature Range: - 40°C ~ +85°C; Humidity: ≤95%	
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 Indication /Status		RED- Failure	
Remote Alarm Contact		Yes	
Approvals, certification		CE	
Additional Data for Remote Alarm Contacts			
Remote Alarm Contact Type		Isolated Form C	
Switching Capability Un/I _n		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)	

Note: Please see Page 33 and 34 for prewired multi-pole combination.

■ Dimension Drawing



■ Basic Circuit Diagram


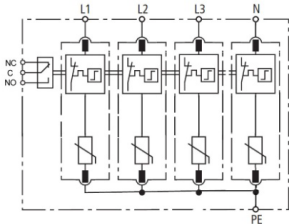
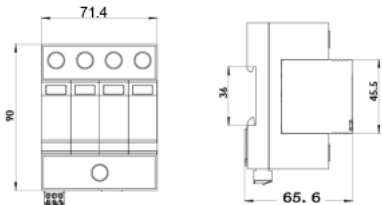

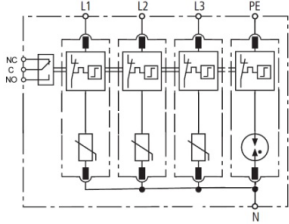
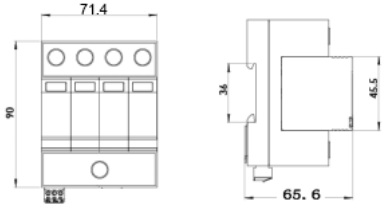

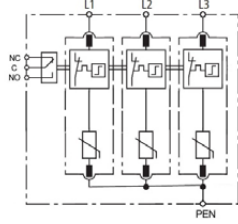
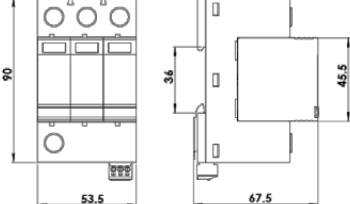

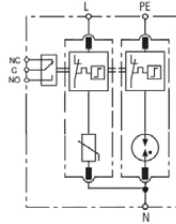
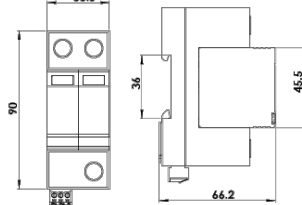


T1
T2
T3

Prewired Multi-pole SPD

Part No.	Pole	Power System	Nominal Voltage (phase voltage) U _n	Max. Operating Voltage U _c	Voltage Protection Level U _p	Diagram
DS60/150-2V-S	2	Single phase 2W+G	120~127Vac	150Vac	L/N-G: 0.8kV	5
DS60/175-2V-S	2	Single phase 2W+G	120~127Vac	175Vac	L/N-G: 0.8kV	5
DS60/275-2V-S	2	Single phase 2W+G	220~230Vac	275Vac	L/N-G: 1.3kV	5
DS60/320-2V-S	2	Single phase 2W+G	240~277Vac	320Vac	L/N-G: 1.5kV	5
DS60/350-2V-S	2	Single phase 2W+G	220~277Vac	350Vac	L/N-G: 1.5kV	5
DS60/385-2V-S	2	Single phase 2W+G	240~277Vac	385Vac	L/N-G:1.8kV	5
DS60/150-(V+T)-S	2	Single phase 2W+G	120~127Vac	150Vac	L-N: 0.8, N-PE: 0.8KV	4
DS60/175-(V+T)-S	2	Single phase 2W+G	120~127Vac	175Vac	L/N: 0.8, N-PE: 0.8kV	4
DS60/275-(V+T)-S	2	Single phase 2W+G	220~230Vac	275Vac	L-N: 1.3, N-PE: 1.5KV	4
DS60/320-(V+T)-S	2	Single phase 2W+G	240~277Vac	320Vac	L-N: 1.5, N-PE: 1.5KV	4
DS60/350-(V+T)-S	2	Single phase 2W+G	220~277Vac	350Vac	L-N: 1.5, N-PE: 1.5KV	4
DS60/385-(V+T)-S	2	Single phase 2W+G	240~277Vac	385Vac	L-N: 1.8, N-PE: 1.5KV	4
DT60/150-3V-S	3	Three phase 3W+G	120~127Vac	150Vac	L/G: 0.8kV	3
DT60/175-3V-S	3	Three phase 3W+G	120~127Vac	175Vac	L/G: 0.8kV	3
DT60/275-3V-S	3	Three phase 3W+G	220~230Vac	275Vac	L/G: 1.3kV	3
DT60/320-3V-S	3	Three phase 3W+G	240~277Vac	320Vac	L/G: 1.5kV	3
DT60/350-3V-S	3	Three phase 3W+G	220~277Vac	350Vac	L/G: 1.5kV	3
DT60/385-3V-S	3	Three phase 3W+G	240~277Vac	385Vac	L/G:1.8kV	3
DT60/175-(3V+T)-S	3	Three phase 4W+G	120~127Vac	150Vac	L-N: 0.8, N-PE: 0.8KV	2
DT60/175-(3V+T)-S	3	Three phase 4W+G	120~127Vac	175Vac	L-N: 0.8, N-PE: 0.8KV	2
DT60/275-(3V+T)-S	3	Three phase 4W+G	220~230Vac	275Vac	L-N: 1.2, N-PE: 1.5KV	2
DT60/320-(3V+T)-S	3	Three phase 4W+G	240~277Vac	320Vac	L-N: 1.5, N-PE: 1.5KV	2
DT60/350-(3V+T)-S	3	Three phase 4W+G	220~277Vac	350Vac	L-N: 1.5, N-PE: 1.5KV	2
DT60/385-(3V+T)-S	3	Three phase 4W+G	240~277Vac	385Vac	L-N: 1.8, N-PE: 1.5KV	2
DT60/150-4V-S	4	Three phase 4W+G	120~127Vac	150Vac	L/N-G: 0.8kV	1
DT60/175-4V-S	4	Three phase 4W+G	120~127Vac	175Vac	L/N-G: 0.8kV	1
DT60/275-4V-S	4	Three phase 4W+G	220~230Vac	275Vac	L/N-G: 1.3kV	1
DT60/320-4V-S	4	Three phase 4W+G	240~277Vac	320Vac	L/N-G: 1.5kV	1
DT60/350-4V-S	4	Three phase 4W+G	220~277Vac	350Vac	L/N-G: 1.5kV	1
DT60/385-4V-S	4	Three phase 4W+G	240~277Vac	385Vac	L/N-G:1.8kV	1

T1
T2
T3

Diagram	Basic Circuit diagram	Dimension Drawing
<p>1) 4+0</p> 		
<p>2) 3+1</p> 		
<p>3) 3+0</p> 		
<p>4) 1+1</p> 		
<p>5) 2+0</p> 