

T1
T2
T3

Single Pole SPD

▪ MOV Technology

B25V/...-S

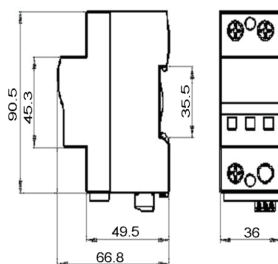


- Non-pluggable T1+2 SPD with high energy MOV technology
- High lightning current discharge capacity up to I_{imp} 25kA 10/350
- Degradation indication & optional remote signal contact
- Lower voltage protection level
- Comply with IEC/EN 61643-11, UL 1449 4th, IEEE C62.41, CSA C22.2

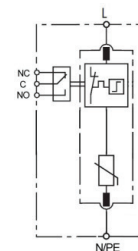


Model		B25V/150-S	B25V/175-S	B25V/275-S	B25V/320-S
Compliance		EN/IEC 61643-11			
Category IEC/EN		Class I+II /T1+2			
Max. Continuous Operating Voltage (AC)	U _c	150V	175V	275V	320V
Technology		High energy MOV Technology Thermal disconnecter			
Ports/Protection Mode		1 / L-PE or L-N or N-PE			
Lightning Impulse Current (10/350µs)	I _{imp}	25kA			
Nominal Discharge Current (8/20µs)	I _n	25kA			
Max. Discharge Current (8/20µs)	I _{max}	120kA			
Voltage Protection Level	U _p	≤0.8kV	≤0.8kV	≤1.2kV	≤1.5kV
Temporary Overvoltage TOV —Withstand Mode	U _{tov}	175V/5s	228V/5s	335V/5s	335V/5s
Residual Current	I _{PE}	<0.1mA			
Follow Current	I _f	No			
Short-Circuit Current Rating per IEC 61643	I _{sc}	25kA			
Response Time	t _A	≤25ns			
Backup Fuse (only required if not already provided in mains)		315A gL/gG			
Environment		Temperature Range: -40°C ~ +85°C; Humidity: ≤95%; Altitude: ≤2000m			
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 modules, 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 _n /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)			

■ Dimension Drawing



■ Basic Circuit Diagram



Prewired Multi-pole SPD

Part No.	Pole	Combination	Power System	Max. Operating Voltage U _c	Lightning Impulse Current (10/350µs) I _{imp}	Voltage Protection Level U _p	Diagram
B25V/150-S/2P	2	2 x B25V/150-S	Single phase 2W+G	150Vac	25kA	L/N-G: 1.0kV	4
B25V/175-S/2P	2	2 x B25V/175-S	Single phase 2W+G	175Vac	25kA	L/N-G: 1.0kV	4
B25V/275-S/2P	2	2 x B25V/275-S	Single phase 2W+G	275Vac	25kA	L/N-G: 1.4kV	4
B25V/320-S/2P	2	2 x B25V/320-S	Single phase 2W+G	320Vac	25kA	L/N-G: 1.5kV	4
B25V/150-S/PN50	2	B25V/150-S + G50/255NPE	Single phase 2W+G	150Vac	25kA / 50kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	3
B25V/175-S/PN50	2	B25V/175-S + G50/255NPE	Single phase 2W+G	175Vac	25kA / 50kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	3
B25V/275-S/PN50	2	B25V/275-S + G50/255NPE	Single phase 2W+G	275Vac	25kA / 50kA(NPE)	L-N: 1.4kV, N-PE: 1.5kV	3
B25V/320-S/PN50	2	B25V/320-S + G50/255NPE	Single phase 2W+G	320Vac	25kA / 50kA(NPE)	L-N: 1.5kV, N-PE: 1.5kV	3
B25V/150-S/3P	3	3 x B25V/150-S	Three phase 3W+G	150Vac	25kA	L-G: 1.0kV	2
B25V/175-S/3P	3	3 x B25V/175-S	Three phase 3W+G	175Vac	25kA	L-G: 1.0kV	2
B25V/275-S/3P	3	3 x B25V/275-S	Three phase 3W+G	275Vac	25kA	L-G: 1.4kV	2
B25V/320-S/3P	3	3 x B25V/320-S	Three phase 3W+G	320Vac	25kA	L-G: 1.5kV	2
B25V/150-S/3PN100	4	3 x B25V/150-S + G100/255NPE	Three phase 4W+G	150Vac	25kA / 100kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	1
B25V/175-S/3PN100	4	3 x B25V/175-S + G100/255NPE	Three phase 4W+G	175Vac	25kA / 100kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	1
B25V/275-S/3PN100	4	3 x B25V/275-S + G100/255NPE	Three phase 4W+G	275Vac	25kA / 100kA(NPE)	L-N: 1.4kV, N-PE: 1.5kV	1
B25V/320-S/3PN100	4	3 x B25V/320-S + G100/255NPE	Three phase 4W+G	320Vac	25kA / 100kA(NPE)	L-N: 1.5kV, N-PE: 1.5kV	1

Diagram	Basic Circuit Diagram	Dimension Drawing
<p>1) 3+1</p>		<p>All Dimension in mm</p>
<p>2) 3+0</p>		<p>All Dimension in mm</p>
<p>3) 1+1</p>		<p>All dimension in mm</p>
<p>4) 2+0</p>		<p>All Dimension in mm</p>

T1
T2
T3

Single Pole SPD

▪ VT Technology

B25VT/...-S

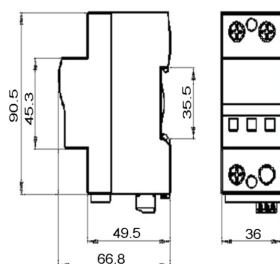


- T1+2+3 SPD with VT technology to eliminate leakage current & follow current.
- High lightning current discharge capacity up to I_{imp} 25kA
- Lower voltage protection level
- Better reliability and robustness & TOV (temporary over-voltage) withstand performance
- Degradation indication & optional remote signal contact
- Comply with IEC/EN 61643-11, UL 1449 4th, IEEE C62.41, CSA C22.2

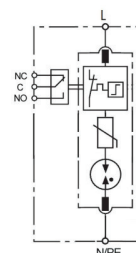


Model		B25VT/150-S	B25VT/175-S	B25VT/275-S	B25VT/320-S	B25VT/385-S
Compliance		EN/IEC 61643-11				
Category IEC/EN		Class I+II+III /T1+2+3				
Max. Continuous Operating Voltage (AC)	U _c	150V	175V	275V	320V	385V
Technology		VT technology Thermal disconnecter				
Ports/Protection Mode		1 / L-PE or L-N or N-PE				
Lightning Impulse Current (10/350µs)	I _{imp}	25kA				
Nominal Discharge Current (8/20µs)	I _n	25kA				
Max. Discharge Current (8/20µs)	I _{max}	120kA				
Voltage Protection Level	U _p	≤0.8kV	≤0.8kV	≤1.0kV	≤1.2kV	≤1.5kV
Temporary Overvoltage TOV —Withstand Mode	U _{lov}	228V/120min	228V/120min	442V/120min	442V/120min	580V/120min
Residual Current	I _{PE}	No				
Follow Current	I _f	No				
Short-Circuit Current Rating per IEC 61643	I _{sc}	25kA				
Response Time	t _A	≤100ns				
Backup Fuse (only required if not already provided in mains)		315A gL/gG				
Environment		Temperature Range: - 40°C ~ +85°C; Humidity: ≤95%; Altitude: ≤2000m				
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 modules, 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 _v /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)				

■ Dimension Drawing



■ Basic Circuit Diagram

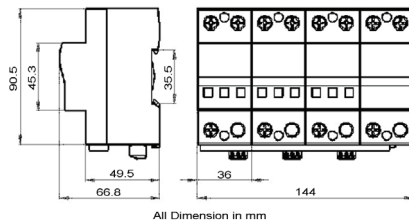
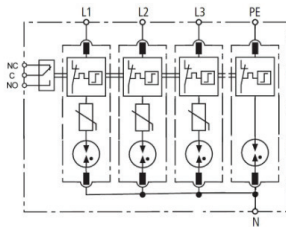


Prewired Multi-pole SPD

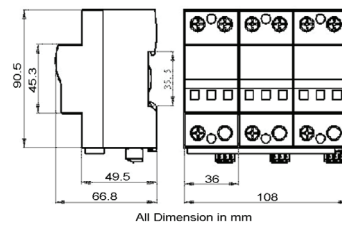
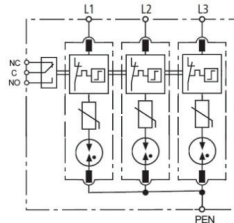
Part No.	Pole	Combination	Power System	Ma x . Operating Voltage U _c	Lightning Impulse Current (10/350μs) I _{imp}	Voltage Protection Level U _p	Diagram
B25VT/150-S/2P	2	2 x B25VT/250-S	Single phase 2W+G	150Vac	25kA	L/N-G: 0.8kV	4
B25VT/175-S/2P	2	2 x B25VT/175-S	Single phase 2W+G	175Vac	25kA	L/N-G: 0.8kV	4
B25VT/275-S/2P	2	2 x B25VT/275-S	Single phase 2W+G	275Vac	25kA	L/N-G: 1.0kV	4
B25VT/320-S/2P	2	2 x B25VT/320-S	Single phase 2W+G	320Vac	25kA	L/N-G: 1.2kV	4
B25VT/385-S//2P	2	2 x B25VT/385-S	Single phase 2W+G	385Vac	25kA	L/N-G: 1.5kV	4
B25VT/150-S/PN50	2	B25VT/150-S + G50/255NPE	Single phase 2W+G	150Vac	25kA / 50kA(NPE)	L-N: 0.8kV, N-PE: 1.5kV	3
B25VT/175-S/PN50	2	B25VT/175-S + G50/255NPE	Single phase 2W+G	175Vac	25kA / 50kA(NPE)	L-N: 0.8kV, N-PE: 1.5kV	3
B25VT/275-S/PN50	2	B25VT/275-S + G50/255NPE	Single phase 2W+G	275Vac	25kA / 50kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	3
B25VT/320-S/PN50	2	B25VT/320-S + G50/255NPE	Single phase 2W+G	320Vac	25kA / 50kA(NPE)	L-N: 1.2kV, N-PE: 1.5kV	3
B25VT/385-S/PN50	2	B25VT/385-S + G50/255NPE	Single phase 2W+G	385Vac	25kA / 50kA(NPE)	L-N: 1.5kV, N-PE: 1.5kV	3
B25VT/150-S/3P	3	3 x B25VT/150-S	Three phase 3W+G	150Vac	25kA	L-G: 0.8kV	2
B25VT/175-S/3P	3	3 x B25VT/175-S	Three phase 3W+G	175Vac	25kA	L-G: 0.8kV	2
B25VT/275-S/3P	3	3 x B25VT/275-S	Three phase 3W+G	275Vac	25kA	L-G: 1.0kV	2
B25VT/320-S/3P	3	3 x B25VT/320-S	Three phase 3W+G	320Vac	25kA	L-G: 1.2kV	2
B25VT/385-S/3P	3	3 x B25VT/385-S	Three phase 3W+G	385Vac	25kA	L-G: 1.5kV	2
B25VT/150-S/3PN100	4	3 x B25VT/150-S + G100/255NPE	Three phase 4W+G	150Vac	25kA / 100kA(NPE)	L-N: 0.8kV, N-PE: 1.5kV	1
B25VT/175-S/3PN100	4	3 x B25VT/175-S + G100/255NPE	Three phase 4W+G	175Vac	25kA / 100kA(NPE)	L-N: 0.8kV, N-PE: 1.5kV	1
B25VT/275-S/3PN100	4	3 x B25VT/275-S + G100/255NPE	Three phase 4W+G	275Vac	25kA / 100kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	1
B25VT/320-S/3PN100	4	3 x B25VT/320-S + G100/255NPE	Three phase 4W+G	320Vac	25kA / 100kA(NPE)	L-N: 1.2kV, N-PE: 1.5kV	1
B25VT/385-S/3PN100	4	3 x B25VT/385-S + G100/255NPE	Three phase 4W+G	385Vac	25kA / 100kA(NPE)	L-N: 1.5kV, N-PE: 1.5kV	1

Diagram Basic Circuit diagram Dimension Drawing

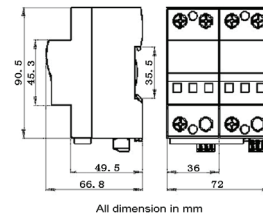
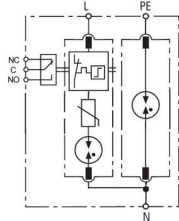
1) 3+1



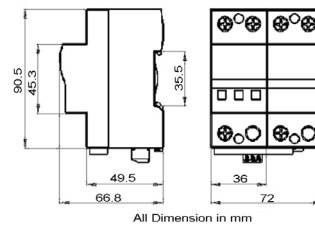
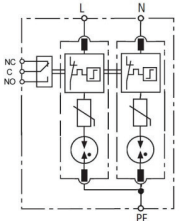
2) 3+0



3) 1+1



4) 2+0



T1
T2
T3

Single Pole SPD
BPS12.5V/...-S

▪ MOV Technology ▪ 18mm

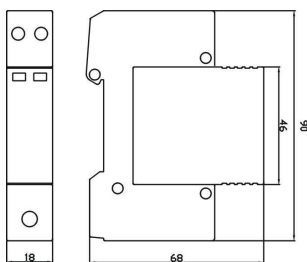


- Compact T1+2 SPD with high energy MOV technology
- 18mm narrow design, pluggable module for easy replacement.
- High lightning current discharge capacity up to I_{imp} 12.5kA 10/350
- Degradation indication & optional remote signal contact
- Lower voltage protection level
- Comply with IEC/EN 61643-11, UL 1449 4th, IEEE C62.41, CSA C22.2

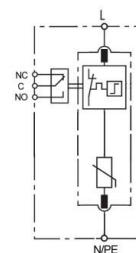


Model		BPS12.5V/150-S	BPS12.5V/175-S	BPS12.5V/275-S	BPS12.5V/320-S
Compliance		EN/IEC 61643-11			
Category IEC/EN		Class I+II /T1+2			
Max. Continuous Operating Voltage (AC)	U_c	150V	175V	275V	320V
Technology		High energy MOV Technology Thermal disconnecter			
Ports/Protection Mode		1 / L-PE or L-N or N-PE			
Lightning Impulse Current (10/350 μ s)	I_{imp}	12.5kA			
Nominal Discharge Current (8/20 μ s)	I_n	25kA			
Max. Discharge Current (8/20 μ s)	I_{max}	80kA			
Voltage Protection Level	U_p	$\leq 1.0kV$	$\leq 1.0kV$	$\leq 1.3kV$	$\leq 1.5kV$
Temporary Overvoltage TOV —Withstand Mode	U_{tov}	175V/5s	228V/5s	335V/5s	335V/5s
Residual Current	I_{PE}	$< 0.1mA$			
Follow Current	I_f	No			
Short-Circuit Current Rating per IEC 61643	I_{sc}	10kA			
Response Time	t_A	$\leq 25ns$			
Backup Fuse (only required if not already provided in mains)		200A gL/gG			
Environment		Temperature Range: - 40°C ~ +85°C; Humidity: $\leq 95\%$; Altitude: $\leq 2000m$			
Cross-Section of Connection Wire		Single-strand 35 mm 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)			

■ Dimension Drawing



■ Basic Circuit Diagram



T1
T2
T3

Prewired Multi-pole SPD

Part No.	Pole	Combination	Power System	Max. Operating Voltage U _c	Lightning Impulse Current (10/350µs) I _{imp}	Voltage Protection Level U _p	Diagram
BPS12.5V/150-S/2P	2	2 x BPS12.5V/150-S	Single phase 2W+G	150Vac	12.5kA	L/N-G: 1.0kV	4
BPS12.5V/175-S/2P	2	2 x BPS12.5V/175-S	Single phase 2W+G	175Vac	12.5kA	L/N-G: 1.0kV	4
BPS12.5V/275-S/2P	2	2 x BPS12.5V/275-S	Single phase 2W+G	275Vac	12.5kA	L/N-G: 1.4kV	4
BPS12.5V/320-S/2P	2	2 x BPS12.5V/320-S	Single phase 2W+G	320Vac	12.5kA	L/N-G: 1.5kV	4
BPS12.5V/150-S/PN25	2	BPS12.5V/150-S + G25PS/255NPE	Single phase 2W+G	150Vac	12.5kA / 25kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	3
BPS12.5V/175-S/PN25	2	BPS12.5V/175-S + G25PS/255NPE	Single phase 2W+G	175Vac	12.5kA / 25kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	3
BPS12.5V/275-S/PN25	2	BPS12.5V/275-S + G25PS/255NPE	Single phase 2W+G	275Vac	12.5kA / 25kA(NPE)	L-N: 1.4kV, N-PE: 1.5kV	3
BPS12.5V/320-S/PN25	2	BPS12.5V/320-S + G25PS/255NPE	Single phase 2W+G	320Vac	12.5kA / 25kA(NPE)	L-N: 1.5kV, N-PE: 1.5kV	3
BPS12.5V/150-S/3P	3	3 x BPS12.5V/150-S	Three phase 3W+G	150Vac	12.5kA	L-G: 1.0kV	2
BPS12.5V/175-S/3P	3	3 x BPS12.5V/175-S	Three phase 3W+G	175Vac	12.5kA	L-G: 1.0kV	2
BPS12.5V/275-S/3P	3	3 x BPS12.5V/275-S	Three phase 3W+G	275Vac	12.5kA	L-G: 1.4kV	2
BPS12.5V/320-S/3P	3	3 x BPS12.5V/320-S	Three phase 3W+G	320Vac	12.5kA	L-G: 1.5kV	2
BPS12.5V/150-S/3PN50	4	3 x BPS12.5V/150-S + G50PS/255NPE	Three phase 4W+G	150Vac	12.5kA / 50kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	1
BPS12.5V/175-S/3PN50	4	3 x BPS12.5V/175-S + G50PS/255NPE	Three phase 4W+G	175Vac	12.5kA / 50kA(NPE)	L-N: 1.0kV, N-PE: 1.5kV	1
BPS12.5V/275-S/3PN50	4	3 x BPS12.5V/275-S + G50PS/255NPE	Three phase 4W+G	275Vac	12.5kA / 50kA(NPE)	L-N: 1.4kV, N-PE: 1.5kV	1
BPS12.5V/320-S/3PN50	4	3 x BPS12.5V/320-S + G50PS/255NPE	Three phase 4W+G	320Vac	12.5kA / 50kA(NPE)	L-N: 1.5kV, N-PE: 1.5kV	1

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