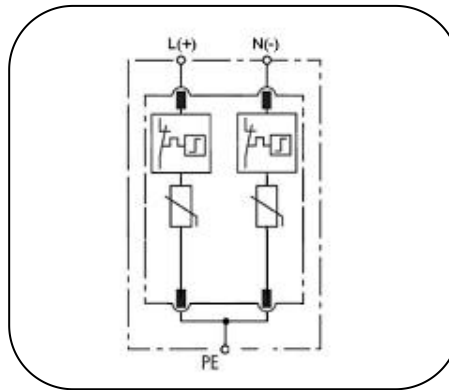
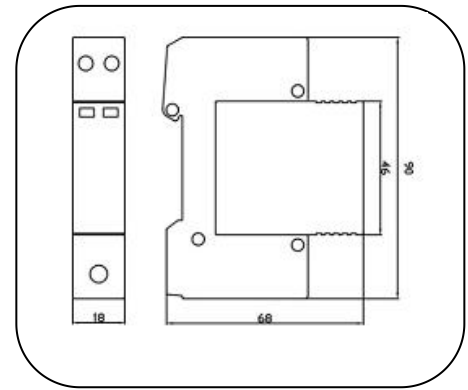




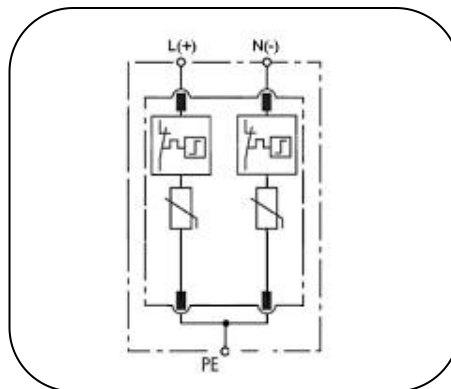
Basic circuit diagram



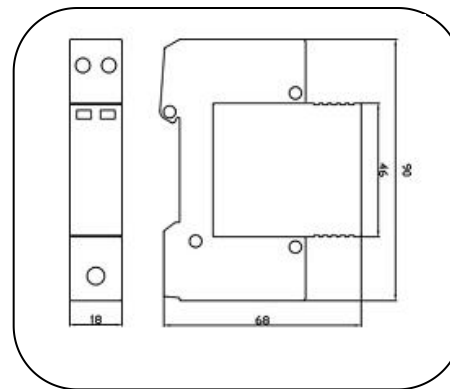
Dimension drawing

- 18mm compact T3 SPD for single phase or two hot lines protection
- Max discharge current up to 20kA 8/20μs and open circuit voltage Uoc to 20kV
- Pluggable design 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

Part No.		MDSS20/36-2V-S	MDSS20/48-2V-S	MDSS20/60-2V-S	MDSS20/110-2V-S
In accordance with		IEC61643-11:2011; UL1449-4th			
Category IEC/VDE		Class III/ T3			
Max. continuous operating voltage (AC/DC)	Uc	50V / 65V	60V / 81V	75V / 100V	130V / 170V
Nominal discharge current(8/20us)	In	10kA			
Max. discharge current(8/20us)	I _{max}	20kA			
Open Circuit Voltage (1.2/50us)	Uoc	20kV			
Voltage protection level @In	Up	≤330V	≤370V	≤460V	≤700V
Temporary Overvoltage -Withstand mode	U _{tov}	70V/5s	78V/5s	90V/5s	160V/5s
Residual current	I _{PE}	<0.1mA			
Response time	t _A	≤25 ns			
Backup fuse (only required if not already provided in mains)		32A gL/gG			
Environment		Temperature Range: -40° C ~ +80° C; Humidity: ≤95%; Altitude: ≤2000m			
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		1 module, DIN 43880			
Thermal disconnecter		Red - failure			
Remote alarm contact		Yes			
Approvals, Certifications		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)			



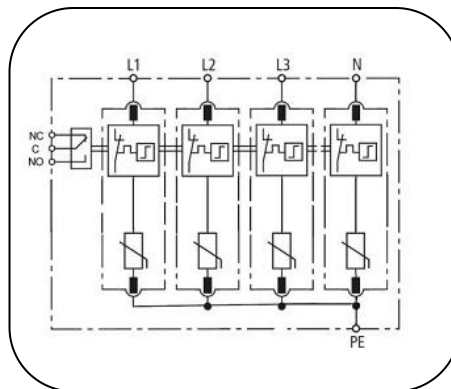
Basic circuit diagram



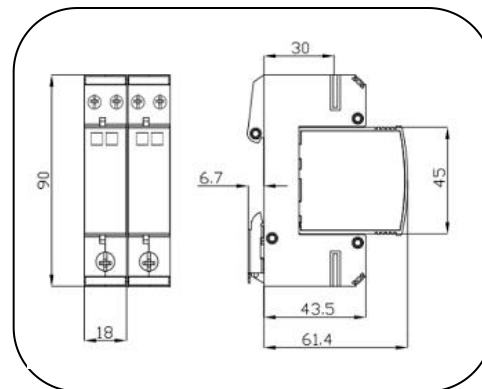
Dimension drawing

- 18mm compact T3 SPD for single phase or two hot lines protection
- Max discharge current up to 20kA 8/20μs and open circuit voltage Uoc to 20kV
- Pluggable design for easy replacement
- Reliable thermal disconnect 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

Part No.		MDSS20/150-2V-S	MDSS20/175-2V-S	MDSS20/275-2V-S	MDSS20/320-2V-S	MDSS20/385-2V-S	MDSS20/420-2V-S
In accordance with		IEC61643-11:2011; UL1449-4th					
Category IEC/VDE		Class III/ T3					
Max. continuous operating voltage (AC/DC)	Uc	150V / 200V	175V / 225V	275V / 350V	320V / 420V	385V / 505V	420V / 560V
Nominal discharge current(8/20us)	In	10kA					
Max. discharge current(8/20us)	Imax	20kA					
Open Circuit Voltage (1.2/50us)	Uoc	20kV					
Voltage protection level @In	Up	≤0.8kV	≤0.9kV	≤1.2kV	≤1.3kV	≤1.4kV	≤1.6kV
Temporary Overvoltage -Withstand mode	UtoV	175V/5s	228V/5s	335V/5s	335V/5s	403V/5s	504V/5s
Residual current	IPE	<0.1mA					
Response time	tA	≤25 ns					
Backup fuse (only required if not already provided in mains)		32A gL/gG					
Environment		Temperature Range: -40° C ~ +80° C; Humidity: ≤95%; Altitude: ≤2000m					
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		1 module, DIN 43880					
Thermal disconnecter		Red - failure					
Remote alarm contact		Yes					
Approvals, Certifications		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)					



Basic circuit diagram



Dimension drawing

- 36mm compact T3 SPD for three phase
- Max discharge current up to 20kA 8/20μs and open circuit voltage Uoc to 20kV
- Pluggable design for easy replacement
- Reliable thermal disconnect 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

Part No.		MDSS20/150-4V-S	MDSS20/175-4V-S	MDSS20/275-4V-S	MDSS20/320-4V-S	MDSS20/385-4V-S	MDSS20/420-4V-S
In accordance with		IEC61643-11:2011; UL1449-4th					
Category IEC/VDE		Class III/ T3					
Max. continuous operating voltage (AC/DC)	Uc	150V / 200V	175V / 225V	275V / 350V	320V / 420V	385V / 505V	420V / 560V
Nominal discharge current(8/20us)	In	10kA					
Max. discharge current(8/20us)	Imax	20kA					
Open Circuit Voltage (1.2/50us)	Uoc	20kV					
Voltage protection level @In	Up	≤0.8kV	≤0.9kV	≤1.2kV	≤1.3kV	≤1.4kV	≤1.6kV
Temporary Overvoltage -Withstand mode	UtoV	175V/5s	228V/5s	335V/5s	335V/5s	403V/5s	504V/5s
Residual current	IPE	<0.1mA					
Response time	tA	≤25 ns					
Backup fuse (only required if not already provided in mains)		32A gL/gG					
Environment		Temperature Range: -40° C ~ +80° C; Humidity: ≤95%; Altitude: ≤2000m					
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 modules, DIN 43880					
Thermal disconnect		Red - failure					
Remote alarm contact		Yes					
Approvals, Certifications		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)					