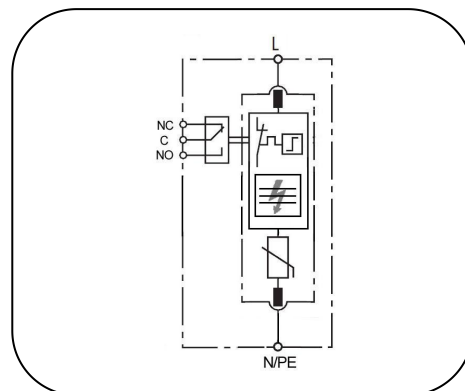


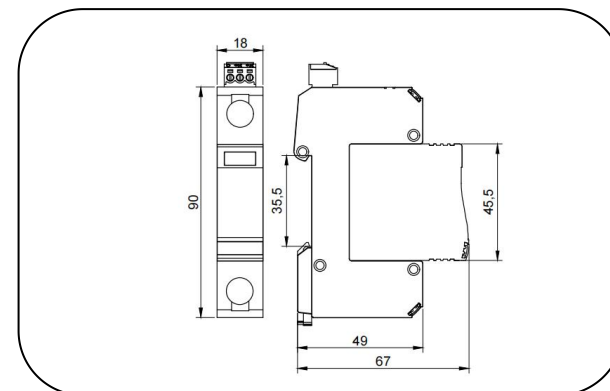
POWER SUPPLY SYSTEM

Class I + Class II (T1+T2), Single pole Surge Arresters

V50...



Basic circuit diagram



Dimension drawing

The V50 is class I & class II (or T1+T2) SPD designed for low-voltage power system lightning current & surge protection, used at the boundaries from lightning protection zone 0_B -2 and higher.

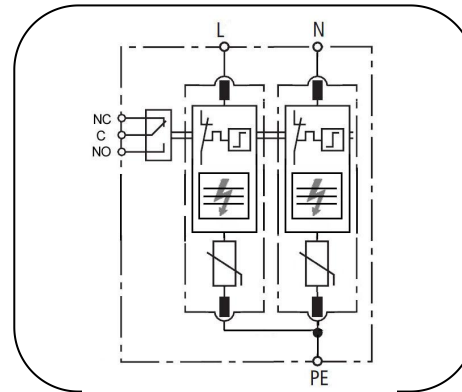
With built in Safesurge high energy MOV, V50 ensures remarkable lightning current discharge capacity up to 7.5kA 10/350μs and high reliability. The unique design of thermal protection provides quick thermal response and secure disconnection.

- TUV certified T1+ T2 SPD per IEC/EN 61643-11 standard.
- Single pole SPD for multi-purpose surge protection
- Unique thermal disconnecter design provides quick thermal response and secure disconnection
- Lightning current capacity up to 7.5kA 10/350μs
- Surge current capability up to 50kA 8/20μs
- Low voltage protection level
- High short-circuit current rating up to 25kArms, suitable for application in most AC power system.
- Degradation failure indication and optional remote signal contact.
- Pluggable module for easy replacement without the need to remove system wiring.
- Wide operating temperature -40° C ~85° C
- 35mm DIN-rail mounting

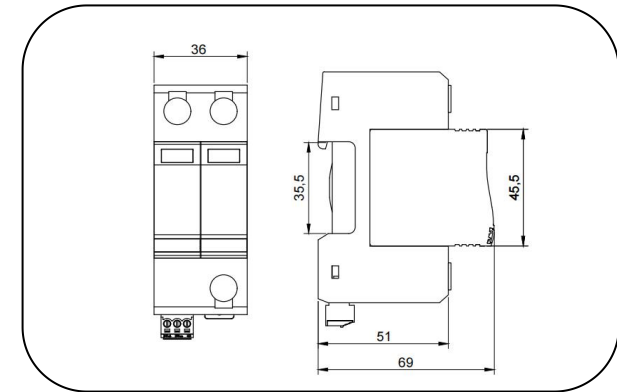
POWER SUPPLY SYSTEM

Technical data

Part No.	V50/75(-S)	V50/150(-S)	V50/180(-S)	V50/275(-S)	V50/320(-S)	V50/350(-S)	V50/385(-S)	V50/440(-S)	V50/480(-S)	V50/600(-S)	V50/750(-S)
In accordance with	IEC/EN 61643-11:2011; UL1449 5th										
Category IEC/EU/VDE	I+ II /1+2/ B+C										
Protection mode	L-N or L-PE or N-PE										
Nominal Voltage (AC) U_n	60V	120V	120V	230V	230V	277V	277V	400V	400V	480V	600V
Power frequency	50/60Hz										
Max. continuous operating voltage(AC) U_c	75V	150V	180V	275V	320V	350V	385V	440V	480V	600V	750V
Nominal discharge current (8/20) I_n	20kA										
Max. discharge current (8/20) I_{max}	50kA										
Lightning impulse current (10/350) I_{imp}	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	6.0kA	4.5kA	4.5kA	3.5kA
Voltage protection level U_p	0.6kV	0.8kV	1.0kV	1.2kV	1.4kV	1.5kV	1.8kV	2.0kV	2.2kV	2.5kV	2.8kV
Response time t_A	≤25ns										
Temporary overvoltage TOV U_T Withstand mode	90V/5s	174V/5s	228V/5s	335V/5s	335V/5s	403V/5s	403V/5s	580V/5s	580V/5s	700V/5s	870V/5s
Follow current & interrupt rating I_{fi}	No										
Leakage current I_{pe}	<0.1mA										
Short-circuit current rating I_{sscr}	25kArms										
Backup fuse(only required if not already provided in mains)	≤125A gL/gG										
Operating temperature range	-40°C ~ +85°C										
Altitude	-500m ~ +4000m										
Cross-section of connection wire (max)	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	Internal Green – normal ; red - failure										
Remote alarm contact	Optional										
Approvals, Certifications	TUV, 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										
Cross-section of remote signaling wire	Max. 1.5mm²(or # 16AWG)										

POWER SUPPLY SYSTEM**Class I + Class II (T1+T2), Two poles Surge Arresters****DS50/...-2V**

Basic circuit diagram



Dimension drawing

The DS50 2V is class I & class II (or T1+T2) prewired two poles SPD designed for low-voltage power system lightning current & surge protection, used at the boundaries from lightning protection zone 0_B -2 and higher.

With built in Safesurge high energy MOV, DS50 2V ensures remarkable lightning current discharge capacity up to 7.5kA 10/350μs and high reliability. The unique design of thermal protection provides quick thermal response and secure disconnection.

- TUV certified T1+ T2 SPD per IEC/EN 61643-11 standard
- Prewired two poles SPD (“2+0” circuit) for use in single phase or two phase systems
- Unique thermal disconnecter design provides quick thermal response and secure disconnection
- Lightning current capacity up to 7.5kA 10/350μs
- Surge current capability up to 50kA 8/20μs
- Low voltage protection level
- High short-circuit current rating up to 25kArms, suitable for application in most AC power system.
- Degradation failure indication and optional remote signal contact.
- Pluggable module for easy replacement without the need to remove system wiring.
- Wide operating temperature -40° C ~85° C
- 35mm DIN-rail mounting
- Comply with UL1449 5th, IEEE C62.41, CSA C22.2 standards

POWER SUPPLY SYSTEM

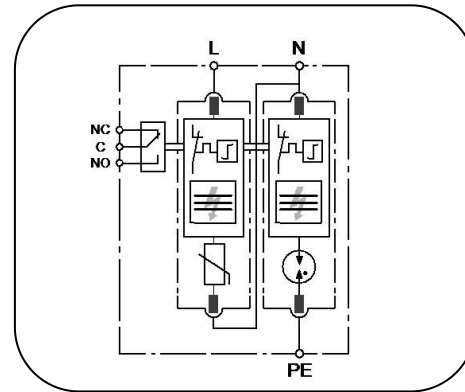
Technical data

Part No.	DS50/75-2V(-S)	DS50/150-2V(-S)	DS50/180-2V(-S)	DS50/275-2V(-S)	DS50/320-2V(-S)	DS50/350-2V(-S)	DS50/385-2V(-S)	DS50/440-2V(-S)	DS50/480-2V(-S)	DS50/600-2V(-S)	DS50/750-2V(-S)
In accordance with	IEC/EN 61643-11:2011; UL1449 5th										
Category IEC/EU/VDE	I+ II /1+2/ B+C										
Protection mode	L-PE ,N-PE										
Nominal Voltage (AC) Un	60V	120V	120V	230V	230V	277V	277V	400V	400V	480V	600V
Power frequency	50/60Hz										
Max. continuous operating voltage(AC) Uc	75V	150V	180V	275V	320V	350V	385V	440V	480V	600V	750V
Nominal discharge current (8/20) In	20kA										
Max. discharge current (8/20) I _{max}	50kA										
Lightning impulse current (10/350) I _{imp}	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	6.0kA	4.5kA	4.5kA	3.5kA
Voltage protection level Up	0.6kV	0.8kV	1.0kV	1.2kV	1.4kV	1.5kV	1.8kV	2.0kV	2.2kV	2.5kV	2.8kV
Response time t _A	≤25ns										
Temporary overvoltage TOV U _T Withstand mode	90V/5s	174V/5s	228V/5s	335V/5s	335V/5s	403V/5s	403V/5s	580V/5s	580V/5s	700V/5s	870V/5s
Follow current & interrupt rating I _{fi}	No										
Leakage current I _{pe}	<0.1mA										
Short-circuit current rating I _{sscr}	25kArms										
Backup fuse(only required if not already provided in mains)	≤125A gL/gG										
Operating temperature range	-40°C ~ +85°C										
Altitude	-500m ~ +4000m										
Cross-section of connection wire (max)	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										
Thermal disconnecter	Internal Green – normal ; red - failure										
Remote alarm contact	Optional										
Approvals, Certifications	TUV, 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					
Cross-section of remote signaling wire	Max. 1.5mm ² (or # 16AWG)										

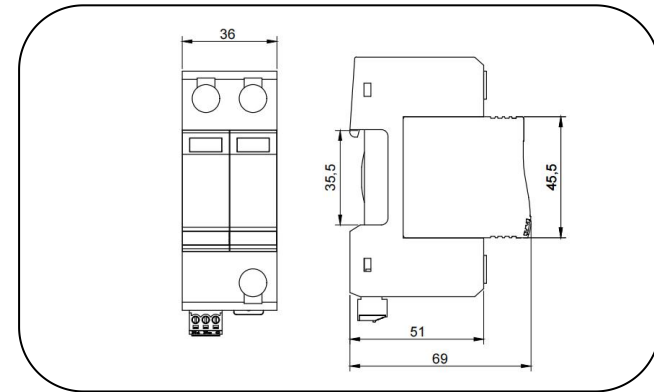
POWER SUPPLY SYSTEM

Class I + Class II (T1+T2), Two poles Surge Arresters

DS50/...-(V+T)



Basic circuit diagram



Dimension drawing

The DS50 V+T is class I & class II (or T1+T2) prewired two poles SPD designed for low-voltage power system lightning current & surge protection, used at the boundaries from lightning protection zone 0_B -2 and higher.

With built in Safesurge high energy MOV and GDT, DS50 V+T ensures remarkable lightning current discharge capacity up to 7.5kA 10/350μs (L-N), 12.5kA 10/350μs (N-PE) and high reliability. The unique design of thermal protection provides quick thermal response and secure disconnection.

- TUV certified T1+ T2 SPD per IEC/EN 61643-11 standard.
- Prewired two poles SPD (“1+1” circuit) for use in single phase
- Unique thermal disconnecter design provides quick thermal response and secure disconnection
- Lightning current capacity up to 7.5kA 10/350μs (L-N), 12.5kA 10/350μs (N-PE)
- Surge current capability up to 50kA 8/20μs
- Low voltage protection level
- High short-circuit current rating up to 25kArms, suitable for application in most AC power system.
- Degradation failure indication and optional remote signal contact.
- Pluggable module for easy replacement without the need to remove system wiring.
- Wide operating temperature -40° C ~85° C
- 35mm DIN-rail mounting
- Comply with UL1449 5th, IEEE C62.41, CSA C22.2 standards

POWER SUPPLY SYSTEM

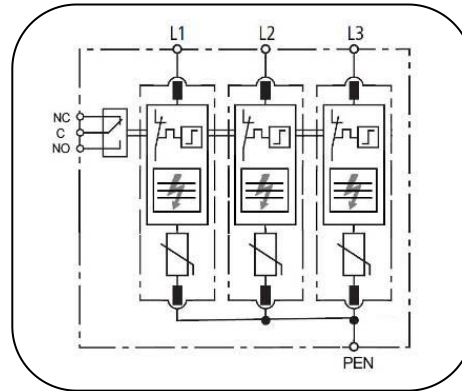
Technical data

Part No.		DS50/150-(V+T) (-S)	DS50/180-(V+T) (-S)	DS50/275-(V+T) (-S)	DS50/320-(V+T) (-S)	DS50/350-(V+T) (-S)	DS50/385-(V+T) (-S)
In accordance with		IEC/EN 61643-11:2011; UL1449 5th					
Category IEC/EU/VDE		I+ II /1+2/ B+C					
Protection mode		L-N ,N-PE					
Max. continuous operating voltage(AC) Uc	L-N	150V	180V	275V	320V	350V	385V
	N-PE	150V	150V	255V	255V	255V	255V
Nominal discharge current (8/20) In		20kA					
Max. discharge current (8/20) I _{max}		50kA					
Lightning impulse current (10/350) I _{imp}	L-N	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA
	N-PE	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA
Voltage protection level Up	L-N	0.8kV	1.0kV	1.2kV	1.4kV	1.5kV	1.8kV
	N-PE	1.5kV	1.5kV	1.5kV	1.5kV	1.5kV	1.5kV
Response time t _A	L-N	≤25ns					
	N-PE	≤100ns					
Temporary overvoltage TOV U _T	L-N	174V/5s	228V/5s	335V/5s	335V/5s	403V/5s	403V/5s
Withstand mode	N-PE	1200V/200ms	1200V/200ms	1200V/200ms	1200V/200ms	1200V/200ms	1200V/200ms
Follow current & interrupt rating I _{fi}	N-PE	100A					
Leakage current I _{pe}		<0.1mA					
Short-circuit current rating I _{sscr}		25kArms					
Backup fuse(only required if not already provided in mains)		≤125A gL/gG					
Operating temperature range		-40℃ ~ +85℃					
Altitude		-500m ~ +4000m					
Cross-section of connection wire (max)		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					
Thermal disconnecter		Internal Green – normal ; red - failure					
Remote alarm contact		Optional					
Approvals, Certifications		TUV, 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			
Cross-section of remote signaling wire (max)		1.5mm ² (or # 16AWG)					

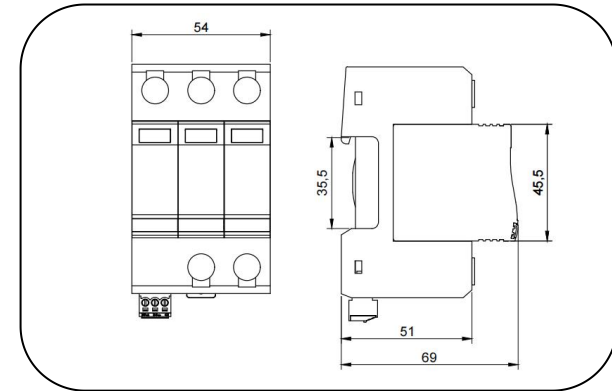
POWER SUPPLY SYSTEM

Class I + Class II (T1+T2), Three poles Surge Arresters

DT50/...-3V



Basic circuit diagram



Dimension drawing

The DT50 3V is class I & class II (or T1+T2) prewired three poles SPD designed for low-voltage power system lightning current & surge protection, used at the boundaries from lightning protection zone 0_B -2 and higher.

With built in Safesurge high energy MOV, DT50 3V ensures remarkable lightning current discharge capacity up to 7.5kA 10/350μs and high reliability. The unique design of thermal protection provides quick thermal response and secure disconnection.

- TUV certified T1+ T2 SPD per IEC/EN 61643-11 standard.
- Prewired three poles SPD (“3+0” circuit) for use in three phase IT / TN-C systems
- Unique thermal disconnecter design provides quick thermal response and secure disconnection
- Lightning current capacity up to 7.5kA 10/350μs
- Surge current capability up to 50kA 8/20μs
- Low voltage protection level
- High short-circuit current rating up to 25kArms, suitable for application in most AC power system.
- Degradation failure indication and optional remote signal contact.
- Pluggable module for easy replacement without the need to remove system wiring.
- Wide operating temperature -40° C ~85° C
- 35mm DIN-rail mounting
- Comply with UL1449 5th, IEEE C62.41, CSA C22.2 standards

POWER SUPPLY SYSTEM

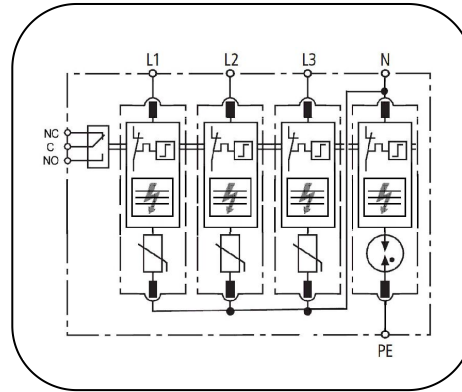
Technical data

Part No.	DT50/75-3V(-S)	DT50/150-3V(-S)	DT50/180-3V(-S)	DT50/275-3V(-S)	DT50/320-3V(-S)	DT50/350-3V(-S)	DT50/385-3V(-S)	DT50/440-3V(-S)	DT50/480-3V(-S)	DT50/600-3V(-S)	DT50/750-3V(-S)
In accordance with	IEC/EN 61643-11:2011; UL1449 5th										
Category IEC/EU/VDE	I+ II /1+2/ B+C										
Protection mode	L-PE										
Nominal Voltage (AC) Un	60V	120V	120V	230V	230V	277V	277V	400V	400V	480V	600V
Power frequency	50/60Hz										
Max. continuous operating voltage(AC) Uc	75V	150V	180V	275V	320V	350V	385V	440V	480V	600V	750V
Nominal discharge current (8/20) In	20kA										
Max. discharge current (8/20) Imax	50kA										
Lightning impulse current (10/350) Iimp	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	6.0kA	4.5kA	4.5kA	3.5kA
Voltage protection level Up	0.6kV	0.8kV	1.0kV	1.2kV	1.4kV	1.5kV	1.8kV	2.0kV	2.2kV	2.5kV	2.8kV
Response time tA	≤25ns										
Temporary overvoltage TOV UT Withstand mode	90V/5s	174V/5s	228V/5s	335V/5s	335V/5s	403V/5s	403V/5s	580V/5s	580V/5s	700V/5s	870V/5s
Follow current & interrupt rating Ifi	No										
Leakage current Ipe	<0.1mA										
Short-circuit current rating Isscr	25kArms										
Backup fuse(only required if not already provided in mains)	≤125A gL/gG										
Operating temperature range	-40°C ~ +85°C										
Altitude	-500m ~ +4000m										
Cross-section of connection wire (max)	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	3 modules, DIN 43880										
Thermal disconnecter	Internal Green – normal ; red - failure										
Remote alarm contact	Optional										
Approvals, Certifications	TUV, 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					
Cross-section of remote signaling wire	Max. 1.5mm²(or # 16AWG)										

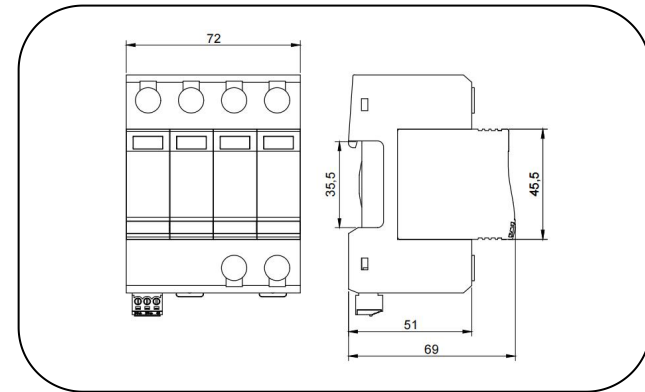
POWER SUPPLY SYSTEM

Class I + Class II (T1+T2), Four poles Surge Arresters

DT50/...-(3V+T)



Basic circuit diagram



Dimension drawing

The DT50 3V+T is class I & class II (or T1+T2) prewired four poles SPD designed for low-voltage power system lightning current & surge protection, used at the boundaries from lightning protection zone 0_B -2 and higher.

With built in Safesurge high energy MOV and GDT, DT50 3V+T ensures remarkable lightning current discharge capacity up to 7.5kA 10/350μs (L-N), 12.5kA 10/350μs (N-PE) and high reliability. The unique design of thermal protection provides quick thermal response and secure disconnection.

- TUV certified T1+ T2 SPD per IEC/EN 61643-11 standard
- Prewired four poles SPD (“3+1” circuit) for use in three phase TN/TT systems
- Unique thermal disconnecter design provides quick thermal response and secure disconnection
- Lightning current capacity up to 7.5kA 10/350μs (L-N), 12.5kA 10/350μs (N-PE)
- Surge current capability up to 50kA 8/20μs
- Low voltage protection level
- High short-circuit current rating up to 25kArms, suitable for application in most AC power system.
- Degradation failure indication and optional remote signal contact.
- Pluggable module for easy replacement without the need to remove system wiring.
- Wide operating temperature -40° C ~85° C
- 35mm DIN-rail mounting
- Comply with UL1449 5th, IEEE C62.41, CSA C22.2 standards

POWER SUPPLY SYSTEM

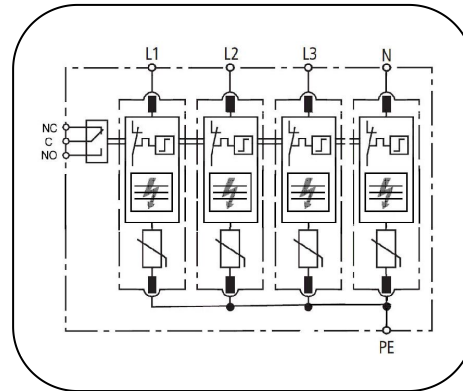
Technical data

Part No.		DT50/150-(3V+T)(-S)	DT50/180-(3V+T)(-S)	DT50/275-(3V+T)(-S)	DT50/320-(3V+T)(-S)	DT50/350-(3V+T)(-S)	DT50/385-(3V+T)(-S)
In accordance with	IEC/EN 61643-11:2011; UL1449 5th						
Category IEC/EU/VDE	I+ II /1+2/ B+C						
Protection mode	L-N ,N-PE						
Nominal Voltage (AC) Un		120V/208V	120V/208V	230V/400V	230V/400V	230V/400V	230V/400V
Power frequency	50/60Hz						
Max. continuous operating voltage(AC) Uc	L-N	150V	180V	275V	320V	350V	385V
	N-PE	150V	150V	255V	255V	255V	255V
Nominal discharge current (8/20) In	20kA						
Max. discharge current (8/20) Imax	50kA						
Lightning impulse current (10/350) Iimp	L-N	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA
	N-PE	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA
Voltage protection level Up	L-N	0.8kV	1.0kV	1.2kV	1.4kV	1.5kV	1.8kV
	N-PE	1.5kV	1.5kV	1.5kV	1.5kV	1.5kV	1.5kV
Response time tA	L-N	≤25ns					
	N-PE	≤100ns					
Temporary overvoltage TOV Ur	L-N	174V/5s	228V/5s	335V/5s	335V/5s	403V/5s	403V/5s
Withstand mode	N-PE	1200V/20ms	1200V/200ms	1200V/200ms	1200V/200ms	1200V/200ms	1200V/200ms
Follow current & interrupt rating Ifi	N-PE	100A					
Leakage current Ipe	<0.1mA						
Short-circuit current rating Isscr	25kArms						
Backup fuse(only required if not already provided in mains)	≤125A gL/gG						
Operating temperature range	-40°C ~ +85°C						
Altitude	-500m ~ +4000m						
Cross-section of connection wire (max)	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	4 modules, DIN 43880						
Thermal disconnecter	Internal Green – normal ; red - failure						
Remote alarm contact	Optional						
Approvals, Certifications	TUV, 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			
Cross-section of remote signaling wire (max)	1.5mm²(or # 16AWG)						

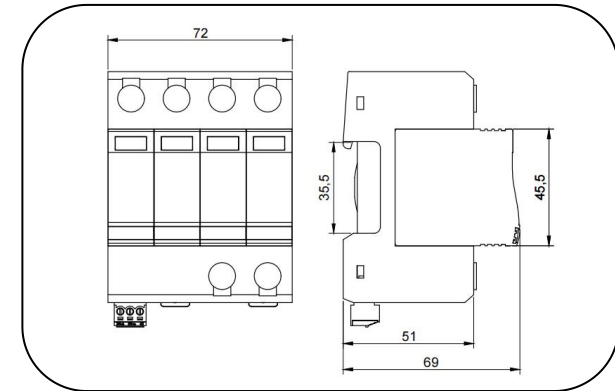
POWER SUPPLY SYSTEM

Class I + Class II (T1+T2), Four poles Surge Arresters

DT50/...-4V



Basic circuit diagram



Dimension drawing

The DT50 4V is class I & class II (or T1+T2) prewired four poles SPD designed for low-voltage power system lightning current & surge protection, used at the boundaries from lightning protection zone 0_B -2 and higher.

With built in Safesurge high energy MOV, DT50 4V ensures remarkable lightning current discharge capacity up to 7.5kA 10/350μs and high reliability. The unique design of thermal protection provides quick thermal response and secure disconnection.

- TUV certified T1+ T2 SPD per IEC/EN 61643-11 standard.
- Prewired three poles SPD (“4+0” circuit) for use in three phase TN / TT systems.
- Unique thermal disconnecter design provides quick thermal response and secure disconnection
- Lightning current capacity up to 7.5kA 10/350μs
- Surge current capability up to 50kA 8/20μs
- Low voltage protection level
- High short-circuit current rating up to 25kArms, suitable for application in most AC power system.
- Degradation failure indication and optional remote signal contact.
- Pluggable module for easy replacement without the need to remove system wiring.
- Wide operating temperature -40° C ~85° C
- 35mm DIN-rail mounting
- Comply with UL1449 5th, IEEE C62.41, CSA C22.2 standards

POWER SUPPLY SYSTEM

Technical data

Part No.	DT50/75-4V(-S)	DT50/150-4V(-S)	DT50/180-4V(-S)	DT50/275-4V(-S)	DT50/320-4V(-S)	DT50/350-4V(-S)	DT50/385-4V(-S)	DT50/440-4V(-S)	DT50/480-4V(-S)	DT50/600-4V(-S)	DT50/750-4V(-S)
In accordance with	IEC/EN 61643-11:2011; UL1449 5th										
Category IEC/EU/VDE	I+ II /1+2/ B+C										
Protection mode	L-PE ,N-PE										
Nominal Voltage (AC) Un	60V	120V	120V	230V	230V	277V	277V	400V	400V	480V	600V
Power frequency	50/60Hz										
Max. continuous operating voltage(AC) Uc	75V	150V	180V	275V	320V	350V	385V	440V	480V	600V	750V
Nominal discharge current (8/20) In	20kA										
Max. discharge current (8/20) Imax	50kA										
Lightning impulse current (10/350) Iimp	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	6.0kA	4.5kA	4.5kA	3.5kA
Voltage protection level Up	0.6kV	0.8kV	1.0kV	1.2kV	1.4kV	1.5kV	1.8kV	2.0kV	2.2kV	2.5kV	2.8kV
Response time tA	≤25ns										
Temporary overvoltage TOV U _T Withstand mode	90V/5s	174V/5s	228V/5s	335V/5s	335V/5s	403V/5s	403V/5s	580V/5s	580V/5s	700V/5s	870V/5s
Follow current & interrupt rating Ifi	No										
Leakage current Ipe	<0.1mA										
Short-circuit current rating Isscr	25kArms										
Backup fuse(only required if not already provided in mains)	≤125A gL/gG										
Operating temperature range	-40°C ~ +85°C										
Altitude	-500m ~ +4000m										
Cross-section of connection wire (max)	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 modules, DIN 43880										
Thermal disconnecter	Internal Green – normal ; red - failure										
Remote alarm contact	Optional										
Approvals, Certifications	TUV, 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					
Cross-section of remote signaling wire	Max. 1.5mm ² (or # 16AWG)										