DS50VGPVS-500, DS50VGPVS-1000

DS50VGPVS-500

DS50VGPVS is a DC Surge Protection Device (SPD) for medium risk DC power applications up to 1200Vdc. The DS50VGPVS provides protection against the direct and indirect effects of lightning and has a unique no leakage current design.

CITEL's patented hybrid Metal Oxide Varistor (MOV)/Gas-filled Spark Gap (GSG) protection circuit will dramatically increase the life expectancy of the surge protector and leave no footprint within the DC power system.

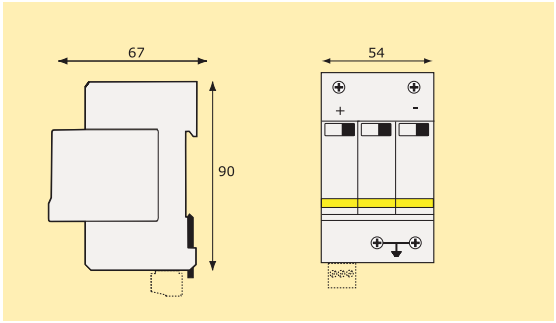
The DS50VGPVS is a multi-pole monoblock base protecting both positive and negative to ground. It is installed in parallel with the power system and is mounted on a din rail for convenient application directly inside an Inverter or DC combiner box.

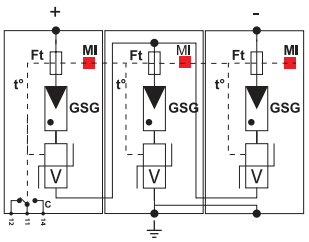
The DS50VGPVS incorporates replaceable protection modules with specific DC thermal fuses that allow for high surge current handling (40kA 8/20us), reliable disconnection and produce no follow on current. These units have visual fault indicators and are available with remote signalization (DS50VGPVS-xxx) for real-time status indication.

Available Options

- Polycarbonate Enclosure, NEMA 4X
  Part# CDS50VGPVS-xxx
- 40A Fused Disconnect
  Part# CDS50VGPVS-xxx-40

Dimensions and Diagram (in mm)





Ft : Thermal fuse
V : High energy MOV
GSG : Gas-filled spark gap
Mi : Disconnection indicator
C : Contact for remote signal
t° : Thermal disconnection mechanism

Characteristics

CITEL part number		DS50VGPVS-500	DS50VGPVS-1000
Network voltage	(Un) dc	500 Vdc	1000 Vdc
Protection mode		MC/MD[1]	MC/MD[1]
Max. Operating Voltage	(Uc) dc	600 Vdc	1200 Vdc
IEC/UL Nominal discharge current *15 x 8/20 µs impulses*	(In)	20 kA	20 kA
Maximum discharge current *Max. 10/350 µs*	(Iimp)	–	–
Max. Lightning current by pole *Max. 8/20 µs*	(Imax)	40 kA	40 kA
Protection level (at In)	(Up)	<2.5 kV	<3.6 kV
Residual voltage at 5 kA		<1.8 kV	<2.6 kV
Operating current *Leakage Current at Uc*	(Ic)	none	Very Important
Follow current	(If)	none	
Thermal Disconnector		Internal	
Dimensions		see diagram	
Connection		by screw terminal : #4 AWG MAX	
Disconnection indicator		1 mechanical indicator	
Remote signaling		250/0.5 (AC) - 125V/3A (DC)	
Mounting		symmetrical rail 35 mm	
Operating temperature		-50/+85 °C	
Protection class		IP20	
Housing material		Thermoplastic UL94-V0	
Standards compliance			
NF EN 61643-11	France	Parafoudre Basse Tension - Essais Classe II	
IEC 61643-1	Intl	Low Voltage SPD - Test Class II	
CSA C22.2	Canada	Class 90941 32	
UL1449 3rd Ed. for PV	USA	Type 4, Type 2 Location	
DIN EN 61643-11	Ger	Surge Arrestor Type 2	

Note 1 MC =Common Mode (+/PE or -/PE) and MC/MD = Common Mode and Differential Mode (+/-)

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