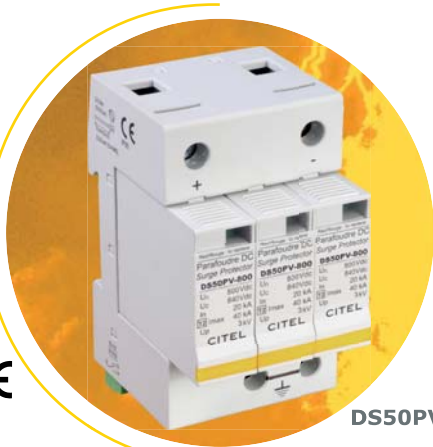




**Imax  
40kA**

## DC Power Surge Protector for Photovoltaic Applications

DS50PVS-500, DS50PVS-600, DS50PVS-800, DS50PVS-1000



CE

SP

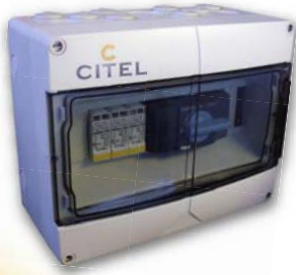
DS50PVS-800

CITEL US

DS50PVS is a DC Surge Protection Device (SPD) for medium risk DC power applications. The DS50PVS provides protection against the direct and indirect effects of lightning.

The DS50PVS is a dual pole module protecting both positive and negative to ground and is available for DC power system voltages of 500, 600, 800 and 1000 Vdc. It is installed in parallel with the power system and is mounted on a din rail for application directly inside an Inverter or DC combiner box.

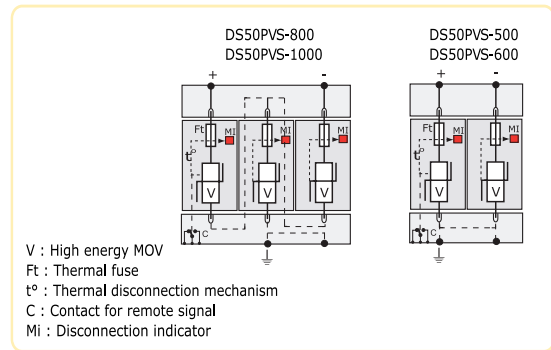
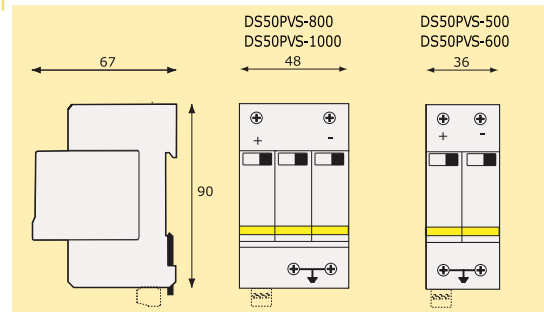
The DS50PVS incorporates a proven Metal Oxide Varistor (MOV) protection circuit and specific DC thermal fuses that allows for high surge current handling 40kA 8/20us and reliable disconnection. These units have visual fault indicators, replaceable protection modules and remote signaling.



### Available Options

- Polycarbonate Enclosure, NEMA 4X  
Part# CDS50PVS-xxx
- 40A Fused Disconnect  
Part# CDS50PVS-xxx-40

### Dimensions and Diagram (in mm)



### Characteristics

CITEL part number	DS50PVS-500	DS50PVS-600	DS50PVS-800	DS50PVS-1000
Network voltage (Un) dc	500 Vdc	600 Vdc	800 Vdc	1000 Vdc
Protection mode	MC/MD <sup>1</sup>	MC/MD <sup>1</sup>	MC/MD <sup>1</sup>	MC/MD <sup>1</sup>
Max. Operating Voltage (Uc) dc	530 Vdc	680 Vdc	840 Vdc	1060 Vdc
IEC/UL Nominal discharge current (In) 15 x 8/20 μs impulses	20 kA	20 kA	20 kA	20 kA
Maximum discharge current (Iimp) Max. 10/350 μs	—	—	—	—
Max. Lightning current by pole (Imax) Max. 8/20 μs	40 kA	40 kA	40 kA	40 kA
Protection level (at In) (Up)	<1.8 kV	<2.5 kV	<3.0 kV	<3.6 kV
Residual voltage at 5 kA	<1 kV	<1.8 kV	<2.4 kV	<3.0 kV
Operating current (Ic) Leakage Current at Uc	<1mA	<1mA	<1mA	<1mA
Follow current (If)	none	none	none	none
Thermal Disconnecter	Internal	Internal	Internal	Internal
Dimensions	see diagram			
Connection	by screw terminal : 4# AWG MAX			
Disconnection indicator	1 mechanical indicator by pole			
Remote signaling	250V/0.5 (AC) - 125V/3A (DC)			
Mounting	symmetrical rail 35 mm			
Operating temperature	-40/+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 Arrester Type 2		

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