



limp
12.5 kA

Type 1 Surge Protector for Photovoltaic

DS60PV

A44



DS60PV are Type 1 Heavy Duty Surge Protectors are designed to protect against lightning surge voltages in photovoltaic power supply networks. These units must be installed in parallel on the DC networks to be protected and provide common mode protection. These protectors are recommended when a direct lightning strike is possible on the installation.

The DS60PV is available for the main operating voltages in photovoltaic : 500 and 1000 Vdc.

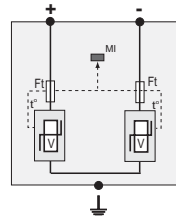
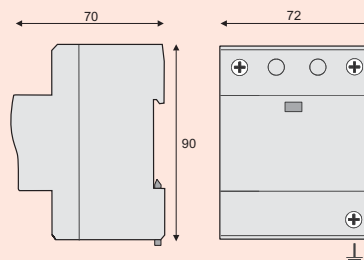
The use of Type 1 surge protector is recommended at both ends of the DC power supply line (solar panel side and inverter/converter side) in case of risk of direct lightning strike on the installation.

The electrical diagram of the DS60PV is based on high energy MOVs equipped with specific thermal disconnectors, related failure indicators and contact for remote signaling (option). It is designed to conduct heavy lightning currents (10/350 μ s waveform) possible in case of direct strikes on installation.

The DS60PV is made with a monobloc enclosure and mounts on DIN rail.

- **Type 1 SPD for Photovoltaic**
- **limp : 12,5 kA (10/350 μ s wave by pole)**
- **Itotal : 25 kA (10/350 μ s wave)**
- **Internal disconnector, failure indicator**
- **Remote signal option**
- **Complies EN 61643-11, IEC 61643-1**

Dimensions and Diagram



V : High energy MOV
Ft : Thermal fuse
F : Thermal disconnection mechanism

Characteristics

CITEL part number	DS60PV-500	DS60PV-1000
Nominal voltage network	500 Vdc	1000 Vdc
Max. operating voltage	Uc 550 Vdc	1000 Vdc
Operating current	Ic < 1 mA	< 1 mA
Leakage current at Uc		
Follow current	If none	none
Nominal discharge current	In 40 kA	40 kA
15 x 8/20 μ s impulses		
Max. lightning current by pole	limp 12.5 kA	12.5 kA
tenue max. 10/350 μ s		
Residual voltage (at limp)	Ures 1.6 kV	1.9 kV
Protection level (at In)	Up 1.7 kV	2.4 kV
Associated disconnection		
Thermal disconnector	internal	
Mechanical characteristics		
Dimensions	See diagram	
Connection	by screw terminals : 6-35 mm ² / by bus	
Disconnection indicator	1 mechanical indicator	
Remote signaling	output on changeover contact (option DS60PVS)	
Mounting	Symmetrical rail 35 mm	
Operating temperature	-40/+85 °C	
Protection classe	IP20	
Housing material	Thermoplastic PEI UL94-5VA	
Standards compliance		
NF EN 61643-11	France	Parafoudre Basse Tension - Essais Classe I et II
IEC 61643-1	International	Low Voltage SPD - Test Class I and II
EN 61643-11	Europe	Parafoudre Basse Tension - Essais Classe I et II
UL1449 ed.2	USA	Low Voltage TVSS