



# Type 1 Surge Protector for Photovoltaic

## CDS50PV



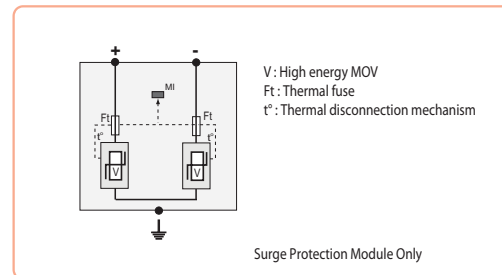
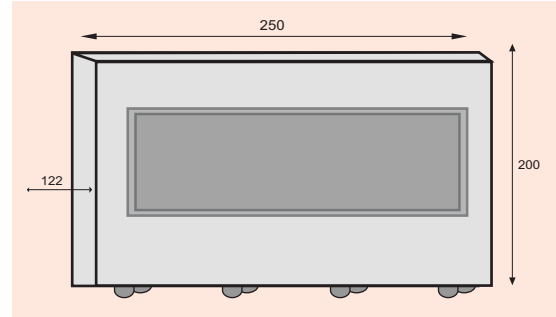
CDS60PV is a Surge Protected Combiner box with an integrated DC Disconnect for up to 4 strings. The CDS60PV incorporates CITEL's Heavy Duty Type 1 DS60PV Surge Protectors. The DS60PV provides uncompromising protection against conducted surges that originate from direct lightning strikes. They utilize a multi-Varistor circuit with thermal fuses and real-time status indication. The DS60PV units are tested to the world's most stringent 10/350us surge waveforms from IEC-61643 Type 1 and ANSI/IEEE C62.41.

The CDS60PV is installed at both end of the DC power supply line, i.e. directly in front or inside the inverter and at the solar panel or solar array.

CDS60PV is installed in series with the DC network to be protected and provides common mode protection. They are available for DC networks up 40A with voltages not to exceed 1,000VDC and it is housed in a outdoor rated enclosure (IP65).

- Type 1 SPD for Photovoltaic
- Iimp : 12.5 kA (10/350 μs wave by pole)
- Itotal : 25kA (10/350 μs wave)
- Internal disconnecter, failure indicator
- Remote signal option

## Dimensions and Diagram



## Characteristics

CITEL part number	CDS60PV-500-40A	CDS50PV-1000-40A
Nominal voltage network	500 Vdc	1000 Vdc
Max. operating voltage	Uc	1000 Vdc
Follow current	If	none
Residual voltage (at Iimp)	Ures	1.6 kV
Protection level (at In)	Up	1.7 kV
Operating current	Ic	none
Leakage current at Uc		none
Nominal discharge current	In	30kA
<i>15 x 8/20 μs impulses</i>		
Maximum discharge current	Imax	70kA
<i>max. withstand 8/20 μs</i>		
Max. lightning current by pole	Iimp	25kA
<i>max. withstand 10/350 μs</i>		
Associated disconnection devices		
Thermal disconnection	internal	
Mechanical characteristics		
Dimensions	see diagram	
Connection	by screw terminals : 6-35 mm <sup>2</sup> / by bus	
Disconnection indicator	1 mechanical indicators	
Disconnect Rating	40A; 600V	
Mounting	symmetrical rail 35 mm	
Operating temperature	-40/+85 °C	
Protection class	IP65 NEMA	
Housing material	Polycarbonate	
Standard Compliance	Surge Protection Device (SPD)	