Reliability In Surge Protection Since 1937

Application of Surge Protection for a Large Commercial Utility-Interactive Solar PV System

A comprehensive approach to the application of lightning and surge protection will help to ensure the maximum life expectancy and efficiency for your solar PV power system. The following illustration details the application points for the surge protectors and the primary protection goal of each device.

1 AC Distribution Panel

Protects all loads connected to the facility's main distribution panel against transients originating from the AC utility grid or internal switching equipment, i.e. CNC machines, elevators, inductive motors.

2 Inverter AC Output

Local protection in front of the inverter to protect against threats from the AC utility and generated internally within the facility.

3 Data/Signal Lines

Protects inverter, communication equipment and PC workstations against lightning induced transients entering the system via exposed sensor and communication lines.

4 Inverter DC Input

Local protection in front of the inverter to protect against lightning induced transients originating from the solar PV array.

5 PV Array Combiner

Protects solar modules, power tracking and blocking diodes from physical damage resulting from lightning induced transients.

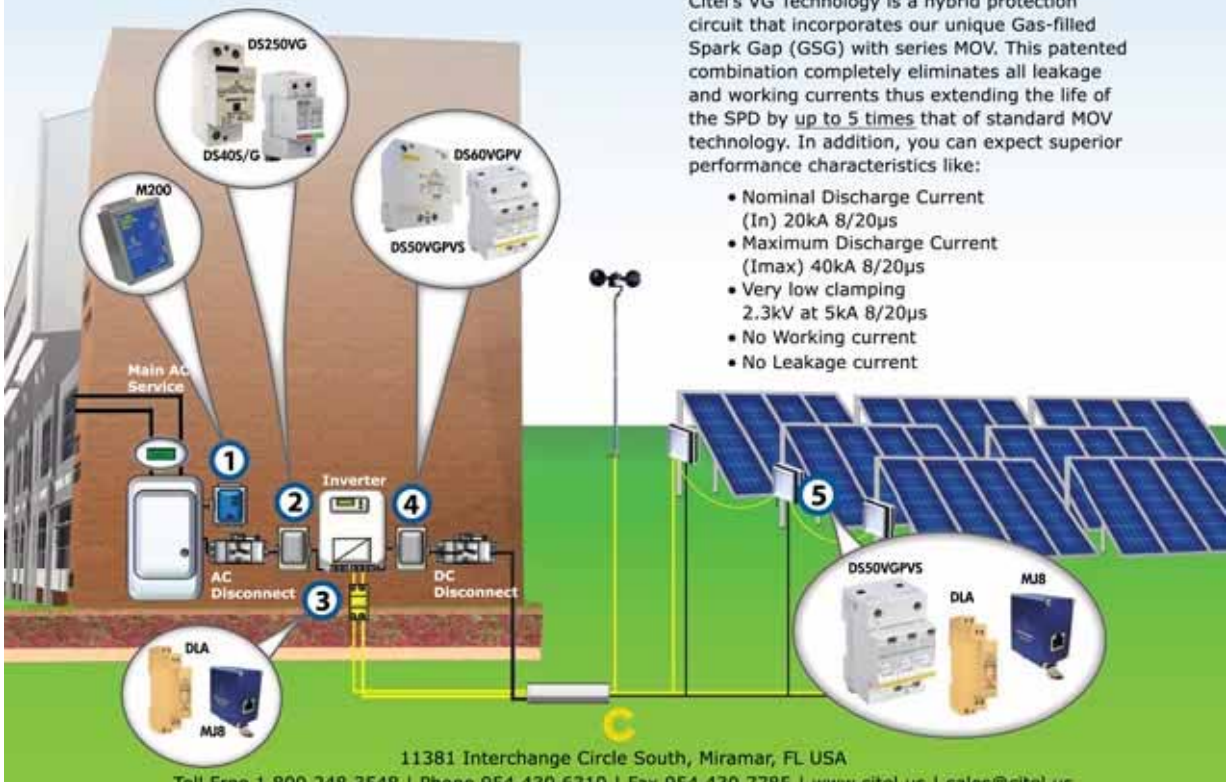
NEW! CITEL VG TECHNOLOGY

Why VG Technology?

DC Power Systems continuously stress Metal Oxide Varistors (MOVs) without impunity, when compared to AC Power lines. The result is a significantly shorter life (about 3-5 years) for devices that rely exclusively on standard MOV technology.

Citel's VG Technology is a hybrid protection circuit that incorporates our unique Gas-filled Spark Gap (GSG) with series MOV. This patented combination completely eliminates all leakage and working currents thus extending the life of the SPD by up to 5 times that of standard MOV technology. In addition, you can expect superior performance characteristics like:

- Nominal Discharge Current (In) 20kA 8/20µs
- Maximum Discharge Current (Imax) 40kA 8/20µs
- Very low clamping 2.3kV at 5kA 8/20µs
- No Working current
- No Leakage current



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