

Electrostatic & Surge Arrester Series



- *Easy to install*
- *PV, 1P, 3P protection*
- *LED to show operational*

Another product from the *Usedasun*® range.

We manufacture a number of surge arresters to cover all surge requirements, be it a single phase system, three phase system or even a solar panel, solar array system, we have the surge arrester for your application. The surge arresters are manufactured under a number of certificates to ensure proper operation.

The surge arresters have an LED indication to assure your system is under protection. With severe surges, the internal arresters will absorb the energy and may stop doing their function. Under these conditions, the internal thermal fuse will disconnect the damaged arresters from the circuit. After severe surge or lightning activity, it is good practice to check if the LEDs are lit under operating conditions, if not, the surge arresters need replacement for continued protection.

PVSS 1260 Solar Panel Electrostatic & Surge Arrester

Ground breaking technology has been introduced into this surge arrester, specifically for use with solar panels and solar installations. Solar panels, have a tendency to generate static electricity from wind and atmospheric conditions. This static electricity reduces solar panel efficiency by introducing ions onto the protective glass which interferes with the solar cell operation. Typical ways to overcome this static electricity, is to ground either the positive or the negative supply of the solar panel. In many cases this may be undesirable to solar equipment downstream, and may cause multiple earth paths during surge activity. With the use of our Electrostatic & Surge arresters, there is no need to earth either line, as the electrostatic build up is continually leaked to earth, ensuring that the solar panel is always working at optimal power, without compromising the protection to earth.

Built into the Electrostatic & Surge arrester, is an electrode glass arrester and a surge arrester, to ensure that there is no surges present during operation of the solar panel between each line and to earth. Coupled to this are two LEDs which indicate that the surge arrester is working during the period in which the solar panel is generating electricity, and confirms that the solar panel is correctly polarity connected to the solar system. While at night time there is no solar activity, and the LEDs are extinguished, the Electrostatic & Surge arrester is still in full operation, protecting your solar installation.

Specifications for the PVSS 1260

Input Voltage	30V to 1000V D.C.
Operation indication	LEDs active when Polarity is correct, sun radiance present and Surge arrester is operational. If there is sun radiance and any or both the LEDs are off, then replace the surge arrester for continued protection
In	5KA
I _{max} (Surge Current breakdown)	10KA
V _{max} (Surge Voltage before conduction)	1260V

The following certificate numbers are covered by the Electrostatic & Surge Arrester
UL 1449
HV/107286

MS1P and MS3P Surge arresters

These single phase and three phase surge arresters have been manufactured for a number of years and have proved their reliability, and can be found in DB boxes in various forms and packaging's. They offer surge protection for single phase systems (3 wire) and three phase systems (4 wire). Surge Protection Device (SPD) protect against lightning surges and manmade surges such as motors, HVAC and lifts etc, and also when power re-established after fuses breaking, contactors switching or an outage, e.g. cables dug up.

Nominal A.C. voltage for single phase system (UN)	230V (L-N)
Nominal A.C. Voltage for 3 phase system (UN)	400V (L1-L2-L3)
Max. continuous operating A.C. voltage 1P (Uc)	275V
Max. continuous operating A.C. voltage 3P (Uc)	460V
Lightning impulse current (10/350 μ s) [L+N-PE] (It)	25kA
Nominal discharge current (8/20 μ s) [L-N]/[N-PE] (In)	$\leq 1.5 / \leq 1.5$ kV
Voltage protection level [L-N]/[N-PE] (Up)	12.5/25kA
Response time (tA)	≤ 100 nS

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