

Solar Panels

Monocrystalline panels use crystalline silicon, a basic semiconductor material. Crystalline silicon is produced in large sheets that can be cut to a specific size and used as one large cell in a panel. Conducting metal strips are laid over the entire cell to collect electrons from the cell into an electrical current.

These panels are more expensive to produce than the polycrystalline panels that follow. However, they are highly efficient and are more cost-effective in the long run as a result. Monocrystalline panels are typically 15-18% efficient, meaning that for every unit of solar energy that hits the cell, the panel can convert 15-18% of this energy into electricity.

WSE also carries a wide range of smaller and specialty solar panels. These include polycrystalline, laminated PV modules, and Flectional solar panels. See the WSE website for more information.



Solar Panel Product Matrix

Model	WSE25W	WSE50W	WSE100W
Nominal Peak Power	25W	50W	100W
Output Power Tolerance	+/-5%		
Maximum Power Voltage	16.8V		17.2V
Maximum Power Current	1.49A	2.97A	5.82A
Open Circuit Voltage	21.2V		21.4V
Short Circuit Current	1.79A	3.56A	6.76A
Solar Cell Efficiency	13%		
Module Efficiency	10%		12.50%
Temperature	50°C +/-2°C		47°C +/-2°C
Dimensions	680 x 340 x 28	940 x 540 x 35	1210 x 660 x 35
Max System Voltage	1000VDC	750VDC	1000VDC
Wind Bearing Potential	200kg/m2		
Hailstone Impact Resistance	Yes		
Panel Type	Monocrystalline		
Certificates	ISO9001		