

CSA PV Solar Panels

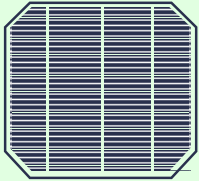
High-Efficiency PV Panels



Reason your next Solar PV Panel will be from WSE

- Price
- Same exposure time
- Long Life
- Same module size
- Over 10% more power output
- CSA Approved

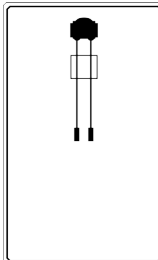
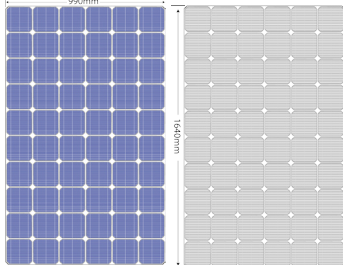
Top-Quality CSUN Solar Cells



For its solar cells, WSE has entered into a partnership with CSUN, one of largest and best PV cell manufacturers in the world.

By using CSUN's new SE (Selective Emitter) cells with up to 19% efficiency, WSE is able to deliver significantly more Watts per surface area, an invaluable advantage in any solar project.

SPECIFICATIONS:



- Dimensions**
1640 x 990 x 50 mm
- Number of Cells**
60pcs (6x10)
- Cell Type**
Mono-Crystalline SE (3 Bus Bars)
- Cell Type**
156mm x 156mm (6")

Main factors that affect PV conversion efficiency are as:

- The number of minority carriers crossing the PN junction in unit time:
- The electrical resistivity of metal electrode.

CHARACTERISTICS

TYPE	WSE 250-60M	WSE 245-60M	WSE 240-60M
Peak Power	250 W	245 W	240 W
Voe [V]	37.3	37.2	37
Isc [A]	8.78	8.69	8.62
Vmp [V]	30.1	30	29.8
Imp [A]	8.31	8.17	8.06

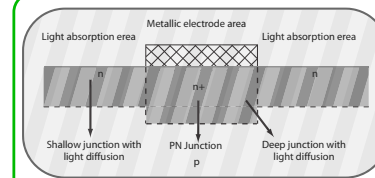
All parameters of electrical characteristics are tested under STC: 1000 W/m², AM 1.5, 25°C.

OTHER PARAMETERS

Max System Voltage	1000 V (IEC)	
Temperature Coefficient of Voltage	-0.36%/K	
Temperature Coefficient of Current	0.03%/K	
Temperature Coefficient of Power	-0.52%/K	
NOCT	45°C	
Fuse Current	15A	
Mechanical Load	Not less than 2400 Pa	
Basic Structure	Front Side	Low-iron tempered glass
	Back Side	Color custom composite film
	Frame	Aluminum alloy

Solar PV Panel Features

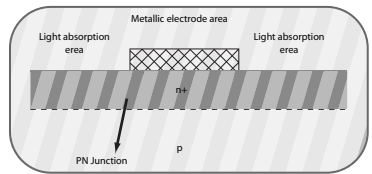
- * High conversion efficiency;
- * Excellent performance under low lighting conditions;
- * Low hot spot effect, due to low reverse current density;
- * Low degradation under light exposure; which is very close to the power from the cells before encapsulation;
- * 5-year hardware warranty;
- * 25-year power output warranty



Selective Emitter Cell

- Compared to modules with the same size made of normal P-type solar cells average efficiency of which is 16%.

- Average efficiency of 17.5%, up to 18%.



Conventional Cell

SE solar cell adopts deep and shallow junction structures, which mainly improve conversion efficiency from some aspects such as:

1. The shallow junction with light diffusion of cell active areas make the number of minority carrier through PN junction more than common;
2. The voltage between the shallow junctions of metal contact area increases the power of minority carriers;
3. The deep junction with heavy diffusion of metal electrode areas ensure the lower contact resistance between metal and semiconductor.