

165-72P Polycrystalline Solar Module

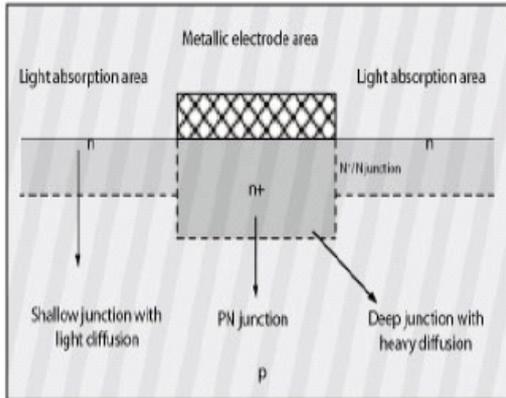


Revolutionary Product
--Selective Emitter™ Solar Module
Same module size,
Same exposure time,
More power output!

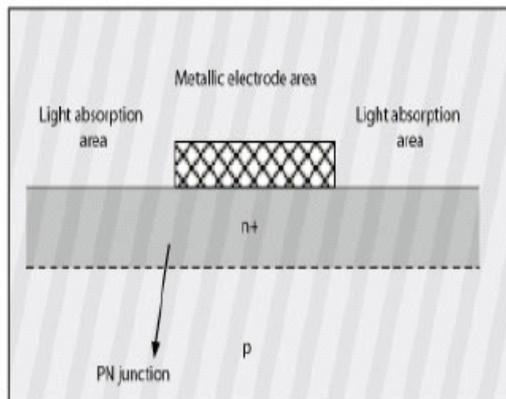
MORE-LESS=? You know how to choose!

Features

- High conversion efficiency;
- Low power tolerance of $\pm 3\%$;
- Excellent performance under low lighting conditions;
- Low hot spot effect, due to low reverse current density;
- Low degradation under light exposure;
- Low cell performance mismatch during encapsulation, our SE module demonstrates high power output, which is very close to the power generated by the whole cells before encapsulation;
- Passing mechanical load test of 5400Pa according to IEC 61215(advanced test);
- Tested to withstand hails with maximum diameter of 25mm and impact speed of 23m/s;
- Blacksheet is also available.



Selective Emitter cell



Conventional cell

and semiconductor.

To one solarcell, the main factors that affect conversion efficiency are as:

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

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 deep and 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

Technical Parameters sss165w-poly

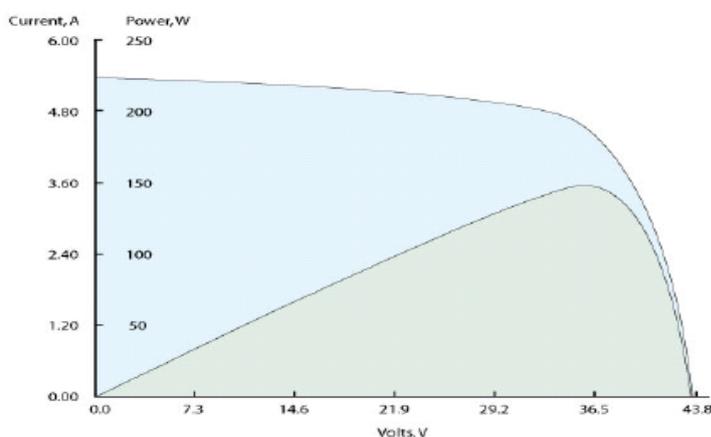
Product Type	SSS 165
Parameter	Typical Data
Watts Peak (W)	165
Open Circuit Voltage (V)	43.5
Short Circuit Current (A)	5.19
Optimum Operating Voltage (V)	35.1
Optimum Operating Current (A)	4.71
Silicon Cell Efficiency	16.5%
Voltage Temperature Coefficient	-0.35%/K
Current Temperature Coefficient	+0.06%/K
Power Temperature Coefficient	-0.47%/K
Quantity of Cells	4×18pieces poly-crystalline silicon cell series connection
Maximum System Voltage(V)	1000 (TUV)/600(UL)
Module Safe Wire Current (A)	10
Module Insulating Resistance(Ω)	≥100MΩ
Parameter Physical Size(mm ³)	1210×992×35(L×W×H)
Module Operating Temperature(°C)	-40°C to +90°C
Hail	maximum diameter of 25mm ⁻¹ with impact speed of 23.0m.s ⁻¹
Maximum Surface Load Capacity	tested up to 2,400Pa according to IEC 61215
Weight	14.5kg

The electrical data relates to standard test conditions [STC]:1,000 W/m² ; AM 1.5;25°C

Performance deviation of Pmpp: ± 3%; Performance deviation of Voc, Isc, Vmp and Imp: ±10%

Certified in accordance with IEC 61215, IEC 61730-1/2.

Characteristics



SPI-Sun Simulator4600

Title: S5T175-72M

Isc = 5.322 A

Voc = 43.561 V

Pm = 173.036 W

Im = 4.909 A

Vm = 35.249 V

FF = 74.98%

η = 15.38%

Rs = 0.07 Ω

Rsh = 1171.59 Ω

Quality and Certificates

- 5-year hardware warranty;
- 25-year power output warranty***.
- Certifications;

Certification Authority	Test Standard	Power Range
TÜV Rheinland	IEC61215	40W-200W
ASU-PTL	IEC61215	155W-185W
VDE	IEC61215 IEC61730-1/2	155W-180W
CSA	UL1703	155W-190W



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

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

*** 10 years at 90% of the minimal rated power output, 25 years at 80% of the minimal rated power output.

Operating Condition & Packaging

Maximum surface load capacity	tested up to 2,400 Pa according to IEC 61215 ^a tested up to 5,400 Pa according to IEC 61215 (advanced test) ^b
Hail	maximum diameter of 25 mm with impact speed of 23 m/s (51.2mph)
Temperature range	- 40 °C to + 85 °C

Dimensions(LxWxH)	Container 20'	Container 40'	Container 40HC'
1580x808x35mm	360	840	952
1580x808x50mm	258	602	686

IV-Curves

