

Shingled bifacial module

TH530~555PMB6 58SDC



Features of Module



Shingling Technology
Innovative structure, low-temperature adhesive bonding, high-density layout.



Beautiful Appearance
Uniform layout, better aesthetic.



Superior Safety and Reliability
No hidden welding crack, low operating temperature, high pressure resistance.



Low System Cost
High module efficiency, reducing system cost.



Low Hot Spot Risk
Parallel circuit design reduces shading loss.



Low Shading Loss
Full parallel arrangement brings high effective power generation hours.

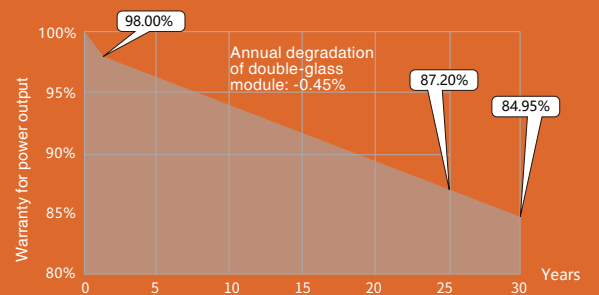


Eco-friendly
Adhering to green philosophy, no fluorine and low lead.

Linear Power Output Warranty

15 15-year warranty for materials.

30 30-year warranty for linear power output.



Quality Management System and Product Certification

IEC61215/61730、IEC62804(PID)、IEC61701(Salt)、
IEC62716 (Ammonia)、IEC60068-2-68(Sand)
ISO 9001:2015 / quality management system
ISO 14001:2015 / environmental management system
ISO 45001:2018 / occupation health safety management system
ISO 50001:2011 / energy management system
IEC TS 62941—2016 / PV industry quality management system



Electrical Characteristics (STC)

Module Type: TH***PMB7-46SC	555	550	545	540	535	530
Maximum Power - Pm (W)	555	550	545	540	535	530
Open Circuit Voltage - Voc (V)	47.2	47.1	47.0	46.9	46.8	46.7
Short Circuit Current-Isc [A]	15.07	14.97	14.86	14.76	14.65	14.55
Maximum Power Voltage-Vm [V]	39.2	39.1	39.0	38.9	38.8	38.8
Maximum Power Current-Im [A]	14.17	14.07	13.98	13.89	13.79	13.67
Module Efficiency-η [%]	21.2	21.0	20.9	20.7	20.5	20.3

Electrical Characteristics at NMOT

Maximum Power-Pm [W]	416	413	409	405	401	398
Open Circuit Voltage-Voc [V]	44.9	44.8	44.7	44.6	44.5	44.4
Short Circuit Current-Isc [A]	12.14	12.06	11.97	11.89	11.80	11.72
Maximum Power Voltage-Vm [V]	37.3	37.3	37.2	37.1	37.0	37.0
Maximum Power Current-Im [A]	11.15	11.07	10.99	10.92	10.84	10.76

Note: 1. Standard Test Conditions (STC): irradiance 1000 W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
 2. Nominal Module Operating Temperature (NMOT): Irradiance 800W/m²; wind speed 1m/s, ambient temperature 20°C.
 3. Tolerance of Pm: 0~+5W, Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±3%.

Mechanical Parameters

Dimensions	2384 × 1096 × 35mm
Weight	32.5kg
Front glass	tempered glass, 2.0mm
Frame	Anodized aluminum profile
Cells	Mono-crystalline solar cell
Cell Orientation	345 (69°*5)
Junction Box	IP68, three diodes
Cable	4mm ² , +300mm/-1000mm(Vertical), +220mm/-180mm
Packaging	(Horizontal)31pcs/box; 620pcs/40'container; 868pcs/flat car

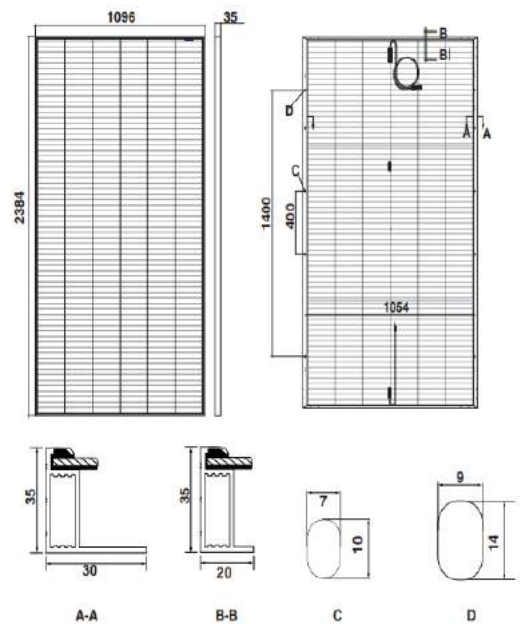
Temperature Parameters

NMOT	42.30 °C (±2°C)
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Pm	-0.34%/°C

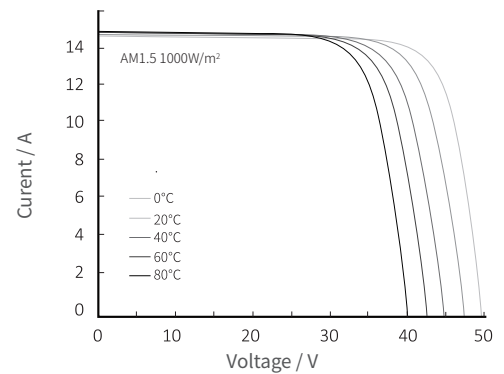
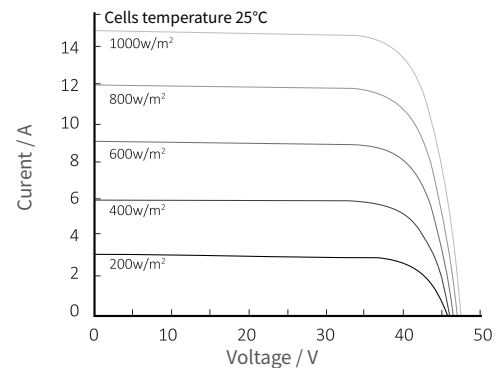
Maximum Ratings

Maximum System Voltage [V]	DC1500 (IEC)
Series Fuse Rating [A]	30
Maximum Surface Load Capacity [Pa]	Front 5400 / Back 2400
Temperature Range [°C]	-40 ~ + 85
Withstanding Hail	Maximum diameter of 25 mm with impact speed of 23 m/s

Drawings



I-V Curve



Declaration:
 With the technical progress and product updates, there exists a deviation between the technical parameter of the TW Solar's future products and the technical parameter in this specification. The TW Solar reserves the right to adjust the technical parameter at any time without notifying the customers, TW Solar reserves the final right of interpretation.