

# 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.

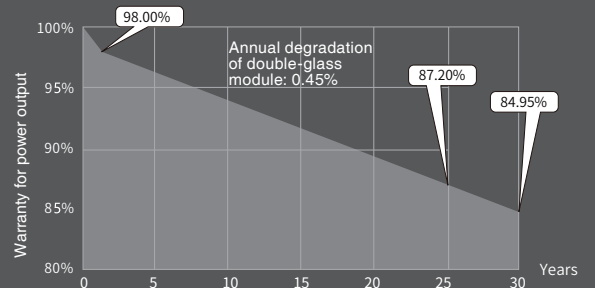
### Linear Power Output Warranty

**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 at Standard Test Conditions(STC)

Module Type:TH *** PMB6-58SDC	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

### Temperature Characteristics

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	37.2	37.1	37.0	37.0	36.9
Maximum Power Current-Im [A]	11.17	11.09	11.01	10.94	10.86	10.78

1. Standard Test Conditions [STC]: irradiance 1000 W/m<sup>2</sup>; AM 1.5; ambient temperature 25°C according to EN 60904-3;  
 2. Nominal Module Operating Temperature (NMOT): Irradiance 800W/ m<sup>2</sup>; 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%.  
 4. Bifaciality: Glazing 70%±5%

### Electrical characteristics with different rear side power gain (reference to 545W front)

Power Gain-PG	5%	10%	15%	20%	25%	30%
Maximum Power-Pm [W]	572	600	627	654	681	709
Open Circuit Voltage-Voc [V]	47.0	47.0	47.0	47.1	47.1	47.1
Short Circuit Current-Isc [A]	15.61	16.35	17.09	17.84	18.58	19.32
Maximum Power Voltage-Vm [V]	39.0	39.0	39.0	39.1	39.1	39.1
Maximum Power Current-Im [A]	14.77	15.48	16.18	16.88	17.59	18.29

### Mechanical Characteristics

Dimensions	2384 × 1096 × 30mm
Weight	32.0 ± 0.3kg
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 <sup>2</sup> , +500mm/-1000(V), +220mm/-180mm(H), be customized by customer
Packaging	36pcs/box; 720pcs/40'HQ; 1008 pcs/flat car

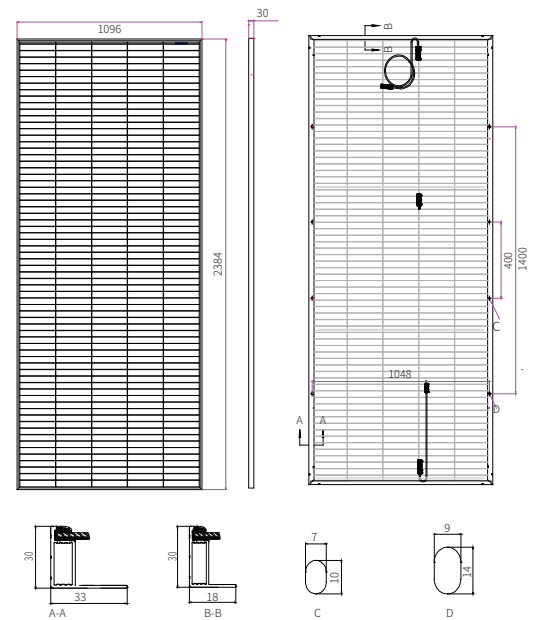
### Temperature Characteristics

NMOT	42.3 °C ( ± 2 °C )
Temperature Coefficient of Voc	-0.27% / °C
Temperature Coefficient of Isc	0.04% / °C
Temperature Coefficient of Pm	-0.34% / °C

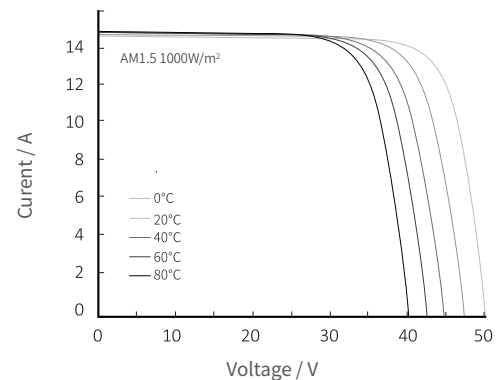
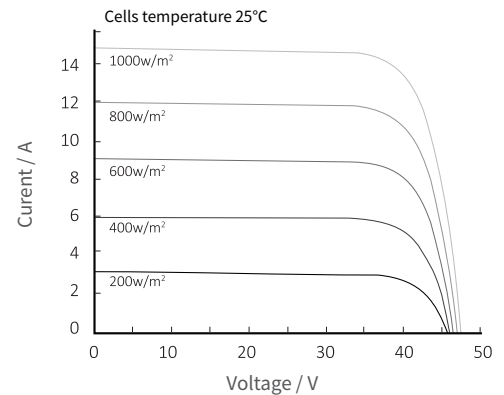
### Maximum Ratings

Maximum System Voltage [V]	DC 1500
Series Fuse Rating [A]	30
Surface Load Capacity [Pa]	Front5400 / Back2400
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.