

Specification of THxxxPM5-78SA

Monocrystalline PERC
shingled solar module

KEY features



Shingled Technology

Shingled Technology provides ultra -high efficiency
Maximizes installation capacity in limited space.



Beautiful appearance

Best choice of C&I, residential applications.



Enhanced weather resistance

Avoid the microcrack of cells caused by traditional welding
process; Modules are flexible and compressive resistance;
Suitable for all harsh environments.



Reduce system cost

High module efficiency reduces floor space effectively, BOS,
transportation and maintenance costs



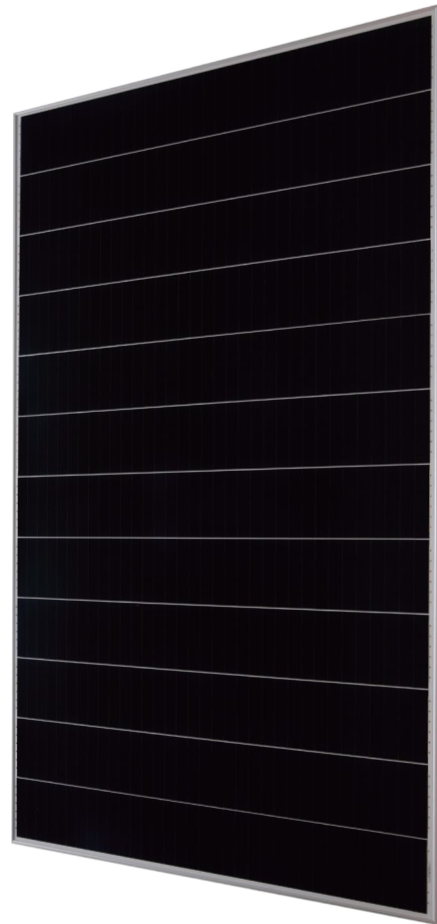
Strong compatibility

Can be equipped with a variety of mainstream high efficient
(PERC, SHJ) cells.



Anti-PID and low LID

To ensure higher actual yield during lifetime.

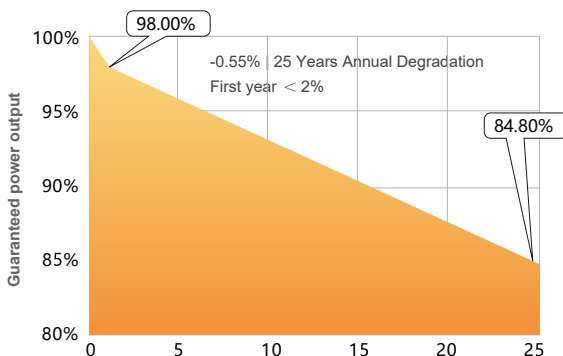


material process warranty



linear power output warranty

Warranty



Complete system and product certifications

IEC 61215/61730 IEC62804(PID) IEC61701(Salt) IEC62716(Ammonia)

ISO 9001:2015 / Quality management System

ISO 14001:2015 / Environmental management System

ISO 45001:2018 / Occupational health and safety Management System

ISO 50001:2011 / Energy management Systems

IEC TS 62941-2016 / Photovoltaic industry Quality management System



Electrical Characteristics at Standard Test Conditions(STC)

Module Type:TH *** PM5-78SA	475	470	465	460	455
Maximum Power-Pm [W]	475	470	465	460	455
Open Circuit Voltage-Voc [V]	49.5	49.4	49.4	49.2	49.0
Short Circuit Current-Isc [A]	12.12	12.07	12.03	11.99	11.95
Maximum Power Voltage-Vm [V]	41.0	40.9	40.9	40.7	40.5
Maximum Power Current-Im [A]	11.59	11.49	11.37	11.30	11.23
Module Efficiency-η [%]	21.2	20.9	20.7	20.5	20.3

Electrical Characteristics at NMOT

Maximum Power-Pm [W]	358	354	350	346	343
Open Circuit Voltage-Voc [V]	47.2	47.1	47.1	46.9	46.7
Short Circuit Current-Isc [A]	9.76	9.72	9.69	9.66	9.63
Maximum Power Voltage-Vm [V]	39.1	39.0	39.0	38.8	38.6
Maximum Power Current-Im [A]	9.15	9.08	8.98	8.93	8.87

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%.

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 (IEC); DC 1000(UL)
Series Fuse Rating [A]	20
Maximum Surface Load Capacity [Pa]	5400
Temperature Range [°C]	- 40~+ 85

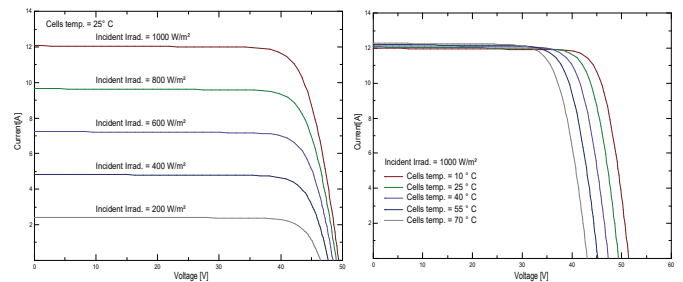
Package

Size	1969×1140×35mm
Number of panels per pallet	31
Number of pallets per 40'GP container	22
Number of modules per container	682

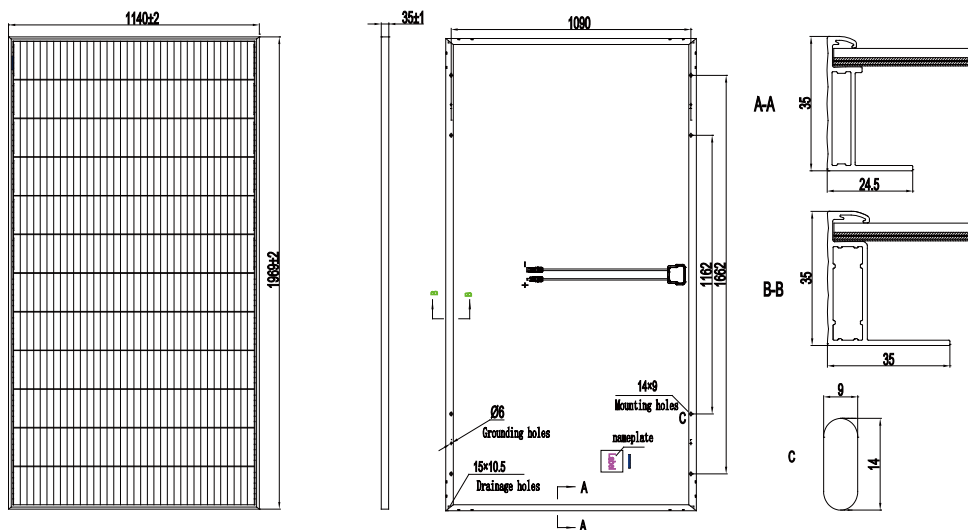
Mechanical Characteristics

Dimensions	1969×1140×35 mm (L×W×H)
Weight	24.5kg
Front Glass	AR coating tempered glass, 3.2mm
Encapsulation	EVA
Cells	158.75x158.75mm PERC solar cells
Back Sheet	high weatherability backsheet
Frame	Anodized aluminum profile
Junction Box	IP67, TUV&UL
Cable	Length 1200mm, 1×4mm ²
Connector	Compatible with MC4

I-V curve



Drawing



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.