

# TERRA 5E

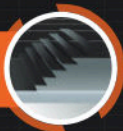
## SHINGLED MONOFACIAL MODULE

# TH420~445PMB7 46SCF

[www.tw-solar.com](http://www.tw-solar.com)

### Shingled Technology

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



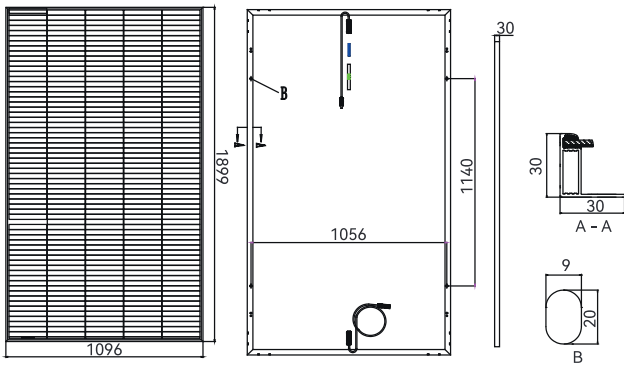
### Safety and Reliability

No hidden welding crack, low operating temperature, high pressure resistance.



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**DRAWINGS (Unit: mm)**



**MECHANICAL PARAMETERS**

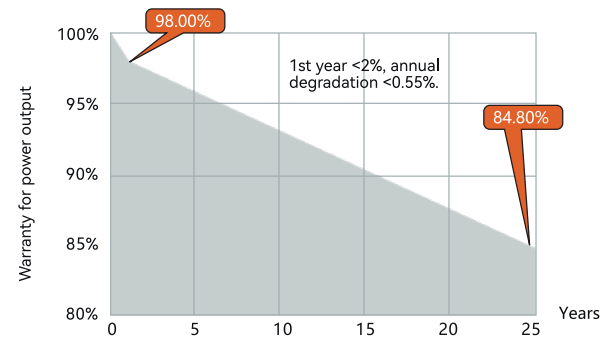
Dimensions	1899 × 1096 × 30mm
Weight	21.8kg
Front glass	tempered glass, 3.2mm
Frame	Anodized aluminum profile
Cells	Mono-crystalline solar cell
Cell Orientation	320 (64 × 5)
Junction Box	IP68, two diodes
Cable	4mm <sup>2</sup> ,+300mm/-1000mm(Vertical), +220mm/-180mm(Horizontal)
Packaging	36pcs/box; 864pcs/40' container; 1296pcs/flat car

**ELECTRICAL CHARACTERISTICS (STC)**

Module Type: TH***PMB7-46SCF	445	440	435	430	425	420
Maximum Power: Pmax [W]	445	440	435	430	425	420
Open Circuit Voltage: Voc [V]	43.8	43.7	43.6	43.5	43.4	43.3
Short Circuit Current: Isc [A]	13.01	12.90	12.79	12.68	12.56	12.46
Voltage at Maximum Power: Vmp [V]	36.4	36.3	36.2	36.1	36.0	35.9
Current at Maximum Power: Imp [A]	12.23	12.13	12.02	11.92	11.81	11.71
Module Efficiency: η [%]	21.4	21.1	20.9	20.7	20.4	20.2

**WARRANTY**

**Linear Power Output Warranty**



**ELECTRICAL CHARACTERISTICS (NMOT)**

Maximum Power: Pmax [W]	335	331	328	324	320	316
Open Circuit Voltage: Voc [V]	41.8	41.7	41.6	41.5	41.4	41.3
Short Circuit Current: Isc [A]	10.50	10.41	10.32	10.23	10.14	10.05
Voltage at Maximum Power: Vmp [V]	34.7	34.6	34.5	34.4	34.3	34.2
Current at Maximum Power: Imp [A]	9.66	9.57	9.49	9.41	9.32	9.24

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

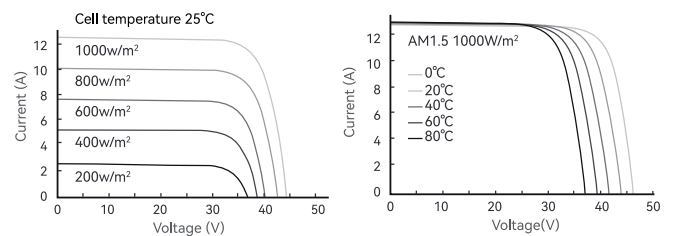
**TEMPERATURE PARAMETERS**

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]	25
Maximum Surface Load Capacity [Pa]	Front 5400 / Back 2400
Temperature Range [°C]	-40 ~ + 85
Withstanding Hail	Maximum diameter of 25mm with impact speed of 23m/s

**I-V CURVE**



**CERTIFICATIONS**

**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

