



**Shingled Technology**

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



**Beautiful Appearance**

Solderless interconnection, uniform appearance, displaying extreme beauty.



**TERRA 5K**  
**SHINGLED**  
**MONOFACIAL MODULE**

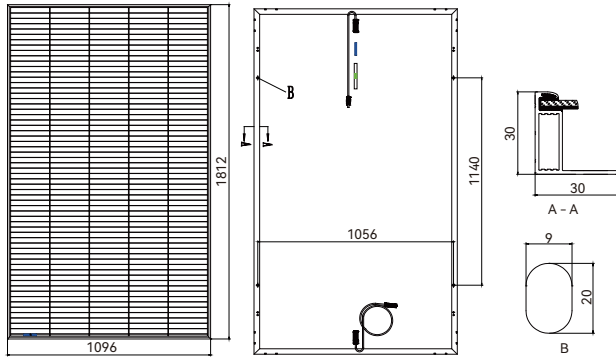
**TH400~425PMB7**  
**44SCF**

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



Scan the QR code to get more information

## DRAWINGS (Unit: mm)



## ELECTRICAL CHARACTERISTICS (STC)

|                                   |       |       |       |       |       |       |
|-----------------------------------|-------|-------|-------|-------|-------|-------|
| Module Type: TH***PMB7-44SCF      | 425   | 420   | 415   | 410   | 405   | 400   |
| Maximum Power: Pmax [W]           | 425   | 420   | 415   | 410   | 405   | 400   |
| Open Circuit Voltage: Voc [V]     | 41.7  | 41.6  | 41.5  | 41.4  | 41.3  | 41.2  |
| Short Circuit Current: Isc [A]    | 13.03 | 12.92 | 12.80 | 12.65 | 12.53 | 12.41 |
| Voltage at Maximum Power: Vmp [V] | 34.6  | 34.5  | 34.4  | 34.4  | 34.3  | 34.2  |
| Current at Maximum Power: Imp [A] | 12.30 | 12.19 | 12.08 | 11.93 | 11.82 | 11.71 |
| Module Efficiency: η [%]          | 21.4  | 21.1  | 20.9  | 20.6  | 20.4  | 20.1  |

## ELECTRICAL CHARACTERISTICS (NMOT)

|                                   |       |       |       |       |       |       |
|-----------------------------------|-------|-------|-------|-------|-------|-------|
| Maximum Power: Pmax [W]           | 320   | 316   | 312   | 309   | 305   | 301   |
| Open Circuit Voltage: Voc [V]     | 39.8  | 39.7  | 39.6  | 39.5  | 39.4  | 39.3  |
| Short Circuit Current: Isc [A]    | 10.50 | 10.41 | 10.31 | 10.19 | 10.09 | 10.00 |
| Voltage at Maximum Power: Vmp [V] | 33.0  | 32.9  | 32.8  | 32.8  | 32.7  | 32.6  |
| Current at Maximum Power: Imp [A] | 9.70  | 9.62  | 9.53  | 9.41  | 9.33  | 9.24  |

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%.

## 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

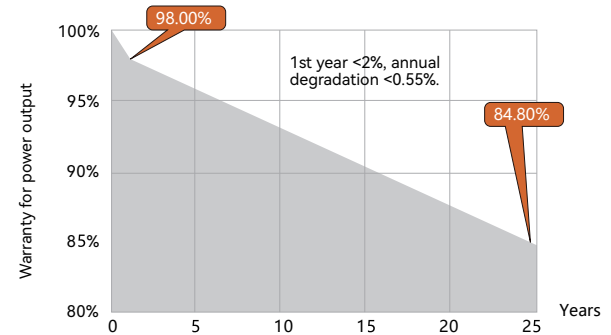
|                                    |                                                     |
|------------------------------------|-----------------------------------------------------|
| Maximum System Voltage [V]         | DC1500 (IEC)                                        |
| Series Fuse Rating [A]             | 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 |

## MECHANICAL PARAMETERS

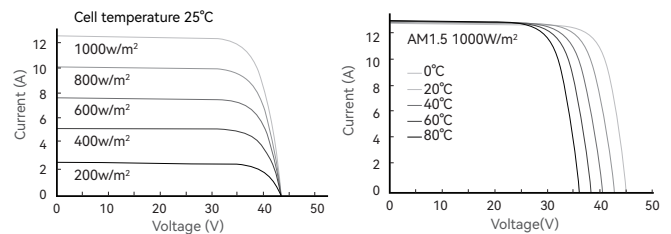
|                  |                                                                      |
|------------------|----------------------------------------------------------------------|
| Dimensions       | 1812 × 1096 × 30mm                                                   |
| Weight           | 20.8kg±0.3kg                                                         |
| Front glass      | tempered glass, 3.2mm                                                |
| Frame            | Anodized aluminum profile                                            |
| Cells            | Mono-crystalline solar cell                                          |
| Cell Orientation | 305 (61 × 5)                                                         |
| Junction Box     | IP68, two diodes; connector : Staubil EVO2                           |
| Cable            | 4mm <sup>2</sup> +300mm/-1000mm(Vertical), +220mm/-180mm(Horizontal) |
| Packaging        | 30pallets : 36pcs/ pallet + 2 pallets : 30pcs/ pallet                |

## WARRANTY

### Linear Power Output Warranty



## 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

