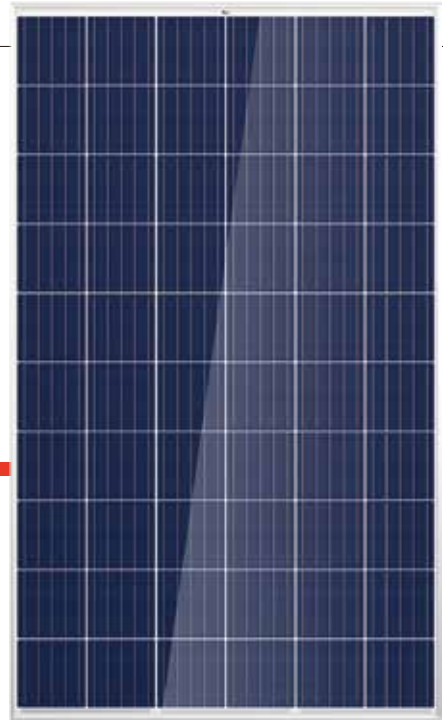


# THE Honey

FRAMED 60-CELL MODULE



**60 CELL**  
MULTICRYSTALLINE MODULE

**265-285W**  
POWER OUTPUT RANGE

**17.4%**  
MAXIMUM EFFICIENCY

**0~+5W**  
POSITIVE POWER TOLERANCE

Founded in 1997, Trina Solar is the world's leading comprehensive solutions provider for solar energy. We believe close cooperation with our partners is critical to success. Trina Solar now distributes its PV products to over 60 countries all over the world. Trina is able to provide exceptional service to each customer in each market and supplement our innovative, reliable products with the backing of Trina as a strong, bankable partner. We are committed to building strategic, mutually beneficial collaboration with installers, developers, distributors and other partners.

## Comprehensive Products And System Certificates

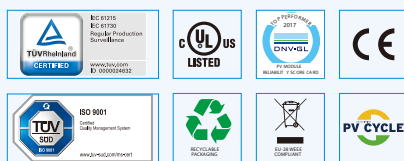
IEC61215/IEC61730/UL1703/IEC61701/IEC62716

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO14064: Greenhouse gases Emissions Verification

OHSAS 18001: Occupation Health and Safety Management System



### Our most versatile product

- Compatible with all major BOS components and system designs
- 1000V UL/1000V IEC certified



### Maximize Limited Space

- Up to 174 W/m<sup>2</sup> power density



### Highly reliable due to stringent quality control

- Over 30 in-house tests (UV, TC, HF, and many more)
- In-house testing goes well beyond certification requirements
- PID resistant
- 100% EL double inspection

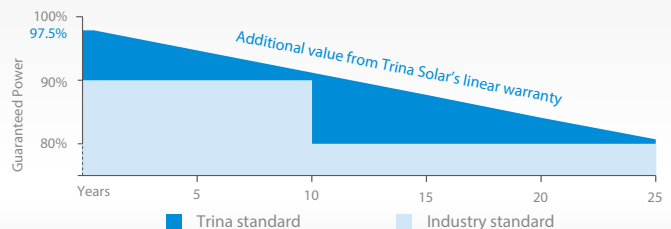


### Certified to withstand the most challenging environmental conditions

- 2400 Pa wind load
- 5400 Pa snow load
- 35 mm hail stones at 97 km/h

## LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty · 25 Year Linear Power Warranty



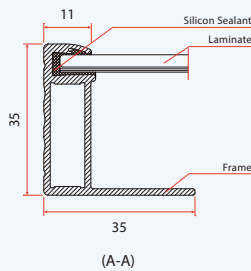
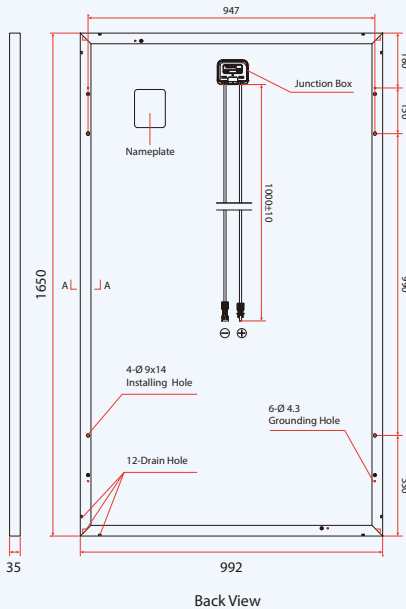
### PRODUCTS

TSM-PD05  
TSM-PD05.08  
TSM-PD05.05

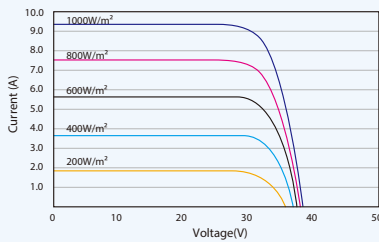
### POWER RANGE

270-285W  
270-285W  
265-280W

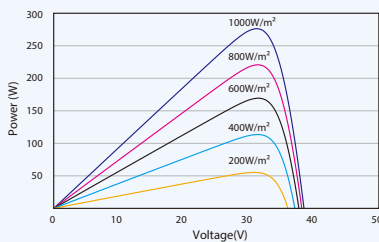
### DIMENSIONS OF PV MODULE(mm)



### I-V CURVES OF PV MODULE(280W)



### P-V CURVES OF PV MODULE(280W)



### ELECTRICAL DATA (STC)

| Parameter                             | 265    | 270  | 275  | 280  | 285  |
|---------------------------------------|--------|------|------|------|------|
| Peak Power Watts- $P_{MAX}$ (Wp)*     | 265    | 270  | 275  | 280  | 285  |
| Power Output Tolerance- $P_{MAX}$ (W) | 0 ~ +5 |      |      |      |      |
| Maximum Power Voltage- $V_{MPP}$ (V)  | 30.8   | 30.9 | 31.1 | 31.4 | 31.6 |
| Maximum Power Current- $I_{MPP}$ (A)  | 8.61   | 8.73 | 8.84 | 8.92 | 9.02 |
| Open Circuit Voltage- $V_{OC}$ (V)    | 37.7   | 37.9 | 38.1 | 38.2 | 38.3 |
| Short Circuit Current- $I_{SC}$ (A)   | 9.15   | 9.22 | 9.32 | 9.40 | 9.49 |
| Module Efficiency $\eta_m$ (%)        | 16.2   | 16.5 | 16.8 | 17.1 | 17.4 |

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.  
\*Measuring tolerance: ±3%.

### ELECTRICAL DATA (NOCT)

| Parameter                            | 197  | 200  | 204  | 208  | 211  |
|--------------------------------------|------|------|------|------|------|
| Maximum Power- $P_{MAX}$ (Wp)        | 197  | 200  | 204  | 208  | 211  |
| Maximum Power Voltage- $V_{MPP}$ (V) | 28.5 | 28.6 | 28.8 | 29.0 | 29.2 |
| Maximum Power Current- $I_{MPP}$ (A) | 6.90 | 7.00 | 7.09 | 7.15 | 7.23 |
| Open Circuit Voltage- $V_{OC}$ (V)   | 34.9 | 35.1 | 35.3 | 35.4 | 35.5 |
| Short Circuit Current- $I_{SC}$ (A)  | 7.39 | 7.44 | 7.52 | 7.59 | 7.66 |

NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s.

### MECHANICAL DATA

|                   |   |
|-------------------|---|
| Solar Cells       | Multicrystalline 156.75 × 156.75 mm (6 inches)  |
| Cell Orientation  | 60 cells (6 × 10)   |
| Module Dimensions | 1650 × 992 × 35 mm (65.0 × 39.1 × 1.38 inches)  |
| Weight            | 18.6 kg (41.0 lb)   |
| Glass             | 3.2 mm (0.13 inches), High Transmission, AR Coated Tempered Glass                                       |
| Backsheet         | White (PD05, PD05.08);<br>Black (PD05.05)   |
| Frame             | Silver Anodized Aluminium Alloy (PD05);<br>Black Anodized Aluminium Alloy (PD05.08, PD05.05)            |
| J-Box             | IP 67 or IP 68 rated  |
| Cables            | Photovoltaic Technology Cable 4.0mm <sup>2</sup> (0.006 inches <sup>2</sup> ),<br>1000 mm (39.4 inches) |
| Connector         | MC4   |

### TEMPERATURE RATINGS

|  |             |
|--|-------------|
| NOCT(Nominal Operating Cell Temperature) | 44°C (±2°C) |
| Temperature Coefficient of $P_{MAX}$     | -0.41%/°C   |
| Temperature Coefficient of $V_{OC}$      | -0.32%/°C   |
| Temperature Coefficient of $I_{SC}$      | 0.05%/°C    |

### MAXIMUM RATINGS

|                         |                                 |
|-------------------------|---------------------------------|
| Operational Temperature | -40~+85°C                       |
| Maximum System Voltage  | 1000V DC (IEC)<br>1000V DC (UL) |
| Max Series Fuse Rating  | 15A                             |

(DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection)

### WARRANTY

10 year Product Workmanship Warranty

25 year Linear Power Warranty

(Please refer to product warranty for details)

### PACKAGING CONFIGURATION

Modules per box: 30 pieces

Modules per 40' container: 840 pieces