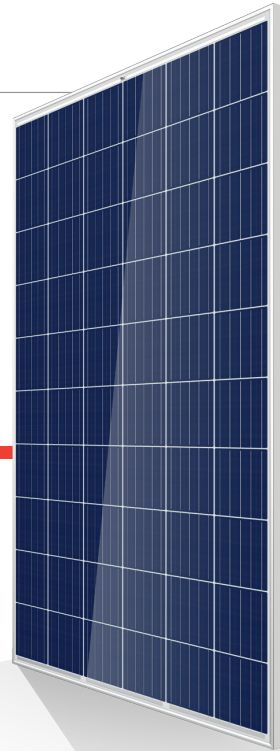


Mono **Multi** Solutions

# Honey MODULE

TSM-PD05



**60 CELL**  
MULTICRYSTALLINE MODULE

**265-280W**  
POWER OUTPUT RANGE

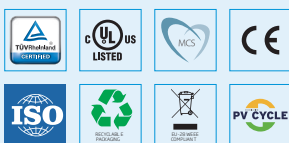
**17.1%**  
MAXIMUM EFFICIENCY

**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 Solar is able to provide exceptional service to each customer in each market and supplement our innovative, reliable products with the backing of Trina Solar as a strong, bankable partner. We are committed to building strategic, mutually beneficial collaboration with installers, developers, distributors and other partners.

## Comprehensive Product And System Certificates

IEC61215/IEC61730/UL1703/IEC61701/IEC62716  
 ISO 9001: Quality Management System  
 ISO 14001: Environmental Management System  
 ISO14064: Greenhouse Gas Emissions Verification  
 OHSAS 18001: Occupational Health and Safety Management System



**Trina solar**



### Excellent low light performance on cloudy days, mornings and evenings

- Advanced surface texturing
- Back surface field
- Selective emitter



### Maximize Limited Space

- 60-cell module power output up to 280 W
- Up to 171 W/m<sup>2</sup> power density



### Highly reliable due to stringent quality control

- All modules have to pass electroluminescence (EL) inspection
- Over 30 in-house tests (UV, TC, HF, and many more)
- In-house testing goes well beyond certification requirements
- PID resistant
- 1000 V UL/1000 V IEC certified

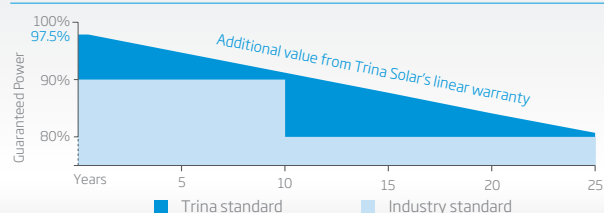


### Certified to withstand challenging environmental conditions

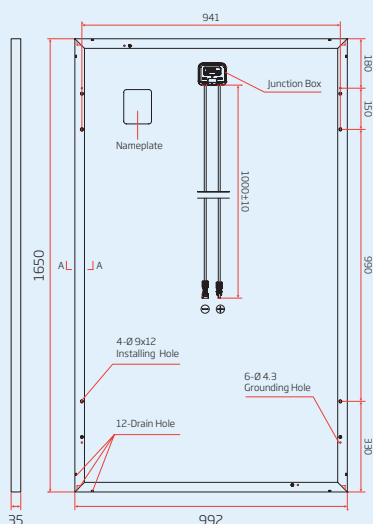
- 130 km/h wind load (2400 Pa)
- 900 kg snow load per module (5400 Pa)
- 35 mm hail stones at 97 km/h
- Ammonia resistance
- Salt mist resistance
- Resistance to sand and dust abrasion

## LINEAR PERFORMANCE WARRANTY

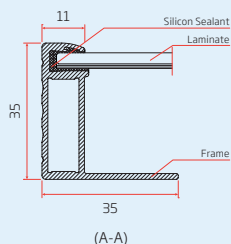
10 Year Product Warranty · 25 Year Linear Power Warranty



**DIMENSIONS OF PV MODULE**  
**TSM-PD05**  
(unit: mm)

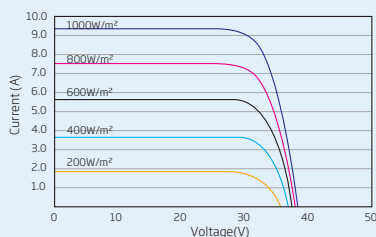


Back View

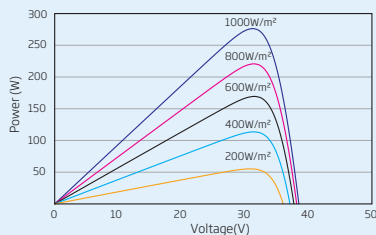


(A-A)

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



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



ELECTRICAL DATA @ STC	TSM-265 PD05	TSM-270 PD05	TSM-275 PD05	TSM-280 PD05
Peak Power Watts-P <sub>MAX</sub> (Wp)*	265	270	275	280
Power Output Tolerance-P <sub>MAX</sub> (W)	0/+5	0/+5	0/+5	0/+5
Maximum Power Voltage-V <sub>MPP</sub> (V)	30.8	30.9	31.1	31.4
Maximum Power Current-I <sub>MPP</sub> (A)	8.61	8.73	8.84	8.92
Open Circuit Voltage-V <sub>OC</sub> (V)	38.3	38.4	38.5	38.7
Short Circuit Current-I <sub>SC</sub> (A)	9.10	9.18	9.25	9.34
Module Efficiency η <sub>m</sub> (%)	16.2	16.5	16.8	17.1

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

ELECTRICAL DATA @ NOCT	TSM-265 PD05	TSM-270 PD05	TSM-275 PD05	TSM-280 PD05
Maximum Power-P <sub>MAX</sub> (Wp)	197	200	204	207
Maximum Power Voltage-U <sub>MPP</sub> (V)	28.6	28.7	29.0	29.2
Maximum Power Current-I <sub>MPP</sub> (A)	6.89	6.97	7.03	7.10
Open Circuit Voltage-U <sub>OC</sub> (V)	35.5	35.5	35.6	35.8
Short Circuit Current-I <sub>SC</sub> (A)	7.35	7.41	7.47	7.55

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

**MECHANICAL DATA**

Solar Cells	Multicrystalline 156.75 × 156.75 mm
Cell Orientation	60 cells (6 x 10)
Module Dimensions	1650 × 992 × 35 mm
Weight	18.6 kg
Glass	3.2 mm, high transparency, AR coated and heat tempered solar glass
Backsheet	White
Frame	Silver Anodized Aluminium Alloy
J-Box	IP 67 or IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm <sup>2</sup> , 1000 mm
Connector	EU Countries: MC4 / UTX, Non-EU Countries: QC4

**TEMPERATURE RATINGS**

Nominal Operating Cell Temperature (NOCT)	44°C (±2K)
Temperature Coefficient of P <sub>MAX</sub>	- 0.41%/K
Temperature Coefficient of V <sub>OC</sub>	- 0.32%/K
Temperature Coefficient of I <sub>SC</sub>	0.05%/K

**MAXIMUM RATINGS**

Operational Temperature	-40 to +85°C
Maximum System Voltage	1000V DC (IEC) 1000V DC (UL)
Max Series Fuse Rating*	15 A
Mechanical Load	5400 Pa
Wind Load	2400 Pa

\* DO NOT connect fuse in combiner box with two or more strings in parallel connection

**WARRANTY**

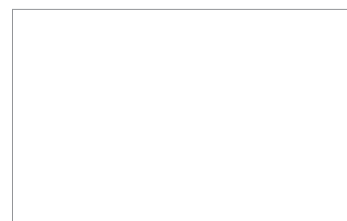
10 year Product Workmanship Warranty

25 year Linear Performance Warranty

(Please refer to product warranty for details)

**PACKAGING CONFIGURATION**

Modules per box:	30 pieces
Modules per 40' container:	840 pieces



TSM\_EN\_2017\_A