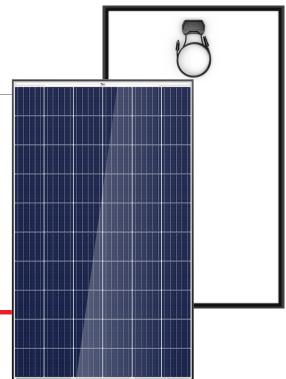
THE ALMAX MODULE





CELL STRING OPTIMIZATION

255-270W POWER OUTPUT RANGE

60CELL

MULTICRYSTALLINE MODULE

As a leading global manufacturer of next generation photovoltaic products, we believe close cooperation with our partners is critical to success. With local presence around the globe, 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 as the backbone of our shared success in driving Smart Energy Together.

Trina Solar Limited

www.trinasolar.com







Maximized Energy Harvest

 Optimization of each cell-string eliminates mismatch losses both within the module and between modules



Design Flexibility and Higher Energy Density

- Have panels at different orientations on the same string
- Design into shade
- Reduce inter-row spacing



Improved Performance

• Less susceptible to hot spots



Highly reliable due to stringent quality control

- Tested to 3 times the IEC certification standard
- 100% EL double inspection



No Additional Installation Expense

- No change in PV array design
- No additional hardware or communications equipment required

Comprehensive products and system certificates

- IEC 61215/ IEC 61730/ UL 1703/ IEC 61701/IEC 62716
- ISO 9001: Quality Management System
- ISO 14001: Environmental Management System
- ISO 14064: Greenhouse Gases Emissions Verification
- OHSAS 18001: Occupation Health and Safety Management System









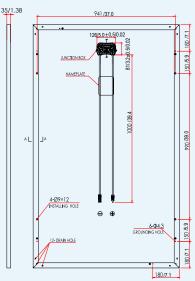


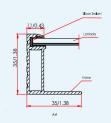






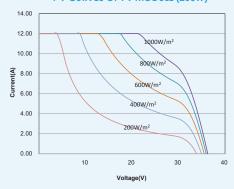
DIMENSIONS OF PV MODULE unit:mm/inches



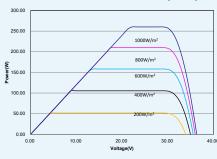


Back view

I-V CURVES OF PV MODULE (260W)



P-V CURVES OF PV MODULE(260W)



ELECTRICAL DATA (STC)

Peak Power Watts-P _{MAX} (Wp)*	255	260	265	270
Power Output Tolerance-P _{MAX} (W)	0~+5			
Maximum Power Voltage-V _{MPP} (V)	28.7	28.8	29.0	29.1
Maximum Power Current-IMPP (A)	8.90	9.04	9.16	9.29
Open Circuit Voltage-Voc (V)	35.8	35.9	36.0	36.1
Maximum Output Current-I _{MAX} (A)		1	2	
Module Efficiency η _m (%)	15.6	15.9	16.2	16.5

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5. *Test tolerance: $\pm 3\%$.

ELECTRICAL DATA (NOCT)

Maximum Power-P _{MAX} (Wp)	190	193	197	200
Maximum Power Voltage-V _{MPP} (V)	26.5	26.7	26.8	26.9
Maximum Power Current-IMPP (A)	7.13	7.25	7.37	7.47
Open Circuit Voltage-Voc (V)	33.0	33.2	33.3	33.4
Maximum Output Current-IMAX(A)	12			

NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s.

MECHANICAL DATA

Solar Cells	Multicrystalline 156 × 156 mm (6 inches)
Cell Orientation	60 cells (6 × 10)
Module Dimensions	1650 × 992 × 35 mm (65.0 x 39.1 x 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
Frame	Anodized Aluminium Alloy
J-Box	IP 67 or IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²), 1000 mm (39.4 inches)
Connector	MC4 Compatible
Fire Type	Type 1 or Type 2

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	44°C (±2°C)
Temperature Coefficient of PMAX	- 0.41%/°C
Temperature Coefficient of Voc	- 0.32%/°C
Temperature Coefficient of IMAX	0%/°C

THE COMMON ROTHINGS	
Operational Temperature	-40~+85°C
Maximum System Voltage	1000V DC (UL) 1000V DC (IEC)

15A

MAXIMIM RATINGS

Max Series Fuse Rating

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



Honey MODULE

TSM-PD05

60 CELL

MULTICRYSTALLINE MODULE

270-285W

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 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 Quality Management System ISO 14001: Environmental Management System

IS014064 Greenhouse Gas Emissions Verification OHSAS 18001: Occupational Health and Safety Management System























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 285 W
- Up to 174 W/m² 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



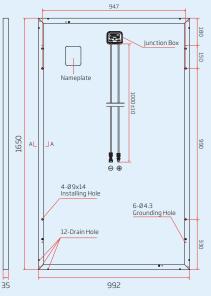
Certified to withstand challenging environmental conditions

- 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

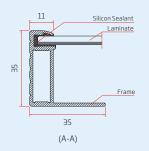




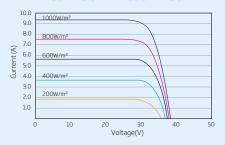
DIMENSIONS OF PV MODULE TSM-PD05 (unit: mm)



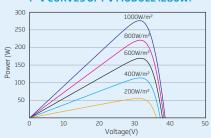
Back View



I-V CURVES OF PV MODULE (280W)



P-V CURVES OF PV MODULE (280W)



ELECTRICAL DATA @ STC	TSM-270 PD05	TSM-275 PD05	TSM-280 PD05	TSM-285 PD05
Peak Power Watts-PMAX (Wp)*	270	275	280	285
Power Output Tolerance-PMAX (W)	0/+5	0/+5	0/+5	0/+5
Maximum Power Voltage-V _{MPP} (V)	30.9	31.1	31.4	31.6
Maximum Power Current-I _{MPP} (A)	8.73	8.84	8.92	9.02
Open Circuit Voltage-Voc (V)	37.9	38.1	38.2	38.3
Short Circuit Current-Isc (A)	9.22	9.32	9.40	9.49
Module Efficiency ηπ (%)	16.5	16.8	17.1	17.4

STC: Irradiance 1000 W/m², Cell Temperature 25 °C, Air Mass AM1.5 * Measuring tolerance: $\pm 3\%$

ELECTRICAL DATA @ NOCT	TSM-270 PD05	TSM-275 PD05	TSM-280 PD05	TSM-285 PD05
Maximum Power-P _{MAX} (Wp)	200	204	208	211
Maximum Power Voltage-UMPP (V)	28.6	28.8	29.0	29.2
Maximum Power Current-I _{MPP} (A)	7.00	7.09	7.15	7.23
Open Circuit Voltage-Uoc (V)	35.1	35.3	35.4	35.5
Short Circuit Current-Isc (A)	7.44	7.52	7.59	7.66

NOCT: Irradiance at 800 W/m², 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 4.0mm², 1000 mm
Connector	EU Countries: 28 MC4 / UTX / TS4, Non-EU Countries: 28 QC4 / TS4

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	44°C (±2K)
Temperature Coefficient of PMAX	- 0.41%/K
Temperature Coefficient of Voc	- 0.32%/K
Temperature Coefficient of Isc	0.05%/K

WARRANTY

10 year Product Workmanship Warranty 25 year Linear Performance Warranty $(Please\,refer\,to\,product\,warranty\,for\,details)$

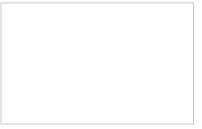
PACKAGING CONFIGURATION

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

MAXIMUM RATINGS

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

 $^{^{\}star}$ DO NOT connect fuse in combiner box with two or more strings in parallel connection



TSM_EN_2017_B









