

TSM-PD14

THE UTILITY MODULE

72 CELL
MULTICRYSTALLINE MODULE

290-310W
POWER OUTPUT RANGE

16.0%
MAXIMUM EFFICIENCY

0~+3%
POWER OUTPUT GUARANTEE

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



Ideal for large scale installations

- High power footprint reduces installation time and BOS costs



One of the industry's most trusted modules

- Field proven performance
- Strong, reliable supplier



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

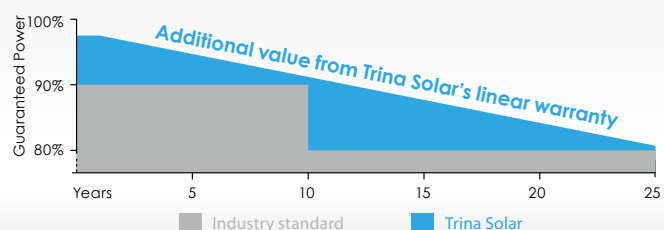


Certified to withstand challenging environmental conditions

- 2400 Pa wind load
- 5400 Pa snow load
- 25 mm hail stones at 82 km/hr

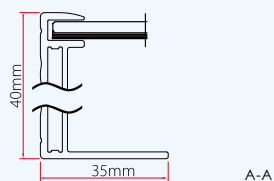
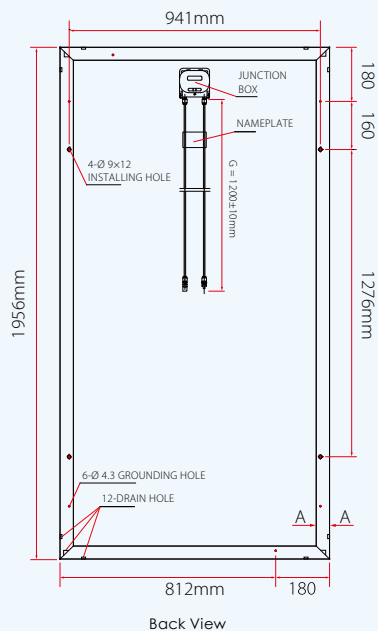
LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty

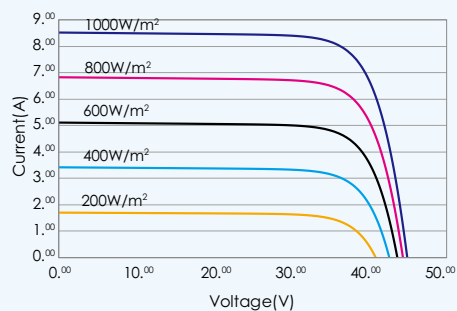


TSM-PD14 THE UTILITY MODULE

DIMENSIONS OF PV MODULE TSM-PD14



I-V CURVES OF PV MODULE TSM-290 PD14



CERTIFICATION



| ELECTRICAL DATA @ STC | TSM-290 PD14 | TSM-295 PD14 | TSM-300 PD14 | TSM-305 PD14 | TSM-310 PD14 |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Peak Power Watts- P_{MAX} (Wp) | 290 | 295 | 300 | 305 | 310 |
| Power Output Tolerance- P_{MAX} (%) | 0/+3 | 0/+3 | 0/+3 | 0/+3 | 0/+3 |
| Maximum Power Voltage- V_{MPP} (V) | 36.1 | 36.6 | 36.9 | 37.0 | 37.0 |
| Maximum Power Current- I_{MPP} (A) | 8.04 | 8.07 | 8.13 | 8.25 | 8.38 |
| Open Circuit Voltage- V_{OC} (V) | 44.9 | 45.2 | 45.3 | 45.4 | 45.5 |
| Short Circuit Current- I_{SC} (A) | 8.53 | 8.55 | 8.60 | 8.75 | 8.85 |
| Module Efficiency η_m (%) | 14.9 | 15.2 | 15.5 | 15.7 | 16.0 |

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3. Average efficiency reduction of 4.5% at 200 W/m² according to EN 60904-1.

| ELECTRICAL DATA @ NOCT | TSM-290 PD14 | TSM-295 PD14 | TSM-300 PD14 | TSM-305 PD14 | TSM-310 PD14 |
|---|--------------|--------------|--------------|--------------|--------------|
| Maximum Power- P_{MAX} (Wp) | 211 | 214 | 218 | 222 | 226 |
| Maximum Power Voltage- V_{MPP} (V) | 32.6 | 33.0 | 33.3 | 33.7 | 33.8 |
| Maximum Power Current- I_{MPP} (A) | 6.47 | 6.48 | 6.55 | 6.59 | 6.68 |
| Open Circuit Voltage (V)- V_{OC} (V) | 40.9 | 41.2 | 41.3 | 41.4 | 41.5 |
| Short Circuit Current (A)- I_{SC} (A) | 6.97 | 7.00 | 7.04 | 7.06 | 7.16 |

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 | 72 cells (6 × 12) |
| Module dimensions | 1956 × 992 × 40 mm (77 × 39.05 × 1.57 inches) |
| Weight | 27.6 kg (60.8 lb) |
| Glass | High transparency solar glass 4.0 mm (0.16 inches) |
| Frame | Anodized aluminium alloy |
| J-Box | IP 65 or IP 67 rated |
| Cables | Photovoltaic Technology cable 4.0 mm ² (0.006 inches ²) , 1200 mm (47.2 inches) |
| Connector | MC4-EVO 3 |

TEMPERATURE RATINGS

| | |
|---|-------------|
| Nominal Operating Cell Temperature (NOCT) | 45°C (±2°C) |
| Temperature Coefficient of P_{MAX} | - 0.44%/°C |
| Temperature Coefficient of V_{OC} | - 0.33%/°C |
| Temperature Coefficient of I_{SC} | 0.046%/°C |

MAXIMUM RATINGS

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

WARRANTY

10 year Product Workmanship Warranty

25 year Linear Power Warranty

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 25 pieces

Modules per 40' container: 550 pieces