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

Trinasolar
Smart Energy Together

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)
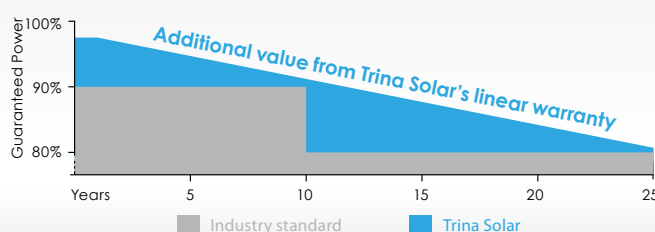• In-house testing goes well beyond certification requirements

Certified to withstand challenging environmental conditions
• 2400 Pa wind load
• 5400 Pa snow load
• 25 mm hail stones at 82 km/hr

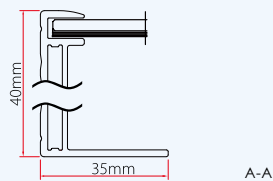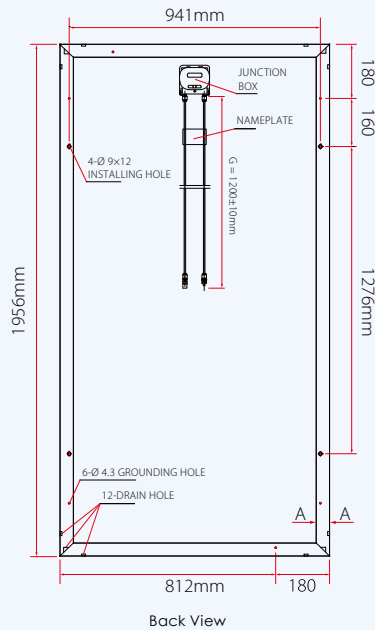## LINEAR PERFORMANCE WARRANTY
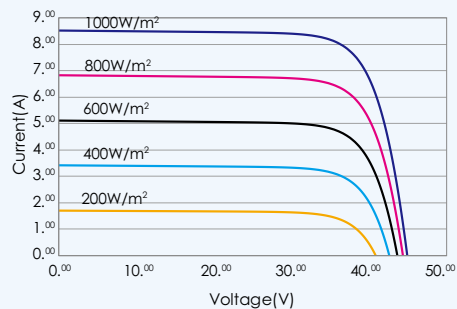**10 Year Product Warranty • 25 Year Linear Power Warranty**

Additional value from Trina Solar's linear warranty

Guaranteed Power

100%
90%
80%

Years   5   10   15   20   25

Industry standard   Trina Solar

TSM-PD14 THE UTILITY MODULE

DIMENSIONS OF PV MODULE TSM-PD14

941mm

180
160

JUNCTION BOX

NAMEPLATE

4-Ø 9×12 INSTALLING HOLE

G = 1200±10mm

1956mm

1276mm

6-Ø 4.3 GROUNDING HOLE

12-DRAIN HOLE

A A

812mm   180

Back View

40mm

35mm

A-A

I-V CURVES OF PV MODULE TSM-290 PD14

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 mm² (0.006 inches²) , 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(UL)
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

CERTIFICATION

TÜV Rheinland CERTIFIED   ISO   PV CM   Recyclable packaging   CE   PV CYCLE   c UL us LISTED

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