THE



FRAMED 72-CELL MODULE



**MULTICRYSTALLINE MODULE** 

320-340W

**POWER OUTPUT RANGE** 

17.5%
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





















#### Ideal for large scale installations

- •High power footprint reduces installation time and BOS costs
- 1000V UL/1000V IEC certified



#### One of the industry's most trusted modules

- Field proven performance
- Strong, reliable supplier



#### Highly reliable due to stringent quality control

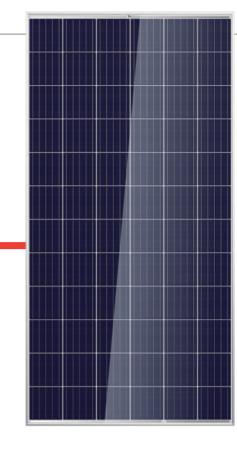
- Over 30 in-house tests (UV, TC, HF, and many more)
- In-house testing goes well beyond certification requirements
- PID resistant
- 100% EL double inspection



## Certified to withstand the most challenging environmental conditions

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





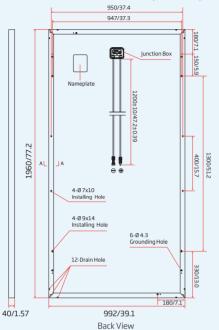


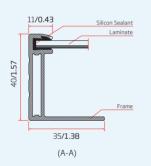
### PRODUCTS

#### POWER RANGE

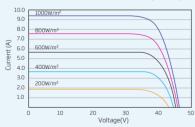
TSM-PD14 | 320-340W

#### **DIMENSIONS OF PV MODULE(**mm/inches)

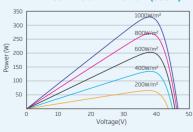




#### I-V CURVES OF PV MODULE(335W)



#### P-V CURVES OF PV MODULE(335W)



#### **ELECTRICAL DATA (STC)**

Peak Power Watts-Pmax (Wp)*	320	325	330	335	340
Power Output Tolerance-P <sub>MAX</sub> (W)	0~+5				
Maximum Power Voltage-V <sub>MPP</sub> (V)	37.1	37.2	37.4	37.6	37.8
Maximum Power Current-Impp (A)	8.63	8.73	8.83	8.91	8.99
Open Circuit Voltage-Voc (V)	45.5	45.6	45.8	46.0	46.2
Short Circuit Current-Isc (A)	9.15	9.19	9.28	9.35	9.42
Module Efficiency η <sub>m</sub> (%)	16.5	16.7	17.0	17.2	17.5

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

#### **ELECTRICAL DATA (NOCT)**

Maximum Power-P <sub>MAX</sub> (Wp)	237	241	245	249	252
Maximum Power Voltage-V <sub>MPP</sub> (V)	34.3	34.4	34.6	34.8	35.0
Maximum Power Current-Impp (A)	6.92	7.00	7.08	7.14	7.21
Open Circuit Voltage-V∞ (V)	42.1	42.2	42.4	42.6	42.8
Short Circuit Current-Isc (A)	7.39	7.42	7.49	7.55	7.60

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

#### **MECHANICAL DATA**

Solar Cells	Multicrystalline 156 × 156 mm (6 inches), 4BBMulticrystalline	
Cell Orientation	156.75 × 156.75 mm (6 inches), 72 cells (6 × 12)	
Module Dimensions	1960 × 992 × 40 mm (77.2 × 39.1 × 1.57 inches)	
Weight	22.5 kg (49.6 lb)	
Glass	3.2 mm (0.13 inches), High Transmission, AR Coated Tempered Glass	
Backsheet	White	
Frame	Silver Anodized Aluminium Alloy	
J-Box	IP 67 or IP 68 rated	
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²),	
	1200 mm (47.2 inches)	
Connector	Trina TS4	
Fire Type	Type1 or Type 2	

#### **TEMPERATURE RATINGS**

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

#### MAXIMUM RATINGS

Operational Temperature	-40~+85°C	
Maximum System Voltage	1000V DC (IEC)	
	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: 27 pieces

Modules per 40' container: 648 pieces

