# Нопеу тям-реобн

**120 HALF-CUT** MULTICRYSTALLINE CELLS

## 280-300W POWER OUTPUT RANGE

**17.8%** MAXIMUM EFFICIENCY

**O/+5W** POSITIVE POWER TOLERANCE

Founded in 1997, Trina Solar is the world's leading total solution provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, bankable brand. Trina Solar now distributes its PV products to over 100 countries all over the world. We are committed to building strategic, mutually beneficial collaborations with installers, developers, distributors and other partners in driving smart energy together.

### Comprehensive Product And System Certificates

 IEC61215/IEC61730/UL1703

 IEC61701
 Salt Mist Corrosion

 IEC62716
 Ammonia Corrosion

 IEC60068
 Blowing Sand

 IS09001; IS014001; IS045001





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### Ideal for large scale installations

- Reduced BOS costs with higher power bins and
- 1,500V system voltage
- Consistently high bankability ratings by BNEF, banks and investors

## Half-cut cell design brings higher efficiency

- Optimized power output under inter-row shading conditions
  Low thermal coefficients for higher energy yield
- at elevated operating temperatures
- Reduced interconnection losses



## 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
- 2x 100% inline EL inspection



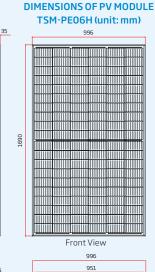
## Certified to withstand challenging environmental conditions

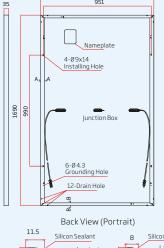
- Salt Mist Corrosion
- Ammonia Corrosion
- Blowing Sand

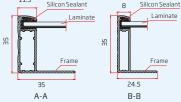


# Honey

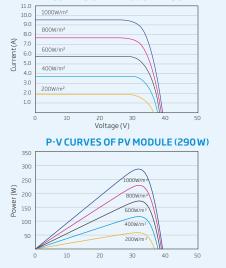
## TSM-PE06H







### I-V CURVES OF PV MODULE (290 W)





ELECTRICAL DATA @ STC	TSM-280 PE06H	TSM-285 PE06H	TSM-290 PE06H	TSM-295 PE06H	TSM-300 PE06H
Peak Power Watts-PMAX (Wp)*	280	285	290	295	300
Power Output Tolerance-P <sub>MAX</sub> (W)	0/+5	0/+5	0/+5	0/+5	0/+5
Maximum Power Voltage-U <sub>MPP</sub> (V)	31.2	31.5	31.8	32.1	32.3
Maximum Power Current-IMPP (A)	8.98	9.05	9.12	9.19	9.29
Open Circuit Voltage-Uoc (V)	38.4	38.8	39.2	39.5	39.8
Short Circuit Current-Isc (A)	9.46	9.53	9.60	9.67	9.77
Module Efficiency η <sub>m</sub> (%)	16.4	16.7	17.0	17.3	17.6

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

ELECTRICAL DATA @ NMOT	TSM-280 PE06H	TSM-285 PE06H	TSM-290 PE06H	TSM-295 PE06H	TSM-300 PE06H
Maximum Power-P <sub>MAX</sub> (Wp)	212	216	219	223	227
Maximum Power Voltage-U <sub>MPP</sub> (V)	29.5	29.8	30.1	30.4	30.6
Maximum Power Current-IMPP (A)	7.18	7.24	7.29	7.35	7.42
Open Circuit Voltage-U₀c (V)	36.1	36.5	36.9	37.2	37.4
Short Circuit Current-Isc (A)	7.63	7.69	7.74	7.80	7.88

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

MECHANICAL DATA	
Solar Cells	Multicrystalline
Cell Orientation	120 cells (6 x 20)
Module Dimensions	1690 × 996 × 35 mm
Weight	18.0 kg
Glass	3.2 mm, High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA
Backsheet	White
Frame	35mm Anodized Aluminum Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Cable 4.0 mm², Portrait: N 280 mm/P 280 mm, Landscape: N 1200 mm /P 1200 mm
Connector	TS4

### **TEMPERATURE RATINGS**

NMOT (Nominal Module Operating Temperature)	41°C (±3K)
Temperature Coefficient of PMAX	- 0.38%/K
Temperature Coefficient of Uoc	- 0.31%/K
Temperature Coefficient of Isc	0.05%/K

### **PACKAGING CONFIGURATION**

Modules per box:	30 pieces
Modules per 40' container:	780 pieces

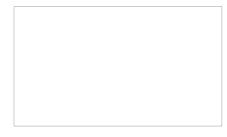
### WARRANTY

- 12 year Product Workmanship Warranty 25 year Performance Warranty
- (Please refer to product warranty for details)

### **MAXIMUM RATINGS**

Operational Temperature	-40 to +85°C
Maximum System Voltage	1500 V DC (IEC) 1500 V DC (UL)
Max Series Fuse Rating	20 A
Snow Load	5400 Pa (3600 Pa*)
Wind Load	2400 Pa (1600 Pa*)
*design load with safety factor 1.5	

\*design load with safety factor 1.5 (DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection)



CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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