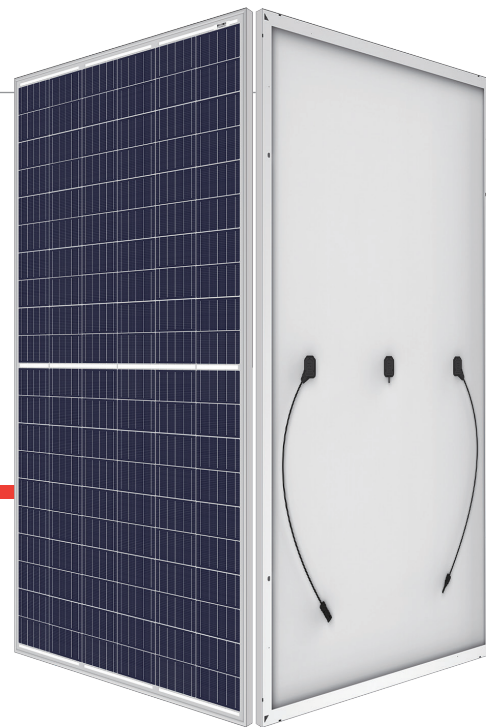


SPLITMAX THE FRAMED 120-CELL MODULE (1500V)

TSM-PE05H



120 CELL
MULTICRYSTALLINE MODULE

280-290W
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 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
 ISO 9001: Quality Management System
 ISO 14001: Environmental Management System
 ISO14064: Greenhouse Gas Emissions Verification
 OHSAS 18001: Occupational Health and Safety Management System



Ideal for large scale installations

- Anti-shading design
- Reduce BOS cost by connecting more modules in a string
- 1500V IEC certified



Half-cell design brings higher efficiency

- Half-Cell layout (120 multicrystalline)
- LRF integrated to gain more power, need avoid light sensitive case
- Low thermal coefficients for greater energy production at high operating temperatures



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

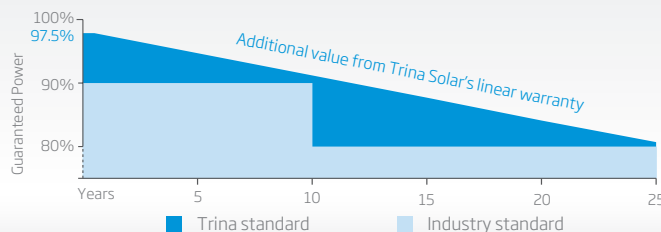


Certified to withstand challenging environmental conditions

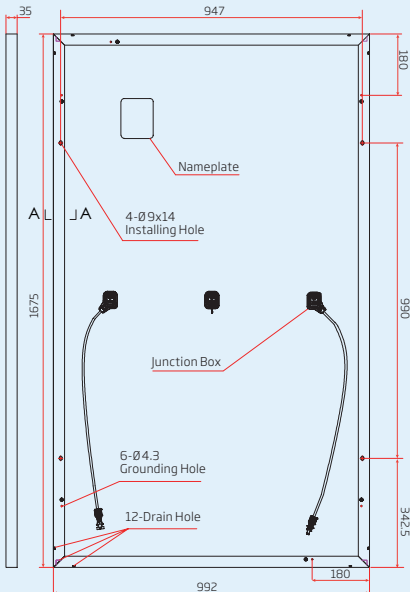
- 2400 Pa wind load
- 5400 Pa snow load

LINEAR PERFORMANCE WARRANTY

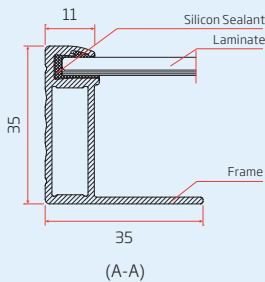
10 Year Product Warranty · 25 Year Linear Power Warranty



DIMENSIONS OF PV MODULE TSM-PE05H (unit: mm)

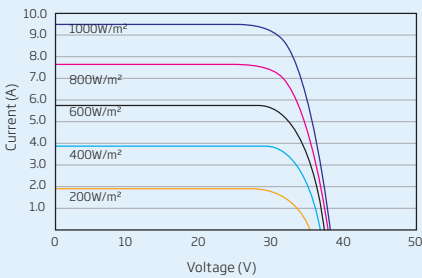


Back View

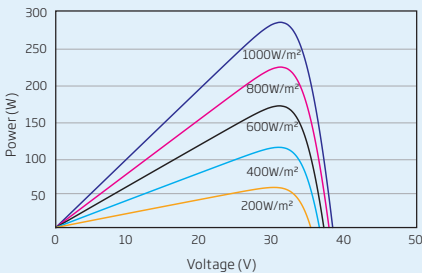


(A-A)

I-V CURVES OF PV MODULE (285W)



P-V CURVES OF PV MODULE (285W)



ELECTRICAL DATA @ STC

	TSM-280 PE05H	TSM-285 PE05H	TSM-290 PE05H
Peak Power Watts- P_{MAX} (W)*	280	285	290
Power Output Tolerance- P_{MAX} (W)	0/+5	0/+5	0/+5
Maximum Power Voltage- V_{MPP} (V)	31.3	31.4	31.5
Maximum Power Current- I_{MPP} (A)	8.95	9.08	9.20
Open Circuit Voltage- V_{OC} (V)	38.7	38.8	39.0
Short Circuit Current- I_{SC} (A)	9.40	9.45	9.50
Module Efficiency η_m (%)	16.9	17.2	17.5

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

ELECTRICAL DATA @ NOCT

	TSM-280 PE05H	TSM-285 PE05H	TSM-290 PE05H
Maximum Power- P_{MAX} (Wp)	207	211	215
Maximum Power Voltage- U_{MPP} (V)	29.1	29.4	29.7
Maximum Power Current- I_{MPP} (A)	7.11	7.18	7.24
Open Circuit Voltage- U_{OC} (V)	35.8	35.9	36.1
Short Circuit Current- I_{SC} (A)	7.59	7.63	7.67

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

MECHANICAL DATA

Solar Cells	Multicrystalline 156.75 × 78.375 mm
Cell Orientation	120 cells (12 x 10)
Module Dimensions	1675 × 992 × 35 mm
Weight	18.8 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 4.0mm ² , Portrait: N 140mm/P 285mm, Landscape: N 1200 mm /P 1200 mm
Connector	MC4 EVO2/UTX/TS4

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	44°C (±2K)
Temperature Coefficient of P_{MAX}	- 0.41%/K
Temperature Coefficient of V_{OC}	- 0.32%/K
Temperature Coefficient of I_{SC}	0.05%/K

MAXIMUM RATINGS

Operational Temperature	-40 to +85°C
Maximum System Voltage	1500VDC (IEC)
Max Series Fuse Rating*	15A
Mechanical Load	5400 Pa
Wind Load	2400 Pa

* DO NOT connect fuse in combiner box with two or more strings in parallel connection

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:	780 pieces