

# TSM-PA05.08

## The Universal Solution



Module can bear snow loads up to 5400Pa and wind loads up to 2400Pa



Guaranteed power output (0~+3%)



High performance under low light conditions (Cloudy days, mornings and evenings)



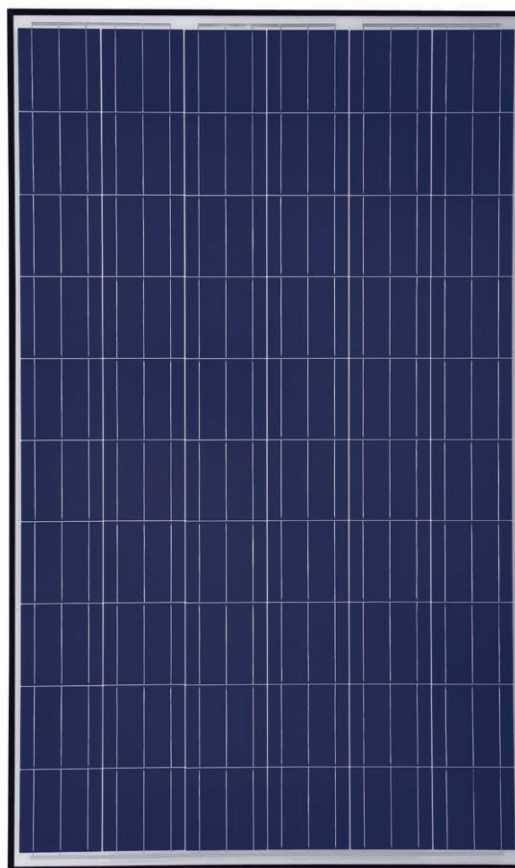
Independently certified by international certification bodies\*



Manufactured according to International Quality and Environment Management System (ISO9001, ISO14001)



Black frame provide aesthetic module appearance.

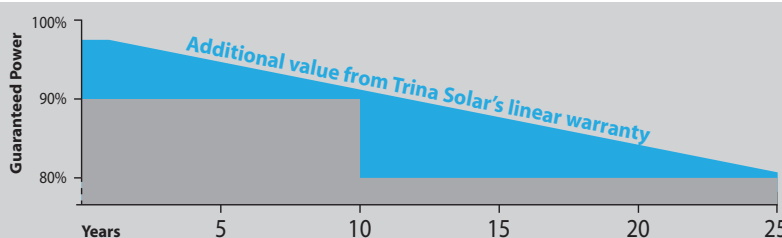


Currently Trina Solar's most popular panel. Versatile and adaptable, with power output ranging from 225 to 245Wp, the TSM-PA05.08 is perfect for large-scale installations, particularly ground-mounted and commercial rooftop systems. Using reliable and carefully selected components that are tested at the Trina Solar Center of Excellence, this panel comes with a 25-year performance guarantee of 80% power production.



**linear performance warranty**

**10 year product warranty**  
**25 year linear power warranty**



**Trina Solar (U.S.), Inc.**  
100 Century Center,  
Suite 340, San Jose CA 95112,  
USA

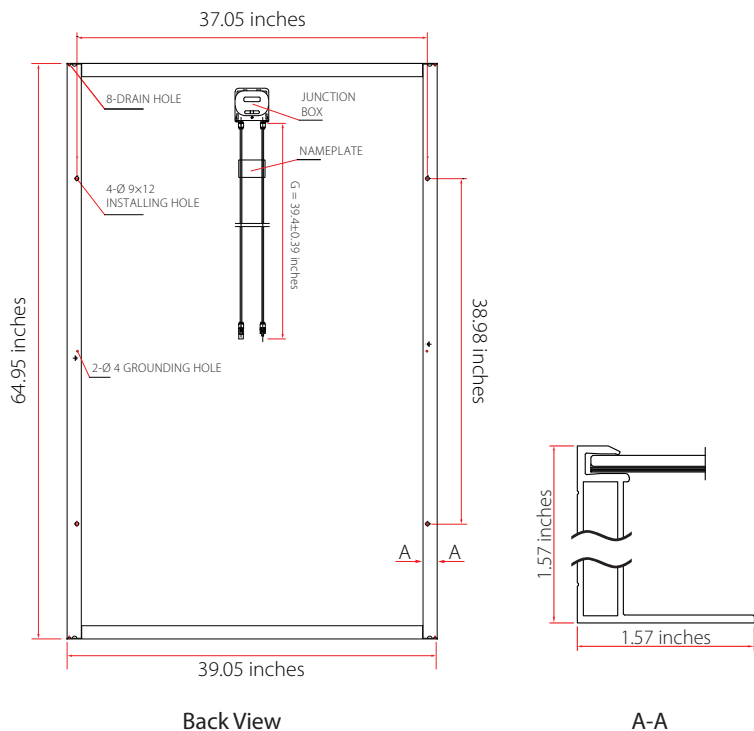
**T** +1 800 696 7114  
**F** +1 800 696 0166  
**E** usa@trinasolar.com

Founded in 1997, Trina Solar is a vertically integrated PV manufacturer, producing everything from ingots to modules, using both mono and multicrystalline technologies. By the end of 2011, the company will have a nameplate module capacity of 1.9GW. Trina Solar's wide range of products are used in residential, commercial, industrial and public utility applications throughout the world.

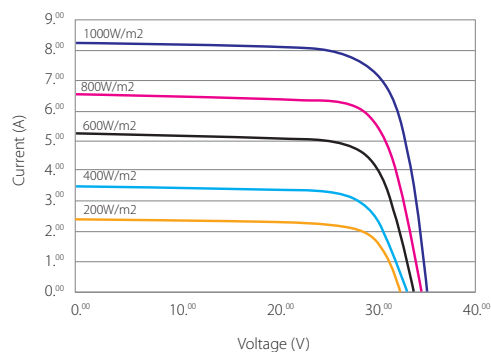
Only by matching an efficient cost-structure with proven performance will we, as an industry, achieve grid parity. And at Trina Solar, we have both.

# TSM-PA05.08 The Universal Solution

## Dimensions of PV module TSM-PA05.08



## I-V Curves of PV module TSM-230PA05.08



Efficiency	up to 15.0%
Wattage	up to 245W
Years warranty	25

## Certification



## Electrical Data @ STC

	TSM-225PA05.08	TSM-230PA05.08	TSM-235PA05.08	TSM-240PA05.08	TSM-245PA05.08
Peak Power Watts- $P_{MAX}$ (WP)	225	230	235	240	245
Power Output Tolerance- $P_{MAX}$ (%)	0/+3	0/+3	0/+3	0/+3	0/+3
Maximum Power Voltage- $V_{MAX}$ (V)	29.4	29.8	30.1	30.4	30.7
Maximum Power Current- $I_{MPP}$ (A)	7.66	7.72	7.81	7.89	7.98
Open Circuit Voltage- $V_{OC}$ (V)	36.9	37.0	37.1	37.2	37.3
Short Circuit Current- $I_{SC}$ (A)	8.20	8.26	8.31	8.37	8.47
Module Efficiency $\eta_m$ (%)	13.7	14.1	14.4	14.7	15.0

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C)

## Mechanical Data

Solar cells	Multicrystalline 6 inches (156 x 156mm)
Cells orientation	60 cells (6x10)
Module dimension	64.95 x 39.05 x 1.57inches (1650 x 992 x 40mm)
Weight	43.0lb (19.5kg)
Glass	High transparency solar glass 0.13inches (3.2mm)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables/Connector	Photovoltaic Technology cable 0.006inches <sup>2</sup> (4.0mm <sup>2</sup> ), 39.4inches (1000mm), MC4

## Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	46°C (±2°C)
Temperature Coefficient of $P_{MPP}$	-0.45%/°C
Temperature Coefficient of $V_{OC}$	-0.35%/°C
Temperature Coefficient of $I_{SC}$	0.05%/°C

## Maximum Ratings

Operational Temperature	-40~+85°C
Maximum System Voltage	600VDC
Max Series Fuse Rating	15A

## Warranty

10 years workmanship warranty  
 25 years linear performance warranty  
 (Please refer to Trina Solar product warranty for details)

## Packaging Configuration

Modules per box	25 pcs
Modules per 40' container	650 pcs