

TSM-PC14

THE UTILITY SOLUTION



14.9%
MAX EFFICIENCY

290W
MAX POWER OUTPUT

10 YEAR
PRODUCT WARRANTY

25 YEAR
LINEAR POWER WARRANTY

Founded in 1997, Trina Solar is a vertically integrated PV manufacturer, involved in the production of ingots, wafers and cells to the assembly of high quality modules, using both mono and multi-crystalline technologies. As of July 2011, the Company has already achieved an annualized nameplate module capacity of approximately 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.

Trina Solar Limited
www.trinasolar.com



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



Enhanced module durability with **4.0mm** thick tempered glass



Independently certified by **international certification bodies**

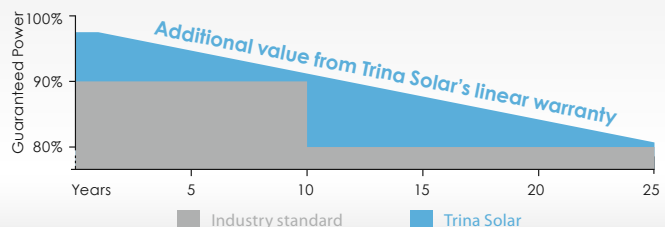


Manufactured according to International Quality and Environment Management System Standards **ISO9001, ISO14001**

LINEAR PERFORMANCE WARRANTY

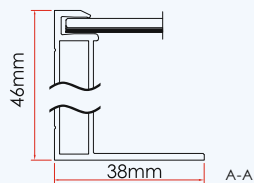
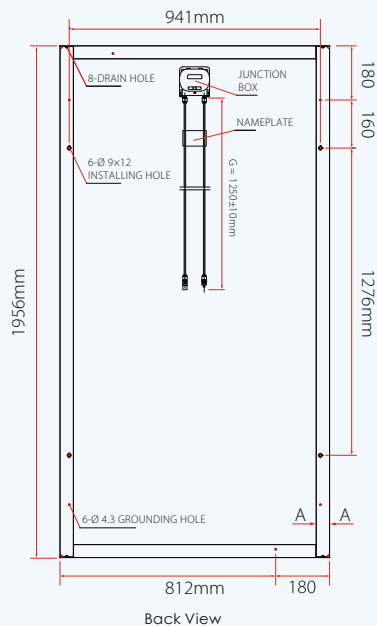
NEW

10 Year Product Warranty • 25 Year Linear Power Warranty

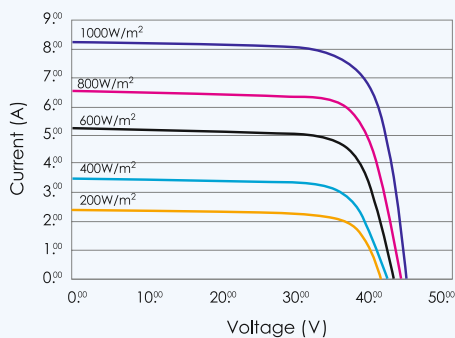


TSM-PC14 THE UTILITY SOLUTION

DIMENSIONS OF PV MODULE TSM-PC14



I-V CURVES OF PV MODULE TSM-280 PC14



Average efficiency reduction of 4.5% at 200W/m² according to EN 60904-1.

CERTIFICATION



ELECTRICAL DATA @ STC	TSM-270 PC14	TSM-275 PC14	TSM-280 PC14	TSM-285 PC14	TSM-290 PC14
Peak Power Watts-P _{MAX} (Wp)	270	275	280	285	290
Power Output Tolerance-P _{MAX} (%)	0/+3	0/+3	0/+3	0/+3	0/+3
Maximum Power Voltage-V _{MP} (V)	35.5	35.6	36.0	36.3	36.4
Maximum Power Current-I _{MPP} (A)	7.60	7.73	7.78	7.86	7.97
Open Circuit Voltage-V _{OC} (V)	44.3	44.3	44.4	44.8	44.9
Short Circuit Current-I _{SC} (A)	8.25	8.27	8.33	8.36	8.47
Module Efficiency η _m (%)	13.9	14.2	14.4	14.7	14.9

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000W/m², Cell Temperature 25°C).

ELECTRICAL DATA @ NOCT	TSM-270 PC14	TSM-275 PC14	TSM-280 PC14	TSM-285 PC14	TSM-290 PC14
Maximum Power (W)	197	200	204	208	211
Maximum Power Voltage (V)	32.3	32.4	32.8	33.1	33.2
Maximum Power Current (A)	6.08	6.18	6.22	6.29	6.36
Open Circuit Voltage (V)	40.6	40.6	40.7	41.1	41.2
Short Circuit Current (A)	6.68	6.70	6.75	6.77	6.86

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

MECHANICAL DATA

Solar cells	Multicrystalline 156 x 156mm (6 inches)
Cell orientation	72 cells (6 x 12)
Module dimension	1956 x 992 x 46mm (77 x 39.05 x 1.81 inches)
Weight	28kg (61.7 lb)
Glass	High transparency solar glass 4.0mm (0.16 inches)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables / Connector	Photovoltaic Technology cable 4.0mm ² (0.006 inches ²) , 1250mm (49.2 inches), MC4

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	46°C (±2°C)
Temperature Coefficient of P _{MAX}	- 0.44%/K
Temperature Coefficient of V _{OC}	- 0.33%/K
Temperature Coefficient of I _{SC}	0.046%/K

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1000V DC(IEC)/ 600V DC(UL)
Max Series Fuse Rating	15A

WARRANTY

10 year workmanship warranty

25 year linear performance warranty

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 20 pcs

Modules per 40' container: 440 pcs