

TSM-PC14 TSM-PA14

THE UTILITY SOLUTION



15.2%

MAX EFFICIENCY

295W

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 multicrystalline 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

Trina solar
The power behind the panel



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



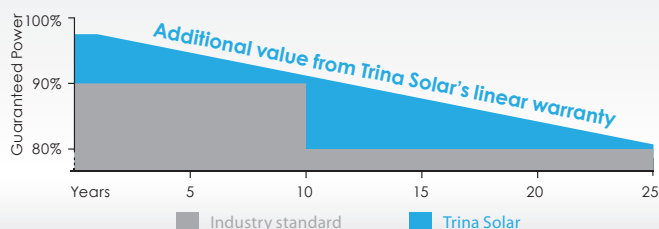
Independently certified by **international certification bodies**



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

LINEAR PERFORMANCE WARRANTY

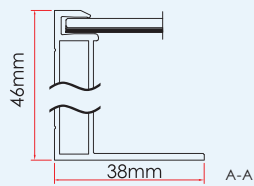
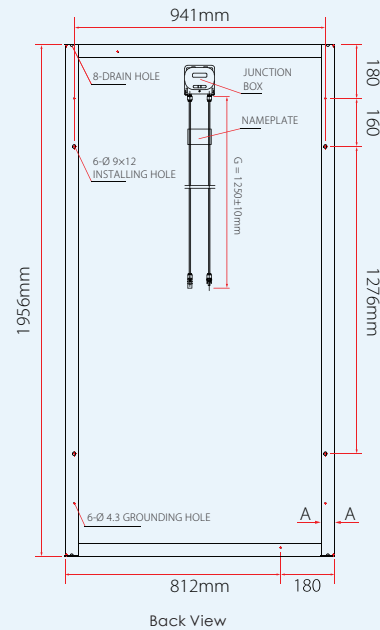
10 Year Product Warranty • 25 Year Linear Power Warranty



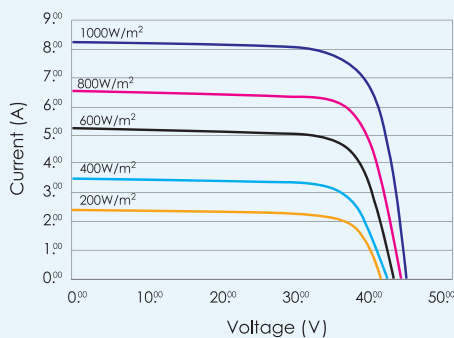
NEW

TSM-PC14 / TSM-PA14 Utility Scale Solar Module

DIMENSIONS OF PV MODULE TSM-PC/PA 14

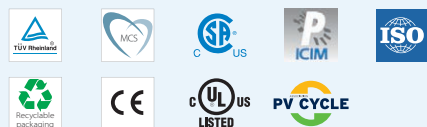


I-V CURVES OF PV MODULE TSM-280 PC/PA 14



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

CERTIFICATION



ELECTRICAL DATA @ STC	TSM PC/PA14					
	270	275	280	285	290	295
Peak Power Watts- P_{MAX} (Wp)	270	275	280	285	290	295
Power Output Tolerance- P_{MAX} (%)	0/+3	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	36.5
Maximum Power Current- I_{MPP} (A)	7.60	7.73	7.78	7.86	7.97	8.08
Open Circuit Voltage- V_{OC} (V)	44.3	44.3	44.4	44.8	44.9	45.0
Short Circuit Current- I_{SC} (A)	8.25	8.27	8.33	8.36	8.47	8.60
Module Efficiency η_m (%)	13.9	14.2	14.4	14.7	14.9	15.2

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

ELECTRICAL DATA @ NOCT	TSM PC/PA14					
	270	275	280	285	290	295
Maximum Power (W)	197	200	204	208	211	213
Maximum Power Voltage (V)	32.3	32.4	32.8	33.1	33.2	33.3
Maximum Power Current (A)	6.08	6.18	6.22	6.29	6.36	6.39
Open Circuit Voltage (V)	40.6	40.6	40.7	41.1	41.2	41.3
Short Circuit Current (A)	6.68	6.70	6.75	6.77	6.86	6.88

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

MECHANICAL DATA	
Solar cells	Multicrystalline 156 × 156mm (6 inches)
Cell orientation	72 cells (6 × 12)
Module dimension	1956 × 992 × 46mm (77 × 39.05 × 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 4.0mm² (0.006 inches²), 1250mm (49.2 inches), MC4

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	46°C (±2°C)
Temperature Coefficient of P_{MAX}	- 0.44%/°C
Temperature Coefficient of V_{OC}	- 0.33%/°C
Temperature Coefficient of I_{SC}	0.046%/°C

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