

TSM-PC05

The Universal Solution



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



Guaranteed power output (0~+3%)



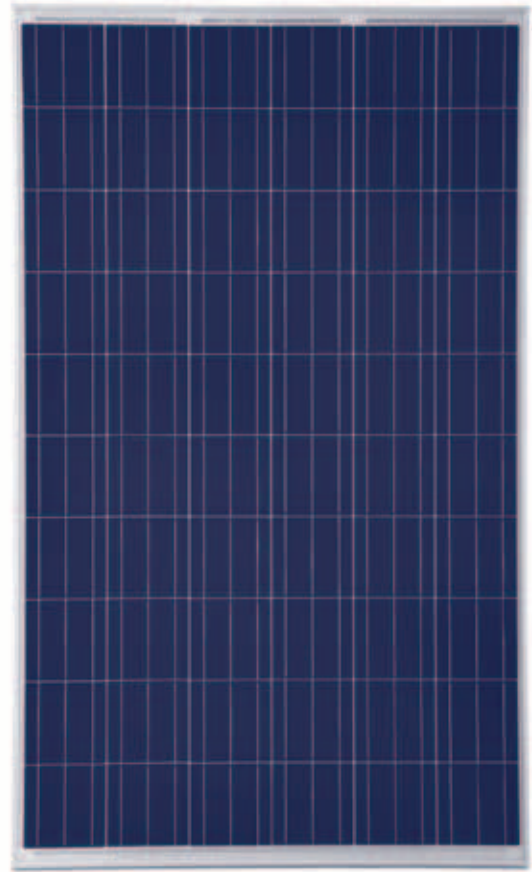
High performance under low light conditions (Cloudy days, mornings and evenings)



Independently certified by international certification bodies*



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



Currently Trina Solar's most popular panel. Versatile and adaptable, with power output ranging from 220 to 240Wp, the TSM-PC05 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.

Trina Solar, **the best €/kWh** value under the sun



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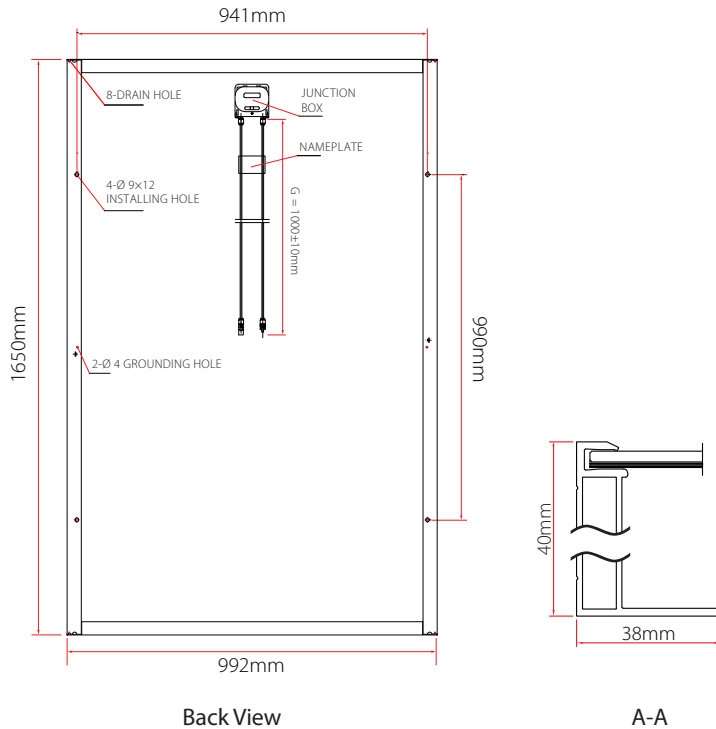
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Founded in 1997, Trina Solar is a vertically integrated PV manufacturer, producing everything from ingots to modules, using both mono and multicrystalline technologies. At the end of 2011, the company had a nameplate module capacity of 1.7GW. Trina Solar's wide range of products are used in residential, commercial, industrial and public utility applications throughout the world.

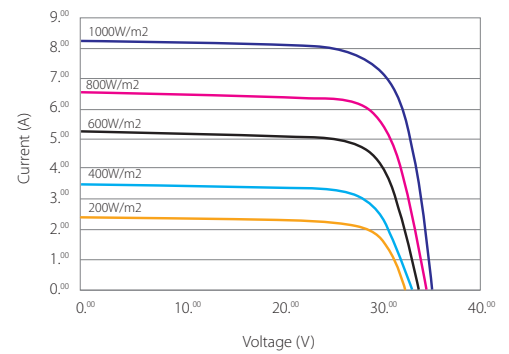
Only by matching an efficient cost-structure with proven performance will we, as an industry, achieve grid parity. And at Trina Solar, we have both.

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Dimensions of PV module TSM-PC05



I-V Curves of PV module TSM-230PC05



Efficiency	up to 14.7%
Wattage	up to 240W
Years warranty	25

Certification



Electrical Data @ STC	TSM-220PC05	TSM-225PC05	TSM-230PC05	TSM-235PC05	TSM-240PC05
Peak Power Watts- P_{MAX} (WP)	220	225	230	235	240
Power Output Tolerance- P_{MAX} (%)	0/+3	0/+3	0/+3	0/+3	0/+3
Maximum Power Voltage- V_{MAX} (V)	29.0	29.4	29.8	30.1	30.4
Maximum Power Current- I_{MPP} (A)	7.60	7.66	7.72	7.81	7.89
Open Circuit Voltage- V_{OC} (V)	36.8	36.9	37.0	37.1	37.2
Short Circuit Current- I_{SC} (A)	8.15	8.20	8.26	8.31	8.37
Module Efficiency η_m (%)	13.4	13.7	14.1	14.4	14.7

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

Mechanical Data

Solar cells	Multicrystalline 156 x 156mm (6 inches)
Cells orientation	60 cells (6x10)
Module dimension	1650 x 992 x 40mm (64.95 x 39.05 x 1.57inches)
Weight	19.5kg (43.0lb)
Glass	High transparency solar glass 3.2mm (0.13inches)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables/Connector	Photovoltaic Technology cable 4.0mm ² (0.006inches ²), 1000mm (39.4inches), 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	1000VDC
Max Series Fuse Rating	15A

Warranty

5 years workmanship warranty
10 years warranty, 90% power output
25 years warranty, 80% power output

Packaging Configuration

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