

# TSM-DC01

## 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)



Trina Solar's best selling panel since 2004. One of the world's most reliable panels, tested and proven by internationally renowned institutions such as the TUV Rheinland and the Desert Knowledge Australia Center. Satisfying our customers all around the globe, the TSM-DC01 is suitable for all types of installations, from remote off-grid systems to large urban commercial rooftops and large ground-mounted projects.

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



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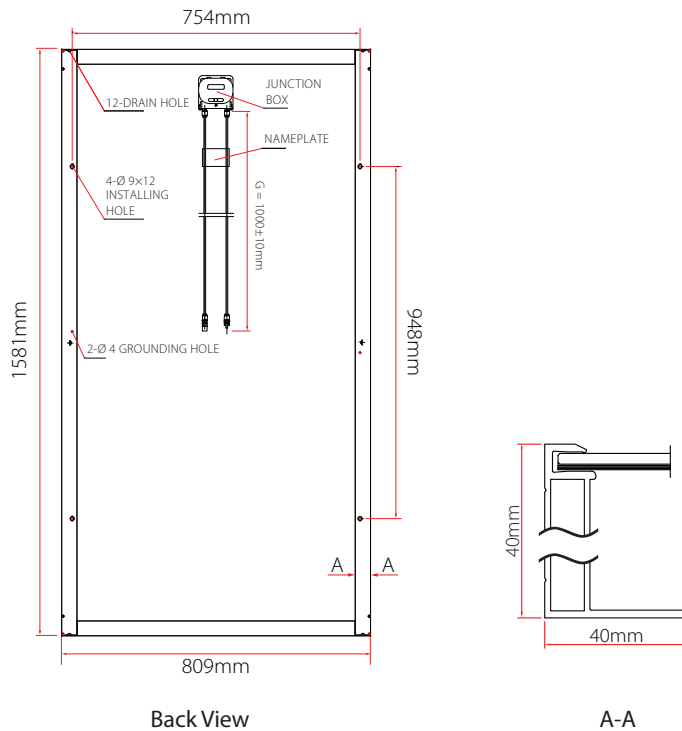
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Founded in 1997, Trina Solar is a vertically integrated PV manufacturer, producing everything from ingots to modules, using both mono and multicrystalline technologies. At the end of 2011, the company had a nameplate module capacity of 1.7GW. Trina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

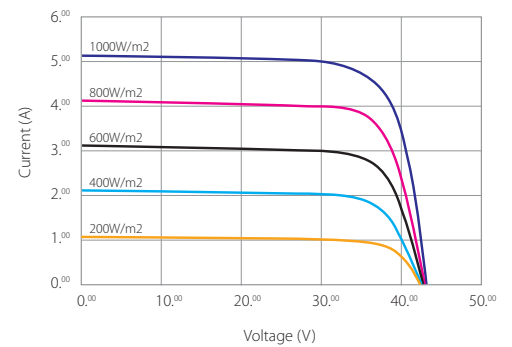
Only by matching an efficient cost-structure with proven performance will we, as an industry, achieve grid parity. And at Trina Solar, we have both.

# TSM-DC01 The Universal Solution

## Dimensions of PV module TSM-DC01



## I-V Curves of PV module TSM-180DC01



Efficiency	up to 14.5%
Wattage	up to 185W
Years warranty	25

## Certification



Electrical Data @ STC	TSM-175DC01	TSM-180DC01	TSM-185DC01
Peak Power Watts- $P_{MAX}$ (WP)	175	180	185
Power Output Tolerance- $P_{MAX}$ (%)	0/+3	0/+3	0/+3
Maximum Power Voltage- $V_{MAX}$ (V)	36.2	36.8	37.5
Maximum Power Current- $I_{MPP}$ (A)	4.85	4.90	4.95
Open Circuit Voltage- $V_{OC}$ (V)	43.9	44.2	44.5
Short Circuit Current- $I_{SC}$ (A)	5.30	5.35	5.40
Module Efficiency $\eta_m$ (%)	13.7	14.1	14.5

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

## Mechanical Data

Solar cells	Monocrystalline 125 x 125mm (5 inches)
Cells orientation	72 cells (6x12)
Module dimension	1581 x 809 x 40mm (62.24 x 31.85 x 1.57inches)
Weight	15.6kg (34.4lb)
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 <sup>2</sup> (0.006inches <sup>2</sup> ), 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	10A

## Warranty

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

## Packaging Configuration

Modules per box	23 pcs
Modules per 40" container	644 pcs