

YUNNAN TIANDA

PHOTOVOLTAIC CO., LTD.

180W/175W

Monocrystalline Silicon Solar Panel



HIGH STABILITY HIGH RELIABILITY LOW DEGRADATION



Over 30 years' technology R&D of solar cell and panel.

High conversion efficiency ensures the high power output.

1589×806×46mm design is suitable for the resisting of heavy snow load, hailstone, typhoon, and other extreme weather conditions.

Quality and Safety

25 years limited warranty

ISO9001 certified factories

Certified to UL1703 by the Underwriters Laboratories

Warranty

Free from defects in materials and workmanship for 5 years

10 years on 90% of the minimum power output

25 years on 80% of the minimum power output



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TIANDA

Typical Electronic Characteristics

Characteristics	Unit	TD180M5	TD175M5
Rated output (Pmax)	W	180	175
Open circuit voltage (Voc)	V	44.60	44.40
Short circuit current (Isc)	A	5.42	5.36
MPP voltage (Vmpp)	V	35.40	35.20
MPP current (Impp)	A	5.08	4.97
Module efficiency (η)	%	14.1	13.7
Filling factor (FF)	%	74.5	73.5
Max. system voltage	V	600	600
Operating temperature	°C (°F)	-40 — +85 (-40 — +185)	
Max. series fuse rating	A	12	
Power tolerance	%	± 3*	

Tested under STC (Standard Testing Conditions: Irradiation 1000W/m², Spectrum AM1.5, Cell temperature: 25 °C)

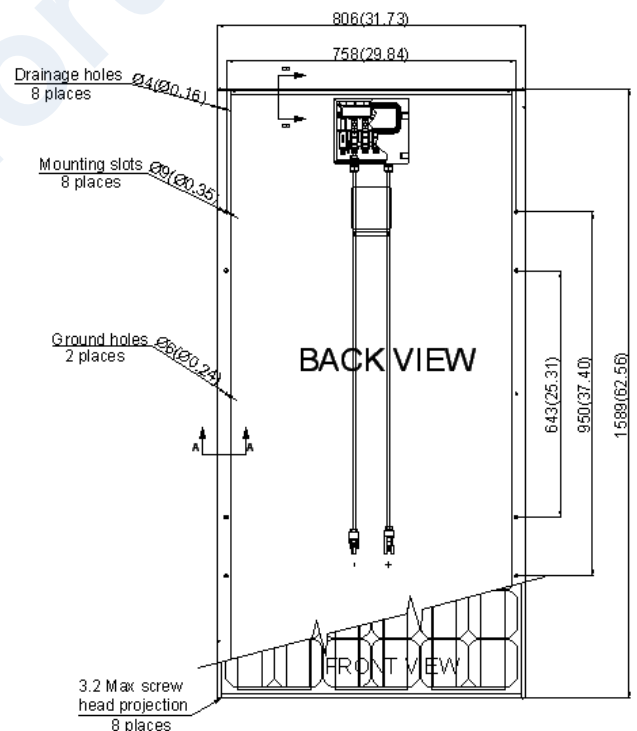
*: Tolerance can be adjusted according to requirements of customers.

Temperature Coefficient

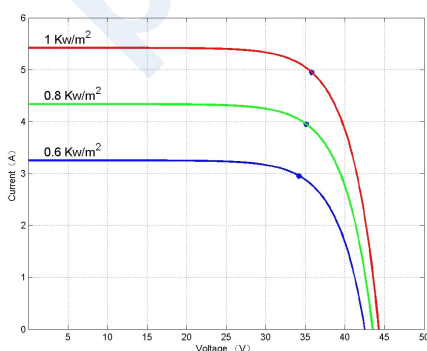
NOCT	44±2 °C
γT (Pmpp)	-0.4777 %/K
βT (Voc)	-0.3482 %/K
αT (Isc)	0.0585 %/K

Mechanical Characteristics

Panel total dimension (L×W×T)	1589×806×46mm (62.56×31.73×1.81inch)
Frame	Clear anodised aluminium alloy type 6063T5. Silver Universal Frame
Solar cell	72 cells (125×125mm, 5inch) configured geometrically for a 6×12 matrix connected in series.
Junction box	IP65 rated
Output cables	4.0 mm ² 12AWG cable with weatherproof connectors. Cable lengths 1000mm(39.37inch).
Diodes	3 Schottky bypass diodes -one for every 24 cells -
Construction	Front: High transmission 3.2mm(1/8inch) tempered glass Rear: White polyester; encapsulant: EVA
Weight	16.0kgs (35.2lbs.)



IV CURVE (Different radiation)



IV CURVE (Different temperature)

