

YUNNAN TIANDA

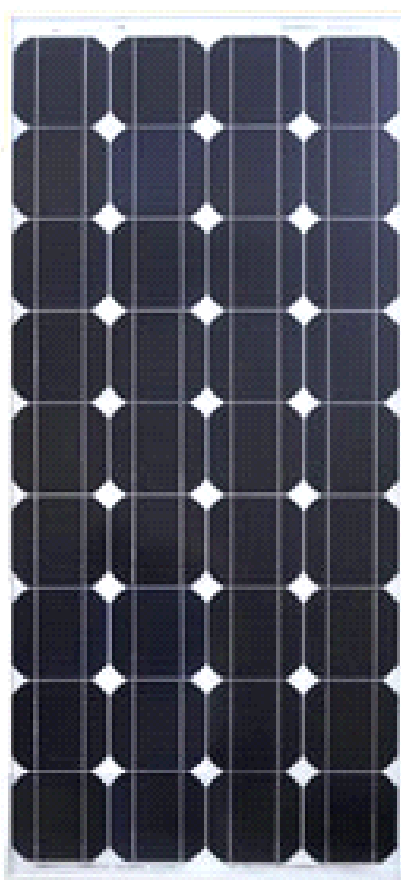
PHOTOVOLTAIC CO., LTD.



85W/80W/75W

Monocrystalline Silicon Solar Panel

HIGH STABILITY HIGH RELIABILITY LOW DEGRADATION



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

1200×530×35mm design is suitable for small systems, especially off-grid designs.

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	TD85M5	TD80M5	TD75M5
Rated output (Pmax)	W	85	80	75
Open circuit voltage (Voc)	V	22.10	21.90	21.85
Short circuit current (Isc)	A	5.28	5.16	4.97
MPP voltage (Vmpp)	V	17.50	17.40	17.35
MPP current (Impp)	A	4.86	4.60	4.32
Module efficiency (η)	%	13.36	12.58	11.79
Filling factor (FF)	%	72.84	70.79	69.06
Max. system voltage	V	600	600	600
Operating temperature	°C(°F)	-40 — +85 (-40 — +185)		
Max. series fuse rating	A	12		
Power tolerance	%	± 3*		

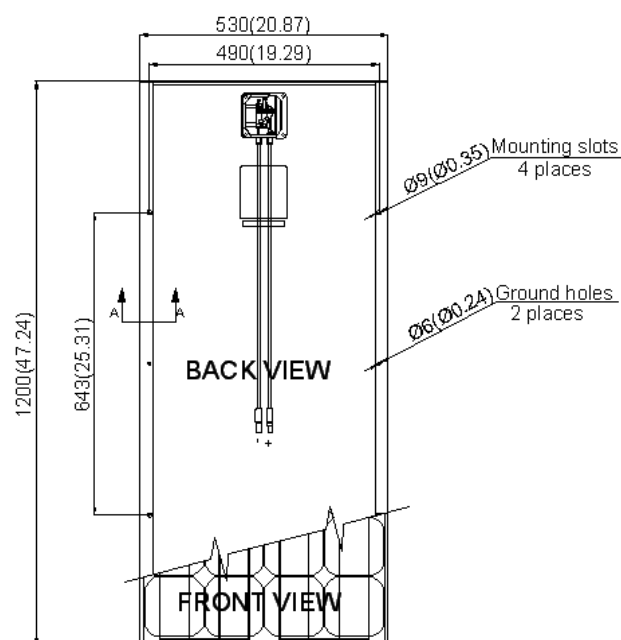
Temperature Coefficient	
NOCT	44±2 °C
γT (Pmpp)	-0.4777 %/K
βT (Voc)	-0.3482 %/K
αT (Isc)	0.0585 %/K

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

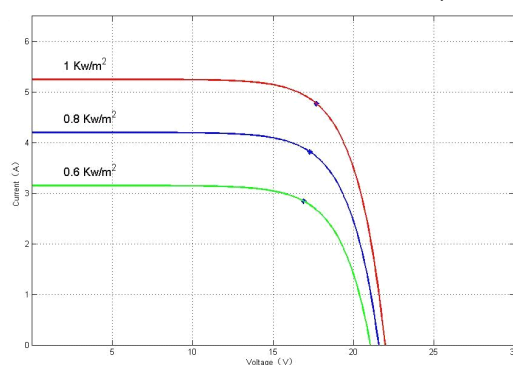
*: Tolerance can be adjusted according to requirements of customers.

Mechanical Characteristics

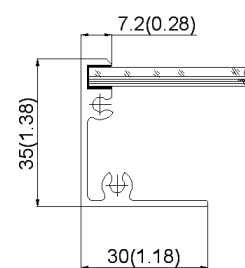
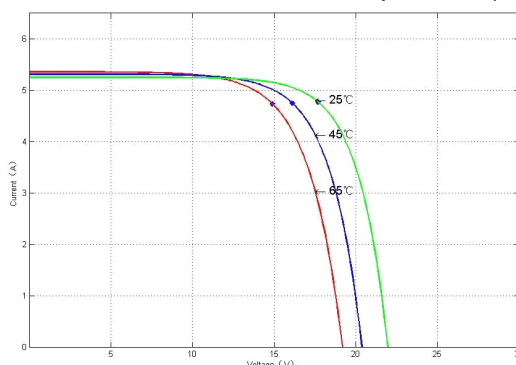
Panel total dimension (L×W×T)	1200×530×35mm (47.24×20.87×1.38 inch)
Frame	Clear anodized aluminium alloy type 6063T5. Silver Universal Frame
Solar cell	36 cells (125×125mm, 5inch) configured geometrically for a 4×9 matrix connected in series.
Junction box	IP65 rated
Output cables	4.0 mm ² 12AWG cable with weatherproof connectors. Cable lengths 1000mm (39.37inch).
Diodes	2 Schottky bypass diodes -one for every 18 cells -
Construction	Front: High transmission 3.2mm(1/8inch) tempered glass Rear: White polyester; encapsulant: EVA
Weight	7.5kg (16.5lbs)



IV CURVE (Different radiation)



IV CURVE (Different temperature)



Section A-A

mm (inch)