

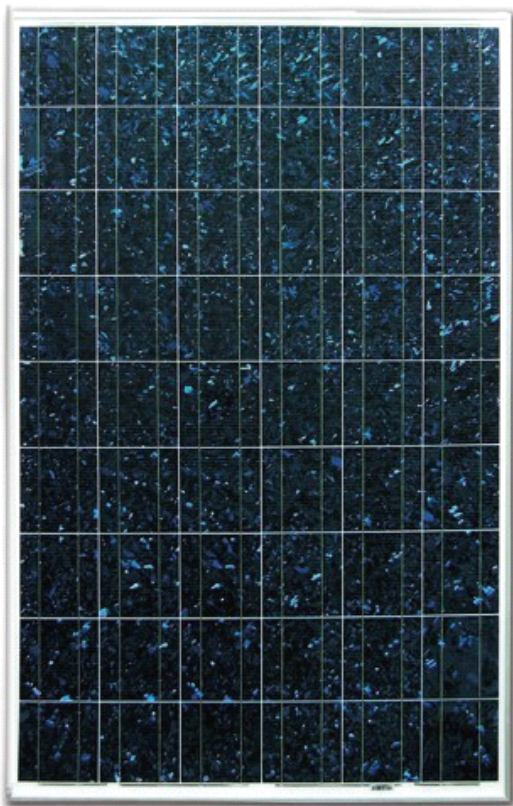


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## 210W/200W/190W/180W

### Polycrystalline 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.

**1482×992×35mm design** is suitable for residential and commercial on-grid system, especially tracking system.

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### Quality and Safety

25 years limited warranty

ISO9001 certified factories

Certified to UL1703 by the Underwriters Laboratories

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### 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



• This publication summarizes product warranty and specifications which are subject to change without notice.

## Typical Electronic Characteristics

Characteristics	Unit	TD210P6	TD200P6	TD190P6	TD180P6
Rated output (Pmax)	W	210	200	190	180
Open circuit voltage (Voc)	V	33.60	33.20	32.80	32.50
Short circuit current (Isc)	A	8.39	8.14	7.89	7.64
MPP voltage (Vmpp)	V	26.60	26.40	26.20	26.00
MPP current (Impp)	A	7.89	7.57	7.25	6.92
Module efficiency ( $\eta$ )	%	14.3	13.6	12.9	12.2
Filling factor (FF)	%	74.5	74.0	73.4	72.5
Max. system voltage	V	600	600	600	600
Operating temperature	°C (°F)	-40 — +85 (-40 — +185)			
Max. series fuse rating	A	16			
Power tolerance	%	$\pm 3^*$			

Tested under STC (Standard Testing Conditions: Irradiation 1000W/m<sup>2</sup>, Spectrum AM1.5, Cell temperature: 25 °C)

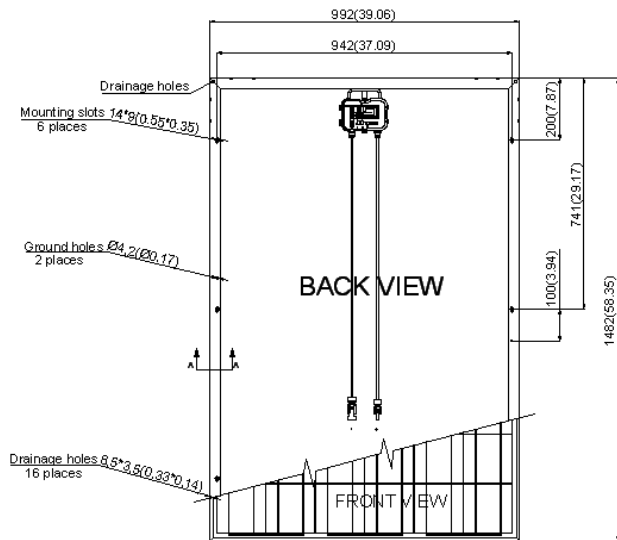
\*: Tolerance can be adjusted according to requirements of customers.

## Temperature Coefficient

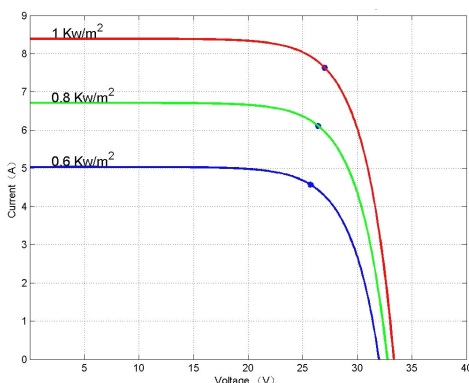
NOCT	44 $\pm$ 2 °C
$\gamma_T$ (Pmpp)	-0.3583 %/K
$\beta_T$ (Voc)	-0.2612 %/K
$\alpha_T$ (Isc)	0.0585 %/K

## Mechanical Characteristics

Panel total dimension (L×W×T)	1482×992×35mm (58.35×39.06×1.38 inch)
Frame	Clear anodised aluminium alloy type 6063T5. Silver Universal Frame
Solar cell	54 cells (156mm×156mm, 6 inch) configured geometrically for a 6×9 matrix connected in series.
Junction box	IP65 rated
Output cables	4.0 mm <sup>2</sup> 12AWG cable with weatherproof connectors. Cable lengths 1000mm(39.37inch).
Diodes	6 Schottky bypass diodes -two for every 18 cells -
Construction	Front: High transmission 3.2mm(1/8inch) tempered glass Rear: White polyester; encapsulant: EVA
Weight	17.0kgs (37.4lbs.)



IV CURVE (Different radiation)



IV CURVE (Different temperature)

