



50+25

History + Quality assurance

TIANWEI, a company with over 50 years' history, has well established a fully integrated PV industry chain (silicon-wafer-cell-module).

Utilizing first class equipments and high quality components with industry proven technology, plus our quality oriented philosophy, TIANWEI is committed to providing you:

- High performance modules with reliable quality
- Industry leading power output warranty:
 - ◆ Within the first year, the output power shall not degrade more than 2%
 - ◆ Within the second year, the output shall not degrade more than 2.5%
 - ◆ In the following 23 years, the average annual power degradation shall not exceed more than 0.7%

After 25 years, the product's output power shall not be less than 83% of the minimum output power as set forth in this specification.

Compared with the industry standard 10 years 90% and 25 years 80% power output guarantee, TIANWEI's semi-linear performance guarantee provides you with considerable added value.



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Electrical Characteristics

TW200P54 Series

Polycrystalline Silicon PV Module

Parameter	Type	TW190P54	TW195P54	TW200P54	TW205P54	TW210P54	TW215P54
Maximum Power (P _{max})		190 W	195 W	200 W	205 W	210 W	215 W
Voltage at P _{max} (V _{mpp})		25.8 V	26.2 V	26.5 V	26.7 V	26.9 V	27.0 V
Current at P _{max} (I _{mpp})		7.36 A	7.44 A	7.55 A	7.68 A	7.81 A	7.96 A
Short circuit current (I _{sc})		7.94 A	8.05 A	8.16 A	8.25 A	8.35 A	8.49 A
Open circuit voltage (V _{oc})		32.8 V	33.0 V	33.1 V	33.4 V	33.6 V	33.9 V
Maximum System Voltage		DC 1000V (TUV) ; DC 600V (UL)					
Power Tolerance		± 3%					
Series Fuse Rating		15 A					

- All technical data at standard test condition:
A_m=1.5 E=1000W/m² T_c=25°C

Mechanical Characteristics

Dimensions	Length: 1482 mm	Width: 992 mm	Depth: 40 mm
Weight	17.5kg		
Solar Cells	54 solar cells (156mm x 156mm) in a 6x9 matrix connected string		
Junction Box	IP 65 Junction Box		
Output Cables	4 mm ² (12AWG) solar cable with weatherproof connertors		
Front Cover	3.2 mm (1/8 inch) low iron, high transparent tempered glass		
Frame	Material: 6063T5; Electrophoretic coating aluminum alloy frame; Color: silver		

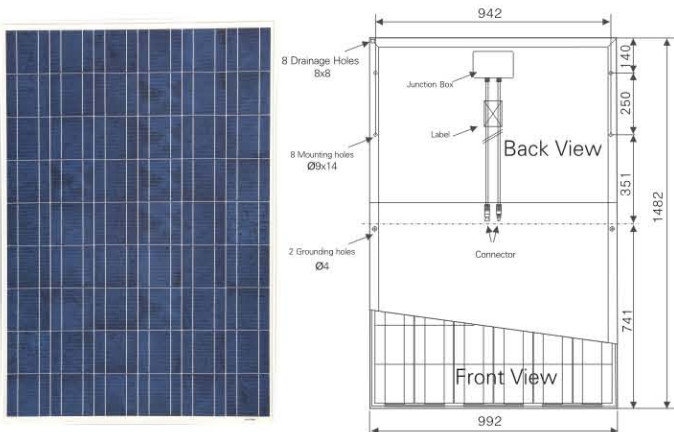
Temperature Coefficients

Nominal Operating Cell Temperature (NOCT)	47 ± 2°C
Temperature Coefficient of P _{max}	-0.44 %/°C
Temperature Coefficient of V _{oc}	-0.34 %/°C
Temperature Coefficient of I _{sc}	0.06 %/°C

Qualification Test Parameters

Operating Temperature	-40 °C to +85 °C
Wind Load	≤ 2400 Pa
Snow Load	≤ 5400 Pa

Module Diagram



TW200P54 Module IV Curves

