Tianwei TW275/280/285/290/295P72

Key Features

- Up to 15.21% Module Efficiency.
  + 5W Power Tolerance.
- Modules are current sorted into 7 Groups minimising mismatch losses.
- Designed to withstand snow loads of 6000Pa (Industry Standard is 5400Pa).
- Specially designed drainage holes improve drainage and prevent frame deformation
- 1100m cables provide installation flexibility particularly in landscape.
- 6 by-pass diodes (Industry Standard is 3) reduce the effects of shading and increase reliability.

Warranty

Industry Leading Linear Power Warranty

- < 2% Degradation within 1st yr or < 3% Degradation within 2nd yr
- < 0.7% Degradation per yr for next 23 yrs
- 10 yr Manufacturers Warranty

Tianwei New Energy

- Owned by China South Industries, a State Owned Fortune 500 Company
- 100% Vertically Integrated from Sand to Module
- 100% Product Quality Traceability
- $2 Billion Invested in PV
- 2 GW Potential Production Capacity
- Manufactured using European and US Equipment

SEC Solar Energy Centre

Solar Energy Centre (SEC) a division of SEC Industrial Battery Company Ltd has been manufacturing, designing and distributing Solar Photovoltaic systems and Batteries for over 35 years.

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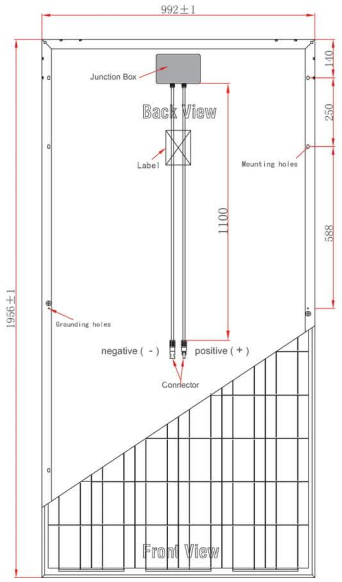
Tianwei TW275/280/285/290/295P72

Module Dimensions



Typical Electrical Characteristics at Standard Test Conditions (STC)

Type / Unit	TW275P72	TW280P72	TW285P72	TW290P72	TW295P72
Max-Power Pm (W)	275	280	285	290	295
Power Tolerance (W)			0 ~ + 5		
Max-Power Voltage V_m(V)	35.3	35.6	35.8	36.0	36.2
Max-Power Current I_m(V)	7.79	7.87	7.96	8.06	8.15
Open-Circuit Voltage V_{OC} (V)	44.7	44.9	45.2	45.3	45.4
Short-Circuit Current I_{SC} (A)	8.28	8.38	8.47	8.53	8.62
Module Efficiency η_m (%)	14.18	14.44	14.69	14.95	15.21

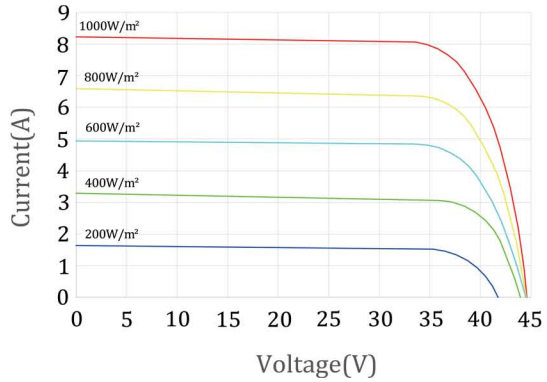
STC: AM=1.5, 1000W/m², Cell Temperature 25°C

Typical Electrical Characteristics at Nominal Operating Cell Temp (NOCT)

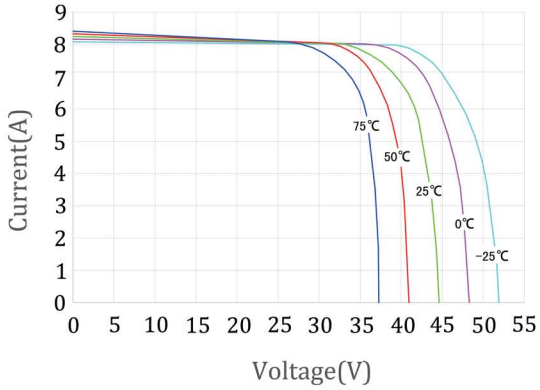
Type / Unit	TW275P72	TW280P72	TW285P72	TW290P72	TW295P72
Max-Power Pm (W)	198.4	201.9	205.4	209.1	212.5
Max-Power Voltage V_m(V)	32.2	32.3	32.5	32.8	33.0
Max-Power Current I_m(V)	6.17	6.24	6.31	6.37	6.44
Open-Circuit Voltage V_{OC} (V)	40.4	40.5	40.8	40.8	40.9
Short-Circuit Current I_{SC} (A)	6.76	6.84	6.92	6.97	7.04

NOCT: 800W/m² irradiance, 20°C ambient temperature. 1 m/s wind speed

I-V Curves by Irradiance - TW280P72



I-V Curves by Temperature - TW280P72



Mechanical Characteristics

Dimensions (L x W x H)	1956 x 992 x 50 mm
Standard Installation Hole Dimension	1176 x 942 mm
Weight	27kg
Front Cover (material/type/thickness)	Low iron tempered glass 4mm
Cell (qty/material/type/dimensions)	72(6x12)/Multicrystalline/ 156x156 mm
Encapsulant (material)	EVA
Frame (material/color/anodization color)	Anodized aluminum alloy/silver/clear
Junction box (protection degree)	Ip65 & IP67
Cable (length/cross-section area)	1100mm/4mm²

Operating Conditions

Max. hailstone impact (diameter/velocity)	25mm hail, from 1m of distance at 23 m/s
Max. system voltage	DC1000 V (TUV)
Max. series fuse rating	15 A
Operating temperature range	-40 °C ~ + 85 °C
Max. static load, front (snow & wind)	5400 Pa
Max. static load, back (wind)	2400 Pa

Packaging

Modules/pallet	20
Pallets/Container	22
Modules/Container	440

Thermal Characteristics

Nominal operating temperature	47 +/- 2°C
Temperature coefficient of Pmax	- 0.44% / °C
Temperature coefficient of Voc	- 0.34% / °C
Temperature coefficient of Isc	0.06% / °C

Certificates

TÜVRheinland, CE, OHSAS 18001, ISO, MCS, PV CYCLE, Clean Energy Council

Dealer Info

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