



Recommended For

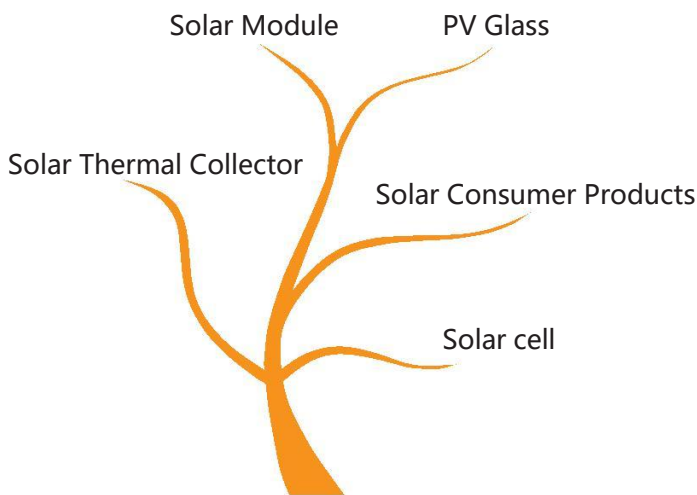


Utility Scale Ground Mounted






**TPSh-M2P72SF1W** Poly Crystalline Photovoltaic Module

Not Your Average Solar Provider

## Our Products Categories



## Key Feature

-  High module efficiency
-  Plus power tolerance: 0~+ 3%.
-  Independently developed anti-reflective and self-cleaning glass surface reduces power loss from dirt and dust.
-  Excellent performance under low light environments, create better kWh/kW ratio and produce 2- 3% more electricity average in average.
-  Certified by TUV to withstand high level of wind loads (2400Pa) and snow loads (5400Pa)\*.

## Best Quality

- Junction box and bypass diodes guarantee the modules free of overheating and "hot spot effect" .
- Compatible with industry standard inverters and Mounting systems. Guarantee minimal maintenance effort required.
- 100% EL double-inspection ensures modules free of defects.
- Potential Induced Degradation (PID) free.

## Guaranteed Performance\*\*

10 Years Manufacturing Warranty

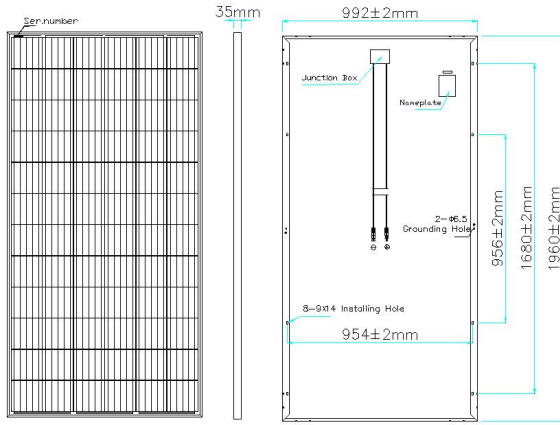
12 Years Warranty, 90% Power Output

25 Years Warranty, 80% Power Output

Free module recycling through membership in the PV Cycle Association

\* Please refer to Topray Safety and Installation Manual for details.

\*\*Please refer to Topray Limited Product Warranty for details.



## TPSh-M2P72SF1W Poly Crystalline Photovoltaic Module

### ELECTRICAL CHARACTERISTICS

#### MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 157×157 mm
Number of cells	72 (6×12)
Dimensions (A×B×C)	1960×992×35mm
Weights	20.0kg
Front Glass	3.2 mm Low iron tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP 67, with bypass diodes
Connector	MC4 compatible
Output Cables	TÜV standard, length 900mm, 4.0mm <sup>2</sup>

The typical relative change in module efficiency at an irradiance of 200W/m<sup>2</sup> in relation to 1000W/m<sup>2</sup> (both at 25°C and AM 1.5 spectrum) is less than 6%.

#### PACKING CONFIGURATION

Container	20' GP	40' GP	40' HQ
Pieces per container	310	744	792

#### TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	44±3°C
Temperature Coefficient of P <sub>max</sub> (γ)	- 0.4%/k
Temperature Coefficient of Voc (β)	- 0.37%/k
Temperature Coefficient of Isc (α)	0.05%/k

#### SYSTEM INTEGRATION PARAMETERS

Maximum system voltage	DC 1500V
Maximum Series Fuse	15A
Maximum reverse current	21.5A
Increased snowload acc. to IEC 61215	5400Pa
Operating Temperature	-40~+85°C
Number of bypass diodes	3

### PERFORMANCE AT STANDARD TEST CONDITION (STC:1000W/m<sup>2</sup>,25°C,AM1.5)

Module Series	TPSh-M2P72SF1W-xxxW			
Maximum Power at STC(P <sub>max</sub> )	325W	330W	335W	340W
Short Circuit Current(I <sub>sc</sub> )	9.15A	9.21A	9.29A	9.37A
Open Circuit Voltage(V <sub>oc</sub> )	45.70V	45.90V	46.10V	46.23V
Maximum Power Current(I <sub>mp</sub> )	8.73A	8.85A	8.93A	9.02A
Maximum Power Voltage(V <sub>mp</sub> )	37.30V	37.30V	37.52V	37.74V
Module Efficiency	16.72%	16.97%	17.23%	17.49%
Power Tolerance	0/+3%	0/+3%	0/+3%	0/+3%

#### QUALIFICATIONS AND CERTIFICATES

CE-Compliant, IEC 61215 (Ed.2), IEC 61730 (Ed.1) application class A, TÜV Safety Class II, UL 1703



#### DEALER INFORMATION BOX