TOPRAY Solar

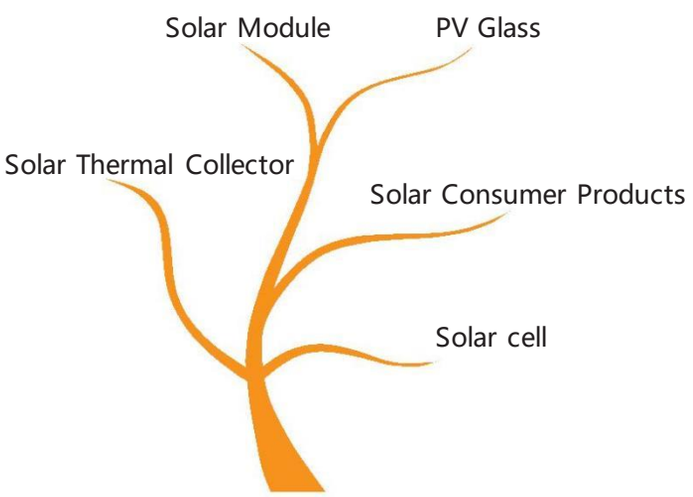
Recommended For

Utility Scale Ground Mounted

TPS-105S（33）-160W Mono Crystalline Photovoltaic Module

Not Your Average Solar Provider

Our Products Categories



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

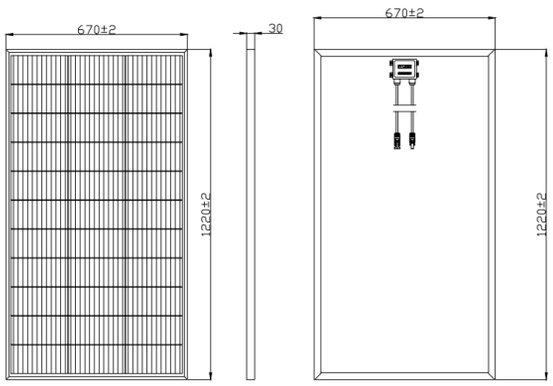
Key Feature

- 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 maintenace effort required.
- 100% EL double-inspection ensures modules free of defects.
- Potential Induced Degradation (PID) free.

* Please refer to Topray Safety and Installation Manual for details.
**Please refer to Topray Limited Product Warranty for details.



TPS-105S (33) -160W Mono Crystalline Photovoltaic Module

MECHANICAL DRAWINGS

ELECTRICAL CHARACTERISTICS

MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 210×105 mm
Number of cells	33 (3×11)
Dimensions (A×B×C)	670×1220×30mm
Weights	8.0kg
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, 4.0mm²

PERFORMANCE AT STANDARD TEST CONDITION (STC:1000W/m²,25°C,AM 1.5)

Module Series	TPS-105S(33)-160W
Maximum Power at STC(Pmax)	160W
Short Circuit Current(Isc)	9.02A
Open Circuit Voltage(Voc)	22.64V
Maximum Power Current(Impp)	8.20A
Maximum Power Voltage(Vmpp)	19.57V
Module Efficiency	19.57%
Power Tolerance	0/+3%

The typical relative change in module efficiency at an irradiance of 200W/m² in relation to 1000W/m² (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	560	1260	1890

TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	44 ± 3°C
Temperature Coefficient of Pmax (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 1000V
Maximum Series Fuse	12A
Maximum reverse current	15A
Increased snowload acc. to IEC 61215	5400Pa
Operating Temperature	-40~+85°C
Number of bypass diodes	2

QUALIFICATIONS AND CERTIFICATES

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

DEALER INFORMATION BOX