OnGrid Crystalline-Standard TPSP6U

TOPRAY Solar

Recommended For

Commercial Roof

Utility Scale Ground Mounted

TPSP6U

Poly Crystalline
Photovoltaic Module

- Plus power tolerance(0-3%) to ensure the high reliability of power output
- Module certified by TUV
  - For SNOW ZONE III, withstand high level of wind loads(2400Pa) and snow loads(5400Pa)
  - For PID test. No Potential Induced Degradation cause by High Voltage Stress
  - For Salt mist corrosion, ammonia corrosion test
- Anti-reflective, hydrophobic layer of module surface(proprietary 800° C online coating technology) improves light absorption and reduces surface dust
- Easy installation and minimal maintenance with compatibility to industry standard inverters and mounting system
- Special PV Module Insurances by world leading insurance company guarantees the benefit of PV investors and PV module users
- Junction box and bypass diodes guarantee the module free of overheating and "hot spot effect"
- Modules' excellent performance under low light environments(mornings, evenings, and cloudy days) create better kWh/kW ratio and produce average 2-3% more electricity in the field

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

QUALIFICATIONS AND CERTIFICATES

IEC UL MCS ISO CE Safety Class II TÜV SÜD ETL Intertek BBA Clean Energy Council PV CYCLE

Choosing Topray Solar

Professional solar producer and solutions provider since 1992, reliable partner of global distributors, installers and project integrators

The most vertically integrated solar manufacturer in the industry with production of ingots, wafer, solar cells and modules using bith mono crystalline and multi crystalline technology

Manufacuring with intemational quality standards and environment management system: ISO 9001 and ISO 14001

Global distribution with local warehousing, delivery and after sales services

Minimal wiring effort required as the module has high reverse current resistance

Most updated design with drainage holes in the frame ensures the modules to withstand various weather conditions

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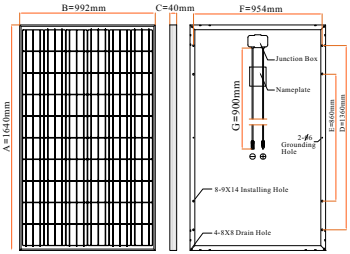
MECHANICAL SPECIFICATION

Cell Type	Poly crystalline 156x156mm(6 inches)
Number of cells	60(6x10)
Dimensions(AxBxC)	1640x992x40mm
Weights	17.5kg
Front Glass	3.2 mm Low iron tempered glass
Frame	Anodized aluminum
Junction Box	IP 65, with bypass diodes
Connector	Mc4 compatible
Output Cables	TÜV, length 900mm, 4.0mm²

MECHANICAL DRAWINGS



ELECTRICAL CHARACTERISTICS

PERFORMANCE AT STANDARD TEST CONDITION(STC:1000W/m², 25°C,AM1.5)

Module Series	TPSP6U-Topray Universal				
Maximum Power at STC(Pmax)	250W	255W	260W	265W	270W
Short Circuit Current(Isc)	8.75A	8.82A	8.91A	9.1A	9.2A
Open Circuit Voltage(Voc)	37.1V	37.5V	37.73V	37.5V	37.6V
Maximum Power Current(Impp)	8.31A	8.36A	8.45A	8.61A	8.82A
Maximum Power Voltage(Vmpp)	30.1V	30.5V	30.77V	30.8V	30.6V
Encapsulated Cell Efficiency	17.60%	17.80%	18.00%	18.20%	19.00%
Module Efficiency	15.37%	15.67%	15.98%	16.29%	16.60%
Power Tolerance	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%

PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE(NOTE:800W/m², 44±2°C, AM1. 5)

Maximum Power(Pmax)	181W	185W	187W	192W	196W
Short Circuit Current(Isc)	7.14A	7.2A	7.6A	7.43A	7.51A
Open Circuit Voltage(Voc)	34.28V	34.65V	34.5V	34.65V	34.74V
Maximum Power Current(Impp)	6.5A	6.56A	6.86A	6.75A	6.93A
Maximum Power Voltage(Vmpp)	27.81V	28.18V	27.68V	28.46V	28.27V

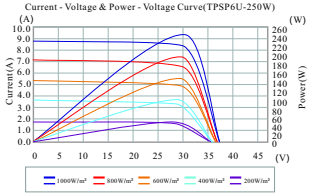
The typical relative changr in module efficiency at an irradiance of 200W/m² in relation to 1000W/m²(both at 25°C and AM 1.5 spectrum) is less than 6%

TEMPERATURE CHARACTERISTICS

Nominal Operating Cel Temperature(NOCT)	44±2°C
Temperature Coefficient of Pmax(γ)	-0. 41%/K
Temperature Coefficient of Voc(β)	-0. 32%/K
Temperature Coefficient of Isc(α)	0. 05%/K

PACKING CONFIGURATION

Container	40'HQ
Pieces per pallet	25
Pallets per container	28
Pieces per container	742



SYSTEM INTEGRATION PARAMETERS

Maximum system voltage	DC 1000V
Maximum Series Fuse	16A
Maximum reverse current	21.5A
Increased snowload acc. to IEC 61215	5400Pa
Operating Temperature	-40~+85°C
Number of bypass diodes	3