

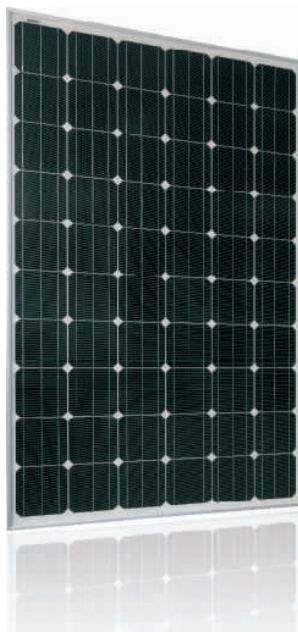
### Recommended For










Commercial Roof



Utility Scale Ground Mounted



### TPS-M6S(60)-270W Mono 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

### 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 both mono crystalline and multi crystalline technology

Manufacturing with international 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



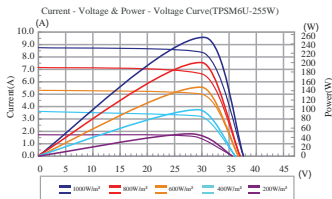
#### QUALIFICATIONS AND CERTIFICATES



MECHANICAL SPECIFICATION		MECHANICAL DRAWINGS
Cell Type	Mono crystalline 156x156mm(6 inches)	
Number of cells	60(6x10)	
Dimensions(AxBxC )	1640 x992 x40mm	
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	

ELECTRICAL CHARACTERISTICS	
PERFORMANCE AT STANDARD TEST CONDITION(STC:1000W/m², 25°C,AM1.5)	
Module Series	TPS-M6S(60)-270W
Maximum Power at STC(Pmax)	270W
Short Circuit Current(Isc)	9.0A
Open Circuit Voltage(Voc)	38.1V
Maximum Power Current(Impp)	8.6A
Maximum Power Voltage(Vmpp)	31.4V
Encapsulated Cell Efficiency	18.9%
Module Efficiency	16.60%
Power Tolerance	0/+3%
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE(NOTE:800W/m², 44±2°C, AM1.5)	
Maximum Power(Pmax)	194.68W
Short Circuit Current(Isc)	7.35A
Open Circuit Voltage(Voc)	35.06V
Maximum Power Current(Impp)	6.74A
Maximum Power Voltage(Vmpp)	28.89V
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%	

TEMPERATURE CHARACTERISTICS		PACKING CONFIGURATION	
Nominal Operating Cel Temperature(NOCT)	44±2°C	Container	40'HQ
Temperature Coefficient of Pmax(γ)	-0. 41%/K	Pieces per pallet	25
Temperature Coefficient of Voc(β)	-0. 32%/K	Pallets per container	28
Temperature Coefficient of Isc(α)	0. 05%/K	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