



# TOPCO-220P6

High Quality Poly-crystalline Photovoltaic Module



- Qualified, IEC 61215
- Safety tested, IEC 61730
- Periodic Inspection



## Feature

1. Bypass diode minimizes the power drop by shade
2. The conversion efficiency of solar cell is above 14.12%
3. White tempered glass, EVA resin, weather proof film and anodized aluminum frame  
Providing efficient protection from the severest environmental conditions
4. Waterproof (UL94,V-O )connector provide nominal 24 DC output. Perfect for grid applications.
5. Product guarantee 5 years

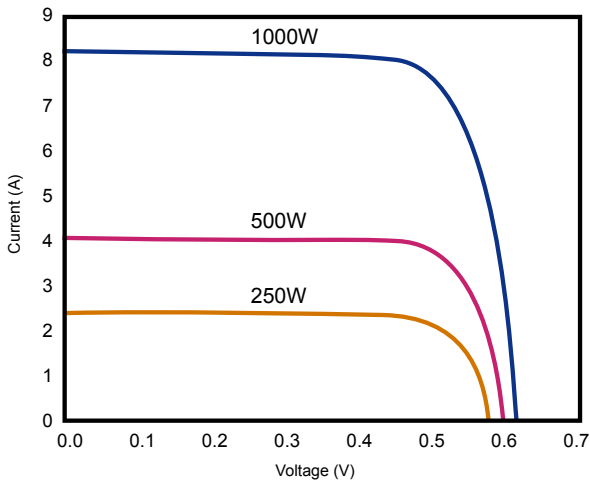
## SPECIFICATION

Type Of Module	TOPCO-220P6						
	235W	230W	225W	220W	215W	210W	205W
Tolerance	± 3%	± 3%	± 3%	± 3%	± 3%	± 3%	± 3%
Open circuit Voltage [V]	36.72	36.60	36.42	36.06	36.00	35.94	35.94
Short circuit Current [A]	8.23	8.17	8.10	7.95	7.83	7.60	7.47
Maximum Power Voltage [V]	30.60	30.48	30.36	30.12	29.94	29.64	29.58
Maximum Power Current [A]	7.68	7.55	7.41	7.30	7.18	7.09	6.93
Module Efficiency [%]	14.35	14.04	13.74	13.43	13.13	12.82	12.52
Solar Cell Efficiency [%]	16.12	15.87	15.62	15.12	14.87	14.37	14.12
Series Fuse Rating [A]	15	15	15	15	15	15	15
Terminal Box	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Maximum System Voltage [V]	DC1000	DC1000	DC1000	DC1000	DC1000	DC1000	DC1000
Operating Temperature [°C]	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85

# Electrical Characteristics

Current-Voltage characteristics of cells at various irradiance levels

IV-Curve



Electric Performance Typical Performance Characteristics	
Short Circuit Current Temperature Coefficient	mA/°C +4.500
Open Circuit Voltage Temperature Coefficient	V/°C -0.1500
Maximum Power Temperature Coefficient	%/°C -1.2923
Performance Warranty	
90%output, 12years	
80%output, 25years	

## Quality Assurance

1. Electrical insulation test
2. Outdoor exposure test
3. Hot-spot endurance test
4. UV-exposure
5. Thermal cycling test
6. Humidity freeze test
7. Damp heat test
8. Robustness of terminations test
9. Wet leakage current test
10. Mechanical load test
11. Hail impact test
12. Bypass diode thermal test

## Physical Specifications

### Dimension :

Length : 1646mm/64.80in

Width : 995mm/39.17in

Depth : 50mm/1.97in

Weight : 20.0 kg/pcs

Packing : 10pcs/carton

### Loading Capacity

240pcs/20ft Container

560pcs/40ft Container

