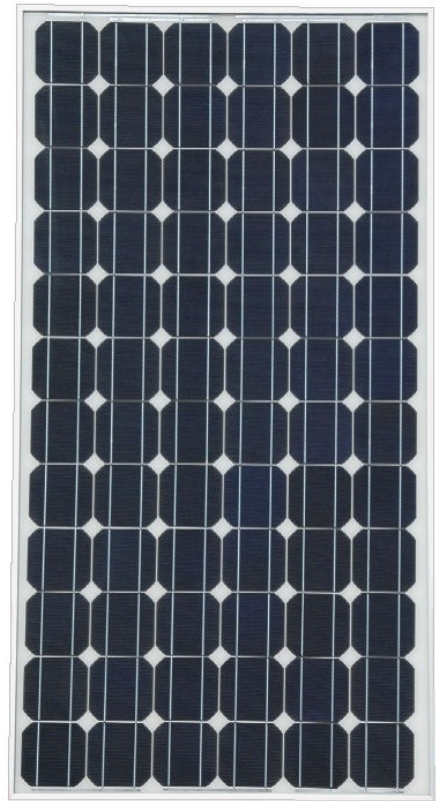


# High Quality Photovoltaic Module



- Periodic inspection
- Qualified, IEC 61215
- Safety tested, TUV-Spec 931/2.572.9



## Feature

1. Bypass diode minimizes the power drop by shade.
2. Use high conversion efficiency solar cell.
3. White tempered glass, EVA resin, weather proof film and anodized aluminum frame. provide efficient protection from the severest environmental conditions.
4. Waterproof (UL94,V-O )connector provide nominal 12/24 DC output . Perfect for grid applications.
5. Product guarantee 5 years.

## SPECIFICATION

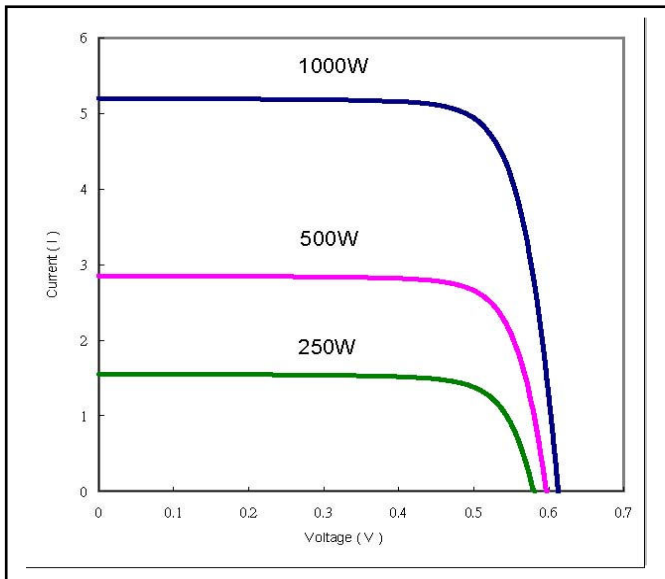
Type Of Module	85W	125W	170W	180W	220W	270W
Number Of Cells	36Pcs	36Pcs	48Pcs	72Pcs	60Pcs	72Pcs
Cell Type	5"Mono	6"Poly	6"Poly	5"Mono	6"Poly	6"Poly
Maximum Power [W]	85	125	170	180	220	270
Tolerance	±5%	±5%	±5%	±5%	±5%	±5%
Open circuit Voltage [V]	22.0	21.6	28.8	44.1	36.6	44.1
Short circuit Current [A]	5.1	7.8	7.8	5.3	8.1	8.2
Maximum Power Voltage [V]	18.2	18.0	24.0	36.7	30.5	36.7
Maximum Power Current [A]	4.7	7.2	7.3	4.9	7.6	7.6
Module Efficiency [%]	12.8	12.8	13.5	13.8	13.3	14.0
Solar Cell Efficiency [%]	15.7	14.9	14.9	16.9	15.9	16.2
Series Fuse Rating [A]	10	10	10	10	10	10
Terminal Box	IP65	IP65	IP65	IP65	IP65	IP65
Maximum System Voltage [V]	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
Weight(kg)	8.5	12	17	17	21	25
Size(mm)	1206*552*35	1471*666*35	1316*995*50	1576*825*50	1646*995*50	1474*1309*50

40 Feet Container(Sets)	1512	896	640	560	560	300
-------------------------	------	-----	-----	-----	-----	-----

## 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
	2.5
Open Circuit Voltage Temperature Coefficient	V/°C
	-0.147
Maximum Power Temperature Coefficient	%/°C
	-0.4
Performance Warranty	
90%output, 12Years	
80%output, 25 Years	

## Quality Assurance

1. Electrical insulation test.
2. Outdoor exposure test.
3. Hot-spot endurance test.
4. UV-exposure according IEC 61345
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.

## **CELEMIN ENERGY**

Santa Isabel, 2-1º A  
28911 Leganés Madrid. SPAIN

Tel : +34 902108979

Fax: +34 902108979