

Features



- ※ High efficient mono-crystalline cells connected in series
- ※ Superior manufacturing technology to meet high standard of module conversion efficiency
- ※ IP65 or 67 water proof junction box is available for long term weather endurance
- ※ Salt mist, ammonia and blowing sand resistance, apply to seaside, farm and desert areas
- ※ Positive power tolerance up to 5w delivers high power generation
- ※ Selective materials and rigid process effectively control Potential Induced Degradation (PID)
- ※ Total quality control and complete traceability of Material by Shop Floor Control (SFC)
- ※ Outstanding electrical performance under high temperature and

Warranty

- ❖ 10 Years for Product Workmanship and Materials
- ❖ 25 Years Power Performance:
 - 12 years for 90% minimum power output
 - 25 years for 80% minimum power output

Certification

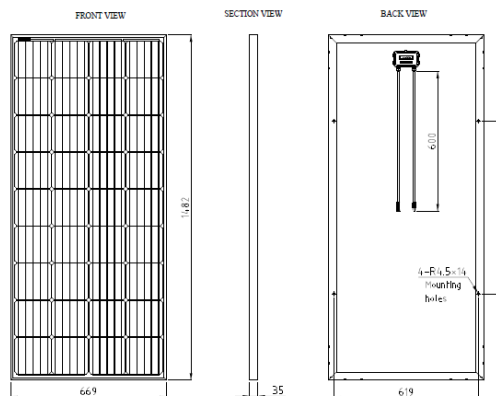


Physical Specification



1 2 3 4 5

- 1, Tempered Glass
- 2, EVA(Ethylene Vinyl Acetate)
- 3, Solar Cells
- 4, EVA(Ethylene Vinyl Acetate)
- 5, Back sheet



Electrical Specification

Model Type	Unit	ESM 180
Maximum Power (Pmax)	W	180
Module Efficiency	%	20.0
Open Circuit Voltage (Voc)	V	23.54
Short Circuit Current (Isc)	A	9.79
Maximum Power Voltage (Vmp)	V	19.31
Maximum Power Current (Imp)	A	9.32
Maximum System Voltage	V	1000 (TUV) / 600 (UL)
Maximum Series Fuse Rating (A)	A	10
Power Tolerance		0 ~ +5W

Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C. The NOCT is obtained under the Test Conditions: 800W/m², 20°C ambient temperature, AM 1.5 Spectrum, 1m/s wind speed.

Mechanical Specification

Module Dimension (mm)	1482x669x35mm
Cell Type	Mono-crystalline
Number of Cell	36 (4 x 9)
Glass Thickness (mm)	3.2
Weight (kgs)	12
Maximum Load (TUV) (Pascal)	5400
Junction Box	IP65 or IP 67 rated;

Temperature Characteristics

Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature (NOCT)	45 +/- 2 °C
Temperature Coefficient (Pmax)	-0.38% / °C
Temperature Coefficient (Voc)	-0.31% / °C
Temperature Coefficient (Isc)	0.03% /°C

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The specifications are subject to change without prior notice.