

## Features

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- \* High efficient shingled 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)

## Warranty

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- ❖ 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

- \* Outstanding electrical performance under high temperature and low-irradiance

## Certification

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## 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 135S
Maximum Power (Pmax)	W	135
Module Efficiency	%	22.00%
Open Circuit Voltage (Voc)	V	21.96
Short Circuit Current (Isc)	A	7.88
Maximum Power Voltage (Vmp)	V	18.6
Maximum Power Current (Imp)	A	7.26
Maximum System Voltage	V	1000 (TUV)
Maximum Series Fuse Rating (A)	A	10
Power Tolerance		0 ~ +5W

Standard Test Conditions (STC) of irradiance of 1000 W/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C. The NOCT is obtained under the Test Conditions: 800W/m<sup>2</sup>, 20°C ambient temperature, AM 1.5 Spectrum, 1m/s wind speed.

## Mechanical Specification

Module Dimension (mm)	1020x665x30mm
Cell Type	Mono-crystalline
Number of Cell	4x32
Glass Thickness (mm)	3.2
Weight (kgs)	8
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