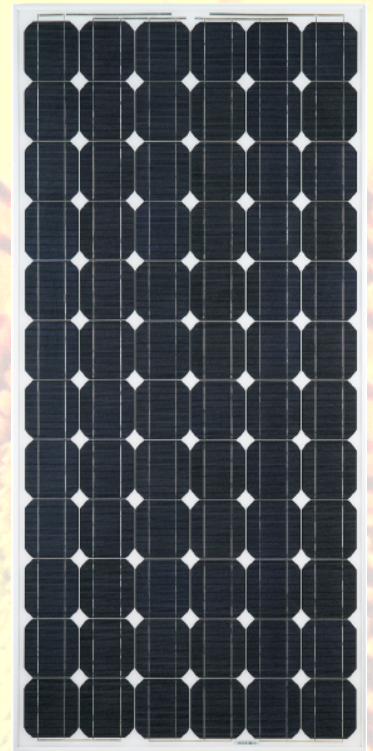




## AS-5M Amerisolar

Amerisolar’s photovoltaic modules are designed for large electrical power requirements. With a 25 year warranty, AS-5M offers high-powered, reliable performance for solar projects, both on- and off-grid.

- Solar Cell: High efficiency solar cells ensure high performance of solar module and create maximum power output.
- Low iron tempered glass: Anti-reflecting coating and high transmission rate glass increase the power output and mechanical strength of solar module.
- Aluminum frame: Without screw, corner connection. 10 holes on the frame can be installed easily.
- Superior Junction box: Multi function junction box with water proof capabilities.
- Long lifespan:  $\geq$  25Years.
- Tolerance:  $\pm$ 3%.
- Good performance of preventing from atrocious weather such as wind and hails.
- Resisting moisture and etching effectively, not effect by geology.
- The certificate issued by international authority: CE, TUV, IEC, UL, MCS and Korea Certificate.



### Electrical characteristics

| <i>P<sub>max</sub>, V<sub>oc</sub>, I<sub>sc</sub>, V<sub>mp</sub> and I<sub>mp</sub> at STC (1000W/m<sup>2</sup>, 25°C, AM 1.5);</i> |       |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|-------|
| Maximum Power (P <sub>max</sub> )   | 160W  | 165W  | 170W  | 175W  | 180W  | 185W  |
| Open Circuit Voltage (V <sub>oc</sub> )   | 43.9V | 44.1V | 44.3V | 44.5V | 44.7V | 44.8V |
| Short Circuit Current (I <sub>sc</sub> )  | 5.21A | 5.26A | 5.31A | 5.36A | 5.41A | 5.46A |
| Maximum Power Voltage (V <sub>mp</sub> )  | 33.8V | 34.3V | 34.8V | 35.3V | 35.8V | 36.3V |
| Maximum Power Current (I <sub>mp</sub> )  | 4.74A | 4.81A | 4.89A | 4.96A | 5.03A | 5.10A |
| Module Efficiency (%)   | 12.54 | 12.93 | 13.32 | 13.71 | 14.10 | 14.49 |

### Temperature Coefficients

|                                 |            |
|---------------------------------|------------|
| Temperature Coefficients of Pm  | -0.45 %/°C |
| Temperature Coefficients of Voc | -0.16 %/°C |
| Temperature Coefficients of Isc | +0.06 %/°C |
| Temperature Coefficients of Im  | +0.06 %/°C |
| Temperature Coefficients of Vm  | -0.16 %/°C |

### Absolute Maximum Limits

|                              |                |
|------------------------------|----------------|
| Maximum System Voltage       | 1000V DC       |
| Module Operating Temperature | -40°C to +85°C |
| Noct (DEGC.)                 | 45°C±3°C       |

### WARRANTY

- Product: 10 years
- Power Output:  
90%----10 years  
80%----25 years



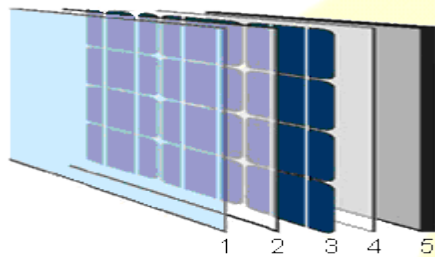
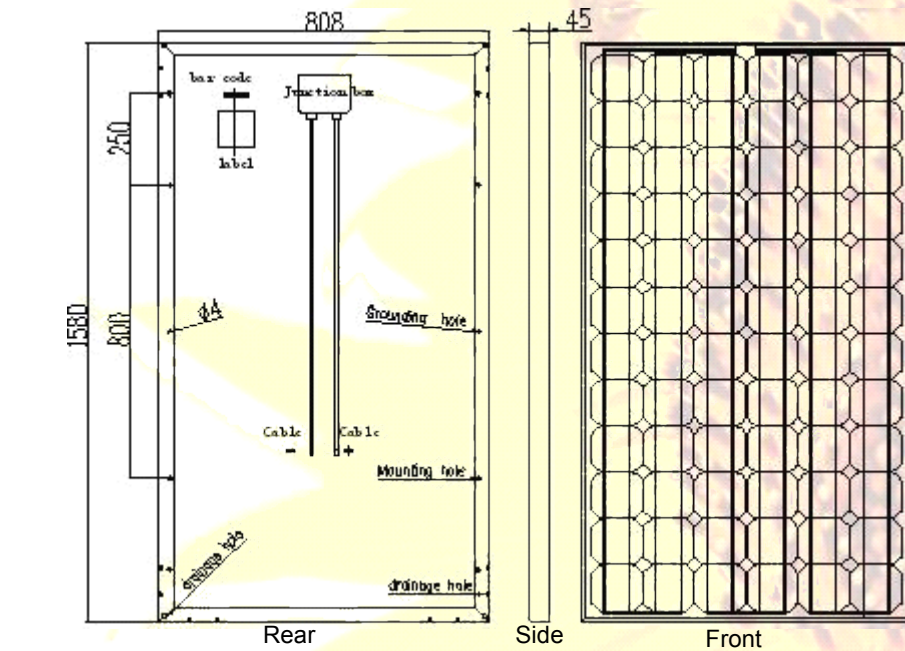
Passionately committed to delivering innovative energy solution

**Mechanical characteristics**

|                               |                                     |                      |
|-------------------------------|-------------------------------------|----------------------|
| Cell Technology               | 125mmx125mm [4.92inx4.92in]         | Mono-crystal silicon |
| Number of Cells (Pcs)         | 72 (6x12)                           |                      |
| Dimensions                    | 1580mmx808mmx45mm                   |                      |
| Weight                        | 15.5kg                              |                      |
| Frame                         | Aluminium-alloy                     |                      |
| Length of Cables (mm)         | 900mm                               |                      |
| Allowable Hail Load           | Steel ball fall down from 1m height |                      |
| Surface Maximum Load Capacity | 60m/s(540kg/m <sup>2</sup> )        |                      |

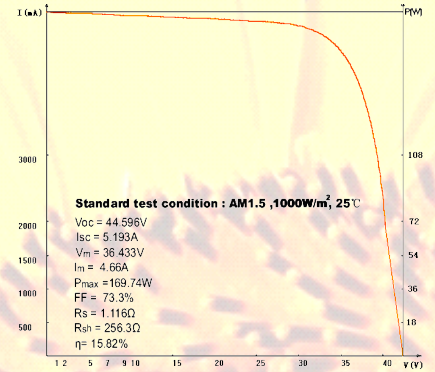
**Basic Dimensions**

ALL DIMENSIONS IN mm

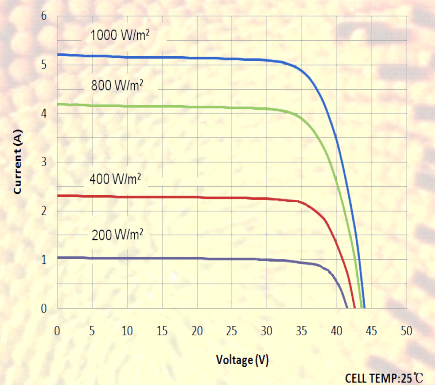


1. Front: tempered solar glass 3.2mm
2. EVA
3. 72 high efficiency solar cells 125mm X 125mm
4. EVA
5. Rear: laminate (weatherproof and waterproof)

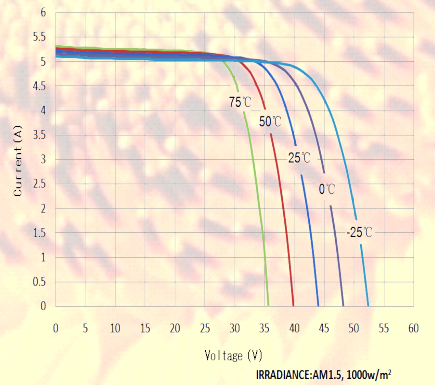
**I-V curves**



**Module at STC**



**Various Irradiance Levels**



**Various Temperatures**

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