



SUNERGY

SUNERGY USA WORKS LLC

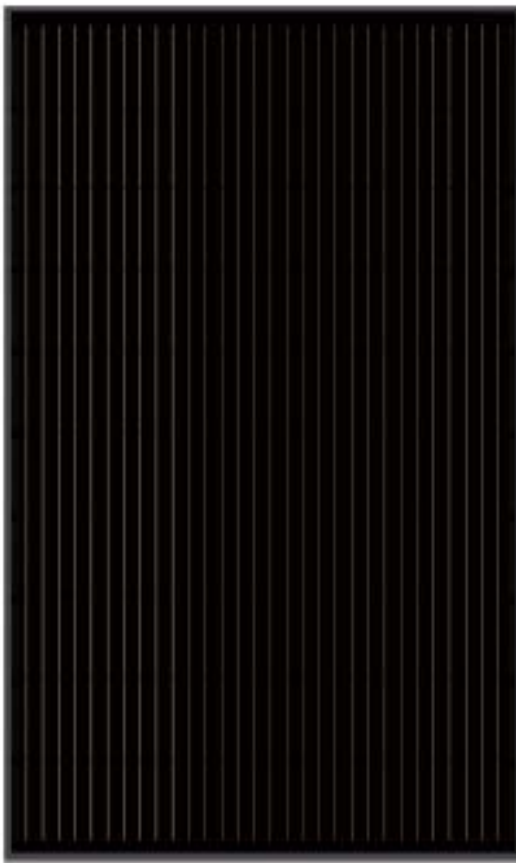
www.sunergyworks.com

# SUN 60M(BK ) 295W/300W/305W/ 310W

MONO CRYSTALLINE MODULE

IEC61215 / IEC61730 / IEC61701 /  
IEC62716 / IEC62804

Acquire the  
fashion science and  
technology



### IP68 Junction Box, Connector

IP68 Junction Box and Connector have a high degree of waterproof, effectively resist the harsh environment



### 15A current

The junction box carries a current of 15A, ensuring high current flow through the modules



### Super strong frame

Glue-spilled tank has a double-layer waterproof, cross-section with hook-shaped aluminum frame, enhanced by 10% of the mechanical load strength



### Current division

The module refines the current division, thus effectively reducing the loss of up to 2% due to mismatch and increasing the power output of the system



### Salt spray, Ammonia and PID test

Excellent salt spray resistance, anti-ammonia and anti PID, TUV, SUD certification approved



### Strong Mechanical load capacity

Passed the 2400pa wind load and 5400pa snow load test, ensuring that the module has a stable mechanical life

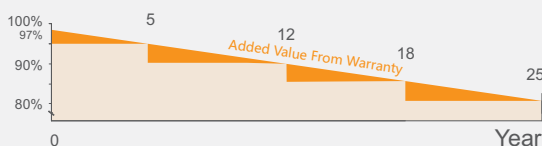


### Color Classification

Modules are packaged according to color classification, to achieve consistent appearance after installation

### LINEAR PERFORMANCE WARRANTY

- 10 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output

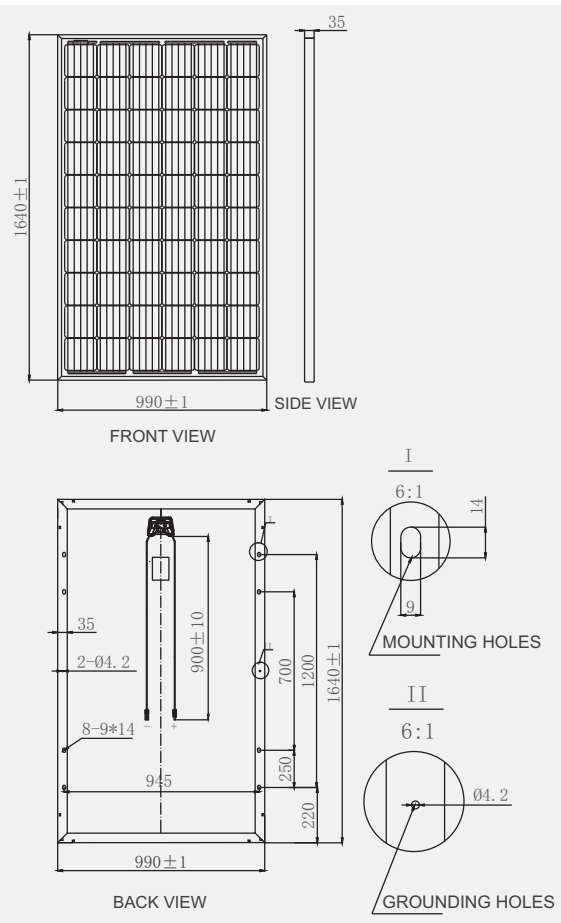


### QUALIFICATIONS AND CERTIFICATES





MECHANICAL DRAWINGS



MECHANICAL SPECIFICATION

|                   |  |
|-------------------|--|
| Cell Type         | Mono Crystalline 156.75x156.75mm           |
| Number Of Cells   | 60 (6x10)                                  |
| Dimensions(AxBxC) | 1640x990x35mm                              |
| Weights           | 19kg                                       |
| Front Glass       | 3.2mm Tempered Low Iron Glass              |
| Frame             | Clear Anodized Aluminum Alloy              |
| Junction Box      | IP68,with Bypass Diodes                    |
| Connector         | Mc4 Compatible                             |
| Output Cables     | Tuv, $\pm$ length 900mm,4.0mm <sup>2</sup> |

ELECTRICAL CHARACTERISTICS

| Maximum Power At STC(Pmax)  | 295W   | 300W   | 305W   | 310W   |
|-----------------------------|--------|--------|--------|--------|
| Short Circuit Current(Isc)  | 9.72A  | 9.78A  | 9.89A  | 9.96A  |
| Open Circuit Voltage(Voc)   | 39.6V  | 39.8V  | 40.1V  | 40.3V  |
| Maximum Power Current(Imp)  | 9.08A  | 9.17A  | 9.30A  | 9.40A  |
| Maximum Power Voltage(Vmpp) | 32.5V  | 32.7V  | 32.8V  | 33.0V  |
| Module Efficiency           | 18.17% | 18.48% | 18.79% | 19.09% |
| Power Tolerance             | 0~+3%  | 0~+3%  | 0~+3%  | 0~+3%  |

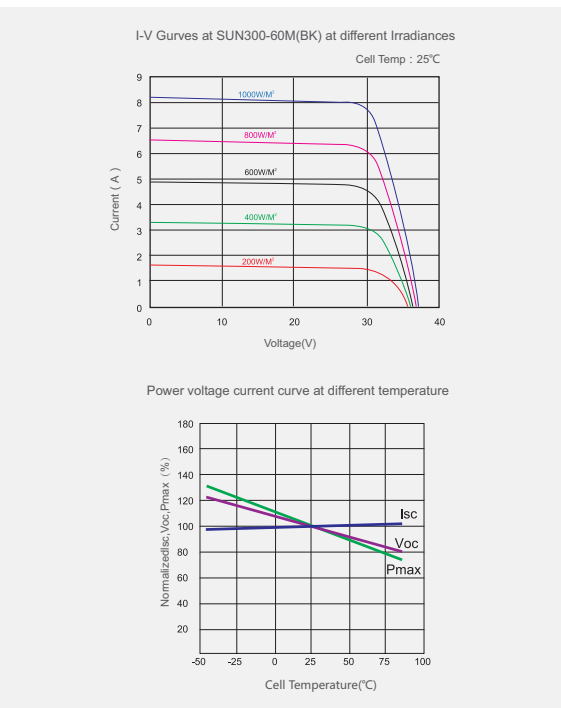
STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM1.5.

NOCT

| Maximum Power At STC(Pmax)  | 219.9 | 223.6 | 227.4 | 231.1 |
|-----------------------------|-------|-------|-------|-------|
| Short Circuit Current(Isc)  | 7.87  | 7.92  | 8.01  | 8.06  |
| Open Circuit Voltage(Voc)   | 36.6  | 36.8  | 37.1  | 37.3  |
| Maximum Power Current(Imp)  | 7.46  | 7.51  | 7.59  | 7.64  |
| Maximum Power Voltage(Vmpp) | 29.5  | 29.8  | 30.0  | 30.2  |

NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, wind speed 1m/s.

I-V CURVES



SYSTEM INTEGRATION PARAMETERS

|                                     |           |
|-------------------------------------|-----------|
| Maximum System Voltage              | VDC 1000V |
| Maximum Series Fuse                 | 15A       |
| Increased Snowload Acc.to Iec 61215 | 5400Pa    |
| Operating Temperature               | -40~+85°C |
| Number Of Bypass Diodes             | 3         |

TEMPERATURE CHARACTERISTICS

|   |                |
|---|----------------|
| Norminal Operating Cell Temperature(Noct) | 45°C $\pm$ 2°C |
| Temperature Coefficient Of Pmax           | -0.40%/°C      |
| Temperature Coefficient Of Voc            | -0.29%/°C      |
| Temperature Coefficient Of Lsc            | 0.05%/°C       |

PACKING CONFIGURATION

|                       |        |        |
|-----------------------|--------|--------|
| Container             | 20' GP | 40' GP |
| Pieces Per Pallet     | 30     | 30     |
| Pallets Per Container | 14     | 28     |
| Pieces Per Container  | 400    | 840    |