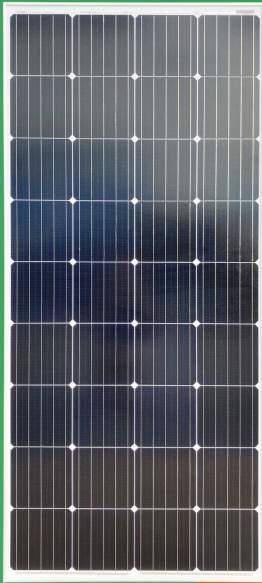


# Monocrystalline Module

Dimensions : 665\*1480\*30mm  
 Mono Power : 160W~190W



**190W**

Max power output

**19.31%**

Max Efficiency

**±3%**

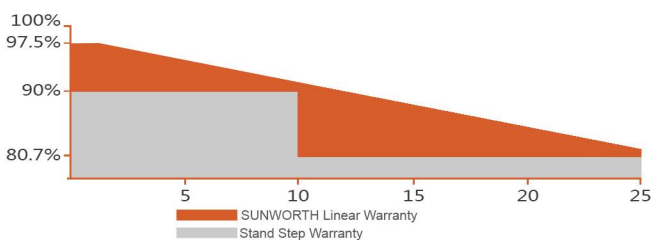
Positive Power Tolerance

## SUNWORTH - Your Trusted Brand of High Quality

- Professional crystalline silicon photovoltaic module manufacturer.
- Fully automated production line with leading photovoltaic technology.
- Adopt strict international standard quality management system ISO 9001:2015, ISO14001: 2015.
- Passed variety of harsh environmental tests (salt spray, ammonia and sand storm corrosion test IEC61730-2:2016, IEC61215:2016).
- Twice EL test to ensure the reliability of the solar modules.

## Linear Performance Warranty

10 years Product Warranty      25 years Linear Power Warranty



### 5 Bus Bar Solar Cells

5 BB solar cells, improve the modules' efficiency ,and contributed a better aesthetic appearance



### High Efficiency

High efficiency solar cells to keep the module efficiency reach to 19.31%



### Low-light Performance

Advanced glass and cell surface textured design ensure excellent performance in low-light environment



### PID Resistance

Excellent Anti-PID performance guarantee limited power degradation for mass production



### Severe Weather Resilience

2400 Pa wind load  
 5400 Pa snow load



### 100% EL Testing

100% EL detection before and after lamination

**Dimensions: 665\*1480\*30mm**  
**Mono Power: 160W~190W**

### Electrical Characteristics

Model No.	SW180M-36	SW190M-36
Maximum Power (Pmax)	180W	190W
Max-power Voltage (Vmp)	19.75V	20.10V
Max-power Current (Imp)	9.12A	9.46A
Open-circuit Voltage (Voc)	24.14V	24.31V
Short-circuit Current (Isc)	9.51A	9.79A
Module Efficiency	18.29%	19.31%
Operating Temperature	-40°C~+85°C	
Maximum System Voltage	1000Vdc	
Maximum Series Fuse Rating	15A	
Power Tolerance	±3%	

\*STC condition: 1000 W/m<sup>2</sup>, 1.5AM and 25°C cell temperature

### Temperature Characteristics

NMOT	46°C±2°C
Temperature Co-efficient of Pmax	-0.398%/°C
Temperature Co-efficient of Voc	-0.340%/°C
Temperature Co-efficient of Isc	0.0576%/°C

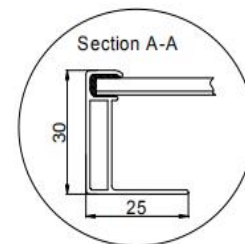
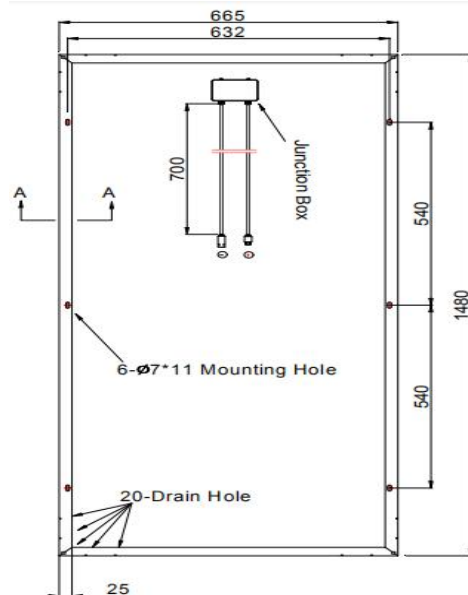
### Mechanical Characteristics

Mono Power	160W~190W
Cell Type	Mono 156.75*156.75mm
Cell Arrangement	36(4*9)
Dimensions	665*1480*30mm
Weight	10.6kg
Front Cover	3.2mm tempered glass
Frame Material	Anodized aluminium alloy
Junction Box	IP65 rated
Output Cables	2.5mm <sup>2</sup> , Length 700mm+MC4

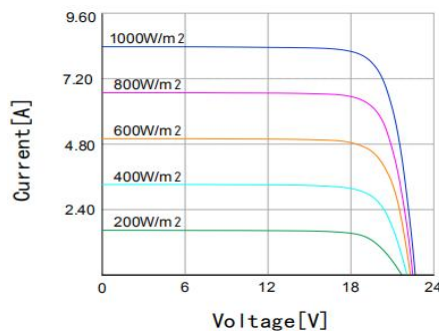
### Packing

Packing	20'GP	40'HC
Pieces per Carton	3	3
Pieces/container	660	1380

### Module Size



### I-V Curve



SUNWORTH solar modules have superior performance under low solar irradiation condition ( 200W/m<sup>2</sup> (AM1.5, 25 °C)