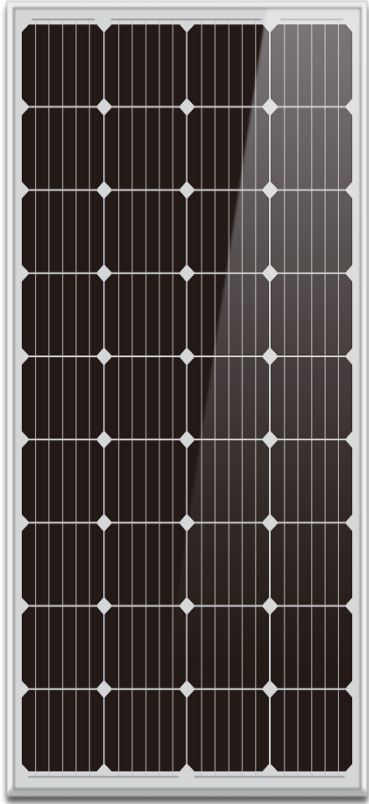


Monocrystalline Solar PV Module

36 Cells, 190W



+3W

Power and tolerance
0~+3W positive power tolerance guaranteed

Anti
PID

Resistance to the PID

6000
3600

Stronger surface resistance to mechanical loads
Passed the certification of 6000Pa snow load and 3600Pa wind load

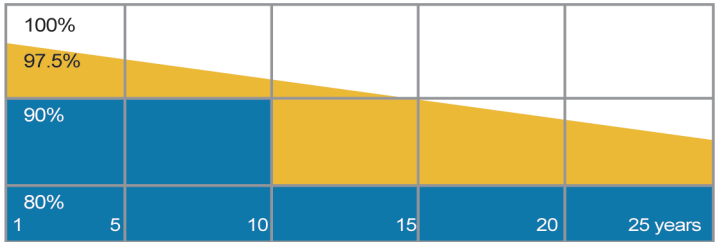
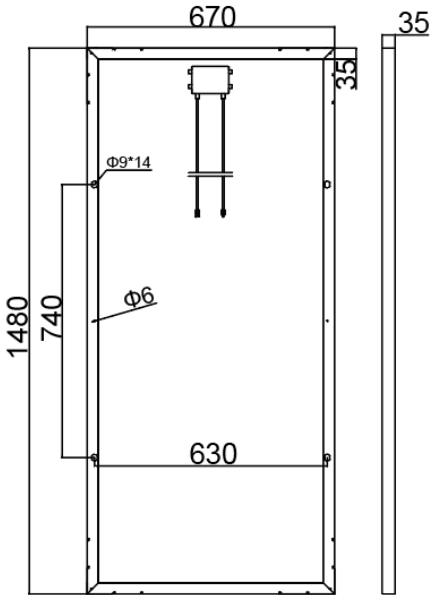
Designed for harsh environments

Hail

Passed a hail test with a diameter of 45mm and a speed of 30.7m/s

Lower temperature coefficient

Better temperature coefficient allows for power attenuation at high temperature



linear power output warranty
Industry quality assurance

12

12 years of product material and process quality

25

25 years linear power output warranty



MODEL	190WATT
Maximum Power/Pmax(Wp)	190
Optimum Operating Voltage/Vmp(V)	18.7
Optimum Operating Current/Imp(A)	10.16
Open Circuit Voltage/Voc(V)	22.44
Short Circuit Current/Isc(A)	10.92
Cell Efficiency	21.69%
Module Efficiency	19.16%
Power Tolerance	0~+3W
Maximum Series Fuse Rating(A)	15A
Maximum System Voltage	1000VDC

DATA

Operating Module Temperature	-40°C to +80°C	°C
Storage Temperature	From -40°C to +80°C	°C
Insulation Cut Voltage	1000	DC
Maximum Wind Resistance	60m/s	N/m² or max KM/h
Surface Maximum Load Capacity	200	Kg/m²
Maximum Hail Load Capacity	5mm	80km/h

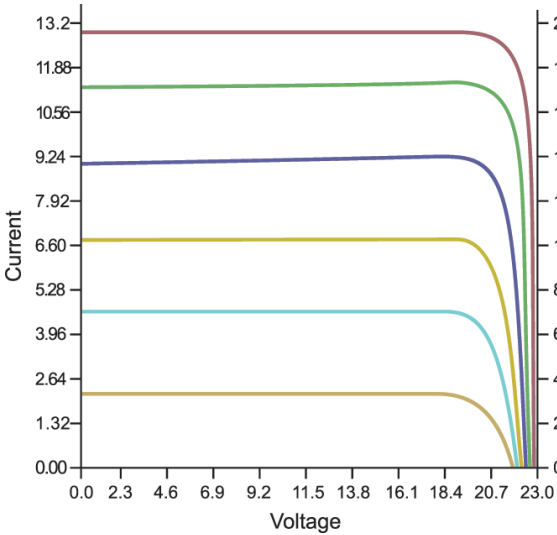
MECHANICAL CHARACTERISTICS

TEMPERATURE CHARACTERISTICS

Number of cells	36(12*3)
Cell Dimension(mm)	156*52
Dimension(inch)	59 1/16 x 26 11/16 x 1 1/8
Weight(lb)	26.5
Frame Material	Clear anodized aluminum frame
Thickness of Glass	3.2mm tempered glass
Frame	Anodized aluminum alloy
Laminating Material	EVA (Light transmittance more than 92%)
Backsheet Material	TPT (High weather resistance)
Junction Box	Ip65 (1500V system voltage available)
Output cable	90cm 2x4.0mm² MC4 connector
Bus Bar	5BB

Nominal Operating Cell Temperature (NOTC)	45±2°C
Temperature Coefficient of Pmax	-0.37%/°C
Temperature Coefficient of Voc	-0.29%/°C
Temperature Coefficient of Isc	-0.048%/°C

I-V CURVE



- Sun:1200, Vmp:18.02, Pmax 211.742
- Sun:1000, Vmp:18.704, Pmax: 190.107
- Sun:800, Vmp:18.798, Pmax: 154.025
- Sun:600, Vmp:18.755, Pmax 114.901
- Sun:400, Vmp:18.656, Pmax:76.138
- Sun:200, Vmp:18.245, Pmax:36.025