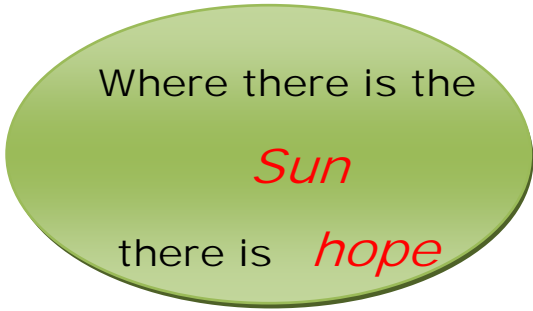


Solar Modules

- HBM(315W)19698m
- HBM(310W)19698m
- HBM(290W)19698m
- HBM (280W)19698m

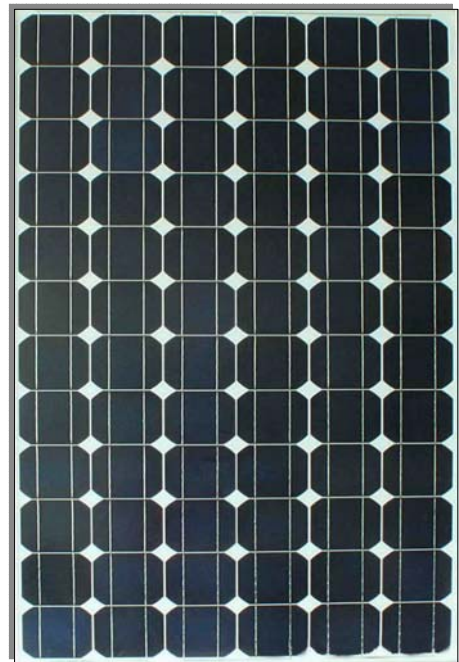


Features

- 72 mono crystalline cells connected in series
- High module conversion efficiency, through superior manufacturing technology
- Entire module certified to withstand wind loads (2400 Pascal) and snow loads (5400 Pascal)
- Anodized aluminum is mainly for improving corrosion resistance
- Highly transparent, low-iron, tempered glass and antireflective coating

Benefits

- 25 years transferrable power output warranty, 25 year/80%
- Product liability insurance
- Enhanced design for easy installation and long term reliability



Certifications

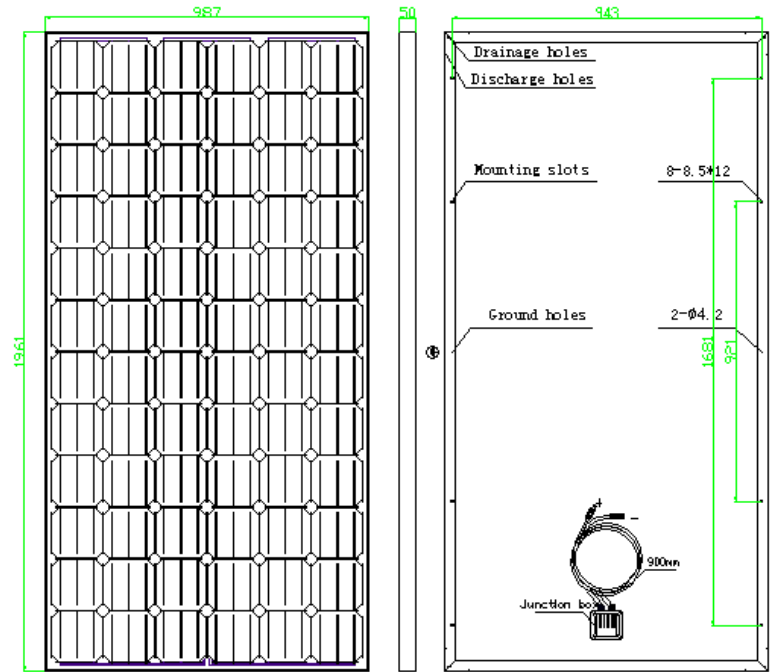
ISO9001 IEC61215 IEC61730 CE CEC

Electrical Specifications

Module type	HBM(315W)19698m	HBM(310W)19698m	HBM(300W)19698m	HBM(280W)19698m
Maximum power voltage(Vmp)	37.5 V	37.4 V	37.4 V	36.2 V
Maximum power current(Imp)	8.4 A	8.28 A	8.02 A	7.75 A
Short circuit current(Isc)	8.94 A	8.92 A	8.66 A	8.42 A
Open circuit voltage(Voc)	45.4 V	45.3 V	45.1 V	44.2 V
Peak power(Pmax)	315W	310W	300W	280W
Cell Efficiency	18.9%	18.6%	18.0%	16.8%
Module Efficiency	16.27%	16.02 %	15.50%	14.47%
Series fuse rating(A)	15A			
Normal Operating Cell Temperature	47±2℃			
Maximum system voltage	DC 1000V			
Number of bypass diode	3			

Mechanical Specifications

Cell type	Monocrystalline 156*156mm
No. of cells	72cells in series
Weight	25kg
Dimensions	1961*987*50mm
Max Load	5400Pascals
Glass Size	1955*981*4.0mm
Junction box	IP65 rated
	Cross section 4.0mm ²
Output cables	Length(+/-) 900mm
	MC plug type

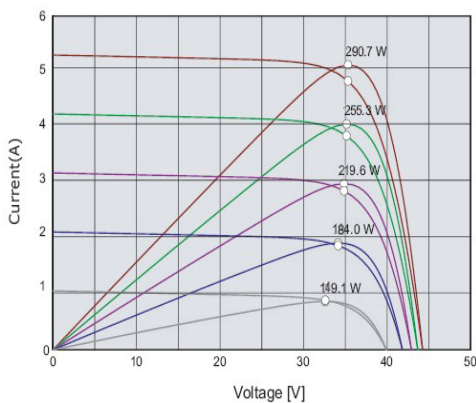


Temperature Coefficient

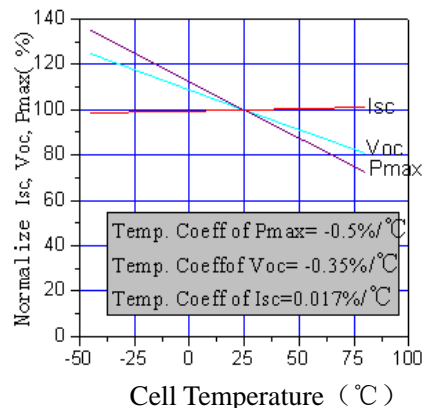
Temp. Coeff. of Isc	0.017%/°C
Temp. Coeff. of Voc	-0.35%/°C
Temp. Coeff. of Pmax	-0.5%/°C
Power Tolerance	±3%

Electrical Characteristics

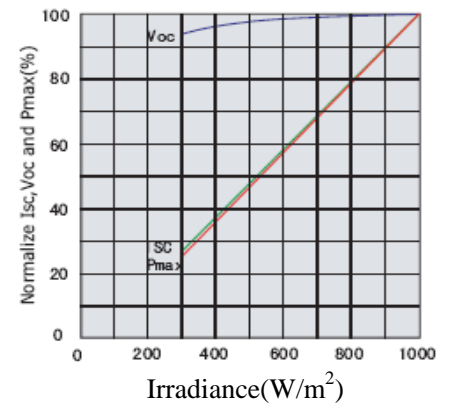
Electrical performance
(cell temperature:25 °C)



Temperature dependence of Isc,
Voc and Pmax



Irradiance dependence of Isc,
Voc and Pmax (Cell Temp:25 °C)



— 1000 W/m² — 800 W/m² — 600 W/m² — 400 W/m² — 200 W/m²

Note: the specifications are obtained under the Standard Test Conditions (STCs): 1000w/m² solar irradiance, 1.5 Air Mass, and cell temperature of 25°C.

Please contact jishubu@hopesolar.com.cn for technical support. The parameters are for reference only, and are subject to change without notice or obligation.