

➤ **High-efficiency & low-attenuation**

Using advanced silicon wafer and battery technology, we can achieve high-efficiency monocrystalline modules with attenuation below 2% within one year.

➤ **Good power generation performance in shaded conditions**

A specially designed battery and components reduce shadow occlusion-related power loss.

➤ **Strong resistance to hot spots**

The local temperature rise caused by hot spots is significantly reduced by a lower internal current.

➤ **Adapt to high temperature and high radiation environment**

High-irradiation and high-temperature areas produce the greatest power generation gains.



✚ **Increase package power**

With its low current characteristics, it increases the package power of the module by 5-10W and significantly reduces the electrical transmission loss after the system is installed. There is a potential for a 2%-3% increase in the annual power generation, based on the experimental data.

✚ **Reduce hot spot damage**

By taking advantage of the low current characteristics of half-cell modules, you can reduce the risk of hot spots, increase the service life of the modules, and prevent shadow damage to the modules, and they are more suitable for use on roofs.

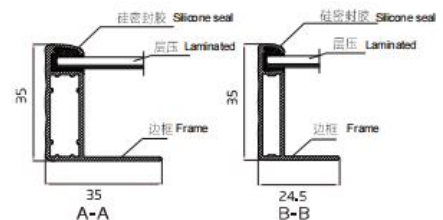
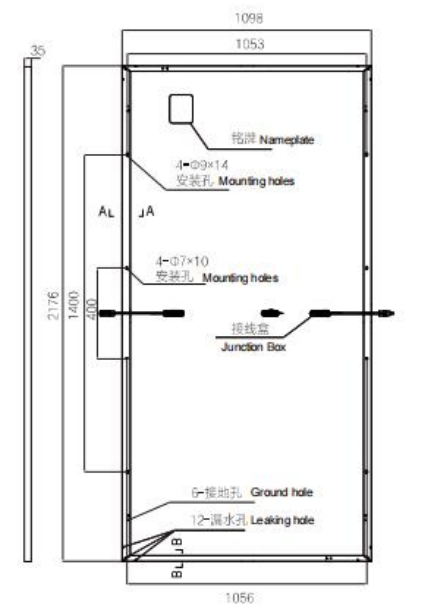
✚ **Reduce heat, reduce temperature**

When current flows through a component's solder ribbon, it will cause Joule heating. As a result of half-slicing, the current will be half that of the conventional component, reducing the Joule heat and lowering the temperature by 1-2 ° C. Experiments show that the component can generate 1% more power per watt.

✚ **Reduce power loss when blocked**

When the component is partially blocked in parallel or series circuit design, the power generation loss is reduced by up to 50%.

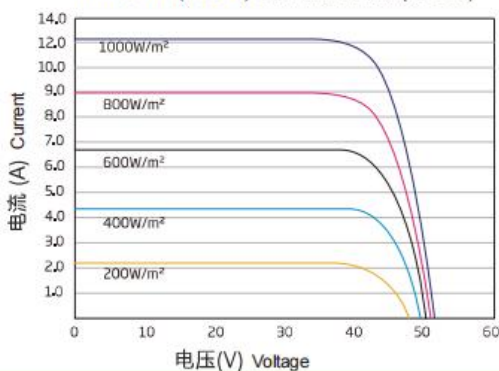
Module	FS-DE18M				
Pmax	480W	485W	490W	495W	500W
Size and no. of cells	210*70mm 150Pcs/5*30				
Tolerance	0~ +5W				
Vmp(V)	42.00	42.20	42.40	42.60	42.80
Imp(A)	11.42	11.49	11.56	11.63	11.69
Voc(V)	50.80	51.10	51.30	51.50	51.70
Isc(A)	11.99	12.07	12.14	12.21	12.28
Max.Oper.Voltage	1500V				
Glass	2.5mm high permeability, anti-reflective coating tempering glass				
Dimension	2176*1098*35mm				
Weight	26.3kg				
Operate Temp.	-40 ~ +85℃				
Warranty	10-year product warranty, 11-30-year linear power guarantee				
STC	Irradiance 1000W/m ² , module temperature 25℃, AM=1.5				



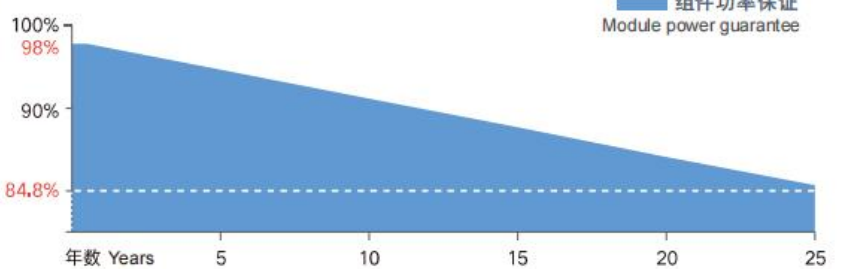
Mechanical parameter

Solar cell	Monocrystalline
Glass	3.2mm high transmission rate tempered glass
Encapsulation material	EVA
Backsheet	White
Frame	35mm Anodized aluminum alloy
Junction box	IP68
Cables	4.0mm ² PV Cable Vertical installation: negative wires 280mm/positive wires 280mm Transverse installation: negative wires 1400mm/Positive wires 1400mm
Connectors	TS4 / MC4-EV02

I-V curve(490W) 组件的I-V曲线 (490W)



保证功率 Guaranteed power

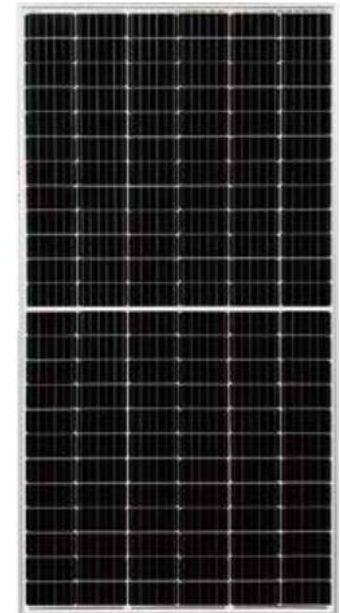


Linear Power Guarantee线性功率保证

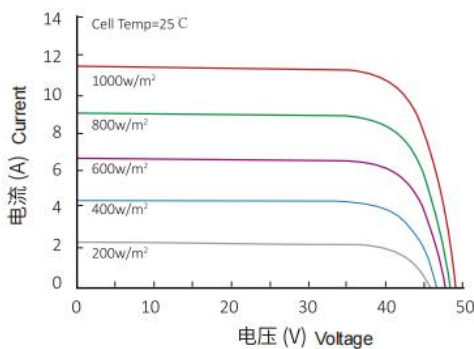
Module	FS-M-330W
Pmax	330W
Size and number of cells	156*78mm 120Pcs/6*20
Tolerance	± 3%
Vmp	33.9V
Imp	10.03A
Voc	41.4V
Isc	10.44A
Max.Syst.Oper.Voltage	1000V
Dioders	3 by-pass / 6 by-pass
Dimension	1685*992*35mm
Weight	18.5kg
Operate Temp.	-40 ~ +85 °C
Relative humidity	0 to 100%
Resistances	227g steel ball falls down from 1m high and 60m/s wind speed
Warranty	Pm is not than 90% in 10years and 80% in 25years.
STC	Irradiance 1000W/m ² , module temperature 25 °C, AM=1.5



Module	FS-M-425-455W						
Pmax	425W	430W	435W	440W	445W	450W	455W
Size and number of cells	166*83mm 144Pcs / 6*24						
Tolerance	0~ +5W						
Vmp(V)	40.50	40.70	40.90	41.10	41.30	41.50	41.70
Imp(A)	10.50	10.57	10.64	10.71	10.78	10.85	10.92
Voc(V)	48.30	48.50	48.70	48.90	49.10	49.30	49.50
Isc(A)	11.23	11.31	11.39	11.46	11.53	11.60	11.66
Max.Syst.Oper.Voltage	1500V						
Glass	2.5mm high permeability, anti-reflective coating tempering glass 2.5mm						
Dimension	2094*1038*35mm						
Weight	23.5kg						
Operate Temp.	-40 ~ +85 °C						
Warranty	10-year product warranty, 30-year linear power guarantee						
STC	Irradiance 1000W/m ² , module temperature 25 °C, AM=1.5						



I-V curve(490W) 电流—电压曲线 (LR4-72HPH 440M)



Linear Power Guarantee线性功率保证

