



# M6

## Bifacial 144 cells (glass-glass type)

Power Output (STC): **455-475 Watt**  
Max. Efficiency (STC): **21.26%**



### High Mechanical Load

Certified to withstand high wind and snow loads up to 5400Pa



### Enhanced Performances

Bifacial feature allows a power boost up to 20% vs monofacial



### Lower LCOE

Higher power output over the long term increases projects ROI



### Excellent Low-Light Performance

Tier 1 certified solar cells allows better performance in low-light environments



### Ideal for Large Scale Installations

Lower installations time and BOS (Balance of Systems) costs



### Salt Mist and Ammonia Resistant

Certified by Bureau Veritas to withstand usage near coastal environments



### PID resistant

Designed to minimise cell degradation in extreme environments



## Secure Investment

Upsolar provides exceptional product coverage for all HJT modules to ensure our customers achieve superior long-term value from their solar installations. To further improve our product warranty, which covers unanticipated module damage, we've recently expanded our terms from a 12-year period to a 25-year period.

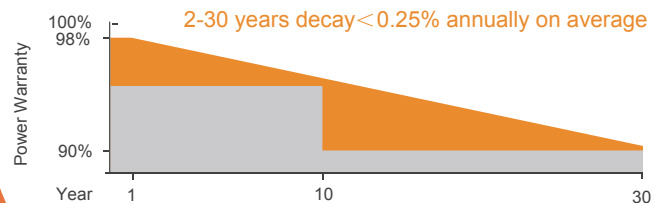
In addition, Upsolar offers a 30-year performance guarantee known as the Linear Module Warranty. Whereas traditional policies feature a single trigger point leading to drastic coverage reductions after just 12 years, Upsolar's coverage more accurately corresponds to system performance, providing coverage for over 25-years.

Overall, our goal is to deliver not only top-notch modules, but also peace of mind, for decades to come.

\*Upsolar has expanded its manufacturing operations in Asia, Europe and North America, keeping its modules duty-free in the event of new CVD or AD policies. Please ask about pricing, payment terms and conditions to meet your needs.

**30** Linear Peak Power  
**YEARS** Warranty Coverage

**+25 Year Product Guarantee**



# Bifacial Series | Mono 166 144 cells

## Electrical Characteristics at STC

STC: Irradiance 1,000 W/m<sup>2</sup>, Module temperature 25°C, AM=1.5

MODEL	UP-B455HH-G (72M6)	UP-B460HH-G (72M6)	UP-B465HH-G (72M6)	UP-B470HH-G (72M6)	UP-B475HH-G (72M6)
Max Power P <sub>m</sub> at STC (Wp)	455	460	465	470	475
Max Power Voltage V <sub>m</sub> (V)	45.10	45.30	45.50	45.70	45.90
Max Power Current I <sub>m</sub> (A)	10.09	10.15	10.22	10.28	10.35
Open-Circuit Voltage Voc (V)	53.05	53.35	53.65	53.95	54.25
Short-Circuit Current I <sub>sc</sub> (A)	10.90	10.94	10.98	11.02	11.06
Module Efficiency (STC)	20.36%	20.59%	20.81%	21.04%	21.26%
Bifacial Factor	0.70+/-0.05				

## Bifacial Output-rearside Power Gain

5%	Max Power P <sub>m</sub> (STC)	478	483	488	494	499
	Module Efficiency (STC)	21.38%	21.62%	21.85%	22.09%	22.32%
15%	Max Power P <sub>m</sub> (STC)	523	529	535	541	546
	Module Efficiency (STC)	23.42%	23.68%	23.93%	24.19%	24.45%
25%	Max Power P <sub>m</sub> (STC)	569	575	581	588	594
	Module Efficiency (STC)	25.45%	25.73%	26.01%	26.29%	26.57%

## Components & Additional Data

Power tolerance	0/+3%
Front Glass	High Transparency Tempered Glass 0.078" // 2.0 mm
Junction Box	IP 67 or above
Output Cables	0.3m // IEC/ UL approved (4 mm <sup>2</sup> , 12AWG) (PV Wire Type)
Connectors	MC4 compatible (IP67, IEC and UL approved)
Frame	Anodized aluminium alloy type 6063-T5
Encapsulation Material	EVA
Back Sheet	High Transparency Tempered Glass 0.078" // 2.0 mm
Temperature Range	-40°F to +185°F // -40°C to +85°C
Series fuse rating	20A
Maximum system voltage	1,500V (IEC/UL)

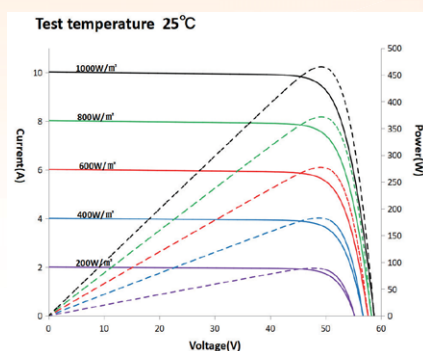
## Specifications

Cells	HJT bifacial solar cells 166 x 83
Number of Cells	144 (6 x 24)
Dimensions ( in // mm )	83.94 x 41.26 x 1.18 // 2132 x 1048 x 30
Weight ( lb // kg )	63.9 // 29.0

## Temperature Coefficients

NOCT ( °C )	45 ± 2
Temperature Coefficients of I <sub>sc</sub> ( % / °C )	0.05 ± 0.01
Temperature Coefficients of Voc ( % / °C )	-0.22 ± 0.02
Temperature Coefficients of I <sub>m</sub> ( % / °C )	-0.02 ± 0.02
Temperature Coefficients of V <sub>m</sub> ( % / °C )	-0.25 ± 0.03
Temperature Coefficients of P <sub>m</sub> ( % / °C )	-0.24 ± 0.05

## IV Curves



## Options Available

Frameless option available  
Transparent backsheet option available

