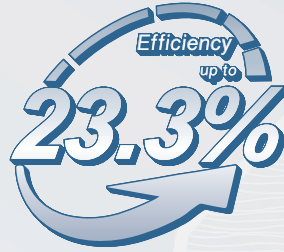


# Everest G12R Series 440-465W

**96-cell** Bifacial HJT Half-cell  
Double-glass Solar Module



### HJT-0BB Technology

Shorter current transport path, better low-light performance, and higher power generation.



### Sealing with PIB

Stronger moisture resistance, greater air impermeability to extend module lifespan.



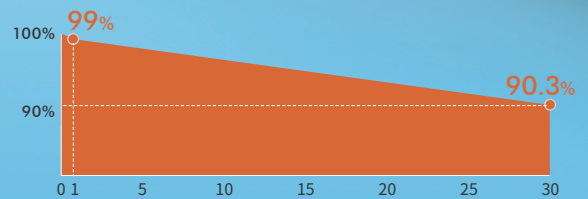
### Ideal Choice for Residential Roofs

Ideal size and high efficiency, designed for residential rooftop projects.



#### Complete System and Product Certifications:

- IEC61215, IEC61730
- ISO9001: 2015 Quality Management System
- ISO14001: 2015 Environment Management System
- ISO45001: 2018 Occupational Health and Safety
- IEC62941: 2019 Terrestrial Photovoltaic (PV) Modules-quality System for PV Module Manufacturing
- IEC/TS62994: 2019 Photovoltaic (PV) Modules Through the Life Cycle-environmental Health and Safety (EH&S) Risk Assessment-general Principles and Nomenclature

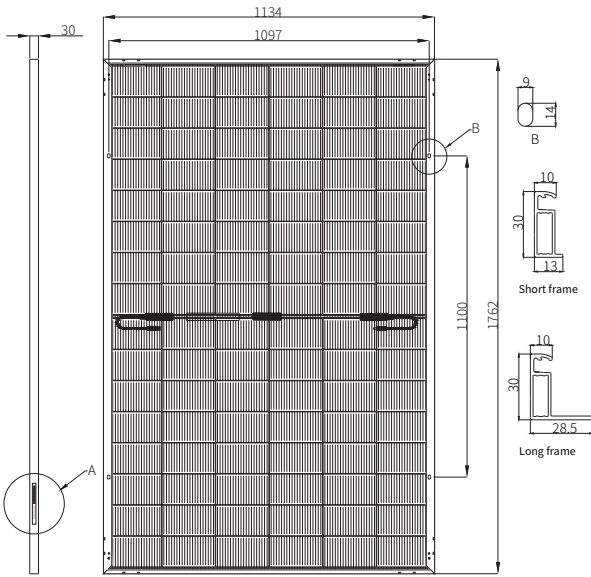


\* First year power degradation  $\leq 1\%$   
 \* Annual power degradation (2-30 year)  $\leq 0.3\%$   
 \* Power output until the 30th year  $\geq 90.3\%$

- BloombergNEF Tier 1 PV module manufacturer
- Reinsurance underwritten by Ariel Re

## Engineering Drawings

Unit: mm



## Mechanical Characteristics

Cell Type	HJT
No. of Cells	96 (6x16)
Dimensions	1762x1134x30mm
Weight	21.6 kg
Junction Box	IP68
Cable	4mm <sup>2</sup> ; 1250mm or customized; UV resistant
Connector	MC4 / MC4-Evo2 / MC4-Evo2A / PV-H4 / Z4S-abcd / PV-ZH202B
Frame	Anodized aluminum alloy frame
Max Static Load (front side/rear side)	5400Pa / 2400Pa
Glass	Dual glass, 1.6mm

## Electrical Characteristics

### STC

HSN-210R-B96	DS440	DS445	DS450	DS455	DS460	DS465
Maximum Power (Pmax/W)	440	445	450	455	460	465
Module Efficiency (%)	22.0	22.3	22.5	22.8	23.0	23.3
Voltage at Pmax (Vmp/V)	30.61	30.72	30.83	30.94	31.05	31.16
Current at Pmax (Imp/A)	14.38	14.49	14.60	14.71	14.82	14.93
Open Circuit Voltage (Voc/V)	36.52	36.62	36.72	36.82	36.92	37.02
Short Circuit Current (Isc/A)	15.31	15.42	15.53	15.64	15.75	15.86

STC: AM1.5, 1000W/m<sup>2</sup>, 25°C.

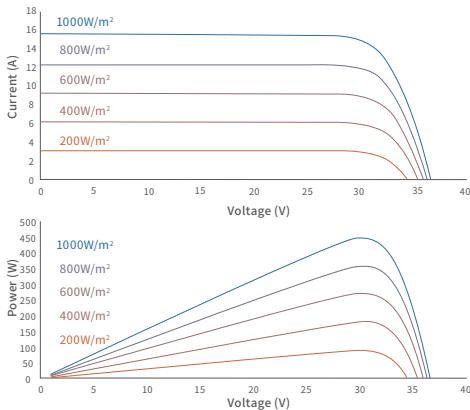
### BNPI

Maximum Power (Pmax/W)	493	499	504	510	515	521
Voltage at Pmax (Vmp/V)	30.72	30.83	30.94	31.05	31.16	31.27
Current at Pmax (Imp/A)	16.07	16.19	16.31	16.44	16.56	16.68
Open Circuit Voltage (Voc/V)	36.65	36.75	36.85	36.95	37.05	37.15
Short Circuit Current (Isc/A)	17.17	17.29	17.42	17.54	17.66	17.79

BNPI: AM1.5, 1000W/m<sup>2</sup>, 135W/m<sup>2</sup>, 25°C.

## I-V Curve

(HSN-210R-B96DS445)



## Temperature Coefficients

Temperature Coefficient of Pmax	-0.24%/°C
Temperature Coefficient of Voc	-0.22%/°C
Temperature Coefficient of Isc	+0.04%/°C

## Operating Conditions

Nominal Operating Cell Temp.	44±2°C
Operating Temperature	-40~+85°C
Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	30A
Tolerance of Pmax	0~+3%
Power Selection	0~+5W
Bifaciality	90±5%
Safety Class	Class II

## NOCT

Maximum Power (Pmax/W)	335	339	343	347	351	355
Voltage at Pmax (Vmp/V)	29.23	29.34	29.45	29.55	29.65	29.76
Current at Pmax (Imp/A)	11.49	11.58	11.67	11.76	11.84	11.93
Open Circuit Voltage (Voc/V)	34.86	34.95	35.05	35.14	35.24	35.33
Short Circuit Current (Isc/A)	12.24	12.32	12.41	12.50	12.59	12.68

NOCT: AM1.5, 800W/m<sup>2</sup>, 20°C, 1m/s.

## Packaging

	40HQ
Modules Per Pallet	36
Pallets Per Container	26
Modules Per Container	936



ANHUI HUASUN ENERGY CO., LTD. All rights reserved © 2020-2024

NO.99 Qingliu Road, Economic and Technological Development Zone, Xuancheng, Anhui, China  
 Tel: 0086-563-3318095 www.huasunsolar.com  
 sales@huasunsolar.com customerservice@huasunsolar.com

With the development of technology and the iterative updating of products, the technical specification of products released by HUASUN in the future may differ from those listed in this datasheet. HUASUN reserves the right to change the technical specification of the products at any time without prior notice, and the technical specification of the products ordered by the customers are subject to the technical specification agreed upon in the legally binding contract signed by both parties. The final interpretation of the datasheet is reserved by HUASUN.