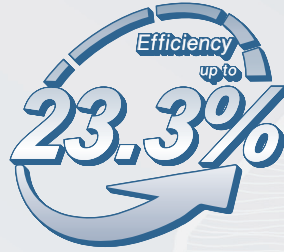


# Everest G12R Series 440-465W

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



**HJT 3.0** HJT-0BB Technology  
Better current collection, better low-light performance, and higher power generation.



**Sealing with PIB**  
Stronger moisture resistance, greater air impermeability to extend module lifespan.



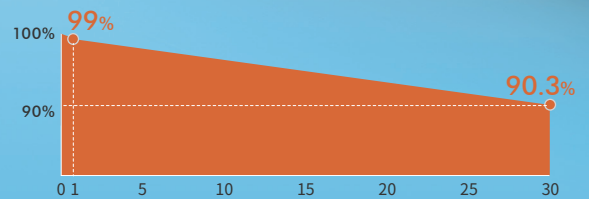
**Ideal Choice for Residential Roofs**  
Ideal size and high efficiency, designed for residential rooftop projects.



\*Refer to (Limited Warranty for Heterojunction Photovoltaic Modules)

### 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

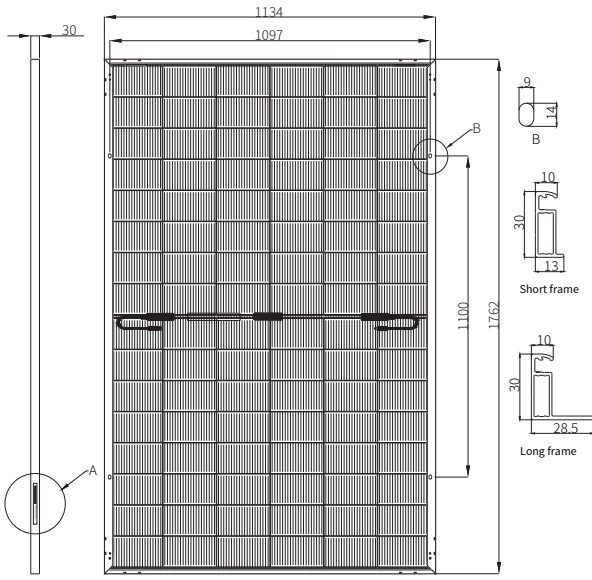


\* First year power degradation  $\leq 1\%$   
 \* Annual power degradation (2-30 year)  $\leq 0.3\%$   
 \* Power output until the 30th year  $\geq 90.3\%$

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

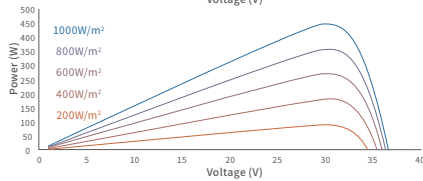
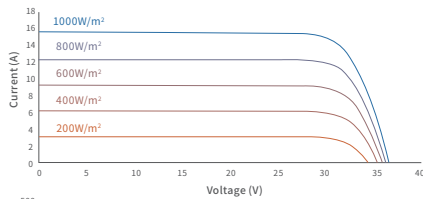
## Engineering Drawings

Unit: mm



## 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
Bifacial Gain	10~15%
Bifaciality coefficient of Pmax	90±5%
Bifaciality coefficient of Voc	95~100%
Bifaciality coefficient of Isc	90±5%
Safety Class	Class II
Fire Safety Class	Class C according to UL790

## Mechanical Characteristics

Cell Type	HJT
No. of Cells	96 (6x16)
Dimensions	1762x1134x30mm
Weight	21.8 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
Connector Manufacturer	Stäubli/huayu/Zerun/Zhonghuan
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.

### 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



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