

Everest G12R Series 440-465W

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

Efficiency
up to
23.3%



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

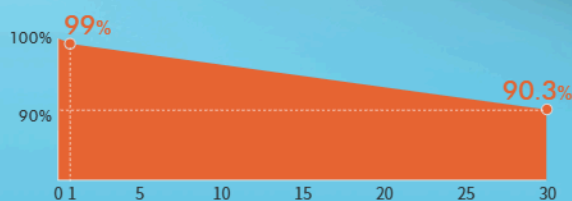
ISO9001: 2015 Quality Management System

ISO14001: 2015 Environment Management System

ISO45001: 2018 Occupational Health and Safety

IEC62941: 2019 Terrestrial Photovoltaic (PV) Modules-quality System for PV Module Manufacturing

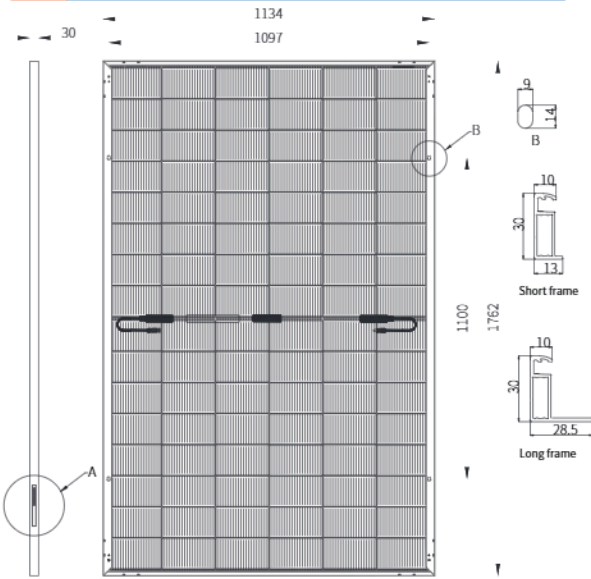
IEC/TS62994: 2019 Photovoltaic (PV) Modules Through the Life Cycle-environmental Health and Safety (EH&S) Risk Assessment-general Principles and Nomenclature



* First year power degradation ~ 1%
* Annual power degradation (2-30 year) < 0.3%
* Power output until the 30th year 90.3%

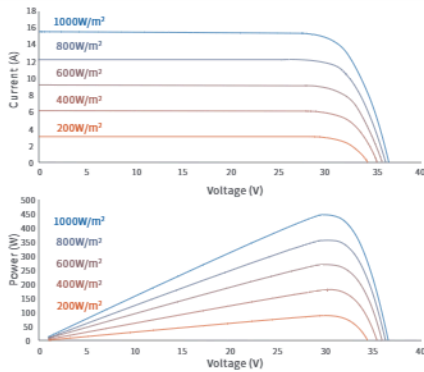
Engineering Drawings

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	4mm²; 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/m², 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/m², 135W/m², 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/m², 20°C, 1m/s.

Packaging

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



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