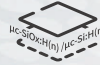


UNI H

UE460H-54HBD

N-type HJT Bifacial Black Frame Dual Glass Solar Module



HJT 2.0 Technology

Combining gettering process and single-side μ -Si technology to ensure higher cell efficiency and higher module power.



-0.26%/°C Pmax temperature coefficient

More stable power generation performance and even better in hot climate.



SMBB design with Half-Cut Technology

Shorter current transmission distance, less resistive loss and higher cell efficiency.



Up to 90% Bifaciality

Natural symmetrical bifacial structure bringing more energy yield from the backside.



Sealing with PIB based sealant

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

440-460W



Quality Management System and Product Certification

IEC 61215, IEC 61730, UL 61730

ISO9001: 2015: ISO Quality Management System.

ISO14001: 2015: ISO Environmental Management System.

ISO45001: 2018: Occupation Health and Safety.

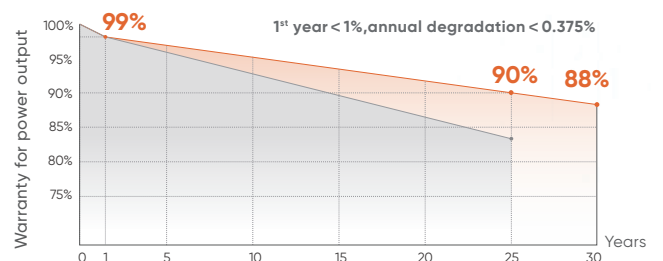
IEC62941: Guideline for module design qualification and type approval.



Quality Guarantee

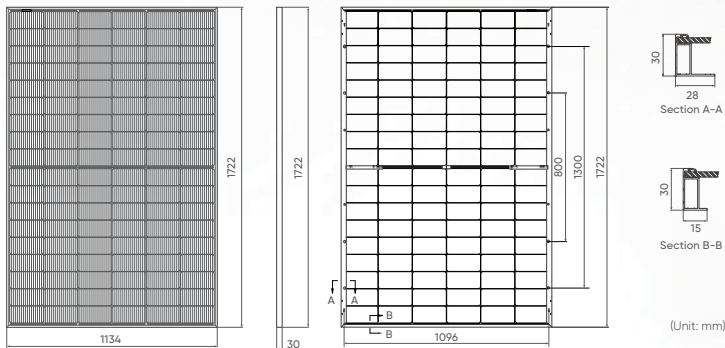
15 Year Materials Warranty

30 Year Power Warranty

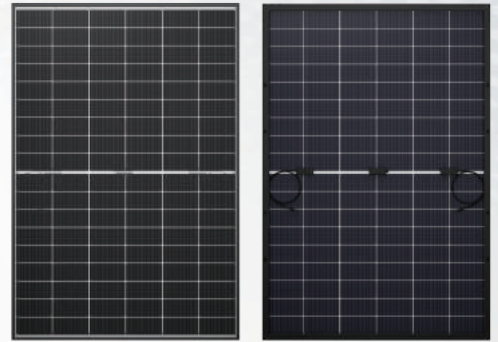


Less than 1% attenuation in the 1st year, the annual attenuation from the 2nd year is no more than 0.375%, and the power is no less than 88% until the 30th year.

Drawings



Product Image



Mechanical Characteristics

Solar Cells	HJT Mono 182×91.75mm
No. of Cells	108 (6×18)
Dimensions	1722 × 1134 × 30mm
Weight	23.5kg
Glass Thickness	(F) 2.0mm anti-reflective solar glass (B) 2.0mm solar glass
Frame	Anodized aluminium alloy
Junction Box	IP68
Output Cables	4mm ² , 300mm in length, length can be customized / UV resistant
Connectors	MC4 original /MC4 compatible
Mechanical load test	5400Pa
Packaging	36pcs/box, 936pcs/40'HQ

Operating Characteristics

Operating Module Temperature	-40°C ~ +85°C
Maximum System Voltage	DC 1500 (IEC)
Maximum Series Fuse Rating	30A
Power Tolerance	0~+5W
Bifaciality	85%±5%

Temperature Characteristics

Nominal Operating Cell Temp. (NOCT)	44±2°C
Temperature Coefficient of Pmax	-0.26%/°C
Temperature Coefficient of Voc	-0.24%/°C
Temperature Coefficient of Isc	0.04%/°C

Electrical Parameters (STC*)

Module Type:	440	445	450	455	460
Maximum Power (Pmax/W)	440	445	450	455	460
Module Efficiency (%)	22.53	22.78	23.04	23.30	23.56
Optimum Operating Voltage (Vmp/V)	35.12	35.38	35.64	35.89	36.13
Optimum Operating Current (Imp/A)	12.53	12.58	12.63	12.68	12.73
Open Circuit Voltage (Voc/V)	41.91	42.18	42.44	42.70	42.96
Short Circuit Current (Isc/A)	13.05	13.10	13.15	13.20	13.25

BSTC*

Maximum Power (Pmax/W)	473	479	484	489.5	495
Optimum Operating Voltage (Vmp/V)	34.60	34.86	35.12	35.38	35.63
Optimum Operating Current (Imp/A)	13.67	13.73	13.78	13.84	13.89
Open Circuit Voltage (Voc/V)	41.37	41.64	41.91	42.18	42.44
Short Circuit Current (Isc/A)	14.25	14.30	14.35	14.41	14.47

*STC: Irradiance 1000 W/m², cell temperature 25°C, AM=1.5. Tolerance of Pmax is within +/- 3%.

*BSTC: Front side irradiation 1000W/m², back side reflection irradiation 135W/m², AM=1.5, ambient temperature 25°C.