







Haitai TaiHe2.0 (182)

HTM460~480DMH5-60 NT TOPCon Bifacial high efficiency PV module

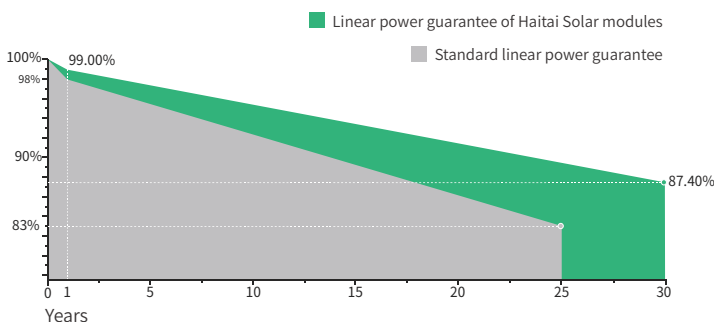
22.17%

PRODUCT FEATURES


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High Power Output
 N-type MBB half cut technology, improve energy density, bring higher power output.
 High Bifacial Factor, up to 25% extra power generation
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High Durability
 Passed TUV Salt & Ammonia corrosion test, and 2400Pa wind load, 5400Pa snow load test, higher reliability
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Better Low Light Performance
 Higher power generation compare with standard module in cloudy, foggy and low light condition


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Low Power Degradation
 First year power degradation <1.0%, year 2-30 power degradation <0.40% each year
- 
Low Temperature coefficient
 Passivated contact cell technology for higher power generation in operating
- 
Better Anti-LID
 N-type cells with boron-oxide-free composite LID to increase module power generation

LINEAR PERFORMANCE WARRANTY



 12 YEARS product warranty

 30 YEARS linear power warranty

 0.40% Linear attenuation of 0.40% per year within 30 years

CERTIFICATES

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality Management System
- ISO 14001: 2015 Environment Management System
- ISO 45001: 2018 Occupational health and safety management systems
- IEC62941:2019 Photovoltaic Module Manufacturer Quality Management System



Electrical Data (STC)

Maximum Power (Pmax/W)	460	465	470	475	480
Open Circuit Voltage (Voc/V)	42.18	42.33	42.48	42.63	42.78
Short Circuit Current (Isc/A)	13.63	13.73	13.83	13.93	14.03
Voltage at Maximum Power (Vmp/V)	34.9	35.05	35.2	35.35	35.5
Current at Maximum Power (Imp/A)	13.19	13.27	13.36	13.44	13.53
Module Efficiency (%)	21.25	21.48	21.71	21.94	22.17
Operating Temperature	-40° C~+85° C				
Maximum System Voltage	1000/1500V				
STC (Standard Testing Conditions): Irradiance 1000W/m ² , Cell Temperature 25°C, AM1.5					

Electrical Data (NMOT)

Maximum Power (Pmax/W)	346	350	354	358	362
Open Circuit Voltage (Voc/V)	40.04	40.19	40.34	40.49	40.64
Short Circuit Current (Isc/A)	11.15	11.24	11.32	11.41	11.49
Voltage at Maximum Power (Vmp/V)	32.84	32.99	33.14	33.29	33.44
Current at Maximum Power (Imp/A)	10.54	10.61	10.69	10.76	10.83
NMOT (Nominal Module Operating Temperature): Irradiance 800W/m ² , Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s.					

Bifacial Power Generation Parameters (Backside Gains)

5%	Maximum Power (Pmax/W)	483	488	494	499	504
	Module Efficiency (%)	22.31	22.55	22.80	23.04	23.28
15%	Maximum Power (Pmax/W)	529	535	541	546	552
	Module Efficiency (%)	24.44	24.70	24.97	25.23	25.50
25%	Maximum Power (Pmax/W)	575	581	588	594	600
	Module Efficiency (%)	26.56	26.85	27.14	27.43	27.72

Mechanical Data

Cell Type	182×91mm Mono
Cell Orientation	120(6×20)
Module Dimensions	1909×1134×30mm
Weight	27.5kg
Glass	2.0mm high transmittance, reinforced glass
Backsheet	2.0mm part of the structure is grid-like white ceramic glass
Frame Material	Anodized aluminum alloy
Junction Box	Protection class IP68
Cable	4.0 mm ² positive pole: 200 mm negative pole: 250 mm wire length can be customized
Connector	MC4 compatible connector

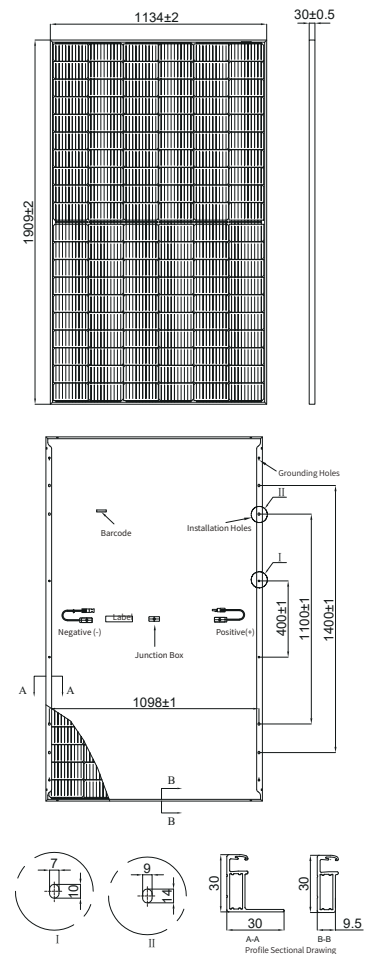
Temperature Coefficients

Temperature Coefficient (Pm)	-0.300%/°C
Temperature Coefficient (Voc)	-0.250%/°C
Temperature Coefficient (Isc)	0.046%/°C
NMOT (Nominal Module Operating Temperature)	41±3°C

Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	864 pcs	36 pcs +36 pcs

Module Dimensions (mm)



I-V Curve

