

# Haitai TaiHe 166

## HTM440~460DMH3-72

Bifacial high efficiency mono PV module

**21.16%**

Module Efficiency 21.16%

### PRODUCT FEATURES

**High Efficiency**  
 Power can be generated on both sides to support additional output gains of up to 25%.  
 The multi-busbar half-cut technology can boost energy density to deliver higher output.

**High Reliability**  
 Certified in TUV salt spray, ammonia corrosion, 2400Pa wind load and 5400Pa snow load testing. Highly reliable.

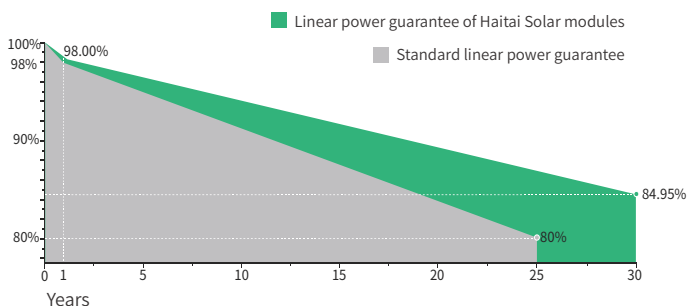
**High ROI**  
 Effectively reducing BOS costs to achieve lower LCOE and enhanced project profitability.

**Low Degradation**  
 First-year degradation is less than 2.0%, with linear degradation of 0.45% per year for 30 years.

**Low Risk of Hot Spot**  
 The next-generation cell technology and optimized circuit design adopted can support improved temperature coefficient and better hotspot resistance.

**Low Risk of Micro-Crack**  
 The multi-busbar technology contributes to more effective prevention of Micro crack and broken busbars.

### LINEAR PERFORMANCE WARRANTY



**12 YEARS** product warranty

**30 YEARS** linear power warranty

**0.45%** Linear attenuation of 0.45% per year within 30 years

### CERTIFICATES

- IEC 61215, IEC 61730
- ISO 9001: 2005 Quality Management System
- ISO 14001: 2015 Environment Management System
- ISO 45001: 2018 Occupational health and safety management systems



## Electrical Data (STC)

Maximum Power (Pmax/W)	440	445	450	455	460
Open Circuit Voltage (Voc/V)	49.08	49.28	49.48	49.68	49.88
Short Circuit Current (Isc/A)	11.39	11.46	11.53	11.59	11.66
Voltage at Maximum Power (Vmp/V)	40.54	40.74	40.94	41.14	41.34
Current at Maximum Power (Imp/A)	10.86	10.93	11.00	11.07	11.13
Module Efficiency (%)	20.24	20.47	20.70	20.93	21.16
Operating Temperature	-40° C~+85° C				
Maximum System Voltage	1000/1500V				
STC (Standard Testing Conditions): Irradiance 1000W/m <sup>2</sup> , Cell Temperature 25°C, AM1.5					

## Electrical Data (NMOT)

Maximum Power (Pmax/W)	328	332	336	340	344
Open Circuit Voltage (Voc/V)	45.01	45.21	45.41	45.61	45.81
Short Circuit Current (Isc/A)	9.46	9.54	9.61	9.67	9.74
Voltage at Maximum Power (Vmp/V)	37.34	37.54	37.74	37.94	38.14
Current at Maximum Power (Imp/A)	8.79	8.85	8.91	8.97	9.02

NMOT (Nominal Module Operating Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s.

## Bifacial Power Generation Parameters (Backside Gains)

5%	Maximum Power (Pmax/W)	462	467	473	478	483
	Module Efficiency (%)	21.26	21.50	21.74	21.98	22.22
15%	Maximum Power (Pmax/W)	506	512	518	523	529
	Module Efficiency (%)	23.28	23.54	23.81	24.07	24.34
25%	Maximum Power (Pmax/W)	550	556	563	569	575
	Module Efficiency (%)	25.30	25.59	25.88	26.17	26.45

## Mechanical Data

Cell Type	166×83mm Mono
Cell Orientation	144(6×24)
Module Dimensions	2094×1038×30mm
Weight	28.0kg
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 <sup>2</sup> positive pole: 200 mm negative pole: 250 mm wire length can be customized
Connector	MC4 compatible connector

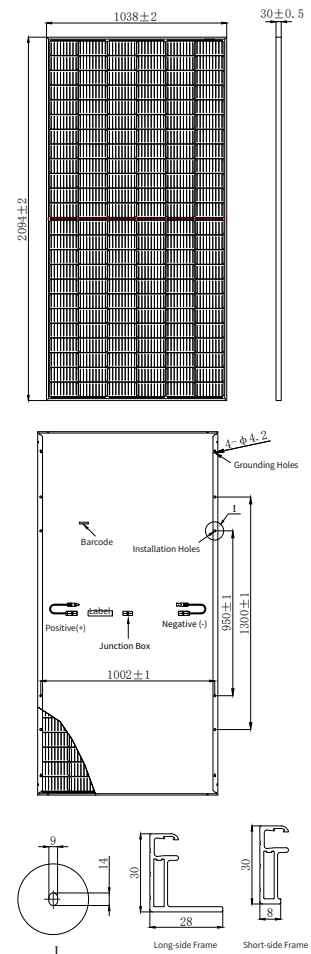
## Temperature Coefficients

Temperature Coefficient (Pm)	-0.340%/°C
Temperature Coefficient (Voc)	-0.270%/°C
Temperature Coefficient (Isc)	0.048%/°C
NMOT (Nominal Module Operating Temperature)	41±3°C

## Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	792pcs	36pcs +36pcs

## Module Dimensions (mm)



## I-V Curve

