

SOLARMOVIL en asociación con HAITAI SOLAR traen a Chile paneles solares de gran calidad, con altos estándares de fabricación reconocidos por la agencia bloomberg como Tier 1, TOP 13 en la industria de fotovoltaicos.



**BIFACIALES**



# CATÁLOGO DE TECNOLOGÍA FOTOVOLTAICA

PERC - MONOCRISTALINO -  
TOPCON - BIFACIALES



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**SOLARMOVIL**

# Haitai TaiHe 166

## HTM360~380DMH3-60

Bifacial high efficiency mono PV module

20.86%

Module Efficiency 20.86%

### 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

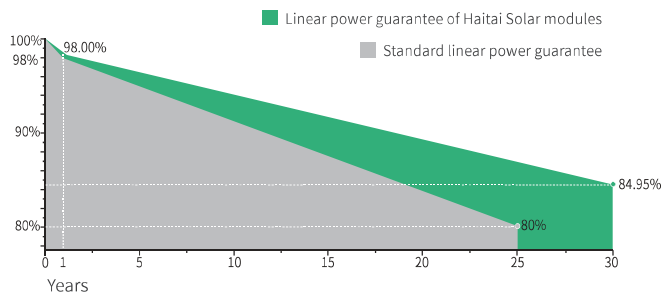
The next-generation cell technology and optimized circuit design adopted can support improved temperature coefficient and better hotspot resistance.



#### 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: 2015 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)	360	365	370	375	380
Open Circuit Voltage (Voc/V)	40.60	40.80	41.00	41.20	41.40
Short Circuit Current (Isc/A)	11.30	11.37	11.45	11.54	11.60
Voltage at Maximum Power (Vmp/V)	33.52	33.72	33.92	34.12	34.32
Current at Maximum Power (Imp/A)	10.75	10.83	10.92	11.00	11.08
Module Efficiency (%)	19.76	20.04	20.31	20.59	20.86
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)	267	271	275	279	283
Open Circuit Voltage (Voc/V)	37.29	37.49	37.69	37.89	38.09
Short Circuit Current (Isc/A)	9.36	9.44	9.51	9.59	9.65
Voltage at Maximum Power (Vmp/V)	30.74	30.94	31.14	31.34	31.54
Current at Maximum Power (Imp/A)	8.70	8.77	8.84	8.91	8.98

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)	378	383	389	394	399
	Module Efficiency (%)	20.75	21.04	21.33	21.61	21.90
15%	Maximum Power (Pmax/W)	414	420	426	431	437
	Module Efficiency (%)	22.73	23.04	23.36	23.67	23.99
25%	Maximum Power (Pmax/W)	450	456	463	469	475
	Module Efficiency (%)	24.70	25.05	25.39	25.73	26.07

## Mechanical Data

Cell Type	166×83mm Mono
Cell Orientation	120(6×20)
Module Dimensions	1755×1038×30mm
Weight	24.0kg
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

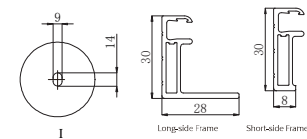
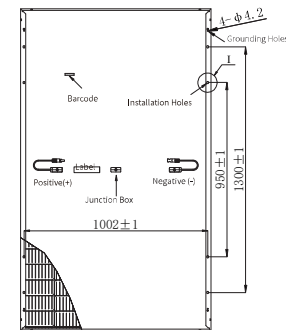
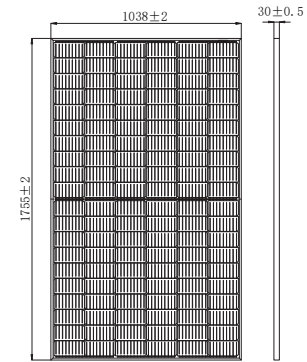
## Temperature Coefficients

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

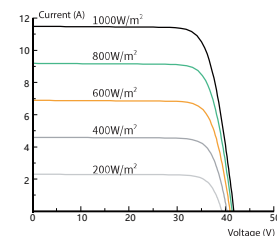
Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	864pcs	36pcs +36pcs

## Module Dimensions (mm)

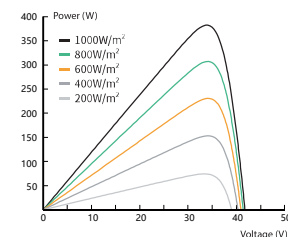


## I-V Curve

Current-Voltage Curve(380W)



Power-Voltage Curve(380W)



# 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

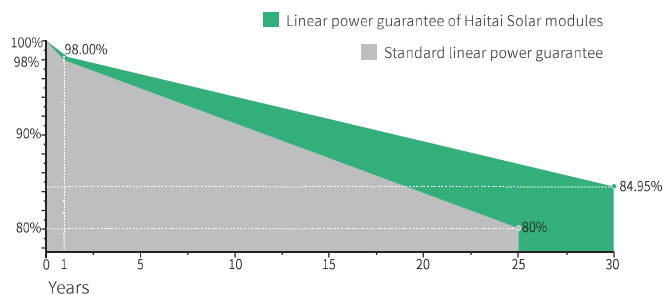
The next-generation cell technology and optimized circuit design adopted can support improved temperature coefficient and better hotspot resistance.



#### 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: 2015 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

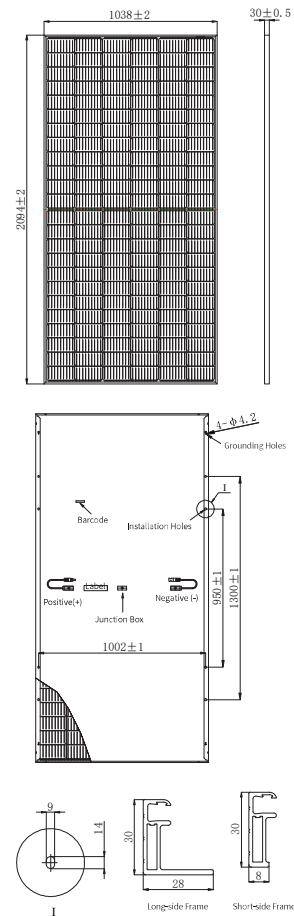
## Temperature Coefficients

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

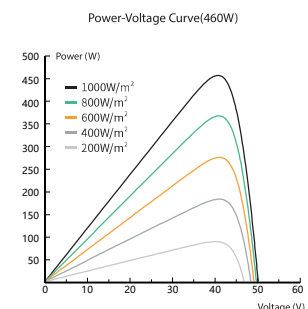
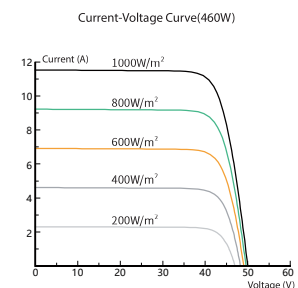
## Packaging

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

## Module Dimensions (mm)



## I-V Curve



# Haitai TaiHe 182

## HTM535~555DMH5-72

Bifacial high efficiency mono PV module

**21.48%**

Module Efficiency 21.48%

### 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

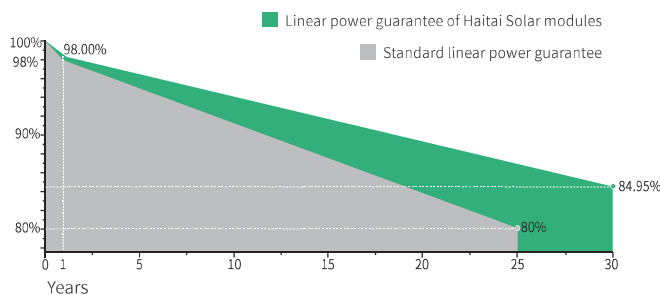
The next-generation cell technology and optimized circuit design adopted can support improved temperature coefficient and better hotspot resistance.



#### 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: 2015 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)	535	540	545	550	555
Open Circuit Voltage (Voc/V)	49.38	49.53	49.68	49.83	49.98
Short Circuit Current (Isc/A)	13.54	13.63	13.71	13.80	13.88
Voltage at Maximum Power (Vmp/V)	40.88	41.03	41.18	41.31	41.43
Current at Maximum Power (Imp/A)	13.10	13.17	13.24	13.32	13.40
Module Efficiency (%)	20.71	20.90	21.10	21.29	21.48
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)	400	404	408	412	416
Open Circuit Voltage (Voc/V)	45.41	45.56	45.71	45.85	46.00
Short Circuit Current (Isc/A)	11.29	11.37	11.44	11.53	11.60
Voltage at Maximum Power (Vmp/V)	37.64	37.79	37.94	38.05	38.17
Current at Maximum Power (Imp/A)	10.64	10.70	10.77	10.83	10.90
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)	562	567	572	578	583
	Module Efficiency (%)	21.75	21.95	22.15	22.36	22.56
15%	Maximum Power (Pmax/W)	615	621	627	633	638
	Module Efficiency (%)	23.82	24.04	24.26	24.48	24.71
25%	Maximum Power (Pmax/W)	669	675	681	688	694
	Module Efficiency (%)	25.89	26.13	26.37	26.61	26.86

## Mechanical Data

Cell Type	182×91mm Mono
Cell Orientation	144(6×24)
Module Dimensions	2278×1134×30mm
Weight	32.0kg
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

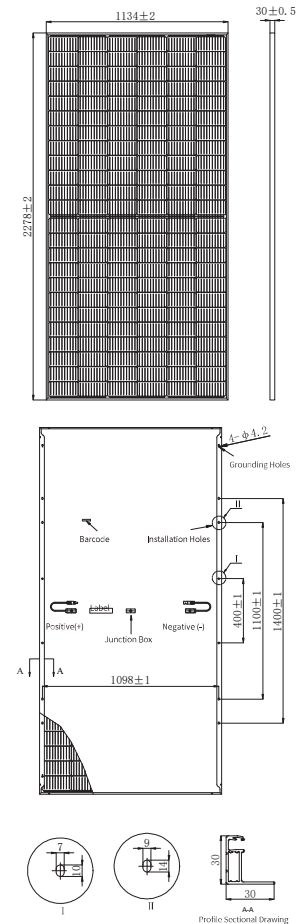
## Temperature Coefficients

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

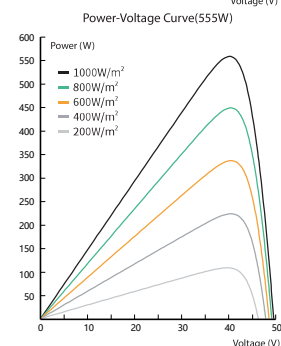
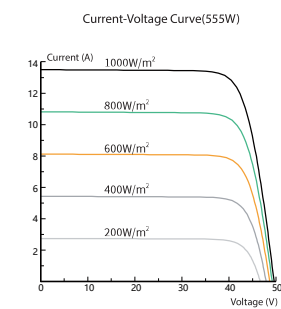
## Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	720 pcs	36 pcs +36 pcs

## Module Dimensions (mm)



## I-V Curve



# Haitai TaiHe 2.0 182

**HTM410~430DMH5-54NT**  
TOPCon Bifacial high efficiency PV module

**22.02%**

Module Efficiency 22.02%



## PRODUCT FEATURES



### Hi Power Output

N-type MBB half cut technology, improve energy density, bring higher power output.  
High Bifacial Factor, up to 25% extra power generation



### High Durability

Passed TUV Salt & Ammonia corrosion test, and 2400Pa wind load, 5400Pa snow load test, higher reliability



### Better Low Light Performance

Higher power generation compare with standard module in cloudy, foggy and low light condition



### Low Power Degradation

First year power degradation <1.0%, year 2-30 power degradation <0.40% each year



### Low Temperature coefficient

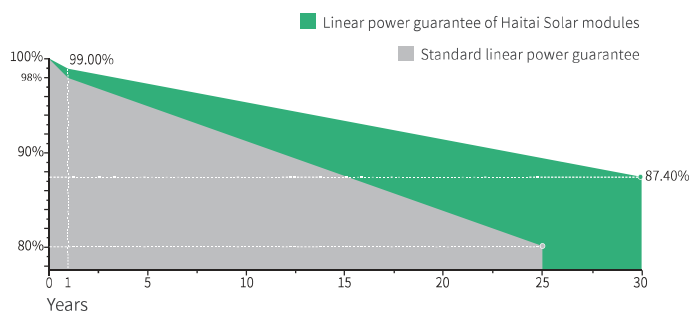
Passivated contact cell technology for higher power generation in operating



### Better Anti-PID

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



## Electrical Data (STC)

Maximum Power (Pmax/W)	410	415	420	425	430
Open Circuit Voltage (Voc/V)	37.90	38.05	38.20	38.35	38.50
Short Circuit Current (Isc/A)	13.52	13.63	13.74	13.85	13.96
Voltage at Maximum Power (Vmp/V)	31.35	31.50	31.65	31.80	31.95
Current at Maximum Power (Imp/A)	13.08	13.18	13.28	13.37	13.46
Module Efficiency (%)	21.00	21.25	21.51	21.76	22.02
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)	308	312	316	320	324
Open Circuit Voltage (Voc/V)	35.97	36.12	36.27	36.42	36.57
Short Circuit Current (Isc/A)	11.06	11.15	11.25	11.34	11.44 </td
Voltage at Maximum Power (Vmp/V)	29.50	29.65	29.80	29.95	30.10
Current at Maximum Power (Imp/A)	10.45	10.53	10.61	10.69	10.77
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)	431	436	441	446	452
	Module Efficiency (%)	22.05	22.31	22.58	22.85	23.12
15%	Maximum Power (Pmax/W)	472	477	483	489	495
	Module Efficiency (%)	24.15	24.44	24.73	25.03	25.32
25%	Maximum Power (Pmax/W)	513	519	525	531	538
	Module Efficiency (%)	26.25	26.57	26.89	27.21	27.53

## Mechanical Data

Cell Type	182×91mm Mono
Cell Orientation	108(6×18)
Module Dimensions	1722×1134×30mm
Weight	25.0kg
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

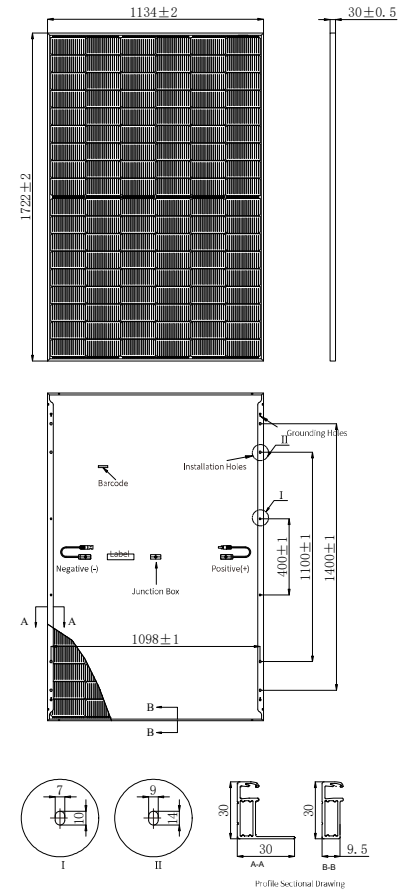
## Temperature Coefficients

Temperature Coefficient (Pm)	-0.300%/°C
Temperature Coefficient (Voc)	-0.250%/°C
Temperature Coefficient (Isc)	0.045%/°C
NMOT (Nominal Module Operating Temperature)	41±3°C

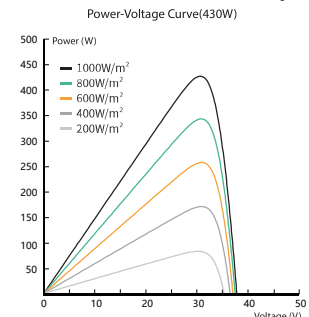
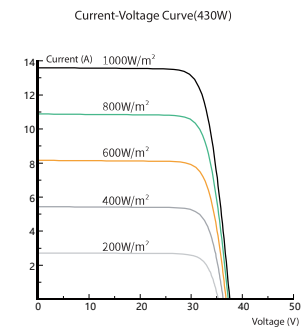
## Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	936 pcs	36 pcs +36 pcs

## Module Dimensions (mm)



## I-V Curve

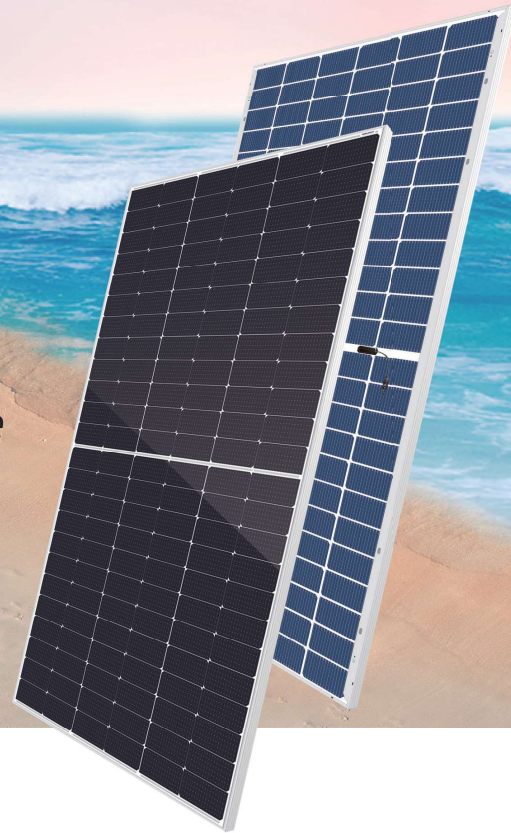


# Haitai TaiHe 2.0 (182)

HTM555~575DMH5-72NT  
TOPCon Bifacial high efficiency PV module

22.26%

Module Efficiency 22.26%



## PRODUCT FEATURES

**Hi Power Output**  
N-type MBB half cut technology, improve energy density, bring higher power output.  
High Bifacial Factor, up to 25% extra power generation

**High Durability**  
Passed TUV Salt & Ammonia corrosion test, and 2400Pa wind load, 5400Pa snow load test, higher reliability

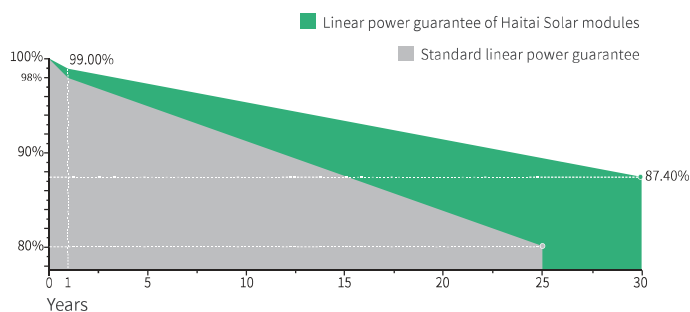
**Better Low Light Performance**  
Higher power generation compare with standard module in cloudy, foggy and low light condition

**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-PID**  
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



## Electrical Data (STC)

Maximum Power (Pmax/W)	555	560	565	570	575
Open Circuit Voltage (Voc/V)	50.73	50.88	51.03	51.18	51.33
Short Circuit Current (Isc/A)	13.68	13.76	13.84	13.92	14.00
Voltage at Maximum Power (Vmp/V)	42.00	42.15	42.30	42.45	42.60
Current at Maximum Power (Imp/A)	13.22	13.29	13.36	13.43	13.50
Module Efficiency (%)	21.48	21.68	21.87	22.07	22.26
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)	418	422	426	430	434
Open Circuit Voltage (Voc/V)	48.16	48.31	48.46	48.61	48.76
Short Circuit Current (Isc/A)	11.19	11.26	11.33	11.40	11.47
Voltage at Maximum Power (Vmp/V)	39.53	39.68	39.83	39.98	40.13
Current at Maximum Power (Imp/A)	10.58	10.64	10.70	10.76	10.82
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)	583	588	593	599	604
	Module Efficiency (%)	22.56	22.76	22.97	23.17	23.37
15%	Maximum Power (Pmax/W)	638	644	650	656	661
	Module Efficiency (%)	24.71	24.93	25.15	25.37	25.60
25%	Maximum Power (Pmax/W)	694	700	706	713	719
	Module Efficiency (%)	26.86	27.10	27.34	27.58	27.82

## Mechanical Data

Cell Type	182×91mm Mono
Cell Orientation	144(6×24)
Module Dimensions	2278×1134×30mm
Weight	32.0kg
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

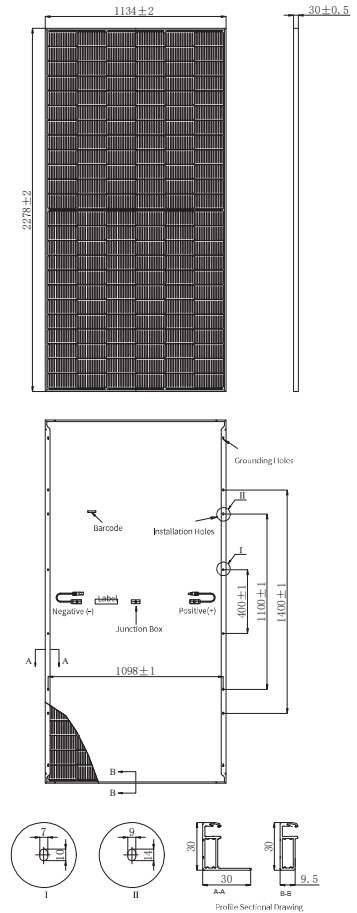
## Temperature Coefficients

Temperature Coefficient (Pm)	-0.300%/°C
Temperature Coefficient (Voc)	-0.250%/°C
Temperature Coefficient (Isc)	0.045%/°C
NMOT (Nominal Module Operating Temperature)	41±3°C

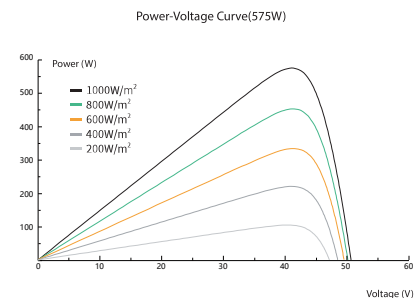
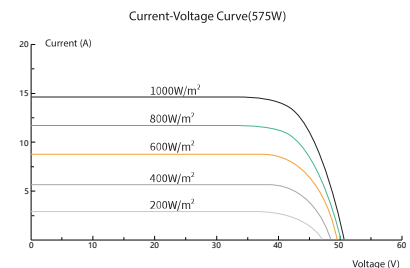
## Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	720 pcs	36 pcs +36 pcs

## Module Dimensions (mm)



## I-V Curve



# Haitai TaiHe 2.0 (182)

HTM605~625DMH5-78NT  
TOPCon Bifacial high efficiency PV module

22.36%

Module Efficiency 22.36%

## PRODUCT FEATURES



### Hi Power Output

N-type MBB half cut technology, improve energy density, bring higher power output.  
High Bifacial Factor, up to 25% extra power generation



### High Durability

Passed TUV Salt & Ammonia corrosion test, and 2400Pa wind load, 5400Pa snow load test, higher reliability



### Better Low Light Performance

Higher power generation compare with standard module in cloudy, foggy and low light condition



### Low Power Degradation

First year power degradation <1.0%, year 2-30 power degradation <0.40% each year



### Low Temperature coefficient

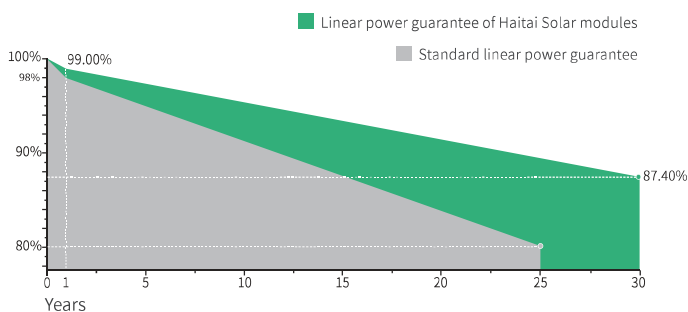
Passivated contact cell technology for higher power generation in operating



### Better Anti-PID

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



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



## Electrical Data (STC)

Maximum Power (Pmax/W)	605	610	615	620	625
Open Circuit Voltage (Voc/V)	55.01	55.16	55.31	55.46	55.61
Short Circuit Current (Isc/A)	13.75	13.83	13.90	13.98	14.05
Voltage at Maximum Power (Vmp/V)	45.48	45.63	45.78	45.93	46.08
Current at Maximum Power (Imp/A)	13.31	13.37	13.44	13.51	13.57
Module Efficiency (%)	21.64	21.82	22.00	22.18	22.36
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)	454	458	462	466	470
Open Circuit Voltage (Voc/V)	52.28	52.43	52.58	52.73	52.88
Short Circuit Current (Isc/A)	11.21	11.28	11.34	11.41	11.47
Voltage at Maximum Power (Vmp/V)	42.73	42.88	43.03	43.18	43.33
Current at Maximum Power (Imp/A)	10.63	10.69	10.74	10.80	10.85
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)	635	641	646	651	656
	Module Efficiency (%)	22.73	22.91	23.10	23.29	23.48
15%	Maximum Power (Pmax/W)	696	702	707	713	719
	Module Efficiency (%)	24.89	25.10	25.30	25.51	25.71
25%	Maximum Power (Pmax/W)	756	763	769	775	781
	Module Efficiency (%)	27.05	27.28	27.50	27.73	27.95

## Mechanical Data

Cell Type	182×91mm Mono
Cell Orientation	156(6×26)
Module Dimensions	2465×1134×30mm
Weight	34.5kg
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 <sup>2</sup> positive pole: 200 mm negative pole: 250 mm wire length can be customized
Connector	MC4 compatible connector

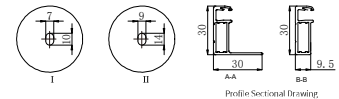
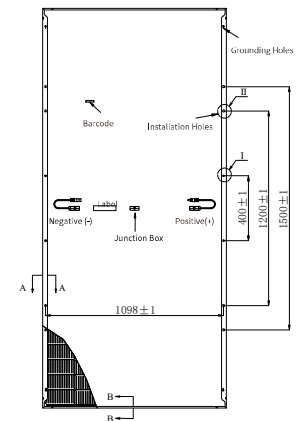
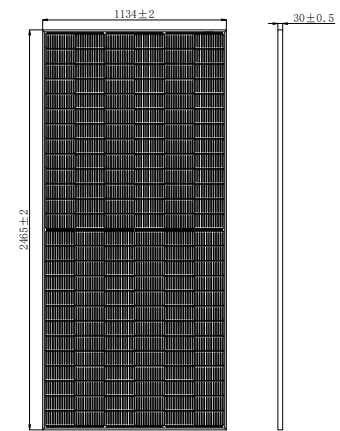
## Temperature Coefficients

Temperature Coefficient (Pm)	-0.30%/°C
Temperature Coefficient (Voc)	-0.250%/°C
Temperature Coefficient (Isc)	0.045%/°C
NMOT (Nominal Module Operating Temperature)	41±3°C

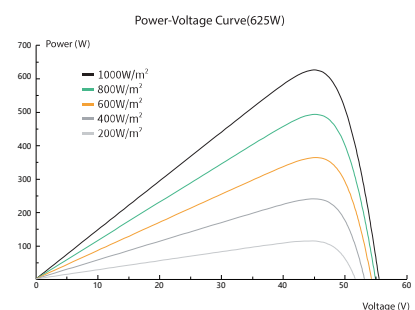
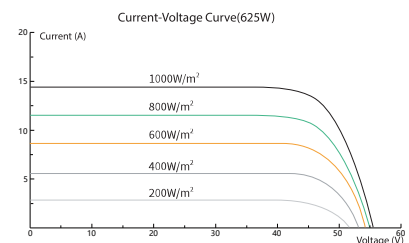
## Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	576pcs	36pcs +36pcs

## Module Dimensions (mm)



## I-V Curve



# Haitai TaiHe (210)

## HTM585~610DMH8-60

Bifacial high efficiency mono PV module

21.55%

Module Efficiency 21.55%

### 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

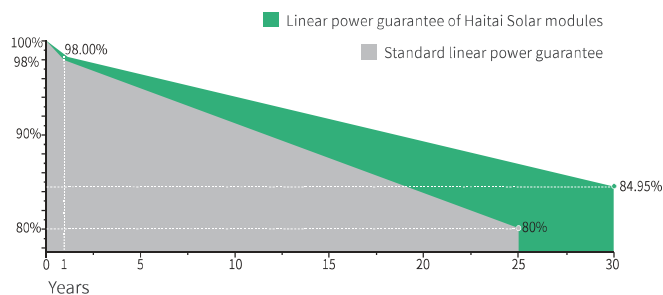
The next-generation cell technology and optimized circuit design adopted can support improved temperature coefficient and better hotspot resistance.



#### Low Risk of Micro-Crack

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

### LINEAR PERFORMANCE WARRANTY



### 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



12 YEARS product warranty



30 YEARS linear power warranty



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



## Electrical Data (STC)

Maximum Power (Pmax/W)	585	590	595	600	605	610
Open Circuit Voltage (Voc/V)	40.89	41.09	41.29	41.49	41.69	41.89
Short Circuit Current (Isc/A)	18.38	18.43	18.48	18.53	18.58	18.64
Voltage at Maximum Power (Vmp/V)	33.79	33.99	34.19	34.39	34.59	34.79
Current at Maximum Power (Imp/A)	17.32	17.36	17.41	17.45	17.50	17.54
Module Efficiency (%)	20.67	20.85	21.02	21.20	21.38	21.55
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)	443	447	451	455	459	463
Open Circuit Voltage (Voc/V)	38.49	38.69	38.89	39.09	39.29	39.49
Short Circuit Current (Isc/A)	14.82	14.86	14.89	14.95	15.00	15.06
Voltage at Maximum Power (Vmp/V)	31.39	31.59	31.79	31.99	32.19	32.39
Current at Maximum Power (Imp/A)	14.12	14.16	14.19	14.23	14.26	14.30
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)	614	620	625	630	635	641
	Module Efficiency (%)	21.70	21.89	22.08	22.26	22.45	22.63
15%	Maximum Power (Pmax/W)	673	679	684	690	696	702
	Module Efficiency (%)	23.77	23.97	24.18	24.38	24.58	24.79
25%	Maximum Power (Pmax/W)	731	738	744	750	756	763
	Module Efficiency (%)	25.84	26.06	26.28	26.50	26.72	26.94

## Mechanical Data

Cell Type	210×105mm Mono
Cell Orientation	120(6×20)
Module Dimensions	2172×1303×35mm
Weight	35.5kg
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 <sup>2</sup> positive pole: 300mm negative pole: 400 mm wire length can be customized
Connector	MC4 compatible connector

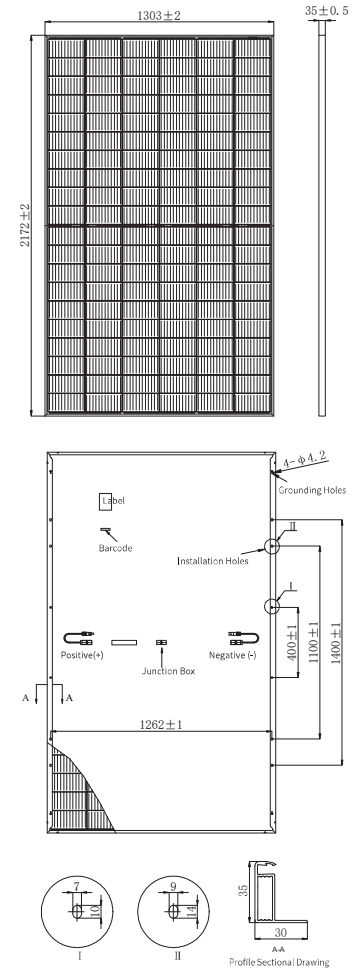
## Temperature Coefficients

Temperature Coefficient (Pm)	-0.340%/°C
Temperature Coefficient (Voc)	-0.250%/°C
Temperature Coefficient (Isc)	0.040%/°C
NMOT (Nominal Module Operating Temperature)	41±3°C

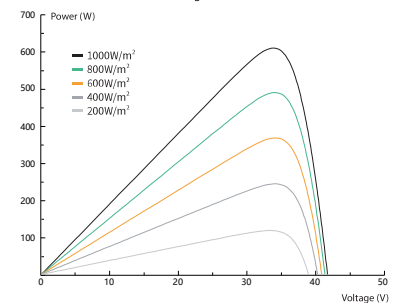
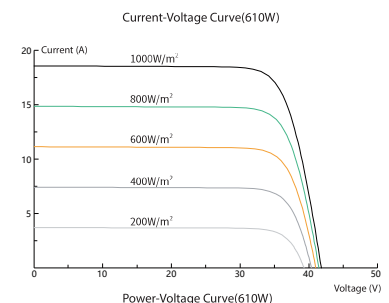
## Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	527 pcs	31 pcs

## Module Dimensions (mm)



## I-V Curve



# Haitai TaiHe (210)

## HTM650~670DMH8-66

Bifacial high efficiency mono PV module

21.57%

Module Efficiency 21.57%

### 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

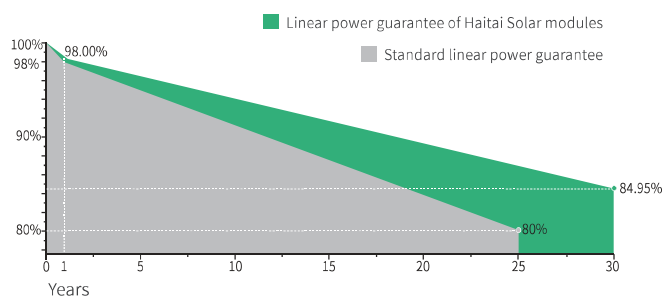
The next-generation cell technology and optimized circuit design adopted can support improved temperature coefficient and better hotspot resistance.



#### Low Risk of Micro-Crack

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

### LINEAR PERFORMANCE WARRANTY



### 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



12 YEARS product warranty



30 YEARS linear power warranty



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

## Electrical Data (STC)

Maximum Power (Pmax/W)	650	655	660	665	670
Open Circuit Voltage (Voc/V)	45.29	45.49	45.69	45.89	46.09
Short Circuit Current (Isc/A)	18.43	18.49	18.52	18.58	18.63
Voltage at Maximum Power (Vmp/V)	37.39	37.59	37.79	37.99	38.19
Current at Maximum Power (Imp/A)	17.39	17.43	17.47	17.51	17.55
Module Efficiency (%)	20.92	21.09	21.25	21.41	21.57
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)	492	496	500	504	508
Open Circuit Voltage (Voc/V)	42.59	42.79	42.99	43.19	43.39
Short Circuit Current (Isc/A)	14.84	14.88	14.93	14.98	15.03
Voltage at Maximum Power (Vmp/V)	34.89	35.09	35.29	35.49	35.69
Current at Maximum Power (Imp/A)	14.11	14.14	14.17	14.21	14.24
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)	683	688	693	698	704
	Module Efficiency (%)	21.97	22.14	22.31	22.48	22.65
15%	Maximum Power (Pmax/W)	748	753	759	765	771
	Module Efficiency (%)	24.06	24.25	24.43	24.62	24.80
25%	Maximum Power (Pmax/W)	813	819	825	831	838
	Module Efficiency (%)	26.16	26.36	26.56	26.76	26.96

## Mechanical Data

Cell Type	210×105mm Mono
Cell Orientation	132(6×22)
Module Dimensions	2384×1303×35mm
Weight	39.0kg
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: 300mm negative pole: 400 mm wire length can be customized
Connector	MC4 compatible connector

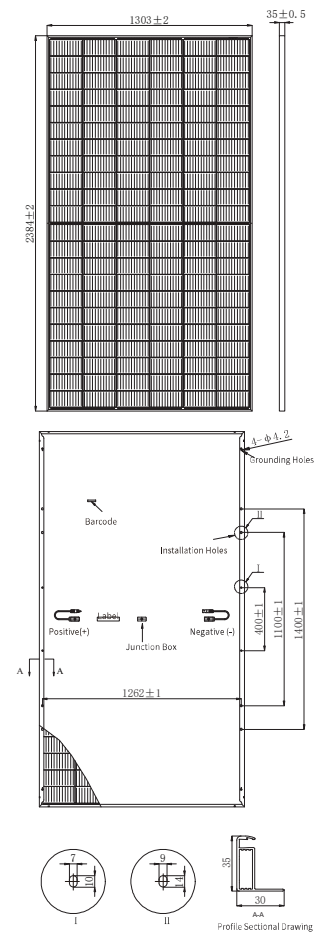
## Temperature Coefficients

Temperature Coefficient (Pm)	-0.340%/°C
Temperature Coefficient (Voc)	-0.250%/°C
Temperature Coefficient (Isc)	0.040%/°C
NMOT (Nominal Module Operating Temperature)	41±3°C

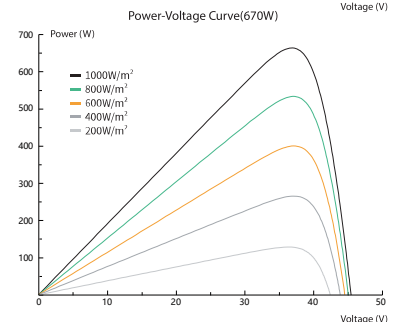
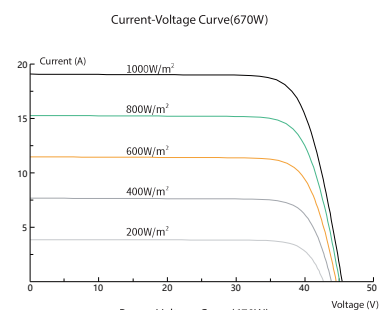
## Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	527 pcs	31 pcs

## Module Dimensions (mm)



## I-V Curve



# Haitai TaiHe (210)

## HTM675~695DMH8-66NT TOPCon Bifacial high efficiency PV module

22.37%

Module Efficiency 22.37%

### PRODUCT FEATURES

**Hi Power Output**  
N-type MBB half cut technology, improve energy density, bring higher power output.  
High Bifacial Factor, up to 25% extra power generation

**High Durability**  
Passed TUV Salt & Ammonia corrosion test, and 2400Pa wind load, 5400Pa snow load test, higher reliability

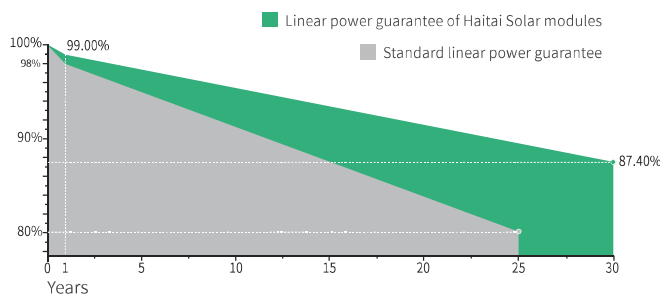
**Better Low Light Performance**  
Higher power generation compare with standard module in cloudy, foggy and low light condition

**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-PID**  
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

- 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)	675	680	685	690	695
Open Circuit Voltage (Voc/V)	45.86	46.06	46.26	46.46	46.66
Short Circuit Current (Isc/A)	18.58	18.64	18.70	18.75	18.81
Voltage at Maximum Power (Vmp/V)	37.85	38.05	38.25	38.45	38.65
Current at Maximum Power (Imp/A)	17.84	17.88	17.91	17.95	17.99
Module Efficiency (%)	21.73	21.89	22.05	22.21	22.37
Operating Temperature	-40° C~+85° C				
Maximum System Voltage	1000/1500V				
Refer.Bifacial Factor	72±5%				

STC (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM1.5

## Electrical Data (NMOT)

Maximum Power (Pmax/W)	506	510	514	518	522
Open Circuit Voltage (Voc/V)	42.39	42.59	42.79	42.99	43.19
Short Circuit Current (Isc/A)	15.09	15.14	15.19	15.23	15.28
Voltage at Maximum Power (Vmp/V)	35.34	35.54	35.74	35.94	36.14
Current at Maximum Power (Imp/A)	14.32	14.36	14.39	14.42	14.45

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)	709	714	719	725	730
	Module Efficiency (%)	22.82	22.99	23.15	23.32	23.49
15%	Maximum Power (Pmax/W)	776	782	788	794	799
	Module Efficiency (%)	24.99	25.17	25.36	25.54	25.73
25%	Maximum Power (Pmax/W)	844	850	856	863	869
	Module Efficiency (%)	27.16	27.36	27.56	27.77	27.97

## Mechanical Data

Cell Type	210×105mm Mono
Cell Orientation	132(6×22)
Module Dimensions	2384×1303×35mm
Weight	39.0kg
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: 300mm negative pole: 400 mm wire length can be customized
Connector	MC4 compatible connector

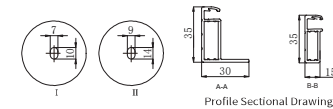
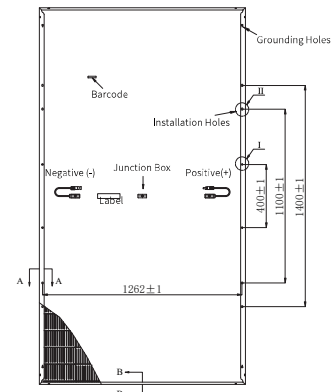
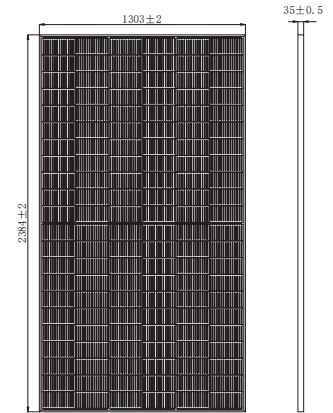
## Temperature Coefficients

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

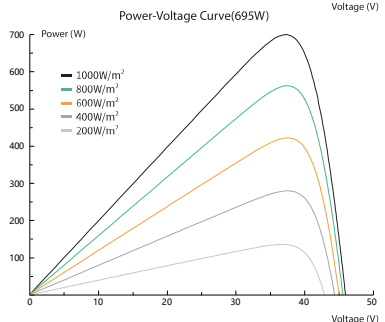
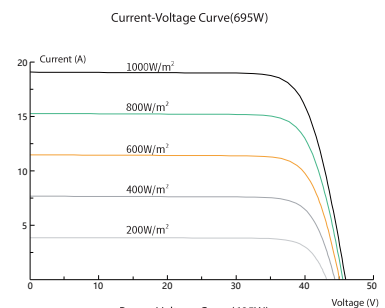
## Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	527 pcs	31 pcs

## Module Dimensions (mm)



## I-V Curve



# Haitai TaiHe (210)

## HTM680~700DMH8-66NT

TOPCon Bifacial high efficiency PV module

**22.53%**

Module Efficiency 22.53%

### PRODUCT FEATURES

**Hi Power Output**  
 N-type MBB half cut technology, improve energy density, bring higher power output.  
 High Bifacial Factor, up to 25% extra power generation

**High Durability**  
 Passed TUV Salt & Ammonia corrosion test, and 2400Pa wind load, 5400Pa snow load test, higher reliability

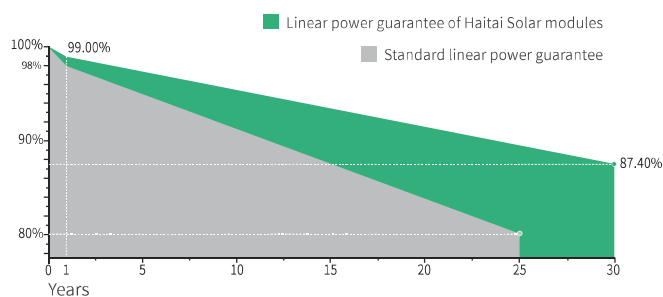
**Better Low Light Performance**  
 Higher power generation compare with standard module in cloudy, foggy and low light condition

**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-PID**  
 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

- 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)	680	685	690	695	700
Open Circuit Voltage (Voc/V)	46.26	46.41	46.56	46.71	46.86
Short Circuit Current (Isc/A)	18.56	18.64	18.71	18.79	18.86
Voltage at Maximum Power (Vmp/V)	38.25	38.40	38.55	38.7	38.85
Current at Maximum Power (Imp/A)	17.78	17.84	17.90	17.96	18.02
Module Efficiency (%)	21.89	22.05	22.21	22.37	22.53
Operating Temperature	-40° C~+85° C				
Maximum System Voltage	1000/1500V				
Refer.Bifacial Factor	72±5%				

STC (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM1.5

## Electrical Data (NMOT)

Maximum Power (Pmax/W)	510	514	518	522	526
Open Circuit Voltage (Voc/V)	43.45	43.60	43.75	43.9	44.05
Short Circuit Current (Isc/A)	15.07	15.13	15.20	15.26	15.33
Voltage at Maximum Power (Vmp/V)	35.74	35.89	36.04	36.19	36.34
Current at Maximum Power (Imp/A)	14.27	14.33	14.38	14.43	14.48

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)	714	719	725	730	735
	Module Efficiency (%)	22.99	23.15	23.32	23.49	23.66
15%	Maximum Power (Pmax/W)	782	788	794	799	805
	Module Efficiency (%)	25.17	25.36	25.54	25.73	25.91
25%	Maximum Power (Pmax/W)	850	856	863	869	875
	Module Efficiency (%)	27.36	27.56	27.77	27.97	28.17

## Mechanical Data

Cell Type	210×105mm Mono
Cell Orientation	132(6×22)
Module Dimensions	2384×1303×35mm
Weight	39.0kg
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: 300mm negative pole: 400 mm wire length can be customized
Connector	MC4 compatible connector

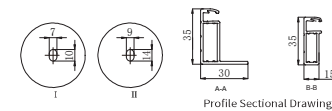
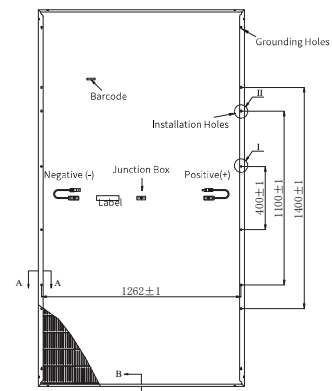
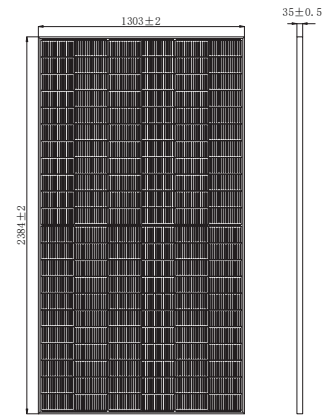
## Temperature Coefficients

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	527 pcs	31 pcs

## Module Dimensions (mm)



## I-V Curve

