

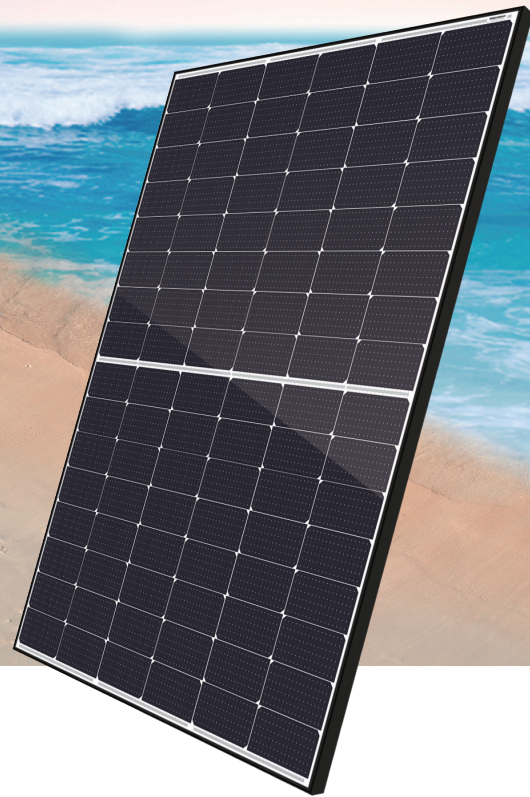
# Haitai TaiHe2.0 (210R)

## HTM435~455DMH6-48NT

TOPCon Bifacial high efficiency PV module

22.77%

Module Efficiency



### PRODUCT FEATURES



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

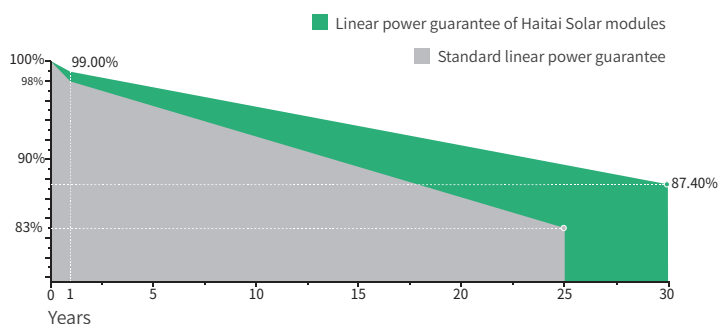
Passivated contact cell technology for higher power generation in operating



#### Better Anti-LID

N-type cells with boron-oxide-free composite LID to increase module power generation

### LINEAR PERFORMANCE WARRANTY



product warranty



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)                                                                | 435           | 440   | 445   | 450   | 455   |
| Open Circuit Voltage (Voc/V)                                                          | 34.69         | 34.84 | 34.99 | 35.14 | 35.29 |
| Short Circuit Current (Isc/A)                                                         | 15.68         | 15.79 | 15.9  | 16.01 | 16.12 |
| Voltage at Maximum Power (Vmp/V)                                                      | 28.69         | 28.84 | 28.99 | 29.14 | 29.29 |
| Current at Maximum Power (Imp/A)                                                      | 15.17         | 15.26 | 15.36 | 15.45 | 15.54 |
| Module Efficiency (%)                                                                 | 21.77         | 22.02 | 22.27 | 22.52 | 22.77 |
| Operating Temperature                                                                 | -40° C~+85° C |       |       |       |       |
| Maximum System Voltage                                                                | 1000/1500V    |       |       |       |       |
| STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25°C , AM1.5 |               |       |       |       |       |

## Electrical Data (NMOT)

|                                  |       |       |       |       |       |
|----------------------------------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax/W)           | 327   | 331   | 335   | 339   | 343   |
| Open Circuit Voltage (Voc/V)     | 32.92 | 33.07 | 33.22 | 33.37 | 33.52 |
| Short Circuit Current (Isc/A)    | 12.82 | 12.92 | 13.01 | 13.11 | 13.21 |
| Voltage at Maximum Power (Vmp/V) | 26.99 | 27.14 | 27.29 | 27.44 | 27.59 |
| Current at Maximum Power (Imp/A) | 12.12 | 12.2  | 12.28 | 12.36 | 12.44 |

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) | 457   | 462   | 467   | 473   | 478   |
|     | Module Efficiency (%)  | 22.86 | 23.12 | 23.38 | 23.65 | 23.91 |
| 15% | Maximum Power (Pmax/W) | 500   | 506   | 512   | 518   | 523   |
|     | Module Efficiency (%)  | 25.04 | 25.32 | 25.61 | 25.90 | 26.19 |
| 25% | Maximum Power (Pmax/W) | 544   | 550   | 556   | 563   | 569   |
|     | Module Efficiency (%)  | 27.21 | 27.53 | 27.84 | 28.15 | 28.46 |

## Mechanical Data

|                   |                                                                                                 |
|-------------------|-------------------------------------------------------------------------------------------------|
| Cell Type         | 182×105mm Mono                                                                                  |
| Cell Orientation  | 96(6×16)                                                                                        |
| Module Dimensions | 1762×1134×30mm                                                                                  |
| Weight            | 24.5kg                                                                                          |
| 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: 1200 mm negative pole: 1200 mm wire length can be customized |
| Connector         | MC4 compatible / Staübli Evo 2 connectors                                                       |

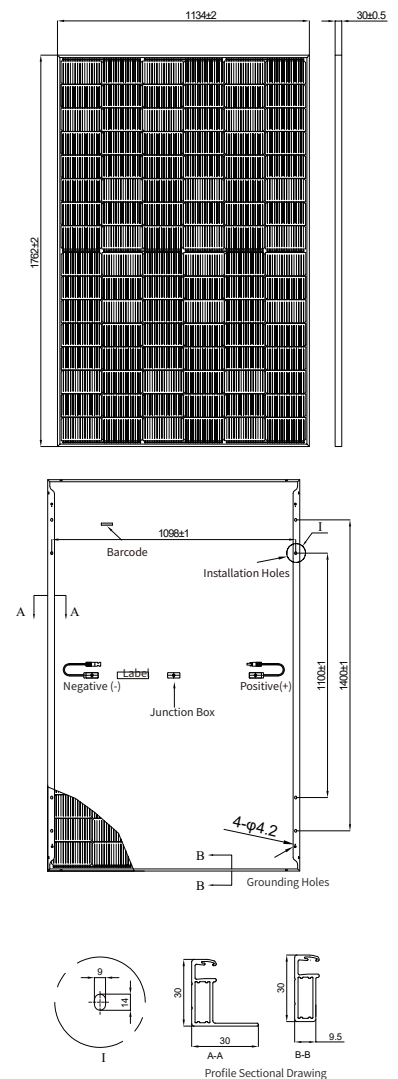
## Temperature Coefficients

|                                             |            |
|---------------------------------------------|------------|
| 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         | 936pcs                        | 36pcs +36pcs                 |

## Module Dimensions (mm)



## I-V Curve

