

TaiHe 2.0 210R

HTM605~640DMH6-66NT

TOPCon Bifacial high efficiency PV module

23.69%

Conversion Efficiency

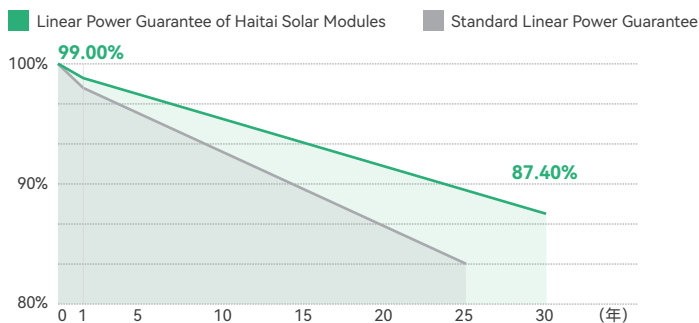


Country of Manufacture: China

Product Features

-  **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
-  **Low Temperature Coefficient**
Passivated contact cell technology for higher power generation in operating
-  **Better Low Light Performance**
Higher power generation compared with standard modules in cloudy, foggy and low-light conditions
-  **Low Power Degradation**
First year power degradation <1.0%, year 2-30 power degradation <0.40% each year
-  **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

0.4 % Linear attenuation of 0.4% per year within 30 years

This linear power warranty applies only to the front-side power of the module under Standard Test Conditions (STC). The bifacial power gain portion is not covered under the warranty. Specific terms are subject to the warranty document.

Certifications

ISO 9001:2015 Quality Management System
ISO 14001:2015 Environmental Management System
ISO 45001:2018 Occupational Health and Safety Management System
IEC 62941:2019 PV Module Manufacturer Quality System
IEC 61215:2021 Crystalline Silicon Terrestrial Photovoltaic (PV) Modules-Design Qualification and Type Approval
IEC 61730:2023 PV Module Safety qualification



Electrical Data (STC)

Maximum Output Power (Pmax/W) ±3%	605	610	615	620	625	630	635	640
Open-Circuit Voltage (Voc/V) ±3%	47.92	48.07	48.22	48.37	48.52	48.67	48.82	48.97
Short-Circuit Current (Isc/A) ±4%	15.78	15.86	15.94	16.02	16.10	16.18	16.26	16.34
Voltage at Pmax (Vmp/V)	40.47	40.62	40.77	40.92	41.07	41.22	41.37	41.52
Current at Pmax (Imp/A)	14.95	15.02	15.09	15.16	15.22	15.29	15.35	15.42
Module Conversion Efficiency (%)	22.40	22.58	22.77	22.95	23.14	23.32	23.51	23.69
Operating Temperature	-40° C~+85° C							
Maximum System Voltage	1500V							
Front 1000 W/m², AM 1.5, Cell 25°C								

Electrical Data (NMOT)

Maximum Output Power (Pmax/W) ±3%	456	460	464	468	472	476	480	484
Open-Circuit Voltage (Voc/V) ±3%	45.52	45.67	45.82	45.97	46.12	46.27	46.42	46.57
Short-Circuit Current (Isc/A) ±4%	12.93	13.00	13.07	13.14	13.20	13.27	13.34	13.41
Voltage at Pmax (Vmp/V)	37.43	37.58	37.73	37.88	38.03	38.18	38.33	38.48
Current at Pmax (Imp/A)	12.19	12.25	12.30	12.36	12.42	12.47	12.53	12.58
AM1.5,800W/ m² , 20°C , 1m/s								

Electrical Data (BNPI)

Maximum Output Power (Pmax/W) ±3%	669	674	680	685	691	696	702	707
Open-Circuit Voltage (Voc/V) ±3%	48.10	48.25	48.41	48.55	48.70	48.85	49.00	49.14
Short-Circuit Current (Isc/A) ±4%	17.38	17.47	17.55	17.64	17.73	17.82	17.91	17.99
Voltage at Pmax (Vmp/V)	40.62	40.76	40.91	41.05	41.22	41.35	41.52	41.66
Current at Pmax (Imp/A)	16.47	16.54	16.63	16.69	16.77	16.84	16.91	16.98
Front 1000 W/m², rear 135 W/m²								

Electrical Data (BSI)

Short-Circuit Current (Isc/A)	19.33	19.43	19.53	19.62	19.72	19.82	19.92	20.02
Front 1000 W/m², rear 300 W/m²								

Bifacial Power Generation Parameters (Backside Gains)

5%	Maximum Power (Pmax/W)	635	641	646	651	656	662	667	672
	Module Efficiency (%)	23.52	23.71	23.91	24.10	24.29	24.49	24.68	24.88
15%	Maximum Power (Pmax/W)	696	702	707	713	719	725	730	736
	Module Efficiency (%)	25.76	25.97	26.18	26.40	26.61	26.82	27.03	27.25
25%	Maximum Power (Pmax/W)	756	763	769	775	781	788	794	800
	Module Efficiency (%)	28.00	28.23	28.46	28.69	28.92	29.15	29.39	29.62

Mechanical Parameters

Cell Type	182×105mm Mono
Cell Configuration	132(6×22)
Module Dimensions	2382×1134×30mm
Module Weight	32.5kg
Front Glass	2.0mm high transmittance, reinforced glass
Rear Glass	2.0mm part of the structure is grid-like white ceramic glass
Frame	Anodized aluminum alloy
Junction Box	Protection class IP68
Cable	4.0mm² positive pole: 200 mm negative pole: 250 mm wire length can be customized
Connector	Manufacturer: Minghe Co.,LTD. Type: PV-MH8
Fire rating	Class C

Operating ratings

Maximum fuse rating	30A
Module Temperature Rating	T _{cell} ≤ 70°C
Power Binning	0~+5W
Bifaciality factor(Pmax)	80±5%
Bifaciality factor(Voc)	98±5%
Bifaciality factor(Isc)	80±5%

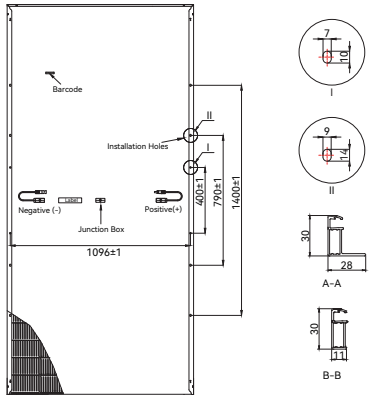
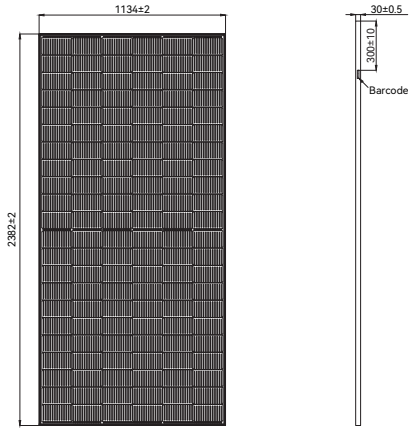
Temperature Coefficients

Temperature Coefficient (Pmax)	-0.290%/°C
Temperature Coefficient (Voc)	-0.250%/°C
Temperature Coefficient (Isc)	0.045%/°C
NMOT (Nominal Module Operating Temperature)	41±3°C

Packaging & Transportation

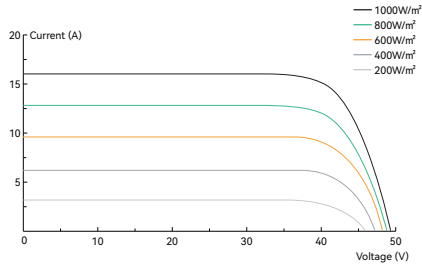
Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	740 pcs	37 pcs + 37 pcs

Module Size (mm)



I-V Curves

Current-Voltage Curve (640W)



Power-Voltage Curve (640W)

