



# 210R SERIES

## FT132HBG 605~625W

N-type TOPCon Bifacial  
Double-Glass PV Module

### M10 series

Utilizing N-type TOPCon battery technology and integrating SMBB with half-cell module technology, these modules offer enhanced reliability and lower LID/ETID degradation.

## Product Features



Utilizing N-type TOPCon Multi-busbar (SMBB) cell technology to achieve lower resistance and effectively enhance product power output.



Enhanced reliability and lower LID (Light Induced Degradation) effects.



Superior temperature coefficient ensuring higher power generation in extreme temperature regions.



Adoption of 40.24mm ribbon to effectively reduce shading and improve module efficiency.



Half-cell technology for better mechanical load performance.



The entire module has passed certification for a front-side snow load of 5400Pa and a wind load of 2400Pa.

## Management System



ISO9001:2015

ISO14001:2015

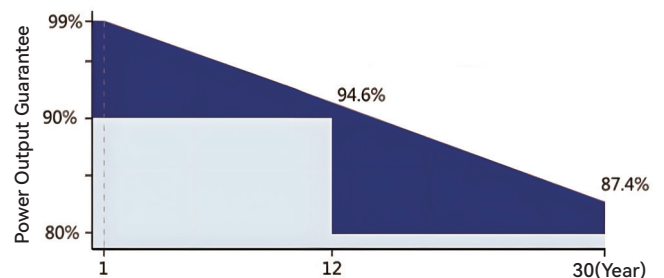
ISO45001:2018

## Product Certification



Our products are widely used in residential, commercial, and ground-mounted photovoltaic power generation systems. We adhere to strict quality inspection standards and continuously strive for zero-defect products to ensure that our solar modules deliver superior power output and high reliability.

## Product Warranty



**12-year** product quality and workmanship warranty

**30-year** linear power output warranty

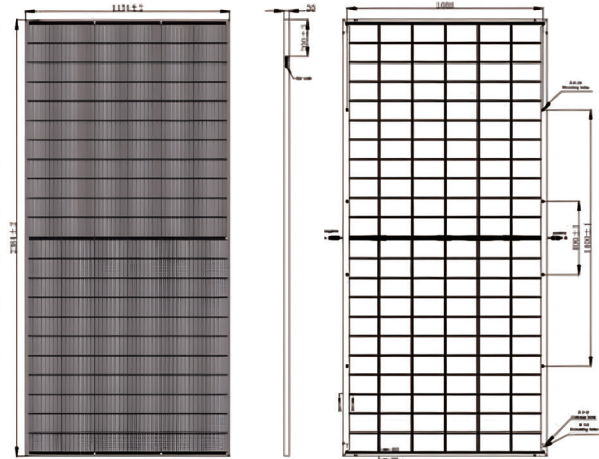
**1%** first-year degradation, **0.4%** subsequent annual power degradation

### Electrical Parameters @ STC

Maximum Power	Pmax ( Wp )	605	610	615	620	625
Power Tolerance	( % )			0~+3		
Maximum Power Voltage	Vmp ( V )	40.50	40.80	41.10	41.40	41.70
Maximum Power Current	Imp ( A )	14.94	14.96	14.98	14.99	15.01
Open Circuit Voltage	Voc ( V )	48.70	49.00	49.30	49.60	49.90
Short Circuit Current	Isc ( A )	15.83	15.86	15.89	15.91	15.94
Module Efficiency	( % )	22.38	22.56	22.75	22.93	23.12
Bifacial Factor Reference	( % )			80±5%		
5% Pmax	Pmax ( Wp )	635	641	646	651	656
5% Module Efficiency	( % )	23.50	23.69	23.89	24.08	24.27
15% Pmax	Pmax ( Wp )	696	702	707	713	719
15% Module Efficiency	( % )	25.74	25.95	26.16	26.37	26.59
25% Pmax	Pmax ( Wp )	756	763	769	775	781
25% Module Efficiency	( % )	27.97	28.20	28.44	28.67	28.90

STC: Irradiance 1000 W/m<sup>2</sup>, Module Temperature 25°C, Air Mass 1.5.

### Module Dimensions (mm)



### Electrical Parameters @ NMOT

Maximum Power	Pmax ( Wp )	457	461	464	468	472
Maximum Power Voltage	Vmp ( V )	37.88	38.16	38.44	38.72	39.00
Maximum Power Current	Imp ( A )	12.06	12.08	12.10	12.10	12.12
Open Circuit Voltage	Voc ( V )	46.36	46.64	46.93	47.22	47.50
Short Circuit Current	Isc ( A )	12.78	12.80	12.83	12.84	12.87

NMOT: Irradiance 800 W/m<sup>2</sup>, Ambient Temperature 20°C, Air Mass 1.5, Wind Speed 1 m/s.

### Temperature Coefficients

Temperature Coefficient of Maximum Power (Pmax)	-0.29%/°C
Temperature Coefficient of Open Circuit Voltage (Voc)	-0.24%/°C
Temperature Coefficient of Short Circuit Current (Isc)	+0.04%/°C

### Mechanical Parameters

Cell Type	N-type TOPCon Mono 182×105mm
Number of Cells	132 ( 6×22 )
Module Dimensions (Length x Width x Height)	2382×1134×30mm
Module Weight	32.5kg
Frame Material	Anodized Aluminum Frame
Junction Box	Ip68
Cable Cross-Section/Length	4mm <sup>2</sup> /300mm

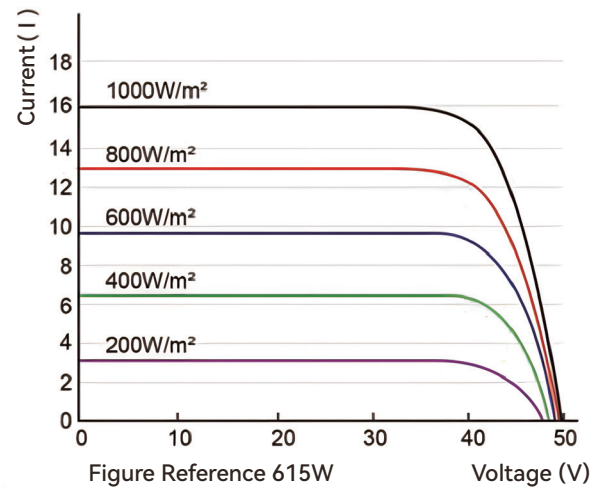
### Operating Conditions

Maximum System Voltage	1500V DC
Operating Temperature	-40~+85 °C
Maximum Wind Load / Snow Load	2400/5400 Pa
Maximum Protection Current	30A
Application Class	Class A
Fire Rating	Class B
Nominal Module Operating Temperature (NMOT)	42±3 °C

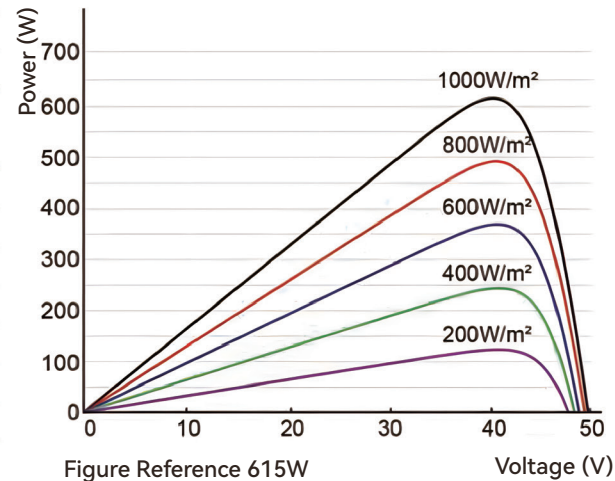
### Packaging Information

Single Package	36 pcs/pallet
17.5m / 13.5m / 40HQ	864 pcs / 792 pcs / 576 pcs

### Current-Voltage Curve / I-V Curve



### Power-Voltage Curve / P-V Curve



\*Power measurement tolerance: ±3%  
\*Product specifications are subject to change without prior notice.