



Xinjiang
co, ltd tianfu taiyang new energy technology

TY-132N-HBDGR N-type-TOPCon210R “Sandy Land Bright” Module

610-655W

High Efficiency Fire Resistance High Reliability

12-year 30-year 1% 0.4%
Product Warranty Linear Power Warranty First-year Degradation Annual Degradation Over 30 Years

Product and Quality
Certifications



High Power Generation Capability

Through 8000Pa front side and 4000Pa back side static load test
Through 1600Pa, 50000 cycles dynamic load test
Through hail test with 60m/s wind speed, equivalent to 17-level wind resistance



Higher Power Generation

The special cell structure design makes the bifacial power generation of the module increase by more than 8%
Increases power generation per watt by more than 2.5%



Fire Resistance

The special structure and material design make the module have stronger fire resistance performance
Effectively improve 2%-3% power generation in power plant applications and reduce the risk of wildfire



High Reliability

Through 3 times IEC 61730 testing
Use high reliability design to improve the anti-aging performance of modules

TY-132N-HBDGR N-type-TOPCon210R “Sandy Land Bright” Module 610-655W

Mechanical Specifications

Cell Type	N-type Monocrystalline Silicon
Half-cell Configuration	132 (6x22)
Dimensions	2382×1134×30 mm
Weight	40 kg
Front Glass	2.0 mm, High Transmittance, AR Coated
Back Glass	2.0 mm, Heat-strengthened Glass
Frame	Anodized Aluminum Alloy
Junction Box	IP68 Rated
Connector	MC4-compatible
Fire Class Rating	Class II
IEC Fire Safety Class	Class C
Cable	4.0 mm ² Portrait: (+)300 mm, (-)200 mm; Length Can Be Customized

Packaging Information

Pallet Dimensions	2396×1110×1251 mm
Packaging Details	13 pcs per layer; 36 pcs per pallet; 20 pallets per 40' HQ Container 17 pcs per layer; 36 pcs per pallet; 25 pallets per 40' HQ Container 40 pcs per layer; 36 pcs per pallet; 20 pallets per 40' HQ Container

Electrical Characteristics (STC)

	610	615	620	625	630	635	640	645	650	655
Maximum Power (P _{max}) [W]	610	615	620	625	630	635	640	645	650	655
Open-circuit Voltage (V _{oc}) [V]	46.46	46.60	46.74	46.88	47.02	47.16	47.30	47.44	47.57	47.70
Short-circuit Current (I _{sc}) [A]	15.08	15.15	15.22	15.29	15.36	15.43	15.50	15.57	15.64	15.71
Voltage at P _{max} (V _{mp}) [V]	38.68	38.88	39.06	39.28	39.46	39.68	39.86	40.06	40.28	40.48
Current at P _{max} (I _{mp}) [A]	39.56	39.62	39.68	39.74	39.80	39.86	39.92	40.00	40.06	40.12
Module Efficiency (%)	22.6	22.8	23.0	23.1	23.3	23.5	23.7	23.9	24.1	24.3

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM1.5

Electrical Characteristics (BNPI)

	674	679	685	690	696	701	707	712	716	724
Maximum Power (P _{max}) [W]	674	679	685	690	696	701	707	712	716	724
Open-circuit Voltage (V _{oc}) [V]	46.24	46.90	47.05	48.88	41.04	41.17	41.33	41.45	41.61	41.74
Short-circuit Current (I _{sc}) [A]	16.66	16.73	16.81	16.88	16.95	17.03	17.11	17.18	17.25	17.32
Voltage at P _{max} (V _{mp}) [V]	38.68	38.86	39.06	39.26	39.46	39.66	39.86	40.06	40.26	40.46
Current at P _{max} (I _{mp}) [A]	17.04	17.70	17.77	17.83	17.90	17.96	18.03	18.11	18.17	18.24

BNPI: Front-side Irradiance 1000W/m², Rear-side Irradiance 135W/m², Cell Temperature 25°C, AM1.5

Operating Conditions

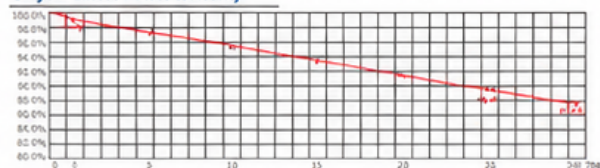
Operating Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC (IEC)
Maximum Series Fuse Rating	35A
Maximum Static Load	5000Pa/4000Pa (From front/back side)

Note: Please read the safety and installation instructions before using the product.

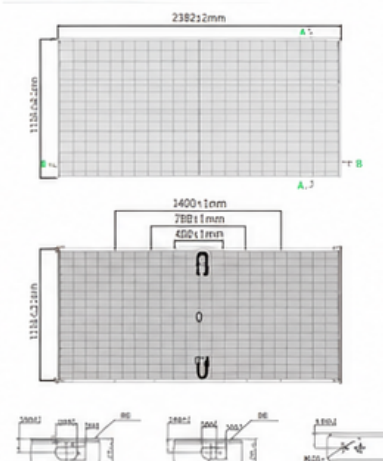
Temperature Coefficients

Temperature Coefficient of P _{max}	-0.29%/°C
Temperature Coefficient of V _{oc}	-0.25%/°C
Temperature Coefficient of I _{sc}	0.045%/°C

30-year Linear Power Warranty



Module Dimensions

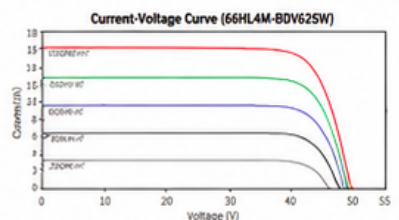
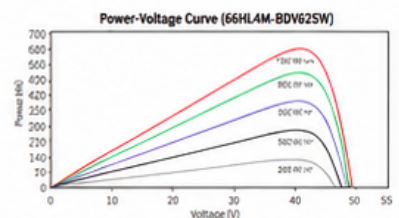


* Please read the safety and installation instructions before installing the product.

Installation Methods



I-V Curves



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18703004041
19309931666

