

「 210R mono TOPCon half-cell, high-efficiency bifacial module 」

**480-505W** 0-5W Positive Tolerance



**MBB&SMBB Half-cut Cell Technology**

New circuit design, lower internal current, and lower Rs loss.



**High Power Density**

A new generation of monocrystalline products with reduced resistive losses for greater power output.



**Mechanical Properties**

An aluminum frame in special design for better mechanical properties and more efficient installation.



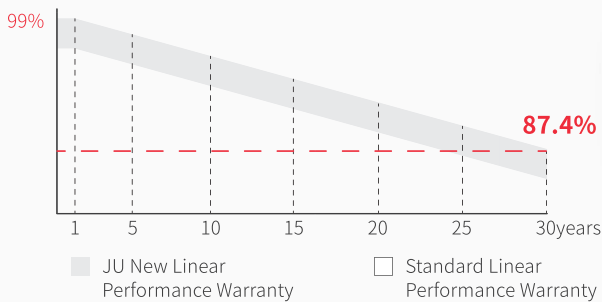
**Excellent Weather Resistance**

The solar modules can meet the IEC standard requirements with strong resistant to risks such as salt spray, ammonia gas, dust, snail marks and electric potential induced attenuation.



**4 Times 100% EL Detection**

Guarantee no micro cracks



**12years** Material & process Warranty

**30years** Linear Performance Warranty

**1%** Linear Power Degradation in the First Year

**0.4%** Linear Power Degradation Every Year

**PRODUCT QUALITY SYSTEM & CERTIFICATION**



## ELECTRICAL PROPERTIES

**JU-210R-54HBG 108PCS**

**STC** : irradiance, 1000W/m<sup>2</sup>; cell temperature, 25°C; spectral range, AM1.5

**NOCT**: irradiance, 800 W/m<sup>2</sup>; ambient temperature, 20 °C; spectral range, AM1.5; wind speed, 1m/s

	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power - P <sub>mp</sub> (W)	480	366	485	370	490	374	495	378	500	382	505	386
Open-circuit voltage - V <sub>oc</sub> (V)	39.32	37.91	39.52	37.99	39.72	38.07	39.92	38.15	40.12	38.23	40.32	38.31
Short-circuit current - I <sub>sc</sub> (A)	15.73	12.71	15.76	12.73	15.79	12.75	15.82	12.77	15.85	12.79	15.88	12.81
Maximum operating voltage - V <sub>mp</sub> (V)	32.52	30.46	32.72	30.73	32.92	31.00	33.12	31.27	33.32	31.54	33.52	31.81
Maximum operating current - I <sub>mp</sub> (A)	14.78	12.02	14.84	12.05	14.90	12.08	14.96	12.11	15.02	12.14	15.08	12.17
Module conversion efficiency - η <sub>m</sub>	21.58%		21.81%		22.03%		22.26%		22.48%		22.71%	

## ELECTRICAL PROPERTIES VERSUS POWER GAINS FROM THE REAR (TAKING A IRRADIANCE OF 490W)

Power gain	5%	10%	15%
Maximum power - P <sub>mp</sub> (W)	515	539	564
Open-circuit voltage - V <sub>oc</sub> (V)	39.72	39.72	39.72
Short-circuit current - I <sub>sc</sub> (A)	16.58	17.37	18.16
Maximum operating voltage - V <sub>mp</sub> (V)	32.92	32.92	32.92
Maximum operating current - I <sub>mp</sub> (A)	15.65	16.39	17.14
Bifaciality	80±5%		

## ABSOLUTE RATING

Power tolerance (W)	(0, +5)
Mechanical load	Front5400Pa/Back2400Pa
Maximum system voltage (V)	1500
Maximum series fuse rating (A)	30
Operating temperature	-40~+85°C

## MECHANICAL PROPERTIES

Module dimensions(L*W*H)	1961 x 1134 x 30mm
Weight	27.6kg
Cell quantity	108PCS
Cell model	N-type TOPCon Monocrystalline182 x 105mm
Glass	2.0mm AR, High Transmission, Semi-tempered Glass
Frame	Anodized aluminium alloy
Junction box	IP68 Rated
Output line	4.0mm <sup>2</sup> , wire length 300mm
Connector	MC4 Compatible

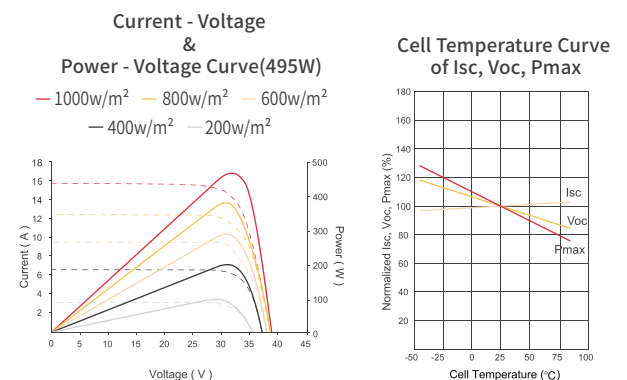
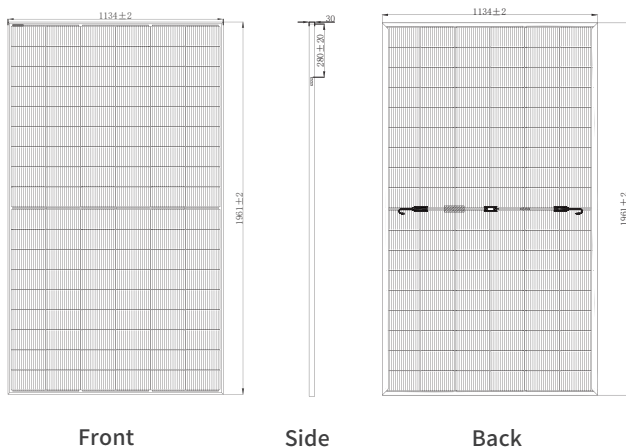
## TEMPERATURE CHARACTERISTIC

Temperature coefficient (P <sub>max</sub> )	-0.30% / °C
Temperature coefficient (V <sub>oc</sub> )	-0.24% / °C
Temperature coefficient (I <sub>sc</sub> )	+0.04% / °C
NMOT	43±2°C

## PACKAGING

Container	40HQ
PCS / Pallet	36
PCS / Container	864

## PRODUCT ASSEMBLY DRAWING(mm)



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**20GW ODM/OEM Solar Customization**