

# RAYTECH SINGLE-GLASS MODULE

**72 LAYOUT**  
MONOCRYSTALLINE MODULES

**430-455W**  
POWER OUTPUT

**20.9%**  
MAX. EFFICIENCY



## COMPANY PROFILE

Ningbo Raytech New Energy Materials Co., Ltd. (referred to as Raytech) is a national high-tech enterprise focusing on "new energy and new materials", integrating R&D, design, manufacturing sales and service. The company's main team has been focusing on the R&D and manufacturing of double-glass solar panels since 2009. its production bases are located in Zhejiang, Jiangsu, and Shandong. The company has an independent technology R&D team, a national key laboratory, and a fully automatic productionline for intelligent manufacturing. The product and quality control standards have reached the industry-leading level.

The company's products have obtained: TuV certification, UL certification, Australian CEC accreditation, Brazil INMETRO certification, the first batch of "Double Glass Leader Certification" in China, ISO9001 international quality system certification, 3C certification and many other authoritative certifications.

Raytech adheres to the business philosophy of "centering on user value and oriented to win-win cooperation", adheres to the principle of "pragmatic, inclusive, refined, and innovative", and carries the vision of "let the golden sunshine restore its natural color" to serve and contribute to the promotion of diversified applications of clean energy.

## PRODUCT FEATURES



### Optimized Power Gain

- Half-Cell Cutting Technology to Lower the Output Power Losses Brought by Shading;
- Integrates Multiple-Busbar(MBB) Tech, Higher Power Output



### Working Condition Compatibility & Safety

- High Resistance to High Temp., High Humidity, Sand, Acid and Alkali Environment;
- 5400Pa Snow Loading, 2400Pa Wind Loading;



### Higher-Than-Ever ROI

- 1500V System Voltage, Lower BOS Cost;
- Annual Degradation < 0.55%, 25-year Linear Performance Warranty;

## CERTIFICATION



## CONTACT US

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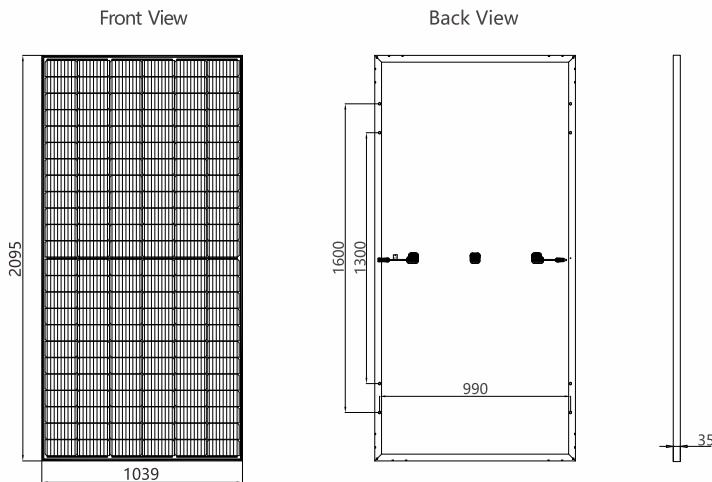


Wechat Public Account

# Single-Glass Mono Modules : 430-455W

## ENGINEERING DRAWING

## MECHANICAL SPECIFICATIONS



Cell Type	Mono crystalline
Solar Cells	144(6*24)
Module Dimension [mm]	2095*1039*35mm
Weight [Kg]	24.0
Front Glass [mm]	3.2 Low iron tempered coated glass
Interlayer	EVA
Backsheet	Composite sheet
Junction Box	Ip67 Rated, by-pass diodes
Connector	Multi-Contact MC4(or equivalent)
Transmittance[%]	0
Maximum Load Capacity [Pa]	2400(wind load)/5400(snow load)

## ELECTRICAL CHARACTERISTICS

		SMJ72H(S)-430	SMJ72H(S)-435	SMJ72H(S)-440	SMJ72H(S)-445	SMJ72H(S)-450	SMJ72H(S)-455	
STC: Air Mass AM1.5, Ir-radiance 1000W/m <sup>2</sup> Cell temperature 25°C	Maximum Power at STC [Pmax]	[W] 430	435	440	445	450	455	
	Open Circuit Voltage [Voc]	[V] 48.79	49.01	49.29	49.54	49.75	49.95	
	Short Circuit Current [Isc]	[A] 11.30	11.34	11.38	11.42	11.46	11.52	
	Voltage at Maximum Power point[Vm]	[V] 40.47	40.76	41.06	41.33	41.55	41.76	
	Current at Maximum Power point[Im]	[A] 10.63	10.67	10.72	10.77	10.83	10.90	
	Power Tolerance	[%]	0~+3%					
	Module Efficiency	[%]	19.8%	20.0%	20.2%	20.4%	20.7%	20.9%
NMOT: Air Mass AM1.5, Ir-radiance 800W/m <sup>2</sup> Ambient temperature 20°C, wind speed 1m/s.	Maximum Power at NMOT [Pmax]	[W] 321	325	329	333	336	340	
	Open Circuit Voltage [Voc]	[V] 45.6	45.8	46.0	46.3	46.5	46.7	
	Short Circuit Current [Isc]	[A] 9.11	9.14	9.18	9.21	9.24	9.29	
	Voltage at Maximum Power point[Vm]	[V] 37.2	37.4	37.7	37.9	38.1	38.3	
	Current at Maximum Power point[Im]	[A] 8.65	8.69	8.73	8.77	8.82	8.87	
	Power Tolerance	[%]	0~+3%					

## WORKING CONDITIONS

## TEMPERATURE COEFFICIENTS

Maximum System Voltage(With S)	[V]	1000 DC(IEC)
Maximum System Voltage(Without S)	[V]	1500 DC(IEC)
Operating Temperature	[°C]	-40~+85
Nominal Operating Cell Temperature	[°C]	45±3
Maximum rated current	[A]	20

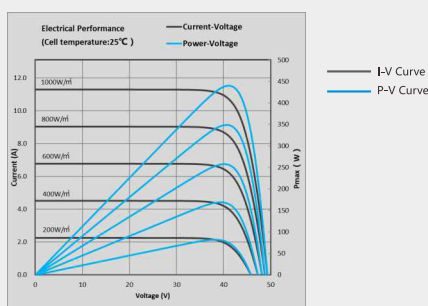
Temperature Coefficient of Pmax	[%/°C]	-0.42
Temperature Coefficient of Voc	[%/°C]	-0.33
Temperature Coefficient of Isc	[%/°C]	0.04

## PACKAGE CONFIGURATION

Per box 30 pieces      40" HQ 660 pieces

## ELECTRICAL CURVES

## LINEAR PERFORMANCE WARRANTY



NO MORE THAN 0.55% ANNUAL DEGRADATION OVER 25 YEARS

