

RAYTECH DOUBLE-GLASS MODULE

ALL BLACK MONO SHINGLED SOLAR MODULE

130-140W **POWER OUTPUT**

19.4% 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. The company's current annual production capacity is 1.2GW and 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

• All black design, satisfying visual effect.



Higher-Than-Ever ROI

- 1500V System Voltage, Lower BOS Cost;
- Shingled solar cells achieved higher power generation efficency



Working Condition Compatibility & Safety

- High Resistance to High Temp., High Humidity, Sand, Acid
- and Alkali Environment;

2400Pa Snow Loading, 2400Pa Wind Loading;

CERTIFICATION

















CONTACT US

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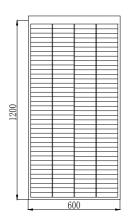
Email: sales@raytm.cn

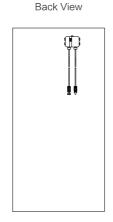


BLACK Mono Module: 130-140W

ENGINEERING DRAWING

Front View





MECHANICAL SPECIFICATIONS				
Cell Type	Mono crystalline			
Solar Cells	152 (38*4)			
Module Dimension [mm]	1200*600*7.4			
Weight [Kg]	12.6			
Front Glass [mm]	3.2 Semi tempered coated glass			
Interlayer	EVA/POE/PVB			
Back Glass [mm]	3.2 Semi tempered glass			
Junction Box	lp67 Rated, 1 by-pass diodes			
Connector	Multi-Contact MC4(or equivalent)			
Frame	No Frame			
Maximum Load Capacity [Pa]	2400(wind load)/2400(snow load)			

			DM152/5(S)-130	DM152/5(S) 135	DM152/5(S) 140	
STC: Air Mass AM1.5,Ir-radiance 1000W/m ² Cell temperature 25°C	Maximum Power at STC [Pmax]	[W]	130	135	140	
	Open Circuit Voltage [Voc]	[V]	51.10	51.61	52.11	
	Short Circuit Current [Isc] [A]		3.26	3.31	3.36	
	Voltage at Maximum Power point[Vm] [V]		41.94	42.75	43.38	
	Current at Maximum Power point[Im]	[A]	3.10	3.16	3.23	
	Power Tolerance	[%]	0~+3%			
	Module Efficiency	[%]	18.1%	18.8%	19.4%	
NMOT: Air Mass AM1.5, Irradiance 800W/m² Ambient temperature 20°C, wind speed 1m/s.	Maximum Power at NMOT [Pmax]	[W]	98	102	106	
	Open Circuit Voltage [Voc]	[V]	48.34	48.82	49.30	
	Short Circuit Current [Isc]	[A]	2.63	2.67	2.71	
	Voltage at Maximum Power point[Vm]	[V]	39.34	40.10	40.69	
	Current at Maximum Power point[Im]	[A]	2.50	2.55	2.60	
	Power Tolerance	[%]	0~+3%			

WORKING CONDITIONS

Maximum System Voltage(With S)	[V]	1000 DC(IEC)
Maximum System Voltage(Without S)	[V]	1500 DC(IEC)
Operating Temperature	[℃]	-40~+85
Nominal Operating Cell Temperature	[℃]	45±2
Maximum rated current	[A]	20

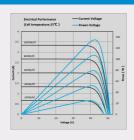
TEMPERATURE COEFFICIENTS

Temperature Coefficient of Pmax	[%/℃]	-0.36
Temperature Coefficient of Voc	[%/℃]	-0.29
Temperature Coefficient of Isc	[%/℃]	0.05

PACKAGE CONFIGURATION

Per box 60/30 pieces 40" HQ 1620 pieces

ELECTRICAL CURVES





LINEAR PERFORMANCE WARRANTY

NO MORE THAN 0.5% ANNUAL DEGRADATION OVER 30 YEARS

