

HIGH EFFICIENCY | LOWER LCOE
10-12BB | **210** MM CELLS

WWW.RESTARSOLAR.COM

RT9H-M HALF-CELL series is produced with high efficiency multi-busbar cells, which can reduce the module internal power loss to improve its conversion efficiency, as well as lower the failure risk caused by cracks and broken busbar to enhance the module reliability. Combined with half-cell technology, the module is highly resistant to hot-spot crisis caused by shadow effect.

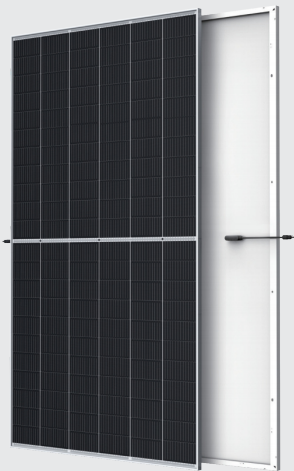
RT9H-M

132 Cells
 Mono Half-Cell 10-12BB

645-670 W
 Power output

21.57 %
 The Highest Efficiency

0~+5W
 Tolerance



High Reliability

Multi-busbar technology can effectively reduce the reliability risk caused by cells cracks and broken busbar.



Anti-PID Resistance

Prominent anti-PID performance reduces the power degradation, leading to higher energy yield and lower LCOE.



Durability Against Extreme Conditions

Certified to resist high salt mist and ammonia conditions.



High Efficiency

Multi-busbar technology can reduce the module internal power loss to improve the module conversion efficiency significantly.



Low-Light Performance

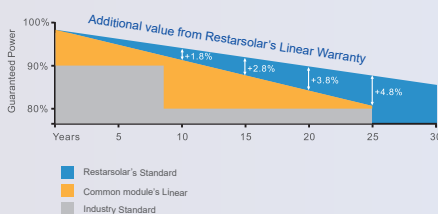
With high transmittance and anti-reflective 3.2mm tempered glass, the module has stronger performance under low light circumstances.



High Mechanical Strength

Certified to withstand: high wind load(2400Pa) and snow load(5400Pa).

0.5% Annual Degradation over 30 years



LINEAR PERFORMANCE WARRANTY

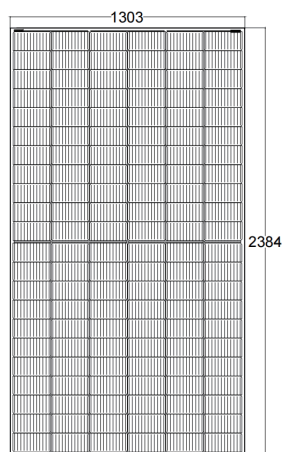
12 Year Product Warranty/ 30 year Linear Power Warranty

Full range of products and certification systems

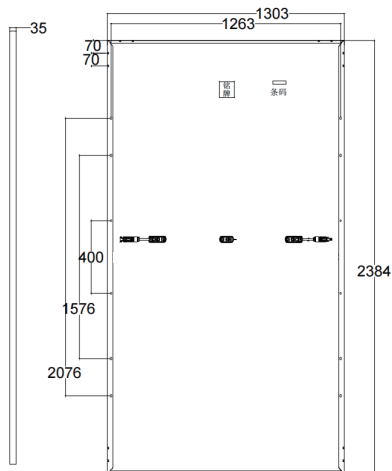
ISO 9001 TUV PID-FREE CE IEC61215/61730/61701/62716



Dimension of PV Modules Unit : mm

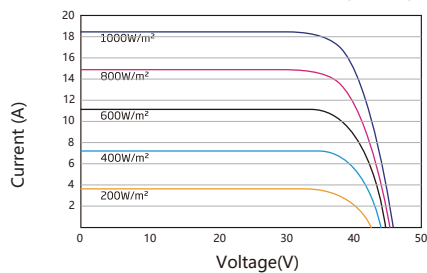


Front View

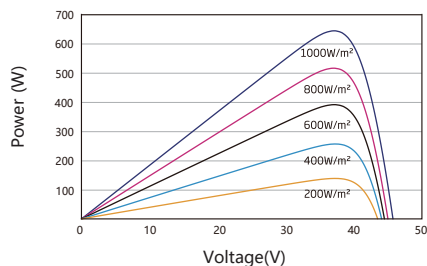


Back View

I-V CURVES OF PV MODULE(650 W)



P-V CURVES OF PV MODULE(650W)



ELECTRICAL DATA(STC)

Rated Power in Watts-Pmax(Wp)	645W	650W	655W	660W	665W	670W
Open Circuit Voltage-Voc(V)	45.10	45.30	45.50	45.70	45.90	46.10
Short Circuit Current-Isc(A)	18.39	18.44	18.48	18.53	18.57	18.62
Maximum Power Voltage-Vmp(V)	37.20	37.40	37.60	37.80	38.00	38.20
Maximum Power Current-Imp(A)	17.34	17.38	17.42	17.46	17.50	17.54
Module Efficiency(%)	20.76%	20.92%	21.09%	21.25%	21.41%	21.57%

STC: Irradiance 1000 W/m², Cell Temperature 25 C, Air Mass AM1.5 according to EN 60904-3.

ELECTRICAL DATA(NOCT)

Maximum Power-Pmax(Wp)	488W	492W	496W	500W	504W	508W
Open Circuit Voltage-Voc(V)	42.5	42.7	42.9	43.0	43.2	43.4
Short Circuit Current-Isc(A)	14.81	14.85	14.88	14.92	14.96	15.01
Maximum Power Voltage-Vmp(V)	34.8	34.9	35.1	35.3	35.4	35.5
Maximum Power Current-Imp(A)	14.05	14.09	14.13	14.17	14.22	14.26

NOCT: Irradiance at 800 W/m², Ambient Temperature 20 C, Wind Speed 1 m/s.

MECHANICAL DATA

Solar Cells	Mono-crystalline 210*105mm,10-12Bus bars
Cell Configuration	132cells(6*22)
Module Dimensions	2384*1303*35mm
Weight	33.6kg
Front Cover	3.2mm Tempered Glass
J-Box	IP68,3 diodes
Cable	4mm ² (IEC)/12AWG(UL),350mm(+)/450mm(-) or customized
Connectors	MC4 or MC4 Comparable

TEMPERATURE & MAXIMUM RATINGS

Nominal Operating Cell Temperature(NOCT)	45°C±2°C
Temperature Coefficient of Voc	- 0.26%/°C
Temperature Coefficient of Isc	0.05%/°C
Temperature Coefficient of Pmax	- 0.35%/°C
Operational Temperature	- 40~ +85°C
Maximum System Voltage	1500V(IEC)/1500V(UL)
Max Series Fuse Rating	30A
Limiting Reverse Current	30A

PACKING DETAILS

Loading Capacity	558pcs/40HQ
Packing Manner	31pcs/pallet
Package Number	18pallets