

GLOBAL PROFESSIONAL PV PRODUCTS INTEGRATED SOLUTIONS SUPPLIER

# RT9H-M

**132 Cells** Mono Half-Cell 10-12BB

645-670 W

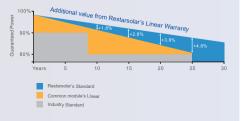
Power output

**21.57 %** The Highest Efficiency

0~+5W Tolerance



0.5% Annual Degradation over 30 years



LINEAR PERFORMANCE WARRANTY 12 Year Product Warranty/ 30 year Linear Power Warranty 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.

HIGH EFFICIENCY

10-12BB

LOWER LCOE

M CELLS

High module conversion efficiency (up to 21.57%), through superior manufacturing technology



Guaranteed 0-+5W positive power output tolerance ensures high reliability



Anti-reflective, hydrophobic coating improves light absorption and reduces surface dust



Excellent performance under low light environments (mornings, evenings and cloudy days)



Suitable for harsh environments, such as coasts, deserts and lakes Withstand high level of wind loads (2400pa) and snow loads (5400pa)

### Full range of products and certification systems

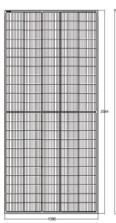
ISO 9001 TUV PID-FREE CE IEC61215/61730/61701/62716



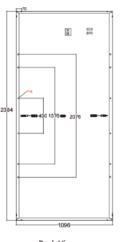


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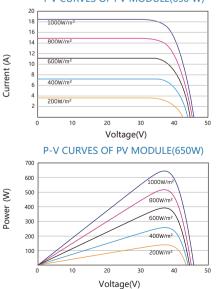
### Dimension of PV Modules Unit : mm



Front View



Back View



### 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) 17.46 17.54 17.34 17.38 17.42 17.50 Module Efficiency(%) 20.76% 20.92% 21.09% 21.25% 21.41% 21.57%

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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	
Cable	4mm²(IEC)/12AWG(UL),300mm/400mm	
Connectors	MC4 or MC4 Comparable	
Standard Packaging	31pcs/pallet	

TEMPERATURE & MAXIMUM RATINGS	8
Nominal Operating Cell Temperature(NOCT)	45℃±2℃
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℃
Maximum System Voltage	1500V(IEC)/1500V(UL)
Max Series Fuse Rating	30A
Limiting Reverse Current	30A

PACKAGING CONFIGURATION			
Number of modules per container	558pcs		
Package	31pcs/pallet		
Package Number	18pallets		
Package Weight	1062kg/pallet		
Package Dimension	1135*1130*2520mm/pallet		

## I-V CURVES OF PV MODULE(650 W)