

risen

Preliminary

90

n-type HJT | R-Space Series

Ultimate Full-Black Visual Experience

Born for Space, Perfected for Earth

495W_p

Power
Output

23.4%

Module
Efficiency

1500V_{DC}

Maximum
System Voltage

RSM90-8-495HDGB

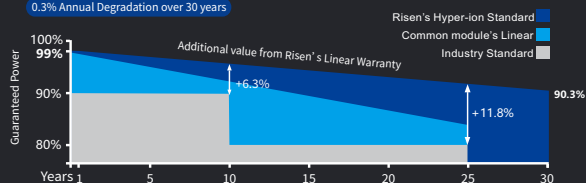
KEY FEATURES

- Full-black design with extremely aesthetic appearance
- Dual-glass structure with high mechanical loading and anti-microcracking properties
- Perfect for rooftop scenario application
- Ultra-high power generation, ultra-low carbon emission
- Excellent anti-LID & anti-PID performance
- Excellent temperature coefficient (P_{max}): -0.24%/°C
- Excellent 25 years Product Warranty

LINEAR PERFORMANCE WARRANTY

25 years Product Warranty / 30 years Linear Power Warranty

0.3% Annual Degradation over 30 years



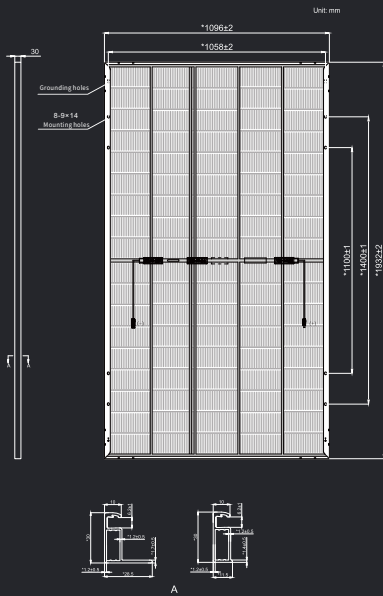
* Please check the valid version of Limited Product Warranty which is officially released by Risen Energy Co., Ltd

The module picture is for reference only



* As there are different certification requirements in different markets, please contact your local Risen Energy sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

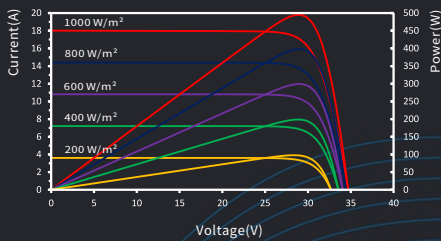
Dimensions of PV Module



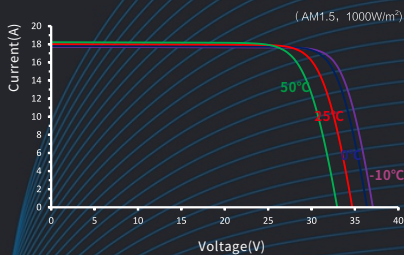
*Note: For specific dimensions and tolerance ranges, please refer to the corresponding detailed module drawings.

RSM90-8-495HDGB

I-V characteristics at different irradiances



I-V characteristics at different temperatures



PACKAGING CONFIGURATION

	40ft(HQ)	20ft
Number of modules per container	864	180
Number of modules per pallet	36	36
Number of pallets per container	24	5
Packaging box dimensions (LxWxH) in mm	1950 × 1100 × 1240	
Box gross weight[kg]	1012	

ELECTRICAL DATA (STC)

Model Type	RSM90-8-495HDGB
Rated Power in Watts-Pmax(Wp)	495
Open Circuit Voltage-Voc(V)	34.70
Short Circuit Current-Isc(A)	18.01
Maximum Power Voltage-Vmpp(V)	28.92
Maximum Power Current-Imp(A)	17.12
Module Efficiency (%) *	23.4

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.
Bifacial factor: 90 ± 5 (%) * Module Efficiency (%): Rounding to the nearest number

ELECTRICAL DATA (BNPI)

Model Type	RSM90-8-495HDGB
Maximum Power-Pmax (Wp)	554
Open Circuit Voltage-Voc (V)	34.70
Short Circuit Current-Isc (A)	20.19
Maximum Power Voltage-Vmpp (V)	28.92
Maximum Power Current-Imp (A)	19.19

BNPI: Front side irradiance 1000 W/m², Rear side irradiance 135 W/m², Cell Temperature 25°C, Air Mass AM1.5.
Power measurement tolerance: ± 3%

Electrical characteristics with 10% rear side power gain

Total Equivalent power -Pmax (Wp)	544
Open Circuit Voltage-Voc(V)	34.70
Short Circuit Current-Isc(A)	19.81
Maximum Power Voltage-Vmpp(V)	28.92
Maximum Power Current-Imp(A)	18.83

Rear side power gain: The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

MECHANICAL DATA

Solar cells	n-type HJT
Cell configuration	90 cells (5×9+5×9)
Module dimensions	1932×1096×30mm (76.06×43.15×1.18 in)
Weight	26kg (57.32 lb)
Superstrate	2.0mm(0.08in), High Transmission, AR Coated Heat Strengthened Glass
Substrate	2.0mm(0.08in), Heat Strengthened Glass
Frame	Anodized Aluminium Alloy, Black
J-Box	Potted, IP68, 1500VDC, 3 Schottky bypass diodes
Cables	4.0mm ² , 1200mm(47.24 in)(+), 1200mm(47.24 in)(-), connector Included, or customized length
Connector	MC4 EVO2/PV-SY02/Others
Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back), under certain installation method

TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	43°C ± 2°C
Temperature Coefficient of Voc	-0.22%/°C
Temperature Coefficient of Isc	0.047%/°C
Temperature Coefficient of Pmax	-0.24%/°C
Level T _g ≤ 70°C	-40°C ~ +70°C *
Maximum System Voltage	1500VDC
Max Series Fuse Rating	35A
Limiting Reverse Current	35A

* Short-term up to 85°C; higher operation requires IEC TS 63126 testing

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THE POWER OF RISING VALUE

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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No special undertaking or warranty for the suitability of special purpose or being installed in extraordinary surroundings is granted unless as otherwise specifically committed by manufacturer in contract document.

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