HIGH PERFORMANCE
BIFACIAL PERC MONOCRYSTALLINE MODULE

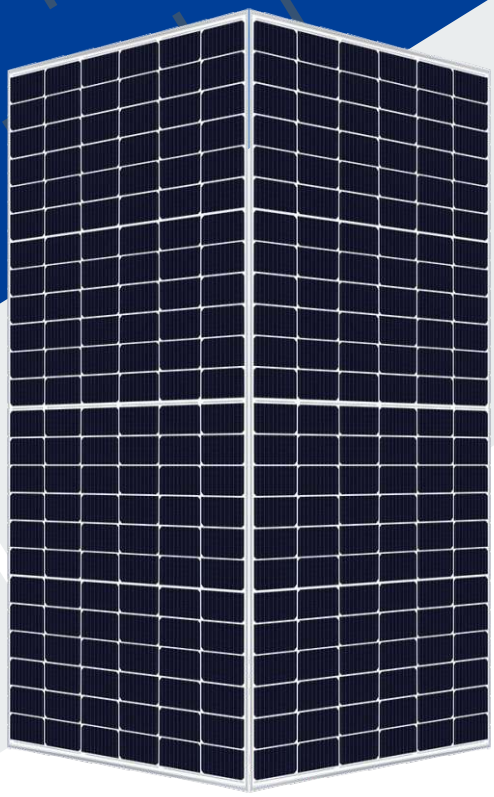
RSM144-9-540BMDG-560BMDG

144 CELL
Mono PERC Module

540-560Wp
Power Output Range

1500VDC
Maximum System Voltage

21.7%
Maximum Efficiency



ISO9001
ISO14001
ISO45001
IEC62941

★ 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.

KEY SALIENT FEATURES

- Global, Tier 1 bankable brand, with independently certified state-of-the-art automated manufacturing
- Bifacial technology enables additional energy harvesting from rear side (up to 30%)
- Industry leading lowest thermal co-efficient of power
- Industry leading 12 years product warranty
- Excellent low irradiance performance
- Excellent PID resistance
- Positive power tolerance of 0~+3%
- Dual stage 100% EL Inspection warranting defect-free product
- Module Imp binning radically reduces string mismatch losses
- Excellent wind load 2400Pa & snow load 5400Pa under certain installation method
- Comprehensive product and system certification
  - IEC61215:2016; IEC61730-1/-2:2016;
  - ISO 9001:2015 Quality Management System
  - ISO 14001:2015 Environmental Management System
  - ISO 45001:2018 Occupational Health and Safety Management System

RISEN ENERGY CO., LTD.

Risen Energy is a leading, global tier 1 manufacturer of high-performance solar photovoltaic products and provider of total business solutions for residential, commercial and utility-scale power generation. The company, founded in 1986, and publicly listed in 2010, compels value generation for its chosen global customers. Techno-commercial innovation, underpinned by consummate quality and support, encircle Risen Energy's total Solar PV business solutions which are among the most powerful and cost-effective in the industry. With local market presence and strong financial bankability status, we are committed, and able, to building strategic, mutually beneficial collaborations with our partners, as together we capitalise on the rising value of green energy.

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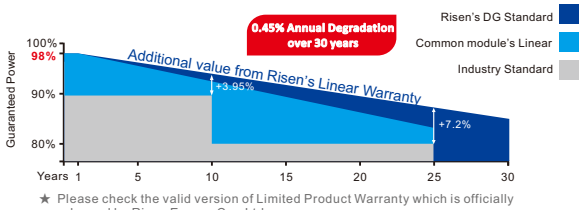
LINEAR PERFORMANCE WARRANTY

12 year Product Warranty / 30 year Linear Power Warranty



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

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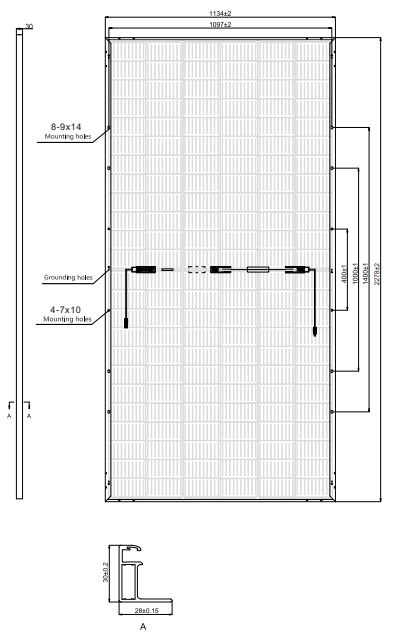
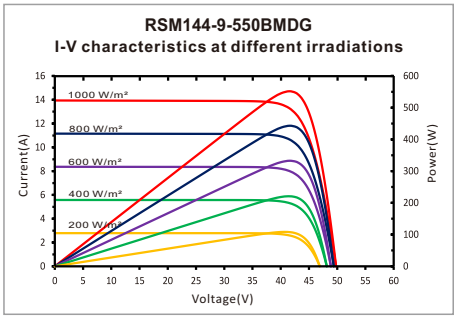
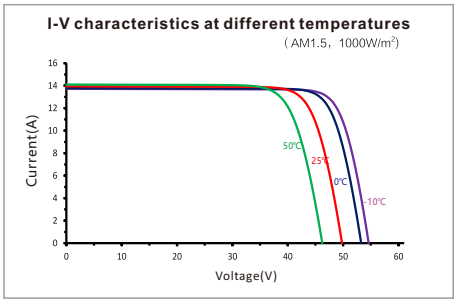
Dimensions of PV Module

Unit: mm







Our Partners:

ELECTRICAL DATA (STC)

Model Number	RSM144-9-540BMDG	RSM144-9-545BMDG	RSM144-9-550BMDG	RSM144-9-555BMDG	RSM144-9-560BMDG
Rated Power in Watts-Pmax(Wp)	**540**	**545**	**550**	**555**	**560**
Open Circuit Voltage-Voc(V)	49.60	49.70	49.80	49.91	50.01
Short Circuit Current-Isc(A)	13.73	13.84	13.94	14.04	14.14
Maximum Power Voltage-Vmpp(V)	41.99	42.11	42.20	42.29	42.38
Maximum Power Current-Impp(A)	12.88	12.96	13.04	13.13	13.22
Module Efficiency (%) ★	20.9	21.1	21.3	21.5	21.7

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.
Bifacial factor: 70±10(%) ★Module Efficiency (%): Round-off to the nearest number

Electrical characteristics with 10% rear side power gain

Total Equivalent power -Pmax (Wp)	594	600	605	611	616
Open Circuit Voltage-Voc(V)	49.60	49.70	49.80	49.91	50.01
Short Circuit Current-Isc(A)	15.10	15.22	15.33	15.44	15.55
Maximum Power Voltage-Vmpp(V)	41.99	42.11	42.20	42.29	42.38
Maximum Power Current-Impp(A)	14.17	14.26	14.34	14.44	14.54

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.

ELECTRICAL DATA (NMOT)

Model Number	RSM144-9-540BMDG	RSM144-9-545BMDG	RSM144-9-550BMDG	RSM144-9-555BMDG	RSM144-9-560BMDG
Maximum Power-Pmax (Wp)	404.8	408.5	412.2	416.0	419.8
Open Circuit Voltage-Voc (V)	46.62	46.72	46.81	46.90	46.99
Short Circuit Current-Isc (A)	11.26	11.35	11.43	11.51	11.59
Maximum Power Voltage-Vmpp (V)	38.80	38.90	39.00	39.10	39.20
Maximum Power Current-Impp (A)	10.43	10.50	10.57	10.64	10.71

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

MECHANICAL DATA

Solar cells	Monocrystalline
Cell configuration	144 cells (6×12+6×12)
Module dimensions	2278×1134×30mm
Weight	32.5kg
Superstrate	High Transmission, Low Iron, AR Coated Heat Strengthened Glass
Substrate	Heat Strengthened Glass
Frame	Anodized Aluminium Alloy, Silver Color
J-Box	Potted, IP68, 1500VDC, 3 Schottky bypass diodes
Cables	4.0mm² , Positive(+)350mm, Negative(-)230mm (Connector Included) or customized length
Connector	Risen Twinsel PV-SY02, IP68

TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	44°C±2°C
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	0.045%/°C
Temperature Coefficient of Pmax	-0.34%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	30A
Limiting Reverse Current	30A

PACKAGING CONFIGURATION

	40ft(HQ)
Number of modules per container	720
Number of modules per pallet	36
Number of pallets per container	20
Packaging box dimensions (LxWxH) in mm	2345×1140×1260
Box gross weight[kg]	1223

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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