



# **HIGH PERFORMANCE** BIFACIAL PERC MONOCRYSTALLINE MODULE

























### 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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# RSM110-8-530BMDG-550BMDG

530-550Wp **110 CELL Power Output Range** Mono PERC Module

1500VDC 21.0%

Maximum System Voltage Maximum Efficiency

# **KEY SALIENT FEATURES**

Global, Tier 1 bankable brand, with independently TIER 1 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

Bifacial

PID

Positive power tolerance of 0~+3%

Excellent PID resistance

2 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

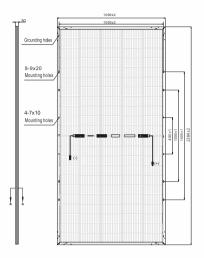
#### LINEAR PERFORMANCE WARRANTY

12 year Product Warranty / 30 year Linear Power Warranty

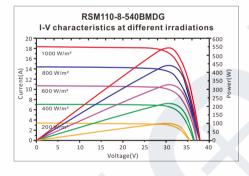


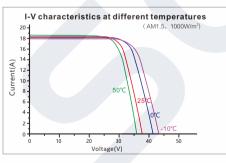


#### Dimensions of PV Module Unit: mm











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### **ELECTRICAL DATA (STC)**

Model Number	RSM110-8-530BMDG	RSM110-8-535BMDG	RSM110-8-540BMDG	RSM110-8-545BMDG	RSM110-8-550BMDG
Rated Power in Watts-Pmax(Wp)	530	535	540	545	550
Open Circuit Voltage-Voc(V)	37.44	37.66	37.88	38.10	38.32
Short Circuit Current-Isc(A)	18.02	18.07	18.13	18.18	18.23
Maximum Power Voltage-Vmpp(V)	31.16	31.36	31.56	31.76	31.96
Maximum Power Current-Impp(A)	17.02	17.07	17.12	17.17	17.22
Module Efficiency (%) ★	20.3	20.5	20.7	20.9	21.0

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

#### Electrical characteristics with 10% rear side power gain

Total Equivalent power -Pmax (Wp)	583	589	594	600	605
Open Circuit Voltage-Voc(V)	37.44	37.66	37.88	38.10	38.32
Short Circuit Current-Isc(A)	19.82	19.88	19.94	20.00	20.05
Maximum Power Voltage-Vmpp(V)	31.16	31.36	31.56	31.76	31.96
Maximum Power Current-Impp(A)	18.72	18.78	18.83	18.89	18.94

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	RSM110-8-530BMDG	RSM110-8-535BMDG	RSM110-8-540BMDG	RSM110-8-545BMDG	RSM110-8-550BMDG
Maximum Power-Pmax (Wp)	401.6	405.4	409.1	412.9	416.8
Open Circuit Voltage-Voc (V)	34.82	35.02	35.23	35.43	35.64
Short Circuit Current-Isc (A)	14.78	14.82	14.87	14.91	14.95
Maximum Power Voltage-Vmpp (V)	28.92	29.10	29.29	29.47	29.66
Maximum Power Current-Impp (A)	13.89	13.93	13.97	14.01	14.05

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

#### **MECHANICAL DATA**

Solar cells	Monocrystalline
Cell configuration	110 cells (5×11+5×11)
Module dimensions	2384×1096×30mm
Weight	33±0.5kg
Superstrate	High Transmission, Low Iron, Tempered ARC Glass
Substrate	Tempered Glass
Frame	Anodized Aluminium Alloy type 6005-2T6, Silver Color
J-Box	Potted, IP68, 1500VDC, 3 Schottky bypass diodes
Cables	4.0mm² (12AWG), Positive(+)350mm, Negative(-)230mm (Connector Included)
Connector	Risen Twinsel PV-SY02, IP68

## **TEMPERATURE & MAXIMUM RATINGS**

Nominal Module Operating Temperature (NMOT)	44°C±2°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	0.04%/°C
Temperature Coefficient of Pmax	-0.34%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	35A
Limiting Reverse Current	35A

#### **PACKAGING CONFIGURATION**

	40ft(HQ)
Number of modules per container	700
Number of modules per pallet	35
Number of pallets per container	20
Packaging box dimensions (LxWxH) in mm	2395×1100×1235
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.