

Draft

HIGH PERFORMANCE BIFACIAL PERC MONOCRYSTALLINE MODULE







ISO14001























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.

Tashan Industry Zone, Meilin, Ninghai 315609, Ningbo | PRC Tel: +86-574-59953239 Fax: +86-574-59953599 E-mail: marketing@risenenergy.com Website: www.risenenergy.com



Preliminary For Global Market

RSM110-8-535BMDG-555BMDG

535-555Wp **110 CELL Power Output Range** Mono PERC Module

1500VDC 21.2%

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

Positive tight power tolerance

Excellent PID resistance

Bifacial

PID

2 Dual stage 100% EL Inspection warranting defect-free product

Module Imp binning radically reduces string mismatch losses

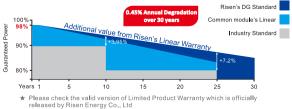
> Warranted reliability and stringent quality assurances well beyond certified requirements

> Certified to withstand severe environmental conditions

- · Anti-reflective & anti-soiling surface minimise power loss from dirt and dust
- Severe salt mist, ammonia & blown sand resistance, for seaside, farm and desert environments
- Excellent mechanical resistance: wind load 2400Pa & snow load 5400Pa

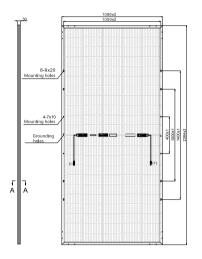
LINEAR PERFORMANCE WARRANTY

12 year Product Warranty / 30 year Linear Power Warranty

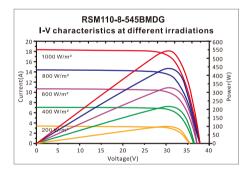


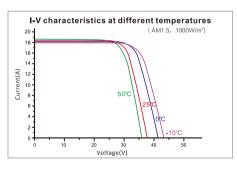


Dimensions of PV Module Unit: mm









Our Partners:

REM110-BMDG-12BB-EN-H1-2-2021

ELECTRICAL DATA (STC)

Model Number	RSM110-8-535BMDG	RSM110-8-540BMDG	RSM110-8-545BMDG	RSM110-8-550BMDG	RSM110-8-555BMDG
Rated Power in Watts-Pmax(Wp)	535	540	545	550	555
Open Circuit Voltage-Voc(V)	37.66	37.88	38.10	38.32	38.54
Short Circuit Current-Isc(A)	18.07	18.13	18.18	18.23	18.28
Maximum Power Voltage-Vmpp(V)	31.36	31.56	31.76	31.96	32.16
Maximum Power Current-Impp(A)	17.07	17.12	17.17	17.22	17.27
Module Efficiency (%) ★	20.5	20.7	20.9	21.0	21.2

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3. Bifacial factor: $70\%\pm5$ * Module Efficiency (%): Round-off to the nearest number

Electrical characteristics with 10% rear side power gain

Total Equivalent power -Pmax (Wp)	589	594	600	605	610
Open Circuit Voltage-Voc(V)	37.66	37.88	38.10	38.32	38.54
Short Circuit Current-Isc(A)	19.88	19.94	20.00	20.05	20.11
Maximum Power Voltage-Vmpp(V)	31.36	31.56	31.76	31.96	32.16
Maximum Power Current-Impp(A)	18.78	18.83	18.89	18.94	19.00

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	RSM110-8-535BMDG	RSM110-8-540BMDG	RSM110-8-545BMDG	RSM110-8-550BMDG	RSM110-8-555BMDG
Maximum Power-Pmax (Wp)	405.4	409.1	412.9	416.8	420.6
Open Circuit Voltage-Voc (V)	35.02	35.23	35.43	35.64	35.84
Short Circuit Current-Isc (A)	14.82	14.87	14.91	14.95	14.99
Maximum Power Voltage-Vmpp (V)	29.10	29.29	29.47	29.66	29.84
Maximum Power Current-Impp (A)	13.93	13.97	14.01	14.05	14.09

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(-)350mm (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
Box gross weight[kg]	1225

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

©2021 Risen Energy. All rights reserved. Specifications included in this datasheet are subject to change without notice.