TITA

HIGH PERFORMANCE BIFACIAL PERC MONOCRYSTALLINE MODULE



iŝò ISO14001 Cac ISO4500 <u>5</u>

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

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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RSM132-8-650BMDG-670BMDG

132 CELL Mono PERC Module 650-670Wp **Power Output Range**

1500VDC Maximum System Voltage 21.6%

Maximum Efficiency

KEY SALIENT FEATURES



Global, Tier 1 bankable brand, with independently certified state-of-the-art automated manufacturing



Industry leading lowest thermal co-efficient of power

Bifacial technology enables additional energy harvesting



Industry leading 12 years product warranty



Excellent low irradiance performance



Excellent PID resistance

from rear side (up to 30%)



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

LINEAR PERFORMANCE WARRANTY

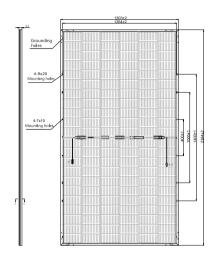
12 year Product Warranty / 30 year Linear Power Warranty



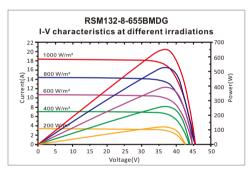
THE POWER OF RISING VALUE

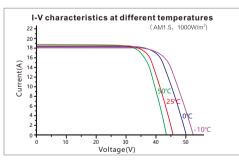


Dimensions of PV Module Unit: mm









Our Partners:

ELECTRICAL DATA (STC)

Model Number	RSM132-8-650BMDG	RSM132-8-655BMDG	RSM132-8-660BMDG	RSM132-8-665BMDG	RSM132-8-670BMDG
Rated Power in Watts-Pmax(Wp)	650	655	660	665	670
Open Circuit Voltage-Voc(V)	45.49	45.69	45.89	46.09	46.29
Short Circuit Current-Isc(A)	18.18	18.23	18.28	18.33	18.38
Maximum Power Voltage-Vmpp(V)	37.87	38.05	38.23	38.41	38.59
Maximum Power Current-Impp(A)	17.17	17.22	17.27	17.32	17.37
Module Efficiency (%) *	20.9	21.1	21.2	21.4	21.6

 $\label{eq:stress} \begin{array}{l} {\rm STC: Irradiance\ 1000\ W/m^2,\ Cell\ Temperature\ 25^\circ C,\ Air\ Mass\ AM1.5\ according\ to\ EN\ 60904-3.} \\ {\rm Bifacial\ factor:\ 70\pm10(\%)\ } \\ \end{array} \\ \begin{array}{l} \star {\rm Module\ Efficiency\ (\%):\ Round-off\ to\ the\ nearest\ number} \end{array}$

Electrical characteristics with 10% rear side power gain

Total Equivalent power -Pmax (Wp)	715	721	726	732	737
Open Circuit Voltage-Voc(V)	45.49	45.69	45.89	46.09	46.29
Short Circuit Current-Isc(A)	20.00	20.05	20.11	20.16	20.22
Maximum Power Voltage-Vmpp(V)	37.87	38.05	38.23	38.41	38.59
Maximum Power Current-Impp(A)	18.89	18.94	19.00	19.05	19.11

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	RSM132-8-650BMDG	RSM132-8-655BMDG	RSM132-8-660BMDG	RSM132-8-665BMDG	RSM132-8-670BMDG
Maximum Power-Pmax (Wp)	492.4	496.2	500.0	503.8	507.6
Open Circuit Voltage-Voc (V)	42.31	42.49	42.68	42.86	43.05
Short Circuit Current-Isc (A)	14.91	14.95	14.99	15.03	15.07
Maximum Power Voltage-Vmpp (V)	35.14	35.31	35.48	35.64	35.81
Maximum Power Current-Impp (A)	14.01	14.05	14.09	14.13	14.17

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

MECHANICAL DATA

Solar cells	Monocrystalline
Cell configuration	132 cells (6×11+6×11)
Module dimensions	2384×1303×33mm
Weight	38.3kg
Superstrate	High Transmission, 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	4.0mm ² , 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	594
Number of modules per pallet	33
Number of pallets per container	18
Packaging box dimensions (LxWxH) in mm	1320×1125×2520
Box gross weight[kg]	1315

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