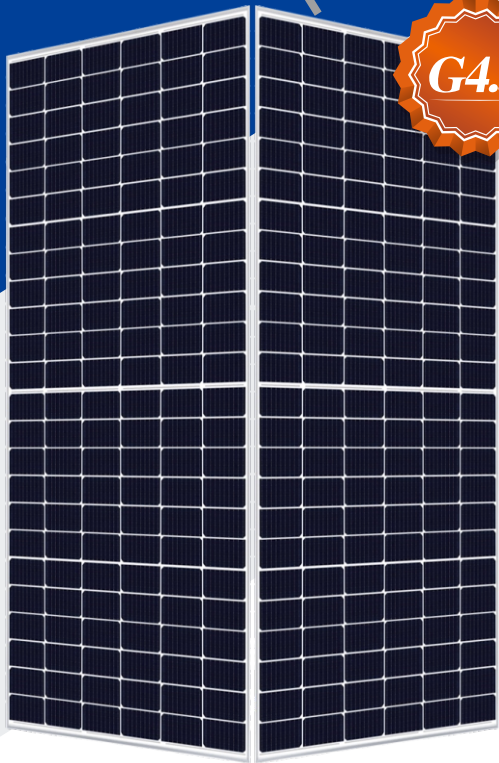


HIGH PERFORMANCE BIFACIAL PERC MONOCRYSTALLINE MODULE



G4.3

RSM144-7-440BMDG-460BMDG

144 CELL Mono PERC Module	440-460Wp Power Output Range
1500VDC Maximum System Voltage	20.6% Maximum Efficiency

KEY SALIENT FEATURES

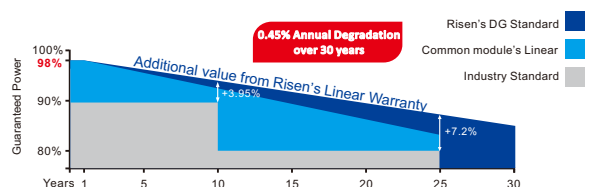
- Global, Tier 1 bankable brand, with independently certified state-of-the-art automated manufacturing
- Bifacial technology enables additional energy harvesting from rear side (up to 30%)
- Industry leading lowest thermal co-efficient of power
- Industry leading 12 years product warranty
- Excellent 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



* 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.

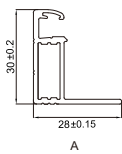
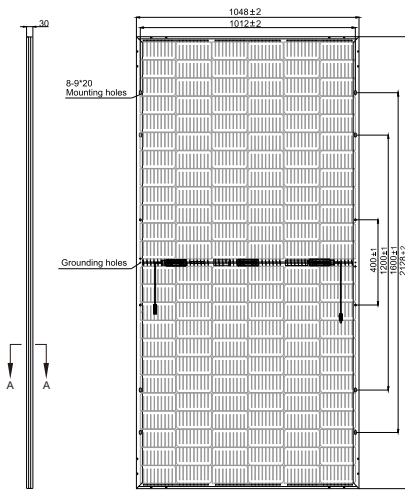
LINEAR PERFORMANCE WARRANTY

12 year Product Warranty / 30 year Linear Power Warranty





Dimensions of PV Module Unit: mm



ELECTRICAL DATA (STC)

Model Number	RSM144-7-440BMDG	RSM144-7-445BMDG	RSM144-7-450BMDG	RSM144-7-455BMDG	RSM144-7-460BMDG
Rated Power in Watts-Pmax(Wp)	440	445	450	455	460
Open Circuit Voltage-Voc(V)	49.50	49.60	49.70	49.80	49.90
Short Circuit Current-Isc(A)	11.30	11.40	11.50	11.60	11.70
Maximum Power Voltage-Vmpp(V)	41.13	41.25	41.30	41.40	41.50
Maximum Power Current-Impp(A)	10.70	10.80	10.90	11.00	11.10
Module Efficiency (%) *	19.7	20.0	20.2	20.4	20.6

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 different rear side power gain (reference to 450Wp front)

Bifacial Gain *	Pmax/W	Voc/V	Isc/A	Vmpp/V	Impp/A
5%	473	49.70	12.08	41.30	11.45
10%	495	49.70	12.65	41.30	11.99
15%	518	49.70	13.23	41.30	12.54
20%	540	49.70	13.80	41.30	13.08
25%	563	49.70	14.38	41.30	13.63
30%	585	49.70	14.95	41.30	14.17

*Bifacial 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	RSM144-7-440BMDG	RSM144-7-445BMDG	RSM144-7-450BMDG	RSM144-7-455BMDG	RSM144-7-460BMDG
Maximum Power-Pmax (Wp)	329.6	333.9	338.2	342.5	346.9
Open Circuit Voltage-Voc (V)	46.18	46.36	46.43	46.61	46.67
Short Circuit Current-Isc (A)	9.26	9.35	9.45	9.54	9.64
Maximum Power Voltage-Vmpp (V)	37.80	37.90	38.00	38.10	38.20
Maximum Power Current-Impp (A)	8.72	8.81	8.90	8.99	9.08

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	2128×1048×30mm
Weight	29.0kg
Superstrate	High Transmission, Low Iron, Tempered ARC Glass
Substrate	Tempered Glass
Frame	Anodized Aluminium Alloy type 6063T5, Silver Color
J-Box	Potted, IP68, 1500VDC, 3 Schottky bypass diodes
Cables	4.0mm ² (12AWG), Positive(+)/350mm, Negative(-)/230mm (Connector Included)
Connector	Risen Twinsel PV-SY02, IP68

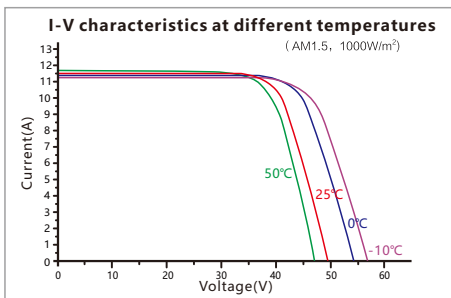
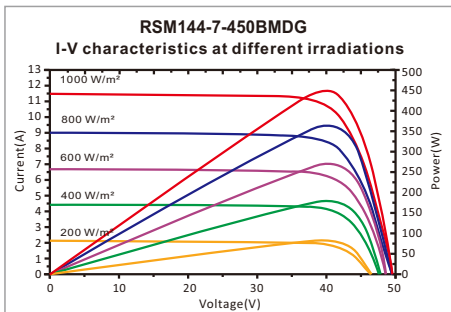
TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	44°C±2°C
Temperature Coefficient of Voc	-0.28%/°C
Temperature Coefficient of Isc	0.05%/°C
Temperature Coefficient of Pmax	-0.36%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	25A
Limiting Reverse Current	25A

PACKAGING CONFIGURATION

	40ft(HQ)	20ft
Number of modules per container	700	175
Number of modules per pallet	35	35
Number of pallets per container	20	5
Packaging box dimensions (LxWxH) in mm	2195×1130×1185	2195×1130×1185
Box gross weight[kg]	1023	1023

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



Our Partners: