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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

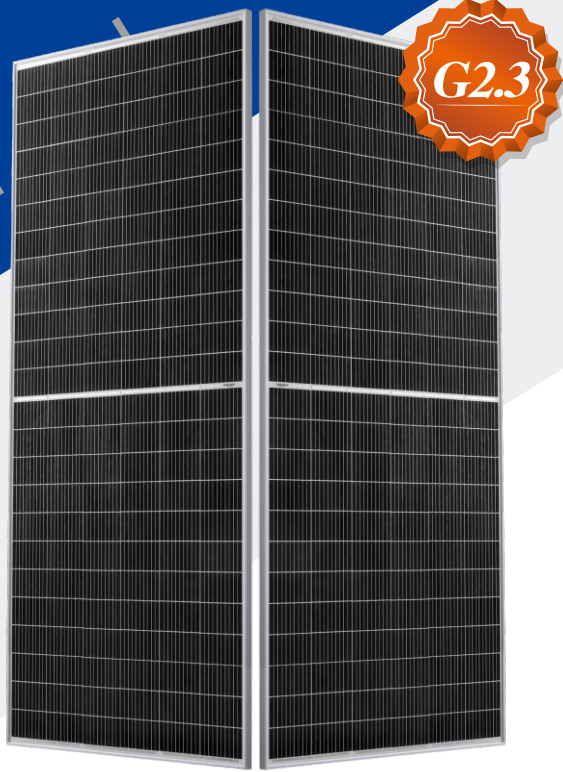
**Risen Energy Co., Ltd.  
RSM144-6-395-420BMDG  
RSM144-6-410BMDG**

Also available on the web at  
[EnergyPal.com/risen-energy-co-ltd-solar-panels/rsm144-6-410bmdg](http://EnergyPal.com/risen-energy-co-ltd-solar-panels/rsm144-6-410bmdg)

# Jäger Plus

HIGH PERFORMANCE  
BIFACIAL PERC MONOCRYSTALLINE MODULE

888



## RSM144-6-395BMDG-420BMDG

<b>144 CELL</b> Mono PERC Module	<b>395-420Wp</b> Power Output Range
<b>1500VDC</b> Maximum System Voltage	<b>20.6%</b> 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 tight power tolerance
- 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 load 2400Pa & snow load 5400Pa resistance



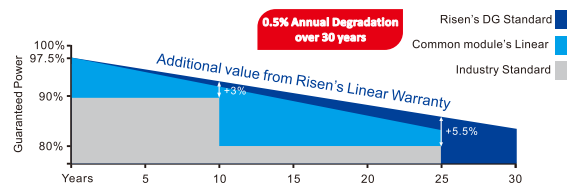
#### RISEN ENERGY CO., LTD.

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

### LINEAR PERFORMANCE WARRANTY

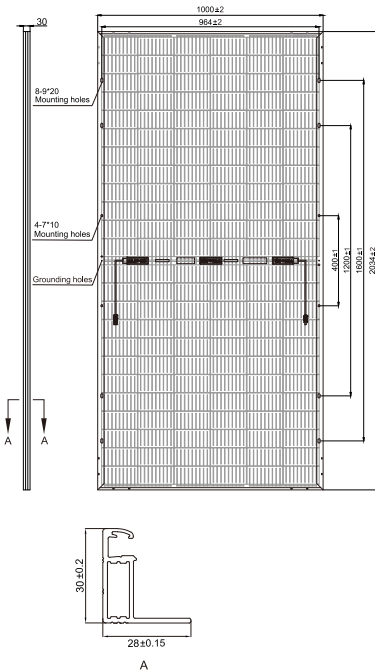
12 year Product Warranty / 30 year Linear Power Warranty



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



## Dimensions of PV Module Unit: mm



## ELECTRICAL DATA (STC)

Model Number	RSM144-6-395BMDG	RSM144-6-400BMDG	RSM144-6-405BMDG	RSM144-6-410BMDG	RSM144-6-415BMDG	RSM144-6-420BMDG
Rated Power in Watts-Pmax(Wp)	395	400	405	410	415	420
Open Circuit Voltage-Voc(V)	48.45	48.60	48.75	48.90	49.00	49.10
Short Circuit Current-Isc(A)	10.40	10.50	10.60	10.70	10.80	10.90
Maximum Power Voltage-Vmpp(V)	40.35	40.45	40.55	40.65	40.70	40.80
Maximum Power Current-Imp(A)	9.80	9.90	10.00	10.10	10.20	10.30
Module Efficiency (%) *	19.4	19.7	19.9	20.2	20.4	20.6

STC: Irradiance 1000 W/m<sup>2</sup>, 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 405Wp front)

Bifacial Gain *	Pmax/W	Voc/V	Isc/A	Vmpp/V	Imp/A
5%	426	48.75	11.13	40.55	10.50
10%	446	48.75	11.66	40.55	11.00
15%	466	48.75	12.19	40.55	11.50
20%	487	48.75	12.72	40.55	12.00
25%	507	48.75	13.25	40.55	12.50
30%	527	48.75	13.78	40.55	13.00

★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	RSM144-6-395BMDG	RSM144-6-400BMDG	RSM144-6-405BMDG	RSM144-6-410BMDG	RSM144-6-415BMDG	RSM144-6-420BMDG
Maximum Power-Pmax (Wp)	295.6	299.3	303.1	306.9	309.2	312.7
Open Circuit Voltage-Voc (V)	44.60	44.70	44.90	44.99	45.63	45.70
Short Circuit Current-Isc (A)	8.53	8.61	8.69	8.77	8.80	8.87
Maximum Power Voltage-Vmpp (V)	37.00	37.05	37.14	37.24	37.30	37.40
Maximum Power Current-Imp (A)	8.00	8.08	8.16	8.24	8.29	8.36

## MECHANICAL DATA

Solar cells	Monocrystalline, 9BB
Cell configuration	144 cells (6×12×6×12)
Module dimensions	2034×1000×30mm
Weight	27kg
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 <sup>2</sup> (12AWG), Positive(+) 270mm, Negative(-) 270mm
Connector	Risen Twinsel PV-SY02, IP68

## TEMPERATURE & MAXIMUM RATINGS

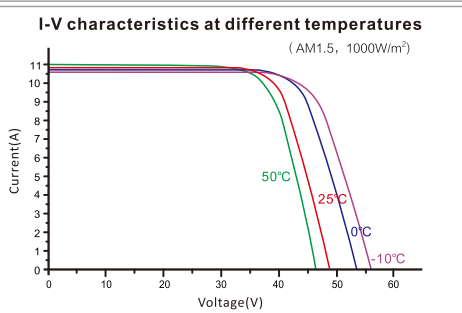
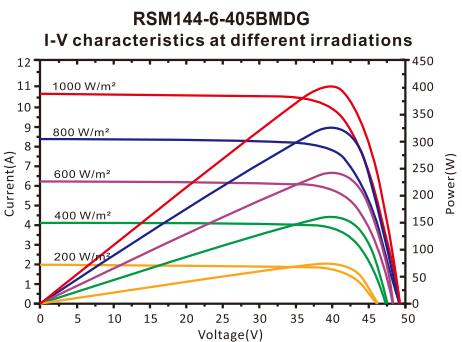
Nominal Module Operating Temperature (NMOT)	44°C±2°C
Temperature Coefficient of Voc	-0.28%/°C
Temperature Coefficient of Isc	0.05%/°C
Temperature Coefficient of Pmax	-0.36%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	20A
Limiting Reverse Current	20A

## PACKAGING CONFIGURATION

	40ft(HQ)	20ft
Number of modules per container	770	350
Number of modules per pallet	35	35
Number of pallets per container	22	10
Packaging box dimensions (LxWxH) in mm	2100×1130×1135	2100×1130×1135
Box gross weight[kg]	1000	1000

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

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