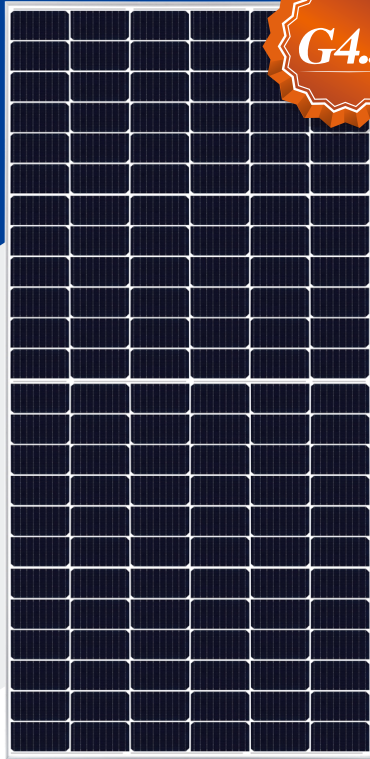


# HIGH PERFORMANCE MONOCRYSTALLINE PERC MODULE



## RSM144-7-430M-450M

**144 CELL**

Mono PERC Module

**430-450Wp**

Power Output Range

**1500VDC**

Maximum System Voltage

**20.4%**

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



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.

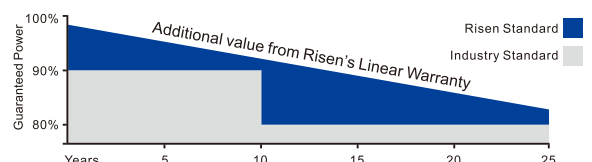
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E-mail: marketing@risenenenergy.com Website: www.risenenergy.com

## LINEAR PERFORMANCE WARRANTY

12 year Product Warranty / 25 year Linear Power Warranty



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

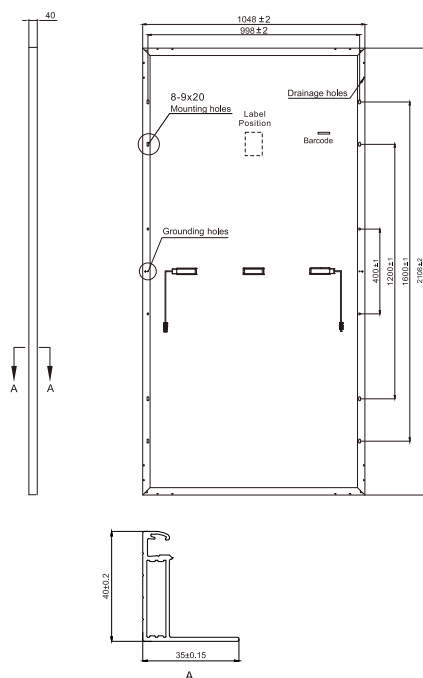
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Preliminary  
For Global Market

## Dimensions of PV Module

Unit: mm



## ELECTRICAL DATA (STC)

Model Number	RSM144-7-430M	RSM144-7-435M	RSM144-7-440M	RSM144-7-445M	RSM144-7-450M
Rated Power in Watts-Pmax(Wp)	430	435	440	445	450
Open Circuit Voltage-Voc(V)	49.30	49.40	49.50	49.60	49.70
Short Circuit Current-Isc(A)	11.10	11.20	11.30	11.40	11.50
Maximum Power Voltage-Vmpp(V)	40.97	41.05	41.13	41.25	41.30
Maximum Power Current-Impp(A)	10.50	10.60	10.70	10.80	10.90
Module Efficiency (%) ★	19.5	19.7	19.9	20.1	20.4

STC: Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.

★ Module Efficiency (%): Round-off to the nearest number

## ELECTRICAL DATA (NMOT)

Model Number	RSM144-7-430M	RSM144-7-435M	RSM144-7-440M	RSM144-7-445M	RSM144-7-450M
Maximum Power-Pmax (Wp)	321.5	325.2	329.6	333.9	338.2
Open Circuit Voltage-Voc (V)	45.36	45.45	46.18	46.39	46.43
Short Circuit Current-Isc (A)	9.10	9.18	9.27	9.35	9.43
Maximum Power Voltage-Vmpp (V)	37.53	37.60	37.80	37.90	38.00
Maximum Power Current-Impp (A)	8.57	8.65	8.72	8.81	8.90

NMOT: Irradiance at 800 W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1 m/s.

## MECHANICAL DATA

Solar cells	Monocrystalline 166×83mm
Cell configuration	144 cells (6×12+6×12)
Module dimensions	2108×1048×40mm
Weight	25kg
Superstrate	High Transmission, Low Iron, Tempered ARC Glass
Substrate	White Back-sheet
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 Twinseal PV-SY02, IP68

## TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	44°C±2°C
Temperature Coefficient of Voc	-0.29%/°C
Temperature Coefficient of Isc	0.05%/°C
Temperature Coefficient of Pmax	-0.37%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	20A
Limiting Reverse Current	20A

## PACKAGING CONFIGURATION

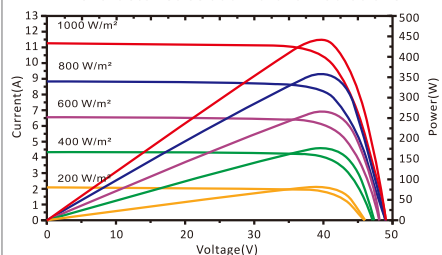
	40ft	20ft
Number of modules per container	594	135
Number of modules per pallet	27	27
Number of pallets per container	22	5
Packaging box dimensions (LxWxH) in mm	2140×1130×1180	2140×1130×1180
Box gross weight[kg]	730	730

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

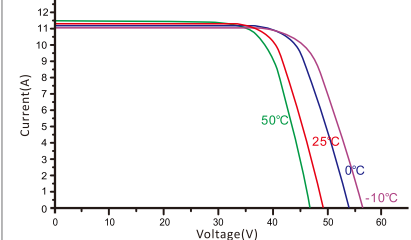
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**RSM144-7-440M**  
I-V characteristics at different irradiances



**I-V characteristics at different temperatures**  
(AM1.5, 1000W/m<sup>2</sup>)



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