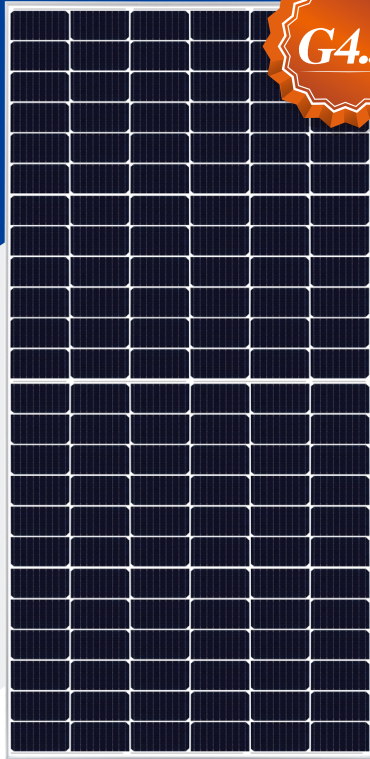


# HIGH PERFORMANCE MONOCRYSTALLINE PERC MODULE



**G4.3**

## RSM144-7-440M-460M

<b>144 CELL</b> Mono PERC Module	<b>440-460Wp</b> Power Output Range
<b>1500VDC</b> Maximum System Voltage	<b>20.8%</b> 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

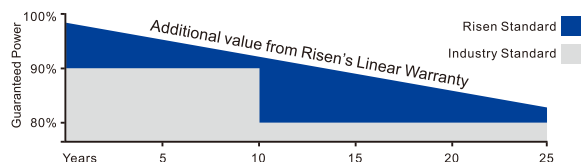


### RISEN ENERGY CO., LTD.

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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 Tel: +86-574-59953239 Fax: +86-574-59953599  
 E-mail: marketing@risenenergy.com Website: www.risenenergy.com

### LINEAR PERFORMANCE WARRANTY 12 year Product Warranty / 25 year Linear Power Warranty

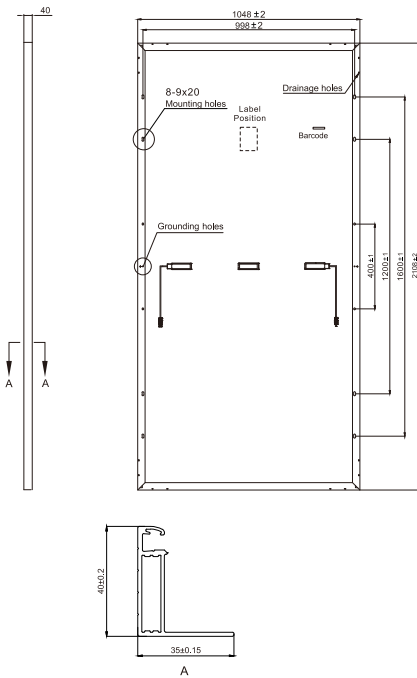


★ Please check the valid version of Limited Product Warranty which is officially released by Risen Energy Co., Ltd



Preliminary  
For Global Market

### Dimensions of PV Module Unit: mm



### ELECTRICAL DATA (STC)

Model Number	RSM144-7-440M	RSM144-7-445M	RSM144-7-450M	RSM144-7-455M	RSM144-7-460M
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 (%) *	19.9	20.1	20.4	20.6	20.8

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	RSM144-7-440M	RSM144-7-445M	RSM144-7-450M	RSM144-7-455M	RSM144-7-460M
Maximum Power-Pmax (Wp)	329.6	333.9	338.2	342.5	346.9
Open Circuit Voltage-Voc (V)	46.18	46.39	46.43	46.61	46.67
Short Circuit Current-Isc (A)	9.27	9.35	9.43	9.51	9.59
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/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 Twinsel 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

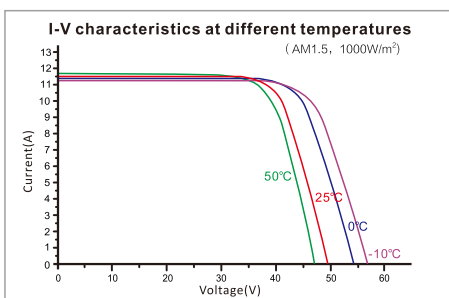
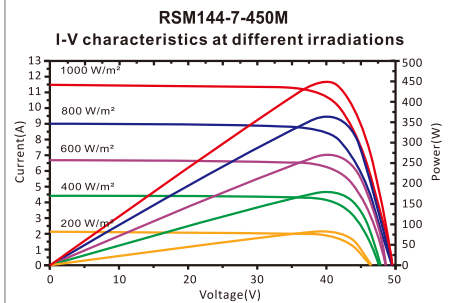
### PACKAGING CONFIGURATION

	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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