# HIGH PERFORMANCE MONOCRYSTALLINE PERC MODULE





























#### 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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Preliminary For Global Market

## RSM144-9-525M-545M

144 CELL 525-545Wp

Mono PERC Module Power Output Range

1500VDC 21.0%

Maximum System Voltage Maximum Efficiency

#### **KEY SALIENT FEATURES**

Bloomberg TIER 1 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

#### LINEAR PERFORMANCE WARRANTY

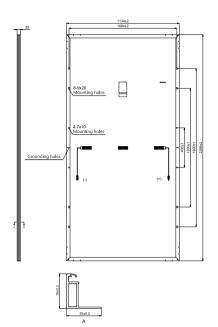
12 year Product Warranty / 25 year Linear Power Warranty

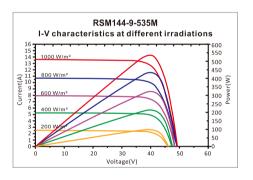


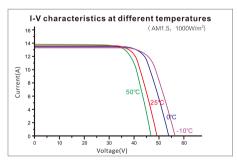
★ Please check the valid version of Limited Product Warranty which is officially released by Risen Energy Co., Ltd



#### Dimensions of PV Module Unit: mm









REM144-M-10BB-EN-H2-2-2020

## **ELECTRICAL DATA (STC)**

Model Number	RSM144-9-525M	RSM144-9-530M	RSM144-9-535M	RSM144-9-540M	RSM144-9-545M
Rated Power in Watts-Pmax(Wp)	525	530	535	540	545
Open Circuit Voltage-Voc(V)	49.30	49.40	49.50	49.60	49.70
Short Circuit Current-Isc(A)	13.45	13.55	13.64	13.74	13.84
Maximum Power Voltage-Vmpp(V)	41.65	41.75	41.87	41.99	42.11
Maximum Power Current-Impp(A)	12.61	12.70	12.79	12.87	12.96
Module Efficiency (%) ★	20.2	20.4	20.6	20.8	21.0

STC: Irradiance 1000 W/m², 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	RSM144-9-525M	RSM144-9-530M	RSM144-9-535M	RSM144-9-540M	RSM144-9-545M
Maximum Power-Pmax (Wp)	390.8	394.6	398.5	402.0	405.8
Open Circuit Voltage-Voc (V)	46.49	46.58	46.68	46.77	46.87
Short Circuit Current-Isc (A)	11.03	11.11	11.18	11.27	11.35
Maximum Power Voltage-Vmpp (V)	38.50	38.60	38.70	38.80	38.90
Maximum Power Current-Impp (A)	10.15	10.22	10.30	10.36	10.43

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	2288×1134×35mm
Weight	28kg
Superstrate	High Transmission, Low Iron, Tempered ARC Glass
Substrate	White Back-sheet
Frame	Anodized Aluminium Alloy type 6005-2T6, Silver Color
J-Box	Potted, IP68, 1500VDC, 3 Schottky bypass diodes
Cables	4.0mm² (12AWG), Positive(+)350mm, Negative(-)350mm (Connector Included )
Connector	Risen Twinsel PV-SY02, IP68

#### **TEMPERATURE & MAXIMUM RATINGS**

Nominal Module Operating Temperature (NMOT)	44°C±2°C
Temperature Coefficient of Voc	-0.275%/°C
Temperature Coefficient of Isc	0.045%/°C
Temperature Coefficient of Pmax	-0.35%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	25A
Limiting Reverse Current	25A

## PACKAGING CONFIGURATION

	40ft(HQ)
Number of modules per container	620
Number of modules per pallet	31
Number of pallets per container	20
Packaging box dimensions (LxWxH) in mm	2320×1135×1275
Box gross weight[kg]	940

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