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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# RSM156-6-430M-455M

156 CELL 430-455Wp
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 15 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

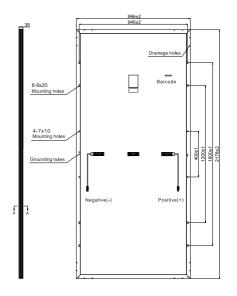
### LINEAR PERFORMANCE WARRANTY

15 year Product Warranty / 25 year Linear Power Warranty

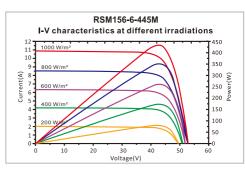


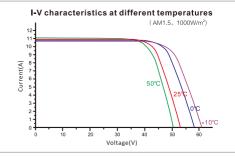


# Dimensions of PV Module Unit: mm









# Our Partners:

# **ELECTRICAL DATA (STC)**

Model Number	RSM156-6-430M	RSM156-6-435M	RSM156-6-440M	RSM156-6-445M	RSM156-6-450M	RSM156-6-455M
Rated Power in Watts-Pmax(Wp)	430	435	440	445	450	455
Open Circuit Voltage-Voc(V)	52.38	52.50	52.62	52.72	52.82	52.92
Short Circuit Current-Isc(A)	10.47	10.57	10.67	10.77	10.87	10.97
Maximum Power Voltage-Vmpp(V)	43.60	43.70	43.80	43.90	44.00	44.10
Maximum Power Current-Impp(A)	9.87	9.97	10.06	10.15	10.24	10.32
Module Efficiency (%) ★	19.8	20.1	20.3	20.5	20.7	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	RSM156-6-430M	RSM156-6-435M	RSM156-6-440M	RSM156-6-445M	RSM156-6-450M	RSM156-6-455M
Maximum Power-Pmax (Wp)	321.8	325.5	329.3	332.9	336.6	340.3
Open Circuit Voltage-Voc (V)	48.20	48.30	48.41	48.50	48.59	48.69
Short Circuit Current-Isc (A)	8.59	8.67	8.75	8.83	8.91	9.00
Maximum Power Voltage-Vmpp (V)	39.90	40.09	40.18	40.26	40.33	40.41
Maximum Power Current-Impp (A)	8.06	8.12	8.20	8.27	8.35	8.42

NMOT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s.

# **MECHANICAL DATA**

Solar cells	Monocrystalline
Cell configuration	156 cells (6×13+6×13)
Module dimensions	2178×996×35mm
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	$4.0 \mathrm{mm}^2$ (12AWG), Positive(+)350 mm, Negative(-)350 mm (Connector Included ) or Customized length
Connector	Risen Twinsel PV-SY02 or MC4 EVO2, 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(HQ)	20ft
Number of modules per container	620	310
Number of modules per pallet	31	31
Number of pallets per container	20	10
Packaging box dimensions (LxWxH) in mm	2205×1135×1130	2205×1135×1130
Box gross weight[kg]	830	830

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