

Heterojunction Intrinsic Thin-layer HJT Module

RSM144-6-415HDG-435HDG

144 CELL HJT MODULE

415-435Wp POWER OUTPUT RANGE

1500VDC MAXIMUM SYSTEM VOLTAGE

21.4% MAXIMUM EFFICIENCY



Preliminary
For Global Market

About Risen Energy

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.

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



Qualified: IEC61215
Qualified: IEC61730



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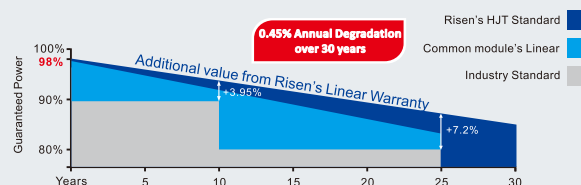
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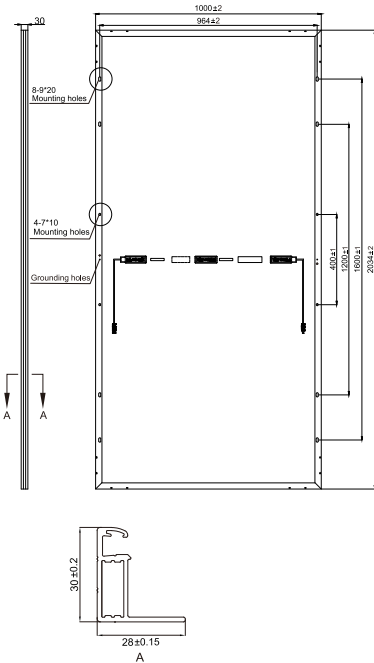
LINEAR PERFORMANCE WARRANTY

12 year Product Warranty / 30 year Linear Power Warranty



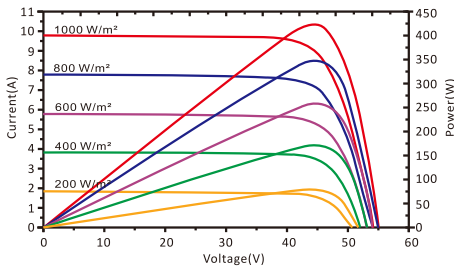
★ Please check the valid version of Limited Product Warranty which is officially released by Risen Energy Co., Ltd

Dimensions of PV Module Unit: mm



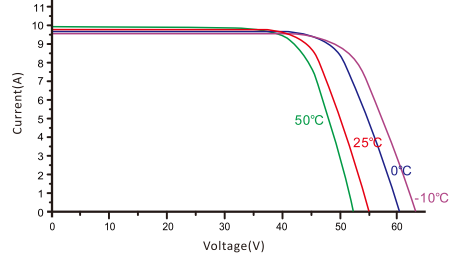
RSM144-6-425HDG

I-V characteristics at different irradiances



I-V characteristics at different temperatures

(AM1.5, 1000W/m²)



Our Partners:

ELECTRICAL DATA (STC)

Model Number	RSM144-6-415HDG	RSM144-6-420HDG	RSM144-6-425HDG	RSM144-6-430HDG	RSM144-6-435HDG
Rated Power in Watts-Pmax(Wp)	415	420	425	430	435
Open Circuit Voltage-Voc(V)	54.40	54.70	55.00	55.30	55.60
Short Circuit Current-Isc(A)	9.70	9.75	9.80	9.85	9.90
Maximum Power Voltage-Vmpp(V)	45.65	45.95	46.25	46.55	46.85
Maximum Power Current-Imp(A)	9.10	9.15	9.20	9.25	9.30
Module Efficiency (%) ★	20.4	20.6	20.9	21.1	21.4

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	RSM144-6-415HDG	RSM144-6-420HDG	RSM144-6-425HDG	RSM144-6-430HDG	RSM144-6-435HDG
Maximum Power-Pmax (Wp)	310.5	314.3	318.0	321.9	325.7
Open Circuit Voltage-Voc (V)	50.05	50.32	50.60	50.88	51.15
Short Circuit Current-Isc (A)	7.95	8.00	8.04	8.08	8.12
Maximum Power Voltage-Vmpp (V)	41.82	42.09	42.37	42.64	42.91
Maximum Power Current-Imp (A)	7.43	7.47	7.51	7.55	7.59

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

MECHANICAL DATA

Solar cells	HJT cell, 9BB
Cell configuration	144 cells (6×12+6×12)
Module dimensions	2034×1000×30mm
Weight	25kg
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 ² (12AWG), Positive(+) 270mm, Negative(-) 270mm
Connector	Risen Twinsel PV-SY02, IP68

TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	43°C±2°C
Temperature Coefficient of Voc	-0.22%/°C
Temperature Coefficient of Isc	0.047%/°C
Temperature Coefficient of Pmax	-0.24%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	20A
Limiting Reverse Current	20A

PACKAGING CONFIGURATION

	40ft
Number of modules per container	770
Number of modules per pallet	35
Number of pallets per container	22
Packaging box dimensions (LxWxH) in mm	2100×1130×1135
Box gross weight[kg]	930

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

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THE POWER OF RISING VALUE