

# HIGH PERFORMANCE MONOCRYSTALLINE MODULE

RSM60-6-270M-290M/4BB

60 CELL MONOCRYSTALLINE MODULE

270-290Wp POWER OUTPUT RANGE

1500VDC MAXIMUM SYSTEM VOLTAGE

17.7% MAXIMUM EFFICIENCY



## 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 2002, 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



Photon Independent field testing - Ranked in the top 2 of 176 international suppliers



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 of 3%



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



ISO9001  
ISO14001  
OHSAS18001



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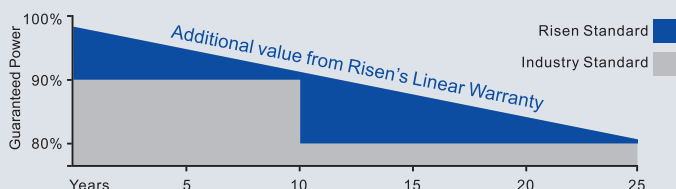
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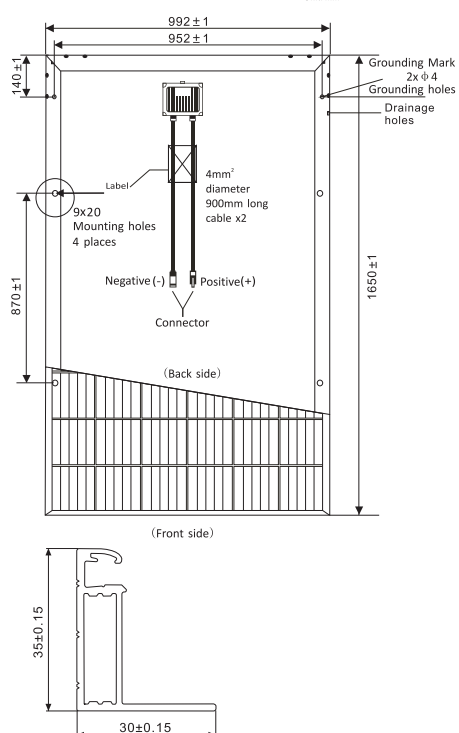
Website: [www.risenenergy.com](http://www.risenenergy.com)

## LINEAR PERFORMANCE WARRANTY

12 year Product Warranty / 25 year Linear Power Warranty



### Dimension of PV Modules



### ELECTRICAL DATA(STC)

| Model Number                                            | RSM60-6-270M | RSM60-6-275M | RSM60-6-280M | RSM60-6-285M | RSM60-6-290M |
|---------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Rated Power in Watts-P <sub>max</sub> (W <sub>p</sub> ) | 270          | 275          | 280          | 285          | 290          |
| Open Circuit Voltage-V <sub>oc</sub> (V)                | 38.4         | 38.5         | 38.7         | 38.8         | 38.9         |
| Short Circuit Current-I <sub>sc</sub> (A)               | 9.27         | 9.36         | 9.47         | 9.56         | 9.65         |
| Maximum Power Voltage-V <sub>mpp</sub> (V)              | 30.8         | 31.0         | 31.2         | 31.4         | 31.6         |
| Maximum Power Current-I <sub>mpp</sub> (A)              | 8.77         | 8.88         | 8.98         | 9.08         | 9.18         |
| Module Efficiency (%)                                   | 16.6         | 16.9         | 17.2         | 17.5         | 17.7         |

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

### ELECTRICAL DATA(NOMT)

| Model Number                                     | RSM60-6-270M | RSM60-6-275M | RSM60-6-280M | RSM60-6-285M | RSM60-6-290M |
|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Maximum Power-P <sub>max</sub> (W <sub>p</sub> ) | 197.4        | 201.0        | 204.7        | 208.3        | 211.0        |
| Open Circuit Voltage-V <sub>oc</sub> (V)         | 35.2         | 35.5         | 35.8         | 36.2         | 36.5         |
| Short Circuit Current-I <sub>sc</sub> (A)        | 7.31         | 7.35         | 7.41         | 7.45         | 7.50         |
| Maximum Power Voltage-V <sub>mpp</sub> (V)       | 28.4         | 28.6         | 28.9         | 29.1         | 29.4         |
| Maximum Power Current-I <sub>mpp</sub> (A)       | 6.95         | 7.03         | 7.09         | 7.16         | 7.23         |

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

### MECHANICAL DATA

|                    |                                                           |
|--------------------|-----------------------------------------------------------|
| Solar cells        | Monocrystalline 156.75×156.75 mm                          |
| Cell configuration | 60 cells (6×10)                                           |
| Module dimensions  | 1650×992×35mm                                             |
| Weight             | 18kg                                                      |
| Superstrate        | 3.2 mm, High Transmission, Low Iron, Tempered ARC Glass   |
| Substrate          | White Backsheet                                           |
| Frame              | Silver Anodized Aluminium Alloy type 6063T5, Silver Color |
| J-Box              | Potted, IP67, 1500VDC, 3 Schottky bypass diodes           |
| Cables             | 4.0mm <sup>2</sup> (12AWG), 900mm length                  |
| Connector          | IP67 MC4 Compatible                                       |

### TEMPERATURE & MAXIMUM RATINGS

|                                             |           |
|---------------------------------------------|-----------|
| Nominal Operating Cell Temperature (NOCT)   | 45°C±2°C  |
| Temperature Coefficient of V <sub>oc</sub>  | -0.32%/°C |
| Temperature Coefficient of I <sub>sc</sub>  | 0.05%/°C  |
| Temperature Coefficient of P <sub>max</sub> | -0.39%/°C |
| Operational Temperature                     | -40~+85°C |
| Maximum System Voltage                      | 1500VDC   |
| Max Series Fuse Rating                      | 15A       |
| Limiting Reverse Current                    | 15A       |

### PACKAGING CONFIGURATION

|                                        | 40ft           | 20ft           |
|----------------------------------------|----------------|----------------|
| Number of modules per container        | 840            | 360            |
| Number of modules per pallet           | 30             | 30             |
| Number of pallets per container        | 28             | 12             |
| Packaging box dimensions (LxWxH) in mm | 1680×1120×1135 | 1680×1120×1135 |
| Box gross weight[kg]                   | 580            | 580            |

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.  
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THE POWER OF RISING VALUE