HIGH PERFORMANCE MONOCRYSTALLINE PERC MODULE

RSM120-6-300M-320M

120 CELL MONOCRYSTALLINE MODULE

300-320Wp POWER OUTPUT RANGE

1500VDC MAXIMUM SYSTEM VOLTAGE

19.1% 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 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

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LINEAR PERFORMANCE WARRANTY
12 year Product Warranty / 25 year Linear Power Warranty
**ELECTRICAL DATA (STC)**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>RSM120-6-300M</th>
<th>RSM120-6-305M</th>
<th>RSM120-6-310M</th>
<th>RSM120-6-315M</th>
<th>RSM120-6-320M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Power in Watts-Pmax(Wp)</td>
<td>300</td>
<td>305</td>
<td>310</td>
<td>315</td>
<td>320</td>
</tr>
<tr>
<td>Open Circuit Voltage-Voc(V)</td>
<td>39.40</td>
<td>39.50</td>
<td>39.70</td>
<td>39.80</td>
<td>40.00</td>
</tr>
<tr>
<td>Short Circuit Current-Isc(A)</td>
<td>9.70</td>
<td>9.80</td>
<td>9.90</td>
<td>10.00</td>
<td>10.10</td>
</tr>
<tr>
<td>Maximum Power Voltage-Vmppv(V)</td>
<td>33.00</td>
<td>33.20</td>
<td>33.35</td>
<td>33.55</td>
<td>33.70</td>
</tr>
<tr>
<td>Module Efficiency (%)</td>
<td>17.9</td>
<td>18.2</td>
<td>18.5</td>
<td>18.8</td>
<td>19.1</td>
</tr>
</tbody>
</table>

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.

**ELECTRICAL DATA (NMOT)**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>RSM120-6-300M</th>
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<th>RSM120-6-310M</th>
<th>RSM120-6-315M</th>
<th>RSM120-6-320M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power-Pmax (Wp)</td>
<td>224.5</td>
<td>228.3</td>
<td>231.8</td>
<td>235.7</td>
<td>239.3</td>
</tr>
<tr>
<td>Open Circuit Voltage-Voc (V)</td>
<td>36.30</td>
<td>36.40</td>
<td>36.50</td>
<td>36.60</td>
<td>36.80</td>
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<tr>
<td>Short Circuit Current-Isc (A)</td>
<td>7.95</td>
<td>8.04</td>
<td>8.12</td>
<td>8.20</td>
<td>8.28</td>
</tr>
<tr>
<td>Maximum Power Voltage-Vmppv (V)</td>
<td>30.20</td>
<td>30.40</td>
<td>30.50</td>
<td>30.70</td>
<td>30.90</td>
</tr>
<tr>
<td>Maximum Power Current-Imppv (A)</td>
<td>7.43</td>
<td>7.51</td>
<td>7.59</td>
<td>7.67</td>
<td>7.75</td>
</tr>
</tbody>
</table>

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

**MECHANICAL DATA**

- Solar cells: Monocrystalline, 5BB
- Cell configuration: 120 cells (6x10+6x10)
- Module dimensions: 1685x992x35mm
- Weight: 19kg
- Substrate: 3.2 mm, 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 (12AWG), Positive(+270mm, Negative(-)100mm
- Connector: Risen Twinsel PV-SY02, IP68

**TEMPERATURE & MAXIMUM RATINGS**

- Nominal Module Operating Temperature (NMOT): 45°C±2°C
- Temperature Coefficient of Voc: -0.29%/°C
- Temperature Coefficient of Isc: 0.05%/°C
- Temperature Coefficient of Pmax: -0.39%/°C
- Operational Temperature: -40°C~+85°C
- Maximum System Voltage: 1500VDC
- Max Series Fuse Rating: 20A
- Limiting Reverse Current: 20A

**PACKAGING CONFIGURATION**

- 40ft: 780 Number of modules per container, 360 Number of modules per pallet, 26 Number of pallets per container, 1715x1105x1130 Packaging box dimensions (LxWxH) in mm, 615 Box gross weight[kg]
- 20ft: 30 Number of modules per pallet, 12 Number of pallets per container, 1715x1105x1130 Packaging box dimensions (LxWxH) in mm, 615 Box gross weight[kg]

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