# RSM40-8-390M-410M

**120 CELL**  
Mono PERC Module  
390-410Wp  
Power Output Range

**1500VDC**  
Maximum System Voltage  
21.3%  
Maximum Efficiency

## 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**
- **Excellent wind load 2400Pa & snow load 5400Pa under certain installation method**
- **Comprehensive product and system certification**  
  - ISO 9001:2015 Quality Management System  
  - ISO 14001:2015 Environmental Management System  
  - ISO 45001:2018 Occupational Health and Safety Management System

## Linear Performance Warranty

**12 year Product Warranty / 25 year Linear Power Warranty**

![Graph showing linear power warranty](image)

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

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**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, envisions 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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**THE POWER OF RISING VALUE**
ELECTRICAL DATA (STC)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>RSM40-5-330M</th>
<th>RSM40-5-395M</th>
<th>RSM40-5-400M</th>
<th>RSM40-5-405M</th>
<th>RSM40-5-410M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Power in Watts-Pmax(Wp)</td>
<td>390</td>
<td>395</td>
<td>400</td>
<td>405</td>
<td>410</td>
</tr>
<tr>
<td>Open Circuit Voltage-Voc(V)</td>
<td>40.69</td>
<td>41.00</td>
<td>41.30</td>
<td>41.60</td>
<td>41.90</td>
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<tr>
<td>Short Circuit Current-Isc(A)</td>
<td>12.21</td>
<td>12.27</td>
<td>12.34</td>
<td>12.40</td>
<td>12.47</td>
</tr>
<tr>
<td>Maximum Power Voltage-Vmpp(V)</td>
<td>33.88</td>
<td>34.14</td>
<td>34.39</td>
<td>34.64</td>
<td>34.89</td>
</tr>
<tr>
<td>Maximum Power Current-Impp(A)</td>
<td>11.52</td>
<td>11.58</td>
<td>11.64</td>
<td>11.70</td>
<td>11.76</td>
</tr>
<tr>
<td>Module Efficiency (%)</td>
<td>20.3</td>
<td>20.5</td>
<td>20.8</td>
<td>21.1</td>
<td>21.3</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>RSM40-5-330M</th>
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<th>RSM40-5-400M</th>
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<th>RSM40-5-410M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power Pmax (Wp)</td>
<td>295.6</td>
<td>299.4</td>
<td>303.1</td>
<td>306.9</td>
<td>310.7</td>
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<tr>
<td>Open Circuit Voltage-Voc (V)</td>
<td>37.84</td>
<td>38.13</td>
<td>38.41</td>
<td>38.69</td>
<td>38.97</td>
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<tr>
<td>Short Circuit Current-Isc (A)</td>
<td>10.01</td>
<td>10.07</td>
<td>10.12</td>
<td>10.17</td>
<td>10.22</td>
</tr>
<tr>
<td>Maximum Power Voltage-Vmpp (V)</td>
<td>31.44</td>
<td>31.68</td>
<td>31.91</td>
<td>32.15</td>
<td>32.38</td>
</tr>
<tr>
<td>Maximum Power Current-Impp (A)</td>
<td>9.40</td>
<td>9.45</td>
<td>9.50</td>
<td>9.55</td>
<td>9.60</td>
</tr>
</tbody>
</table>

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

MECHANICAL DATA

- Solar cells: Monocrystalline
- Cell configuration: 120 cells (5×12×5×12)
- Module dimensions: 1754×1096×30mm
- Weight: 22kg
- Superstrate: High Transmission, Low Iron, Tempered ARC Glass
- Substrate: White Back-sheet
- Frame: High strength alloy steel
- J-Box: Potted, IP68, 1500VDC, 3 Schottky bypass diodes
- Cables: 4.0mm² (12AWG), Positive(-)/350mm, Negative(-)/350mm (Connector Included)
- Connector: Risen Twinkel PV-SY02, IP68

TEMPERATURE & MAXIMUM RATINGS

- Nominal Module Operating Temperature (NMOT): 44°C±2°C
- Temperature Coefficient of Voc: -0.25%/°C
- Temperature Coefficient of Isc: 0.04%/°C
- Temperature Coefficient of Pmax: -0.34%/°C
- Operational Temperature: -40°C++85°C
- Maximum System Voltage: 1500VDC
- Max Series Fuse Rating: 20A
- Limiting Reverse Current: 20A

PACKAGING CONFIGURATION

<table>
<thead>
<tr>
<th></th>
<th>40ft(HQ)</th>
<th>20ft</th>
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</thead>
<tbody>
<tr>
<td>Number of modules per container</td>
<td>936</td>
<td>216</td>
</tr>
<tr>
<td>Number of modules per pallet</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Number of pallets per container</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Box gross weight[kg]</td>
<td>835</td>
<td>835</td>
</tr>
</tbody>
</table>

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
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No special undertaking or warranty for the suitability of special purpose or being installed in extraordinary surroundings is granted unless otherwise specifically committed by manufacturer in contract document.

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