420W MBB Half-cell Module
JAM54S31 395-420/GR

Introduction
Assembled with 11BB PERC cells and gapless ribbon connection technology, the modules can offer higher output power with improved module efficiency, the reduction of cells gaps brings outstanding module appearance. The half-cell configuration makes less shading effect, lower risk of hot spot, as well as more reliable and stable power generation.

Higher output power
Lower LCOE
Less shading and lower resistive loss
Better mechanical loading tolerance

Superior Warranty
- 12-year product warranty
- 25-year linear power output warranty

Comprehensive Certificates
- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing
### MECHANICAL DIAGRAMS

### SPECIFICATIONS

- **Cell**: Mono
- **Weight**: 19.5kg
- **Dimensions**: 1722±2mm×1134±2mm×30±1mm
- **Cable Cross Section Size**: 4mm² (IEC), 12 AWG(UL)
- **No. of cells**: 108(0/18)
- **Junction Box**: IP68, 3 diodes
- **Connector**: MC4-EV02/ QC 4.10-35
- **Cable Length**: (Including Connector) Portrait: 2000mm (+/- 300mm); Landscape: 1100mm (+/- 1100mm)
- **Front Glass**: 2.8mm
- **Packaging Configuration**: 36pcs/Pallet, 936pcs/40HQ Container

### ELECTRICAL PARAMETERS AT STC

<table>
<thead>
<tr>
<th>TYPE</th>
<th>JAM54S31-395GR</th>
<th>JAM54S31-400GR</th>
<th>JAM54S31-405GR</th>
<th>JAM54S31-410GR</th>
<th>JAM54S31-415GR</th>
<th>JAM54S31-420GR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Maximum Power (Pmax) [W]</td>
<td>395</td>
<td>400</td>
<td>405</td>
<td>410</td>
<td>415</td>
<td>420</td>
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<tr>
<td>Open Circuit Voltage (Voc) [V]</td>
<td>36.98</td>
<td>37.07</td>
<td>37.23</td>
<td>37.32</td>
<td>37.45</td>
<td>37.58</td>
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<tr>
<td>Maximum Power Voltage (Vmp) [V]</td>
<td>30.84</td>
<td>31.01</td>
<td>31.21</td>
<td>31.45</td>
<td>31.61</td>
<td>31.80</td>
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<tr>
<td>Short Circuit Current (Isc) [A]</td>
<td>13.70</td>
<td>13.79</td>
<td>13.87</td>
<td>13.96</td>
<td>14.02</td>
<td>14.10</td>
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<tr>
<td>Module Efficiency [%]</td>
<td>20.2</td>
<td>20.5</td>
<td>20.7</td>
<td>21.0</td>
<td>21.3</td>
<td>21.5</td>
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<td>Power Tolerance</td>
<td>0±5W</td>
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<td>Temperature Coefficient of Isc (aIsc)</td>
<td>+0.045%/°C</td>
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<td>Temperature Coefficient of Voc (βVoc)</td>
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<td>Temperature Coefficient of Pmax (αPmp)</td>
<td>-0.350%/°C</td>
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</tbody>
</table>

### OPERATING CONDITIONS

- **Maximum System Voltage**: 1000V/1500V DC
- **Operating Temperature**: -40°C to +65°C
- **Maximum Series Fuse Rating**: 25A
- **Maximum Static Load, Front**: 5400Pa(112lb/ft²)
- **Maximum Static Load, Back**: 2400Pa(50lb/ft²)
- **NOCT**: 45±2°C
- **Safety Class**: UL Type 1

### CHARACTERISTICS

#### Current-Voltage Curve
- JAM54S31-415GR

#### Power-Voltage Curve
- JAM54S31-415GR

#### Current-Voltage Curve
- JAM54S31-415GR

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**Remark**: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

**Remark**: customized frame color and cable length available upon request.

**Premium Cells, Premium Modules**