JA smart modules incorporate innovative power electronics from Tigo Energy to achieve module-level diagnostics, maximum energy harvest through module-level DC power optimization, and reduction of arc, fire and safety hazards. Integration of the module optimizer into the junction box enables patented Smart Curve technology, which allows up to 30% longer strings and significant balance-of-system (BOS) savings.

### Introduction

**375W PERC Smart Module**

**JAM72S04 355-375/PR Series**

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- OHSAS 18001: 2007 Occupational health and safety management systems

### Safer solar

- More efficient O&M

### Flexible system assembly

- Maximized energy Harvest

### Superior Warranty

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

### Comprehensive Certificates

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- OHSAS 18001: 2007 Occupational health and safety management systems
JA Smart system components work together with any inverter to maximize energy harvest. JA smart modules communicate wirelessly through the gateway, allowing users to monitor system performance in real-time.

Module-integrated smart technology reduces the open circuit voltage range for each module and allows longer strings to be designed. The maximum voltage is programmed by JA Solar in the factory.

**Specifications**

- **Cell**: Mono
- **Weight**: 22.5 kg±3%
- **Dimensions**: 1980 mm×991 mm×40 mm
- **Cable Cross Section Size**: 4 mm²
- **No. of cells**: 72 (6×12)
- **Junction Box**: Tigo smart J-Box IP67
- **Connector**: PV-KS7/4/Male, PV-KB7/4/Female
- **PV2H-202/NB2H
- **Country of Manufacturer**: China/Vietnam

**Electrical Parameters at STC**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>JAM72S04-355/PR</th>
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<th>JAM72S04-370/PR</th>
<th>JAM72S04-375/PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Max Power (Pmax) [W]</td>
<td>355</td>
<td>360</td>
<td>365</td>
<td>370</td>
<td>375</td>
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<tr>
<td>Open Circuit Voltage (Voc) [V]</td>
<td>43.79</td>
<td>44.01</td>
<td>44.27</td>
<td>44.53</td>
<td>44.84</td>
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<tr>
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<td>38.76</td>
<td>39.21</td>
<td>39.45</td>
<td>39.75</td>
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</tr>
<tr>
<td>Module Efficiency [%]</td>
<td>18.3</td>
<td>18.5</td>
<td>18.8</td>
<td>19.0</td>
<td>19.3</td>
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<tr>
<td>Power Tolerance</td>
<td>0~+5W</td>
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<td></td>
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<tr>
<td>Temperature Coefficient of Isc (α_Isc)</td>
<td>+0.060% /℃</td>
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<tr>
<td>Temperature Coefficient of Voc (β_Voc)</td>
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<td></td>
<td></td>
<td>-0.380%/℃</td>
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**Operating Conditions**

- **Maximum System Voltage**: 1000 V DC (IEC)
- **Maximum Temperature**: -40 ℃~+85 ℃
- **Maximum Series Fuse**: 20 A
- **Maximum Static Load (Front)**: 3600 Pa, 1.5
- **Maximum Static Load (Back)**: 1600 Pa, 1.5
- **NOCT**: 45±2 ℃
- **Application Class**: Class A

**Characteristics**

- Hardware voltage clamp prevents over-voltage
- Design up to 30% longer strings
- Fewer combiner boxes, fuses and wiring
- Smaller resistance losses

**Smart Curve Technology**

**Mechanical Diagrams**

**System Architecture**

**Inverter**

**Gateway**

**Cloud Data Center**

**Web Applications**

**Mechanical Diagrams**

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