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.

320W PERC Smart Module

- Mono
- JAM60S06 300-320/PR

Introduction

- 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

Specifications subject to technical changes and tests.
JA Solar reserves the right of final interpretation.

www.jasolar.com
JA Solar smart systems 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.

**System Architecture**

- **Smart Modules**
- **Gateway**
- **Cloud Data Center**
- **Management Unit**
- **Web Applications**

**Mechanical Diagrams**

**Specifications**

- **Cell**: Mono
- **Weight**: 18.2kg±3%
- **Dimensions**: 1650mm × 991mm × 35mm
- **Cable Cross Section Size**: 4mm²
- **No. of cells**: 60(6x10)
- **Junction Box**: Tigo smart J-Box (IP67)
- **Connector**: PV-KST4 (Male), PV-KBT4 (Female), PVZH-202 (NBZH)
- **Country of Manufacturer**: China/Vietnam

**Electrical Parameters at STC**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>JAM60S06-300/PR</th>
<th>JAM60S06-305/PR</th>
<th>JAM60S06-310/PR</th>
<th>JAM60S06-315/PR</th>
<th>JAM60S06-320/PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Maximum Power (Pmax) [W]</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>37.32</td>
<td>37.64</td>
<td>37.93</td>
<td>38.26</td>
<td>38.59</td>
</tr>
<tr>
<td>Maximum Power Voltage (Vmp) [V]</td>
<td>32.26</td>
<td>32.57</td>
<td>32.84</td>
<td>33.16</td>
<td>33.48</td>
</tr>
<tr>
<td>Short Circuit Current (Isc) [A]</td>
<td>9.75</td>
<td>9.85</td>
<td>9.91</td>
<td>9.98</td>
<td>10.05</td>
</tr>
<tr>
<td>Module Efficiency [%]</td>
<td>18.3</td>
<td>18.7</td>
<td>19.0</td>
<td>19.3</td>
<td>19.8</td>
</tr>
<tr>
<td>Power Tolerance [W]</td>
<td>0~+5W</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature Coefficient of Voc (β_Voc) [°C/W]</td>
<td>0.0006°C/°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature Coefficient of Isc (α_Isc) [°C/W]</td>
<td>0.0006°C/°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature Coefficient of Pmax (γ_Pmax) [°C/W]</td>
<td>0.0006°C/°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STC: Irradiance 1000W/m², cell temperature 25°C, AM1.5G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Electrical Parameters at NOCT**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>JAM60S06-300/PR</th>
<th>JAM60S06-305/PR</th>
<th>JAM60S06-310/PR</th>
<th>JAM60S06-315/PR</th>
<th>JAM60S06-320/PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Max Power (Pmax) [W]</td>
<td>221</td>
<td>224</td>
<td>228</td>
<td>232</td>
<td>235</td>
</tr>
<tr>
<td>Open Circuit Voltage (Voc) [V]</td>
<td>34.38</td>
<td>34.60</td>
<td>34.89</td>
<td>35.14</td>
<td>35.43</td>
</tr>
<tr>
<td>Maximum Power Voltage (Vmp) [V]</td>
<td>29.89</td>
<td>29.90</td>
<td>30.18</td>
<td>30.42</td>
<td>30.70</td>
</tr>
<tr>
<td>Short Circuit Current (Isc) [A]</td>
<td>7.78</td>
<td>7.86</td>
<td>7.93</td>
<td>8.05</td>
<td>8.11</td>
</tr>
<tr>
<td>Maximum Power Current (Imp) [A]</td>
<td>7.43</td>
<td>7.50</td>
<td>7.55</td>
<td>7.61</td>
<td>7.66</td>
</tr>
<tr>
<td>NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s, AM1.5G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Operating Conditions**

- **Maximum System Voltage**: 1000V DC (IEC)
- **Operating Temperature**: -40°C~+95°C
- **Maximum Series Fuse**: 20A
- **Maximum Static Load Front**: 3600Pa, 1.5
- **Maximum Static Load Back**: 1600Pa, 1.5
- **NOCT**: 45±2°C
- **Application Class**: Class A

**Characteristics**

- Current-Voltage Curve: JAM60S06-300/PR
- Current-Voltage Curve: JAM60S06-305/PR

**System Architecture**

1. **Smart Modules**
2. **Gateway**
3. **Cloud Data Center**
4. **Management Unit**
5. **Web Applications**

**Smart Curve Technology**

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