

## **Smart Module**

**100% Communication**

**20% More Energy**

**30% Longer Strings**

**Harvest The Sunshine**  
Premium Cells, Premium Modules

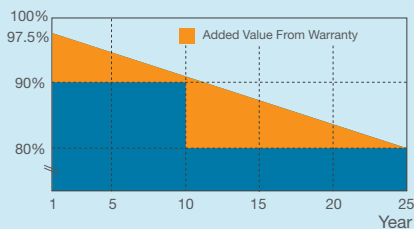
## JA Solar Holdings Co., Ltd.

JA Solar Holdings Co.,Ltd is a world leading manufacturer of high-performance solar power products that convert sunlight into electricity for residential, commercial and utility-scale power generation. The company was founded in May 2005 and publicly listed on NASDAQ in February 2007. JA Solar has been the world's leading cell producer since 2010, and has firmly established itself as a tier 1 module supplier since 2012. Capitalizing on our strength in solar cell technology, we are committed to provide modules with unparalleled conversion efficiency, yield efficiency, and reliability to enable you to maximize your returns on PV projects. With its leading industry experience, continuous effort on R&D, customer-oriented service and sound financial status, JA Solar is your best choice of long-term trustworthy partner.

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## Product Warranty

- 10-year product warranty
- 25-year linear power warranty



## Additional Insurance Options



## Partner Section



# JAP6 (TG)

-60/245-265/3BB

MULTICRYSTALLINE SMART MODULE

## Key Features



JA Multicrystalline smart modules designed for residential applications, especially for rooftop market



Maximum energy gain ground mounted system: 2-5%, commercial 2-10%, residential 2-25%



Automatic module shut-down Unique electrocution prevention and fire safety



Flexible system design optimal site space utilization at reduced cost



Real-time alerts module-level web monitoring Increased uptime maintenance



Excellent mechanical load resistance: Certified to withstand high wind loads (2400Pa) and snow loads (5400Pa)



High salt and ammonia resistance certified by TÜV NORD

## Reliable Quality

- Positive power tolerance: 0~+5W
- 100% EL double-inspection ensures modules are defects free
- Modules binned by current to improve system performance
- Potential Induced Degradation (PID) Resistant

## Comprehensive Certificates

- IEC 61215, IEC 61730, UL1703, CEC Listed, MCS and CE
- ISO 9001: 2008: Quality management systems
- ISO 14001: 2004: Environmental management systems
- BS OHSAS 18001: 2007: Occupational health and safety management systems
- Environmental policy: The first solar company in China to complete Intertek's carbon footprint evaluation program and receive green leaf mark verification for our products

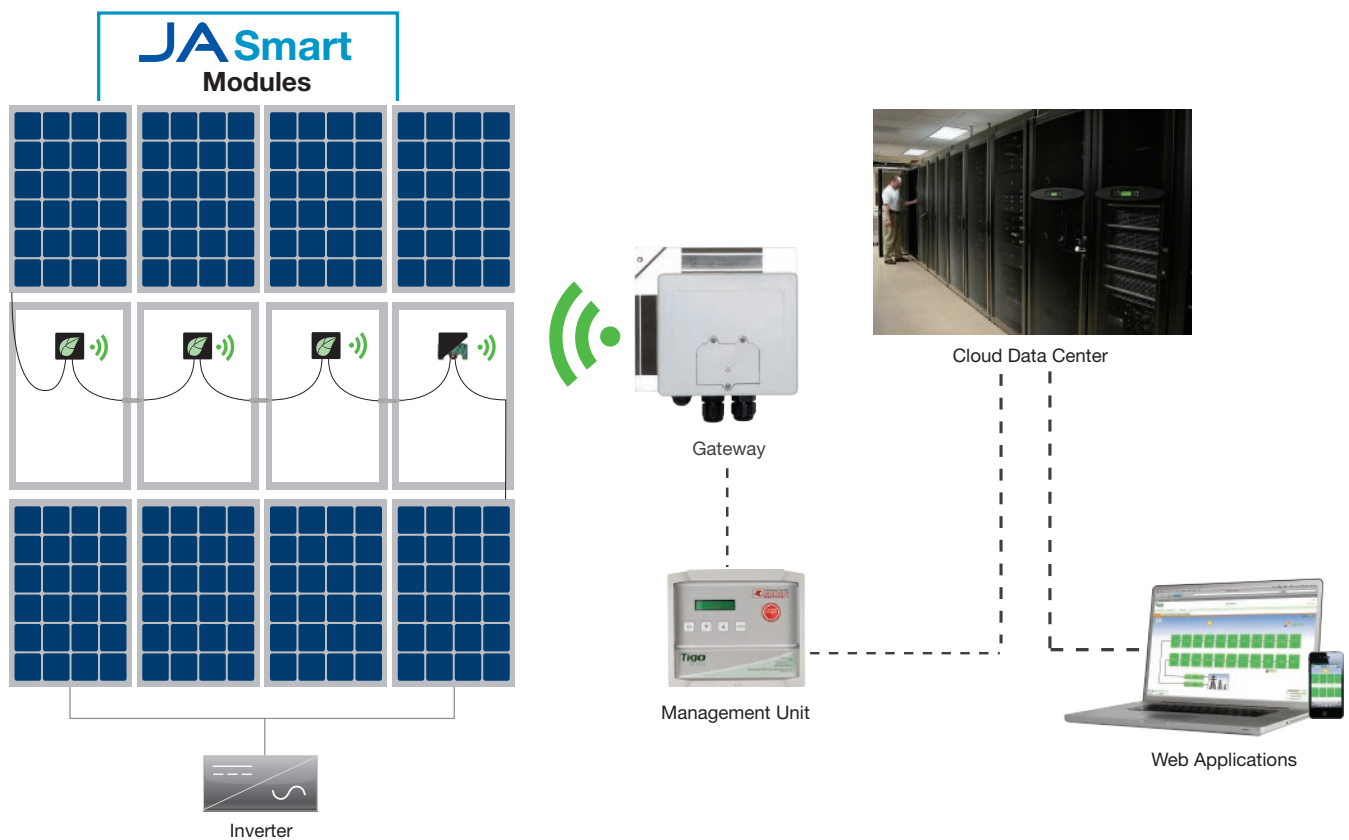


Specifications subject to technical changes and tests. JA Solar reserves the right of final interpretation.

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.

## System Architecture

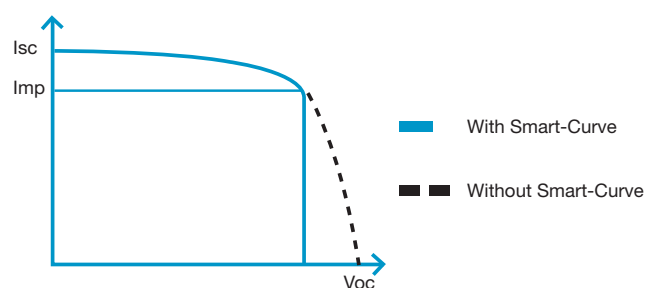
JA smart system components work together with any inverter to maximize energy harvest. JA smart modules communicate wirelessly through the gateway, allowing users to monitor system performance in real time.



## Smart Curve Technology

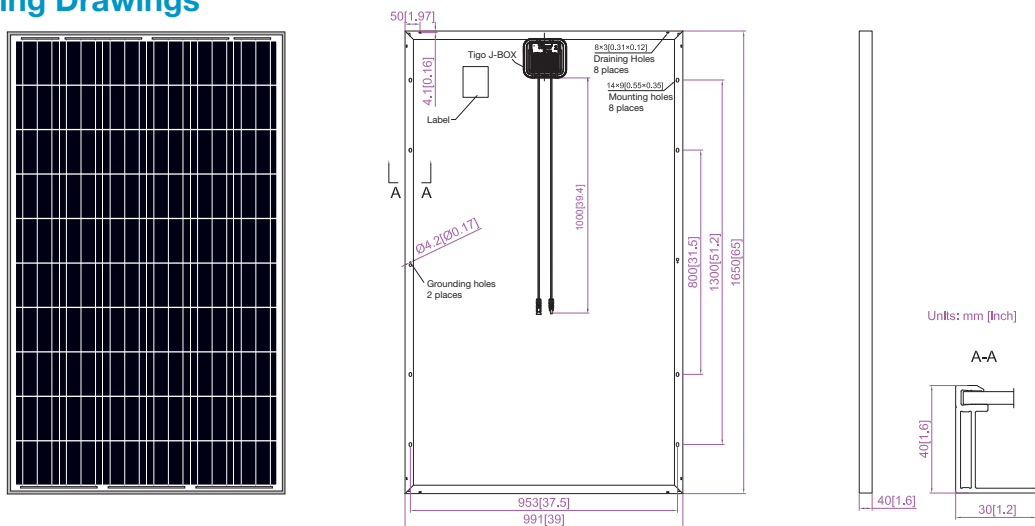
Module-integrated smart technology reduces the open circuit voltage range for each module and allows longer strings to be designed. The maximum voltage is programmed by JA Solar in the factory.

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



# JAP6(TG) -60/245-265/3BB

## Engineering Drawings



■ customized cable length available upon request

### MECHANICAL PARAMETERS

|   |                       |
|---|-----------------------|
| Cell (mm)                                   | Poly 156×156          |
| Weight (kg)                                 | 18.5±0.5              |
| Dimensions (L×W×H) (mm)                     | 1650×991×40           |
| Cable Cross Section Size (mm <sup>2</sup> ) | 4                     |
| No. of Cells and Connections                | 60 (6×10)             |
| Junction BOX                                | Tigo smart J-Box IP67 |
| Connector                                   | MC4                   |
| Packaging Configuration                     | 26 Per Pallet         |

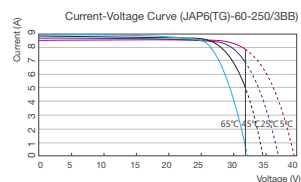
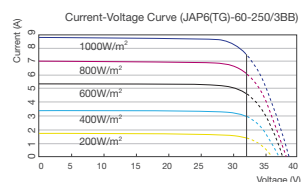
### WORKING CONDITIONS

|  |   |
|--|---|
| Maximum System Voltage   | DC 1000V (TÜV)<br>/ 1000V (ETL)                                     |
| Operating Temperature  | -40°C ~ +85°C   |
| Maximum Series Fuse  | 15A   |
| Maximum Static Load, Front (e.g., snow and wind)<br>Maximum Static Load, Back (e.g., wind) | 5400Pa (112 lb/ft <sup>2</sup> )<br>2400Pa (50 lb/ft <sup>2</sup> ) |
| NOCT   | 45±2°C  |
| Application Class  | Class A   |

### ELECTRICAL PARAMETERS

| TYPE                                   | JAP6(TG)<br>-60-245/3BB   | JAP6(TG)<br>-60-250/3BB | JAP6(TG)<br>-60-255/3BB | JAP6(TG)<br>-60-260/3BB | JAP6(TG)<br>-60-265/3BB |
|--|---|-------------------------|-------------------------|-------------------------|-------------------------|
| Rated Maximum Power at STC (W)         | 245   | 250                     | 255                     | 260                     | 265                     |
| Open Circuit Voltage (Voc/V)           | 32.82   | 32.82                   | 32.82                   | 32.82                   | 32.82                   |
| Maximum Power Voltage (Vmp/V)          | 29.59   | 29.94                   | 30.29                   | 30.63                   | 30.96                   |
| Short Circuit Current (Isc/A)          | 9.50  | 9.50                    | 9.50                    | 9.50                    | 9.50                    |
| Maximum Power Current (Imp/A)          | 8.28  | 8.35                    | 8.42                    | 8.49                    | 8.56                    |
| Module Efficiency [%]                  | 14.98   | 15.29                   | 15.59                   | 15.90                   | 16.21                   |
| Power Tolerance (W)                    |   |                         | -0~+5W                  |                         |                         |
| Temperature Coefficient of Isc (αIsc)  |   |                         | +0.058%/°C              |                         |                         |
| Temperature Coefficient of Voc (βVoc)  |   |                         | 0%/°C                   |                         |                         |
| Temperature Coefficient of Pmax (γPmp) |   |                         | -0.430%/°C              |                         |                         |
| STC                                    | Irradiance 1000W/m <sup>2</sup> , Module Temperature 25°C, Air Mass 1.5 |                         |                         |                         |                         |

### I-V CURVE



### NOCT

| TYPE                            | JAP6(TG)<br>-60-245/3BB   | JAP6(TG)<br>-60-250/3BB | JAP6(TG)<br>-60-255/3BB | JAP6(TG)<br>-60-260/3BB | JAP6(TG)<br>-60-265/3BB |
|---------------------------------|---|-------------------------|-------------------------|-------------------------|-------------------------|
| Max Power at STC (Pmax) [W]     | 177.87  | 181.50                  | 185.13                  | 188.76                  | 192.39                  |
| Open Circuit Voltage (Voc) [V]  | 32.82   | 32.82                   | 32.82                   | 32.82                   | 32.82                   |
| Max Power Voltage (Vmp) [V]     | 27.20   | 27.42                   | 27.71                   | 28.05                   | 28.42                   |
| Short Circuit Current (Isc) [A] | 9.50  | 9.50                    | 9.50                    | 9.50                    | 9.50                    |
| Max Power Current (Imp) [A]     | 6.54  | 6.62                    | 6.68                    | 6.73                    | 6.77                    |
| Condition                       | Under Normal Operating Cell Temperature, Irradiance of 800 W/m <sup>2</sup> , spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s |                         |                         |                         |                         |



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.