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Specifications subject to technical changes and tests.  
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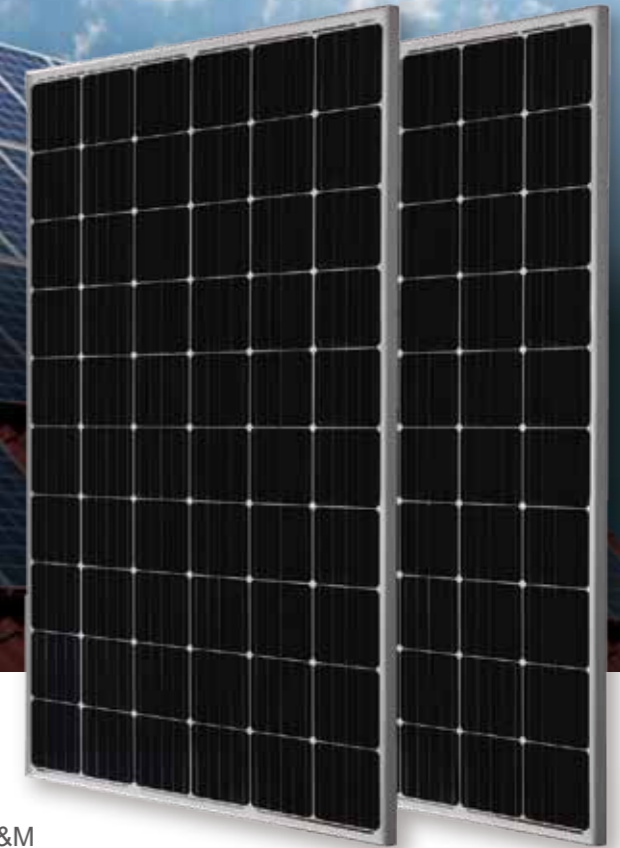


## 320W PERC Smart Module

JAM60S04 300-320/PR Series

### Introduction

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.



Safer solar



More efficient O&M



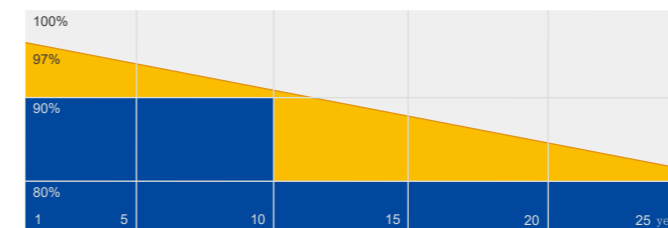
Flexible system assembly



Maximized energy Harvest

### Superior Warranty

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



■ JA Linear Power Warranty ■ Industry Warranty

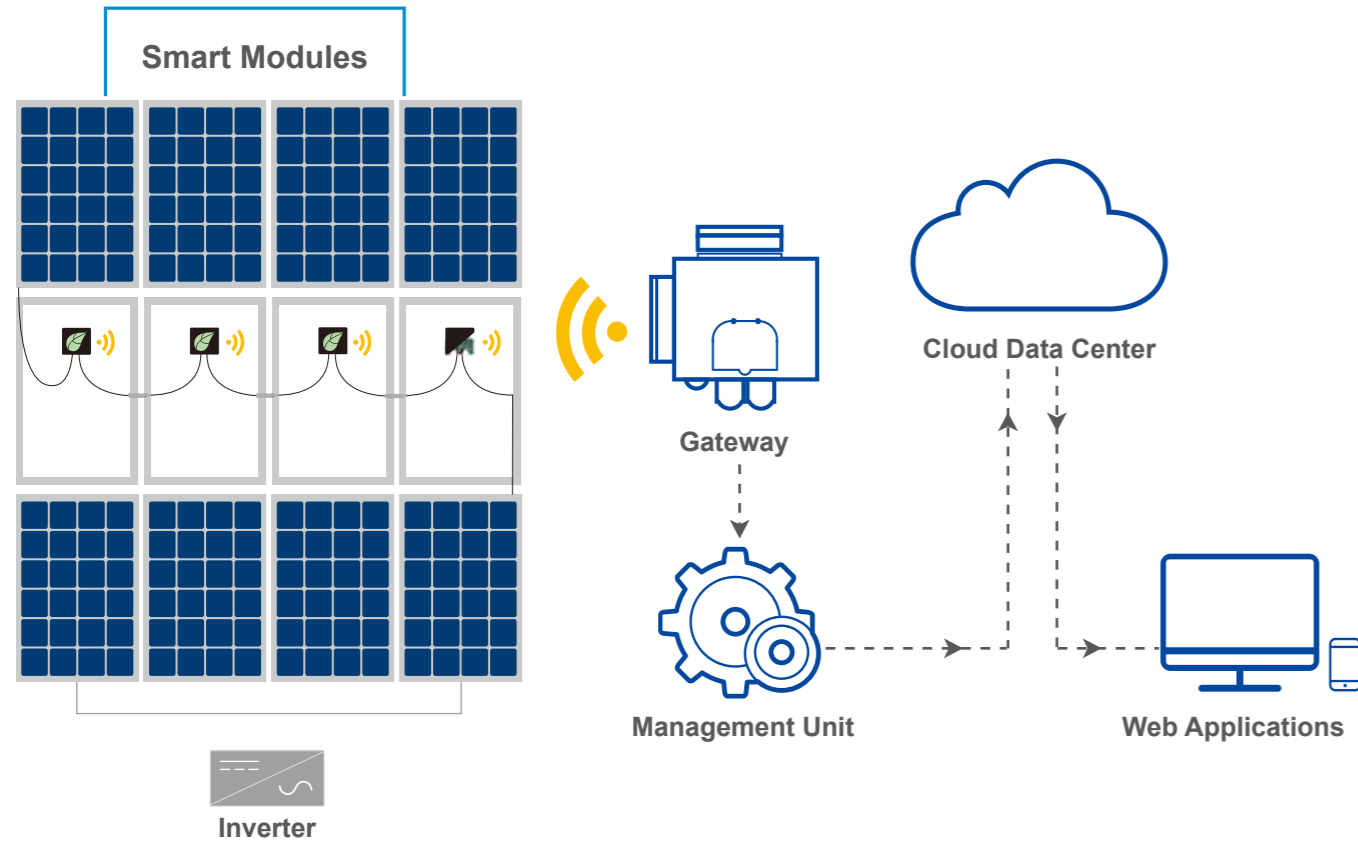
### Comprehensive Certificates

- 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



**SYSTEM ARCHITECTURE**

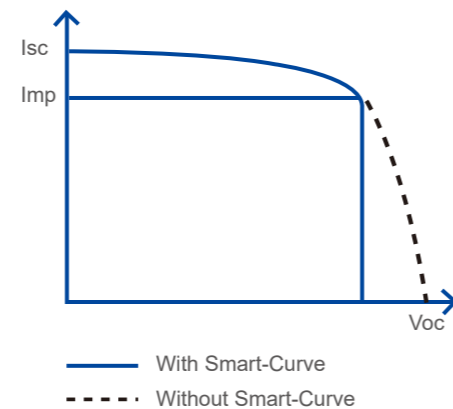
JA smart system components work together with any inverter to maximize energy harvest. JA smart modules communicate wirelessly through the gateway, allowing users to monitor system performance in real time.



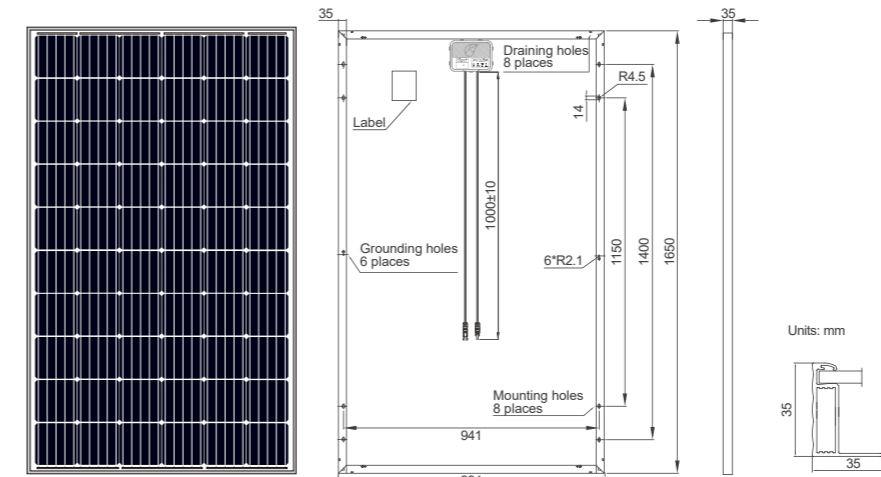
**SMART CURVE TECHNOLOGY**

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

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



**MECHANICAL DIAGRAMS**



Remark: customized frame color and cable length available upon request

**SPECIFICATIONS**

Cell	Mono
Weight	18.2kg±3%
Dimensions	1650mm×991mm×35mm
Cable Cross Section Size	4mm <sup>2</sup>
No. of cells	60(6x10)
Junction Box	Tigo smart J-Box IP67
Connector	Genuine MC4
Country of Manufacturer	China/Vietnam

**ELECTRICAL PARAMETERS AT STC**

TYPE	JAM60S04 -300/PR	JAM60S04 -305/PR	JAM60S04 -310/PR	JAM60S04 -315/PR	JAM60S04 -320/PR
Rated Maximum Power(Pmax) [W]	300	305	310	315	320
Open Circuit Voltage(Voc) [V]	37.32	37.64	37.93	38.26	38.59
Maximum Power Voltage(Vmp) [V]	32.26	32.57	32.84	33.16	33.48
Short Circuit Current(Isc) [A]	9.75	9.85	9.91	9.98	10.05
Maximum Power Current(Imp) [A]	9.30	9.37	9.44	9.50	9.56
Module Efficiency [%]	18.3	18.7	19.0	19.3	19.6
Power Tolerance	0~+5W				
Temperature Coefficient of Isc( $\alpha_{Isc}$ )	+0.060%/°C				
Temperature Coefficient of Voc( $\beta_{Voc}$ )	0/°C				
Temperature Coefficient of Pmax( $\gamma_{Pmp}$ )	-0.380%/°C				
STC	Irradiance 1000W/m <sup>2</sup> , cell temperature 25°C, AM1.5G				

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.

**ELECTRICAL PARAMETERS AT NOCT**

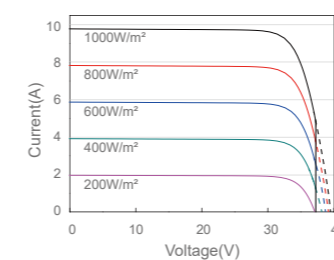
TYPE	JAM60S04 -300/PR	JAM60S04 -305/PR	JAM60S04 -310/PR	JAM60S04 -315/PR	JAM60S04 -320/PR
Rated Max Power(Pmax) [W]	221	224	228	232	235
Open Circuit Voltage(Voc) [V]	34.38	34.60	34.89	35.14	35.43
Max Power Voltage(Vmp) [V]	29.69	29.90	30.18	30.42	30.70
Short Circuit Current(Isc) [A]	7.78	7.86	7.93	7.99	8.05
Max Power Current(Imp) [A]	7.43	7.50	7.55	7.61	7.66
NOCT	Irradiance 800W/m <sup>2</sup> , ambient temperature 20°C, wind speed 1m/s, AM1.5G				

**OPERATING CONDITIONS**

Maximum System Voltage	1000V DC(IEC)
Operating Temperature	-40°C~+85°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 JAM60S04 -300/PR



Current-Voltage Curve JAM60S04 -300/PR

