# Harvest the Sunshine

DEEP BLUE 3.0

Mono

## 415W MBB Half-cell Module
## JAM54S30 390-415/MR/1000V Series

### Introduction

Assembled with 11BB PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.

- 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

0.55% Annual Degradation Over 25 years

New linear power warranty ■ Standard module linear power warranty

### Comprehensive Certificates

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems

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Specifications subject to technical changes and tests.
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Shanghai JA Solar Technology Co., Ltd.

# JAM54S30 390-415/MR/1000V Series

## MECHANICAL DIAGRAMS

Remark: customized frame color and cable length available upon request

## SPECIFICATIONS

| | |
|---|---|
| Cell | Mono |
| Weight | 21.5kg±3% |
| Dimensions | 1722±2mm×1134±2mm×30±1mm |
| Cable Cross Section Size | 4mm²（IEC），12 AWG(UL) |
| No. of cells | 108(6x18) |
| Junction Box | IP68, 3 diodes |
| Connector | Genuine MC4<br>QC4.10 |
| Cable Length<br>(Including Connector) | Portrait: 300mm(+)/400mm(-);<br>Landscape: 1200mm(+)/1200mm(-) |
| Country of Manufacturer | China/Vietnam |

## ELECTRICAL PARAMETERS AT STC

| TYPE | JAM54S30 -390/MR/1000V | JAM54S30 -395/MR/1000V | JAM54S30 -400/MR/1000V | JAM54S30 -405/MR/1000V | JAM54S30 -410/MR/1000V | JAM54S30 -415/MR/1000V |
|---|---|---|---|---|---|---|
| Rated Maximum Power(Pmax) [W] | 390 | 395 | 400 | 405 | 410 | 415 |
| Open Circuit Voltage(Voc) [V] | 36.85 | 36.98 | 37.07 | 37.23 | 37.32 | 37.45 |
| Maximum Power Voltage(Vmp) [V] | 30.64 | 30.84 | 31.01 | 31.21 | 31.45 | 31.61 |
| Short Circuit Current(Isc) [A] | 13.61 | 13.70 | 13.79 | 13.87 | 13.95 | 14.02 |
| Maximum Power Current(Imp) [A] | 12.73 | 12.81 | 12.90 | 12.98 | 13.04 | 13.13 |
| Module Efficiency [%] | 20.0 | 20.2 | 20.5 | 20.7 | 21.0 | 21.3 |
| Power Tolerance | 0~+5W | | | | | |
| Temperature Coefficient of Isc(α_Isc) | +0.045%°C | | | | | |
| Temperature Coefficient of Voc(β_Voc) | -0.275%/°C | | | | | |
| Temperature Coefficient of Pmax(γ_Pmp) | -0.350%/°C | | | | | |
| STC | Irradiance 1000W/m², 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.
Measurement tolerance at STC: Pmax ±3%，Voc ±3% and Isc ±4%.

## ELECTRICAL PARAMETERS AT NOCT

| TYPE | JAM54S30 -390/MR/1000V | JAM54S30 -395/MR/1000V | JAM54S30 -400/MR/1000V | JAM54S30 -405/MR/1000V | JAM54S30 -410/MR/1000V | JAM54S30 -415/MR/1000V |
|---|---|---|---|---|---|---|
| Rated Max Power(Pmax) [W] | 294 | 298 | 302 | 306 | 310 | 314 |
| Open Circuit Voltage(Voc) [V] | 34.62 | 34.75 | 34.88 | 35.12 | 35.23 | 35.37 |
| Max Power Voltage(Vmp) [V] | 28.87 | 29.08 | 29.26 | 29.47 | 29.72 | 29.89 |
| Short Circuit Current(Isc) [A] | 10.89 | 10.96 | 11.03 | 11.10 | 11.16 | 11.22 |
| Max Power Current(Imp) [A] | 10.18 | 10.25 | 10.32 | 10.38 | 10.43 | 10.50 |
| NOCT | Irradiance 800W/m², ambient temperature 20°C,wind speed 1m/s, AM1.5G | | | | | |

## OPERATING CONDITIONS

| | |
|---|---|
| Maximum System Voltage | 1000V DC(IEC) |
| Operating Temperature | -40℃~+85℃ |
| Maximum Series Fuse Rating | 25A |
| Maximum Static Load,Front*<br>Maximum Static Load,Back* | 3600Pa，1.5<br>1600Pa，1.5 |
| NOCT | 45±2℃ |
| Safety Class | Class Ⅱ |
| Fire Performance | UL Type 1 |

## CHARACTERISTICS

Current-Voltage Curve JAM54S30-405/MR/1000V

Power-Voltage Curve JAM54S30-405/MR/1000V

Current-Voltage Curve JAM54S30-405/MR/1000V