

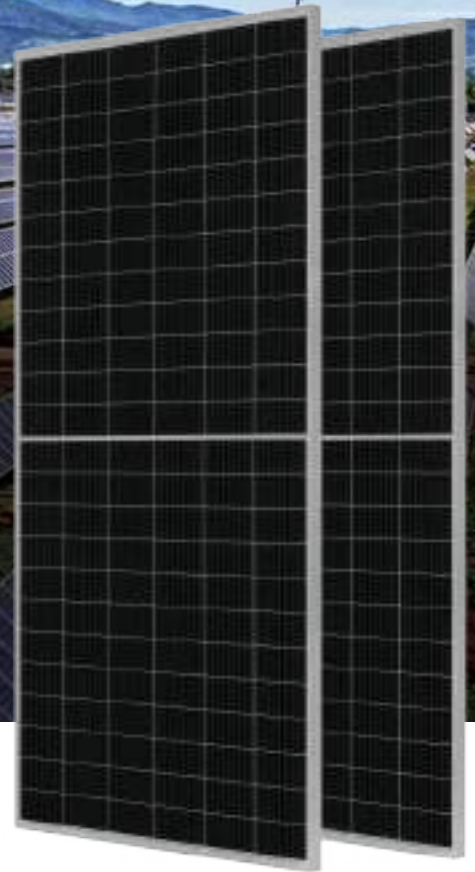
**Mono**

## 420W MBB Half-Cell Module

JAM72S10 400-420/MR/1000V Series

### Introduction

Assembled with multi-busbar 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



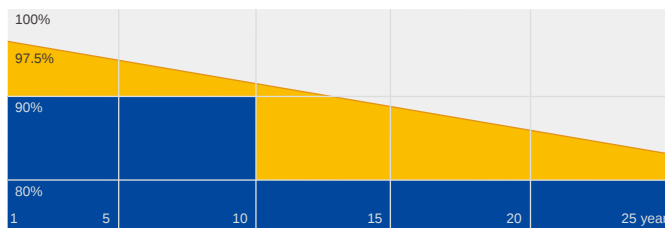
Less shading and lower resistive loss



Better mechanical loading tolerance

### Superior Warranty

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



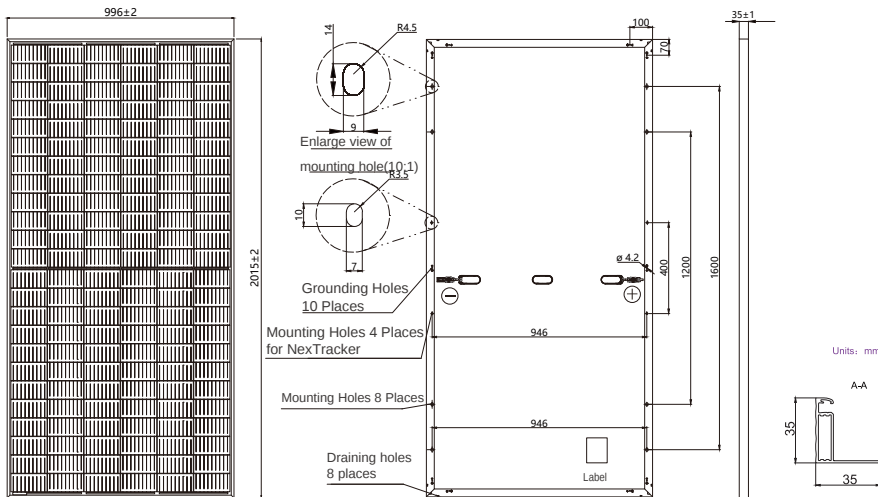
■ JA Linear Power Warranty ■ Industry Warranty

### 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



## MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

## SPECIFICATIONS

|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Cell                                  | Mono                                                         |
| Weight                                | 22.4kg±3%                                                    |
| Dimensions                            | 2015±2mm×996±2mm×35±1mm                                      |
| Cable Cross Section Size              | 4mm <sup>2</sup>                                             |
| No. of cells                          | 144 (6×24)                                                   |
| Cable Length<br>(Including Connector) | Portrait:300mm(+)/400mm(-);<br>Landscape:1200mm(+)/1200mm(-) |
| Connector                             | Genuine MC4<br>QC4.10                                        |
| Country of Manufacturer               | China/Vietnam                                                |

## ELECTRICAL PARAMETERS AT STC

| TYPE                                                            | JAM72S10<br>-400/MR/1000V | JAM72S10<br>-405/MR/1000V | JAM72S10<br>-410/MR/1000V | JAM72S10<br>-415/MR/1000V | JAM72S10<br>-420/MR/1000V |
|-----------------------------------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Rated Maximum Power(P <sub>max</sub> ) [W]                      | 400                       | 405                       | 410                       | 415                       | 420                       |
| Open Circuit Voltage(V <sub>oc</sub> ) [V]                      | 49.58                     | 49.86                     | 50.12                     | 50.41                     | 50.70                     |
| Maximum Power Voltage(V <sub>mp</sub> ) [V]                     | 41.33                     | 41.60                     | 41.88                     | 42.18                     | 42.47                     |
| Short Circuit Current(I <sub>sc</sub> ) [A]                     | 10.33                     | 10.39                     | 10.45                     | 10.51                     | 10.56                     |
| Maximum Power Current(I <sub>mp</sub> ) [A]                     | 9.68                      | 9.74                      | 9.79                      | 9.84                      | 9.89                      |
| Module Efficiency [%]                                           | 19.9                      | 20.2                      | 20.4                      | 20.7                      | 20.9                      |
| Power Tolerance                                                 | 0~+5W                     |                           |                           |                           |                           |
| Temperature Coefficient of I <sub>sc</sub> (α <sub>Isc</sub> )  | +0.044%/°C                |                           |                           |                           |                           |
| Temperature Coefficient of V <sub>oc</sub> (β <sub>Voc</sub> )  | -0.272%/°C                |                           |                           |                           |                           |
| Temperature Coefficient of P <sub>max</sub> (γ <sub>Pmp</sub> ) | -0.350%/°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.

\*For NexTracker installations static loading performance: front load measures 2400Pa, while back load measures 2400Pa.

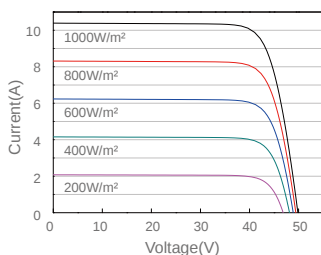
Measurement tolerance at STC: P<sub>max</sub> ±3%, V<sub>oc</sub> ±2% and I<sub>sc</sub> ±4%.

## ELECTRICAL PARAMETERS AT NOCT

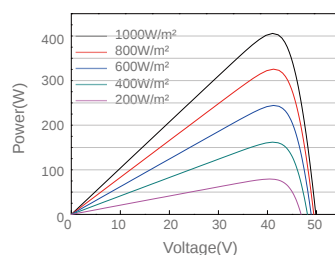
| TYPE                                        | JAM72S10<br>-400/MR/1000V                                                             | JAM72S10<br>-405/MR/1000V | JAM72S10<br>-410/MR/1000V | JAM72S10<br>-415/MR/1000V | JAM72S10<br>-420/MR/1000V | OPERATING CONDITIONS       |               |
|---------------------------------------------|---------------------------------------------------------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|---------------|
| Rated Max Power(P <sub>max</sub> ) [W]      | 302                                                                                   | 306                       | 310                       | 314                       | 318                       | Maximum System Voltage     | 1000V DC(IEC) |
| Open Circuit Voltage(V <sub>oc</sub> ) [V]  | 46.41                                                                                 | 46.66                     | 46.91                     | 47.16                     | 47.38                     | Operating Temperature      | -40°C~+85°C   |
| Max Power Voltage(V <sub>mp</sub> ) [V]     | 38.65                                                                                 | 38.90                     | 39.16                     | 39.41                     | 39.60                     | Maximum Series Fuse        | 20A           |
| Short Circuit Current(I <sub>sc</sub> ) [A] | 8.25                                                                                  | 8.31                      | 8.36                      | 8.41                      | 8.46                      | Maximum Static Load,Front* | 3600Pa, 1.5   |
| Max Power Current(I <sub>mp</sub> ) [A]     | 7.81                                                                                  | 7.87                      | 7.92                      | 7.97                      | 8.03                      | Maximum Static Load,Back*  | 1600Pa, 1.5   |
| NOCT                                        | Irradiance 800W/m <sup>2</sup> , ambient temperature 20°C,<br>wind speed 1m/s, AM1.5G |                           |                           |                           |                           | NOCT                       | 45±2°C        |
|                                             |                                                                                       |                           |                           |                           |                           | Fire Safety Class          | Class C       |

## CHARACTERISTICS

Current-Voltage Curve JAM72S10-405/MR/1000V



Power-Voltage Curve JAM72S10-405/MR/1000V



Current-Voltage Curve JAM72S10-405/MR/1000V

