

# 420W MBB

# Half-Cell Module

## JAM72S10 400-420 MR 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



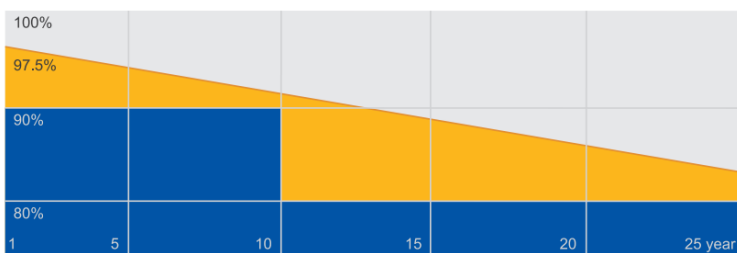
Less shading and lower resistive loss



Better mechanical loading tolerance

### Superior Warranty

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



■ JA Linear Power Warranty ■ Industry Warranty

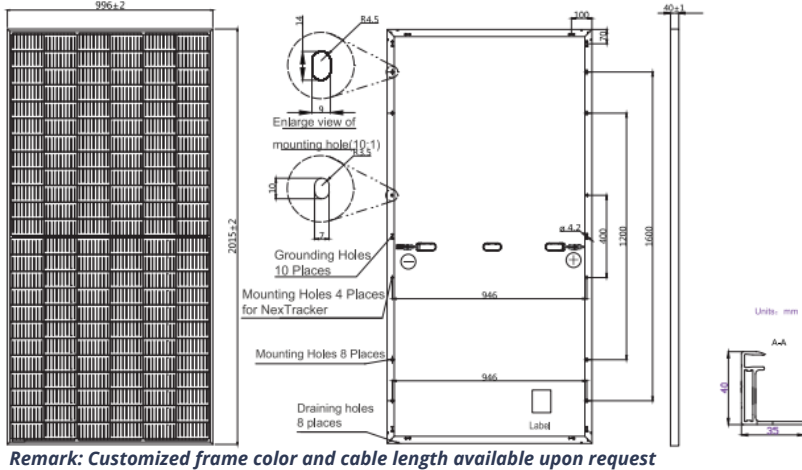
### Comprehensive Certificates

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality managementsystems
- ISO 14001: 2015 Environmental management systems
- OHSAS 18001: 2007 Occupational health and safety management systems
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) module design qualification and type approval



# JAM72S10 400-420 MR Series

## Mechanical Diagrams



## Specifications

|                                       |  |
|---------------------------------------|--|
| Cell                                  | Mono   |
| Weight                                | 22.7kg±3%  |
| Dimensions                            | 2015±2mmx996±2mmx40±1mm                                      |
| Cable Cross Section Size              | 4mm <sup>2</sup>   |
| No. of cell                           | 144(6x24)  |
| Junction Box                          | IP68, 3 diodes   |
| Connector                             | QC 4.10(1000V)<br>QC 4.10-35 (18500V)                        |
| Cable Length<br>(Including Connector) | Portrait:300mm(+)/400mm(-);<br>Landscape:1200mm(+)/1200mm(-) |
| Packaging Configuration               | 27 Per Pallet  |

## ELECTRICAL PARAMETERS AT STC

| TYPE                           | JAM60S10<br>-400/MR   | JAM60S10<br>-405/MR | JAM60S10<br>-410/MR | JAM60S10<br>-415/MR | JAM60S10<br>-420/MR |
|--------------------------------|---|---------------------|---------------------|---------------------|---------------------|
| Rated Maximum Power -Pmp (W)   | 400   | 405                 | 410                 | 415                 | 420                 |
| Open Circuit Voltage -Voc (V)  | 49.58   | 49.86               | 50.12               | 50.41               | 50.70               |
| Maximum Power Voltage -Vmp (V) | 41.33   | 41.60               | 41.88               | 42.18               | 42.47               |
| Short Circuit Current -Isc (A) | 10.33   | 10.39               | 10.45               | 10.51               | 10.56               |
| Maximum Power Current -Imp (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   |                     |                     |                     |                     |
| Isc Temperature Coefficient    | +0.044%/°C  |                     |                     |                     |                     |
| Voc Temperature Coefficient    | -0.272%/°C  |                     |                     |                     |                     |
| Pmax Temperature Coefficient   | -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.

## ELECTRICAL PARAMETERS AT NOCT

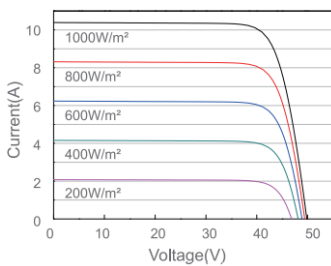
| TYPE                           | JAM60S10<br>-400/MR   | JAM60S10<br>-405/MR | JAM60S10<br>-410/MR | JAM60S10<br>-415/MR | JAM60S10<br>-420/MR |
|--------------------------------|---|---------------------|---------------------|---------------------|---------------------|
| Rated Max Power(Pmax) [W]      | 302   | 306                 | 310                 | 314                 | 318                 |
| Open Circuit Voltage(Voc) [V]  | 46.41   | 46.66               | 46.91               | 47.16               | 47.38               |
| Max Power Voltage(Vmp) [V]     | 38.65   | 38.90               | 39.16               | 39.41               | 39.60               |
| Short Circuit Current(Isc) [A] | 8.25  | 8.31                | 8.36                | 8.41                | 8.46                |
| Max Power Current(Imp) [A]     | 7.81  | 7.87                | 7.92                | 7.97                | 8.03                |
| NOCT                           | Irradiance 800W/m <sup>2</sup> , ambient temperature 20°C,<br>wind speed 1m/s, AM1.5G |                     |                     |                     |                     |

## OPERATING CONDITIONS

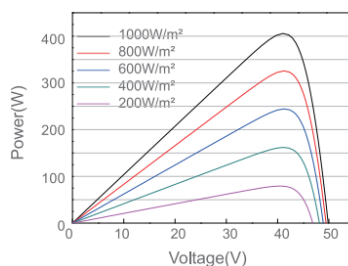
|                            |                     |
|----------------------------|---------------------|
| Maximum System Voltage     | 1000V/1500V DC(IEC) |
| Operating Temperature      | -40°C~-85°C         |
| Maximum Series Fuse        | 20A                 |
| Maximum Static Load, Front | 5400Pa              |
| Maximum Static Load, Back  | 2400Pa              |
| NOCT                       | 45±2°C              |
| Safety Class               | Glass II            |

## CHARACTERISTICS

Current-Voltage Curve JAM72S10-405/MR



Power-Voltage Curve JAM72S10-405/MR



Current-Voltage Curve JAM72S10-405/MR

