

# Harvest the Sunshine

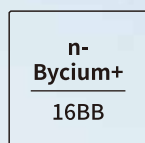
# 440W



# JA SOLAR

## JAM54D41 GB Black Module n-type Double Glass Bifacial Modules

### Premium Cells



MBB Half-Cell  
Technology

## 26%



Cell Conversion  
Efficiency

### Premium Modules



Higher power  
generation better LCOE



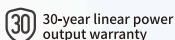
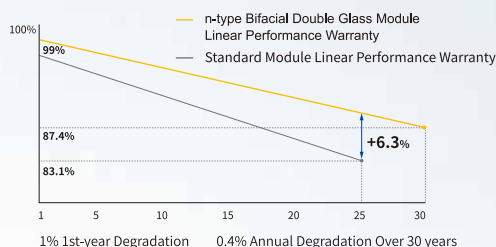
n-type with very  
Lower LID



Better Temperature  
Coefficient



Better low irradiance  
response



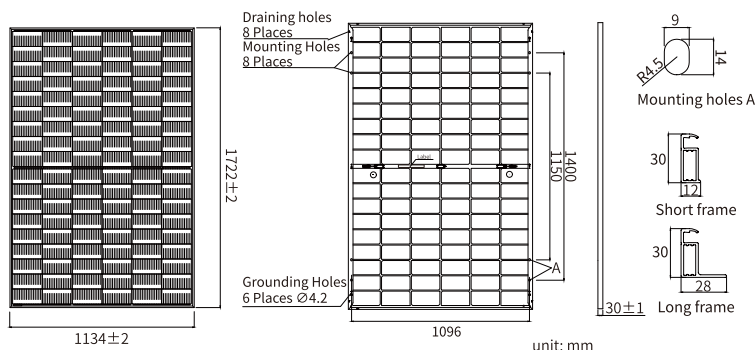
### Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing



## DEEP BLUE 4.0

# JAM54D41 GB n-type Double Glass Bifacial Modules



## MECHANICAL PARAMETERS

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| Cell                                  | Mono                                                          |
| Weight                                | 21.5kg                                                        |
| Dimensions                            | 1722±2mm×1134±2mm×30±1mm                                      |
| Cable Cross Section Size              | 4mm <sup>2</sup> (IEC), 12 AWG(UL)                            |
| No. of cells                          | 108(6×18)                                                     |
| Junction Box                          | IP68, 3diodes                                                 |
| Connector                             | QC 4.10-351/ MC4-EVO2A                                        |
| Cable Length<br>(Including Connector) | Portrait: 300mm(+)/400mm(-)<br>Landscape: 1100mm(+)/1100mm(-) |
| Front Glass/Back Glass                | 1.6mm/1.6mm                                                   |
| Packaging Configuration               | 36pcs/Pallet, 936pcs/40HQ Container                           |

Remark: customized frame color and cable length available upon request

## ELECTRICAL PARAMETERS AT STC

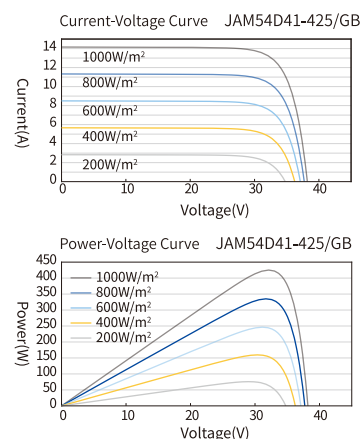
| TYPE                                                            | JAM54D41<br>-415/GB                                             | JAM54D41<br>-420/GB | JAM54D41<br>-425/GB | JAM54D41<br>-430/GB | JAM54D41<br>-435/GB | JAM54D41<br>-440/GB |
|-----------------------------------------------------------------|-----------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Rated Maximum Power(P <sub>max</sub> ) [W]                      | 415                                                             | 420                 | 425                 | 430                 | 435                 | 440                 |
| Open Circuit Voltage (V <sub>oc</sub> ) [V]                     | 38.00                                                           | 38.28               | 38.56               | 38.84               | 39.11               | 39.38               |
| Maximum Power Voltage(V <sub>mp</sub> ) [V]                     | 32.13                                                           | 32.38               | 32.64               | 32.88               | 33.13               | 33.37               |
| Short Circuit Current(I <sub>sc</sub> ) [A]                     | 13.60                                                           | 13.65               | 13.70               | 13.75               | 13.80               | 13.85               |
| Maximum Power Current(I <sub>mp</sub> ) [A]                     | 12.92                                                           | 12.97               | 13.02               | 13.08               | 13.13               | 13.18               |
| Module Efficiency [%]                                           | 21.3                                                            | 21.5                | 21.8                | 22.0                | 22.3                | 22.5                |
| Power Tolerance                                                 | 0~+3%                                                           |                     |                     |                     |                     |                     |
| Temperature Coefficient of I <sub>sc</sub> (α <sub>Isc</sub> )  | +0.045%/°C                                                      |                     |                     |                     |                     |                     |
| Temperature Coefficient of V <sub>oc</sub> (β <sub>Voc</sub> )  | -0.250%/°C                                                      |                     |                     |                     |                     |                     |
| Temperature Coefficient of P <sub>max</sub> (γ <sub>Pmp</sub> ) | -0.290%/°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 CHARACTERISTICS WITH 10% SOLAR IRRADIATION RATIO

| TYPE                                        | JAM54D41<br>-415/GB | JAM54D41<br>-420/GB | JAM54D41<br>-425/GB | JAM54D41<br>-430/GB | JAM54D41<br>-435/GB | JAM54D41<br>-440/GB |
|---------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Rated Max Power(P <sub>max</sub> ) [W]      | 448                 | 454                 | 459                 | 464                 | 470                 | 475                 |
| Open Circuit Voltage(V <sub>oc</sub> ) [V]  | 38.00               | 38.28               | 38.56               | 38.84               | 39.11               | 39.38               |
| Max Power Voltage(V <sub>mp</sub> ) [V]     | 32.13               | 32.38               | 32.64               | 32.88               | 33.13               | 33.37               |
| Short Circuit Current(I <sub>sc</sub> ) [A] | 14.69               | 14.74               | 14.80               | 14.85               | 14.90               | 14.96               |
| Max Power Current(I <sub>mp</sub> ) [A]     | 13.95               | 14.01               | 14.06               | 14.12               | 14.18               | 14.24               |
| Irradiation Ratio (rear/front)              | 10%                 |                     |                     |                     |                     |                     |

## CHARACTERISTICS



## OPERATING CONDITIONS

|                            |                                 |
|----------------------------|---------------------------------|
| Maximum System Voltage     | 1500V DC                        |
| Operating Temperature      | -40°C~+85°C                     |
| Maximum Series Fuse Rating | 30A                             |
| Maximum Static Load, Front | 5400Pa(112 lb/ft <sup>2</sup> ) |
| Maximum Static Load, Back  | 2400Pa(50 lb/ft <sup>2</sup> )  |
| NOCT                       | 45±2°C                          |
| Bifaciality                | 80%±10%                         |
| Safety Class               | Class II                        |
| Fire Performance           | UL Type 38/Class C              |