

# Harvest the Sunshine

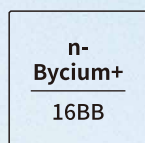
# JA SOLAR

# 475W



## JAM54D40 LR Black Frame n-type Double Glass Monofacial Modules

### Premium Cells



MBB Half-Cell  
Technology

# 26%



Cell Conversion  
Efficiency

### Premium Modules



Higher power  
generation better LCOE



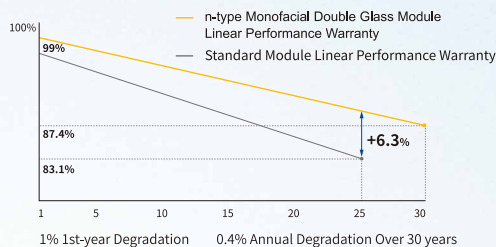
n-type with very  
Lower LID



Better Temperature  
Coefficient



Better low irradiance  
response



25-year product  
warranty



30-year linear power  
output warranty

\*Subject to the terms and conditions contained in the Limited Warranty Statement.  
Extended Product Warranty only applies to rooftops PV systems in certain regions.

### Comprehensive Certificates

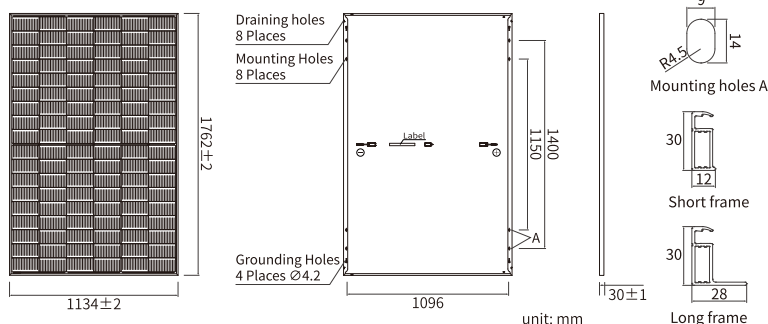
- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing



## DEEP BLUE 4.0 Pro

# JAM54D40 LR

n-type Double Glass Monofacial Modules



## MECHANICAL PARAMETERS

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| Cell                                  | Mono                                                          |
| Weight                                | 22kg                                                          |
| Dimensions                            | 1762±2mm×1134±2mm×30±1mm                                      |
| Cable Cross Section Size              | 4mm²(IEC), 12 AWG(UL)                                         |
| No. of cells                          | 108(6×18)                                                     |
| Junction Box                          | IP68, 3diodes                                                 |
| Connector                             | MC4-EVO2A/QC 4.10-351                                         |
| Cable Length<br>(Including Connector) | Portrait: 400mm(+)/200mm(-)<br>Landscape: 1200mm(+)/1200mm(-) |
| 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

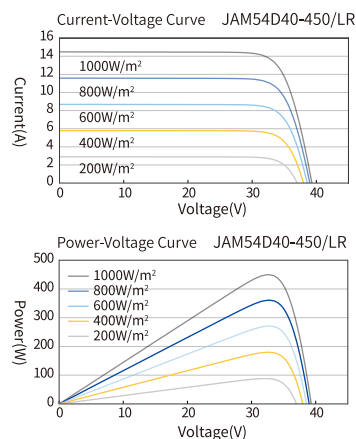
| TYPE                                                            | JAM54D40<br>-450/LR                                | JAM54D40<br>-455/LR | JAM54D40<br>-460/LR | JAM54D40<br>-465/LR | JAM54D40<br>-470/LR | JAM54D40<br>-475/LR |
|-----------------------------------------------------------------|----------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Rated Maximum Power(P <sub>max</sub> ) [W]                      | 450                                                | 455                 | 460                 | 465                 | 470                 | 475                 |
| Open Circuit Voltage (V <sub>oc</sub> ) [V]                     | 39.30                                              | 39.50               | 39.70               | 40.20               | 40.40               | 40.55               |
| Maximum Power Voltage(V <sub>mp</sub> ) [V]                     | 32.82                                              | 33.00               | 33.17               | 33.50               | 33.84               | 34.18               |
| Short Circuit Current(I <sub>sc</sub> ) [A]                     | 14.48                                              | 14.56               | 14.64               | 14.65               | 14.66               | 14.67               |
| Maximum Power Current(I <sub>mp</sub> ) [A]                     | 13.71                                              | 13.79               | 13.87               | 13.88               | 13.89               | 13.90               |
| Module Efficiency [%]                                           | 22.5                                               | 22.8                | 23.0                | 23.3                | 23.5                | 23.8                |
| Power Binning Tolerance                                         | -5~+10W                                            |                     |                     |                     |                     |                     |
| 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/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.

## ELECTRICAL PARAMETERS AT NOCT

| TYPE                                        | JAM54D40<br>-450/LR                                                   | JAM54D40<br>-455/LR | JAM54D40<br>-460/LR | JAM54D40<br>-465/LR | JAM54D40<br>-470/LR | JAM54D40<br>-475/LR |
|---------------------------------------------|-----------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Rated Max Power(P <sub>max</sub> ) [W]      | 341                                                                   | 344                 | 348                 | 352                 | 356                 | 360                 |
| Open Circuit Voltage(V <sub>oc</sub> ) [V]  | 37.19                                                                 | 37.37               | 37.57               | 38.04               | 38.23               | 38.37               |
| Max Power Voltage(V <sub>mp</sub> ) [V]     | 31.06                                                                 | 31.22               | 31.38               | 31.68               | 32.00               | 32.31               |
| Short Circuit Current(I <sub>sc</sub> ) [A] | 11.58                                                                 | 11.65               | 11.71               | 11.72               | 11.73               | 11.74               |
| Max Power Current(I <sub>mp</sub> ) [A]     | 10.97                                                                 | 11.03               | 11.10               | 11.11               | 11.12               | 11.13               |
| NOCT                                        | Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s, AM1.5G |                     |                     |                     |                     |                     |

## CHARACTERISTICS



## OPERATING CONDITIONS

|                            |                    |
|----------------------------|--------------------|
| Maximum System Voltage     | 1500V DC           |
| Operating Temperature      | -40°C~+85°C        |
| Maximum Series Fuse Rating | 25A                |
| Maximum Static Load, Front | 5400Pa(112 lb/ft²) |
| Maximum Static Load, Back  | 2400Pa(50 lb/ft²)  |
| NOCT                       | 45±2°C             |
| Safety Class               | Class II           |
| Fire Performance           | UL Type 38/Class C |