# Harvest the Sunshine

# 460W

**Hail Resistance Class 4**

# JAM54D40 LB

Black Frame
n-type Double Glass Bifacial Modules

## Premium Cells

n-Bycium+ 16BB

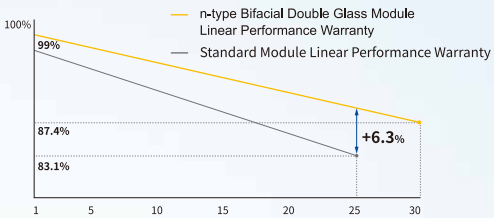
MBB Half-Cell Technology

26%
Up To

Cell Conversion Efficiency

## Premium Modules

- Higher power generation better LCOE
- n-type with very Lower LID
- Better Temperature Coefficient
- Better low irradiance response




1% 1st-year Degradation

0.4% Annual Degradation Over 30 years

25 25-year product warranty

30 30-year linear power output warranty

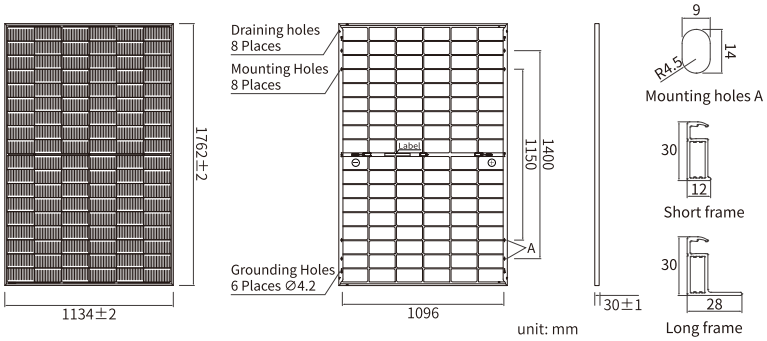
### Comprehensive Certificates

- 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 Pro

# JAM54D40 LB n-type Double Glass Bifacial Modules

DEEP BLUE 4.0 Pro




## MECHANICAL PARAMETERS

| | |
|---|---|
| Cell | Mono |
| Weight | 28kg |
| 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 | QC 4.10-351/ MC4-EVO2A |
| Cable Length (Including Connector) | Portrait: 400mm(+) /200mm(-) Landscape: 1200mm(+)/1200mm(-) |
| Front Glass/Back Glass | 2.8mm/2.0mm |
| Packaging Configuration | 36pcs/Pallet, 864pcs/40HQ Container |

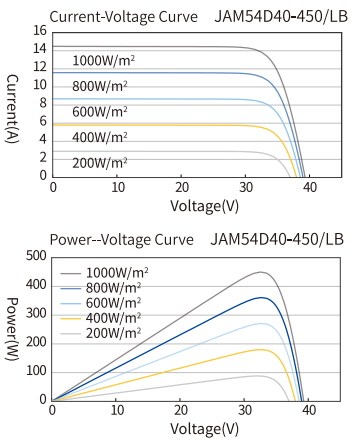
Remark: customized frame color and cable length available upon request

## ELECTRICAL PARAMETERS AT STC

| TYPE | JAM54D40 -435/LB | JAM54D40 -440/LB | JAM54D40 -445/LB | JAM54D40 -450/LB | JAM54D40 -455/LB | JAM54D40 -460/LB |
|---|---|---|---|---|---|---|
| Rated Maximum Power(Pmax) [W] | 435 | 440 | 445 | 450 | 455 | 460 |
| Open Circuit Voltage (Voc) [V] | 38.70 | 38.90 | 39.10 | 39.30 | 39.50 | 39.70 |
| Maximum Power Voltage(Vmp) [V] | 32.29 | 32.47 | 32.65 | 32.82 | 33.00 | 33.17 |
| Short Circuit Current(Isc) [A] | 14.23 | 14.31 | 14.40 | 14.48 | 14.56 | 14.64 |
| Maximum Power Current(Imp) [A] | 13.47 | 13.55 | 13.63 | 13.71 | 13.79 | 13.87 |
| Module Efficiency [%] | 21.8 | 22.0 | 22.3 | 22.5 | 22.8 | 23.0 |
| Power Tolerance | 0~+3% | | | | | |
| Temperature Coefficient of Isc(α_Isc) | +0.045%/°C | | | | | |
| Temperature Coefficient of Voc (β_Voc) | -0.250%/°C | | | | | |
| Temperature Coefficient of Pmax(γ_Pmp) | -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.

## CHARACTERISTICS




## ELECTRICAL CHARACTERISTICS WITH 10% SOLAR IRRADIATION RATIO

| TYPE | JAM54D40 -435/LB | JAM54D40 -440/LB | JAM54D40 -445/LB | JAM54D40 -450/LB | JAM54D40 -455/LB | JAM54D40 -460/LB |
|---|---|---|---|---|---|---|
| Rated Max Power(Pmax) [W] | 470 | 475 | 481 | 486 | 491 | 497 |
| Open Circuit Voltage(Voc) [V] | 38.70 | 38.90 | 39.10 | 39.30 | 39.50 | 39.70 |
| Max Power Voltage(Vmp) [V] | 32.29 | 32.47 | 32.65 | 32.82 | 32.99 | 33.17 |
| Short Circuit Current(Isc) [A] | 15.36 | 15.46 | 15.55 | 15.64 | 15.73 | 15.81 |
| Max Power Current(Imp) [A] | 14.55 | 14.63 | 14.72 | 14.81 | 14.89 | 14.98 |
| Irradiation Ratio (rear/front) | 10% | | | | | |

## OPERATING CONDITIONS

| | |
|---|---|
| Maximum System Voltage | 1500V DC |
| Operating Temperature | -40°C~+85°C |
| Maximum Series Fuse Rating | 30A |
| Maximum Static Load, Front | 8000Pa(167 lb/ft²) |
| Maximum Static Load, Back | 5000Pa(104 lb/ft²) |
| Hail Class | Hail Resistance Class 4(HW4) |
| NOCT | 45±2°C |
| Bifaciality | 80%±5% |
| Safety Class | Class II |
| Fire Performance | Class C |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