

# Harvest the Sunshine

# 465W

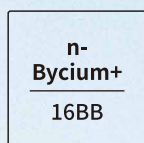


# JA SOLAR

Preliminary Version

## JAM54D40 LB Black Frame n-type Double Glass Bifacial Modules

### Premium Cells



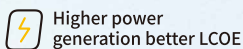
MBB Half-Cell Technology

# 26%



Cell Conversion Efficiency

### Premium Modules



Higher power generation better LCOE



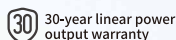
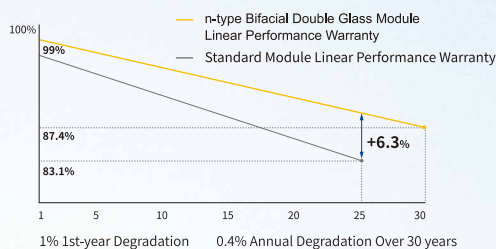
n-type with very Lower LID



Better Temperature Coefficient



Better low irradiance response

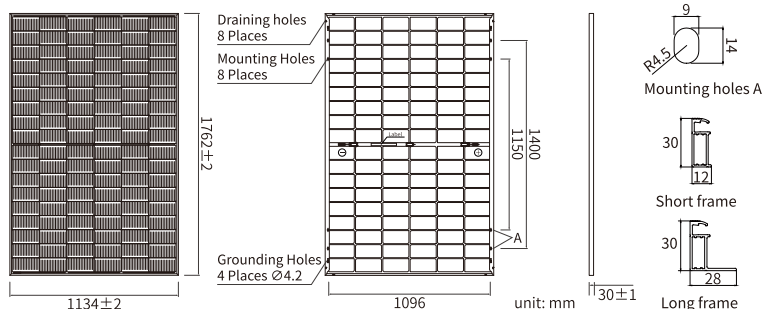


### Comprehensive Certificates

- 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



# JAM54D40 LB n-type Double Glass Bifacial Modules



## MECHANICAL PARAMETERS

Cell	Mono
Weight	22kg
Dimensions	1762±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 (Including Connector)	Portrait: 300mm(+)/400mm(-) 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

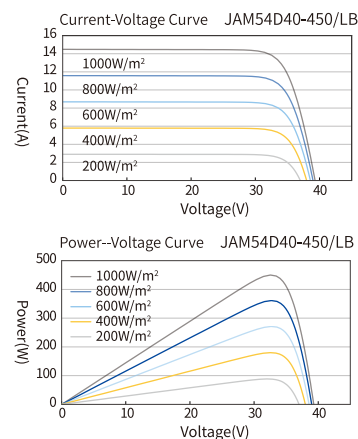
TYPE	JAM54D40 -440/LB	JAM54D40 -445/LB	JAM54D40 -450/LB	JAM54D40 -455/LB	JAM54D40 -460/LB	JAM54D40 -465/LB
Rated Maximum Power(Pmax) [W]	440	445	450	455	460	465
Open Circuit Voltage (Voc) [V]	38.90	39.10	39.30	39.50	39.70	40.20
Maximum Power Voltage(Vmp) [V]	32.47	32.65	32.82	33.00	33.17	33.50
Short Circuit Current(Isc) [A]	14.31	14.40	14.48	14.56	14.64	14.65
Maximum Power Current(Imp) [A]	13.55	13.63	13.71	13.79	13.87	13.88
Module Efficiency [%]	22.0	22.3	22.5	22.8	23.0	23.3
Power Tolerance	0~+3%					
Temperature Coefficient of Isc(α <sub>Isc</sub> )	+0.045%/°C					
Temperature Coefficient of Voc (β <sub>Voc</sub> )	-0.250%/°C					
Temperature Coefficient of Pmax(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	JAM54D40 -440/LB	JAM54D40 -445/LB	JAM54D40 -450/LB	JAM54D40 -455/LB	JAM54D40 -460/LB	JAM54D40 -465/LB
Rated Max Power(Pmax) [W]	475	481	486	491	497	502
Open Circuit Voltage(Voc) [V]	38.90	39.10	39.30	39.50	39.70	40.20
Max Power Voltage(Vmp) [V]	32.47	32.65	32.82	32.99	33.17	33.50
Short Circuit Current(Isc) [A]	15.46	15.55	15.64	15.73	15.81	15.82
Max Power Current(Imp) [A]	14.63	14.72	14.81	14.89	14.98	14.99
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%±5%
Safety Class	Class II
Fire Performance	UL Type 38/Class C