

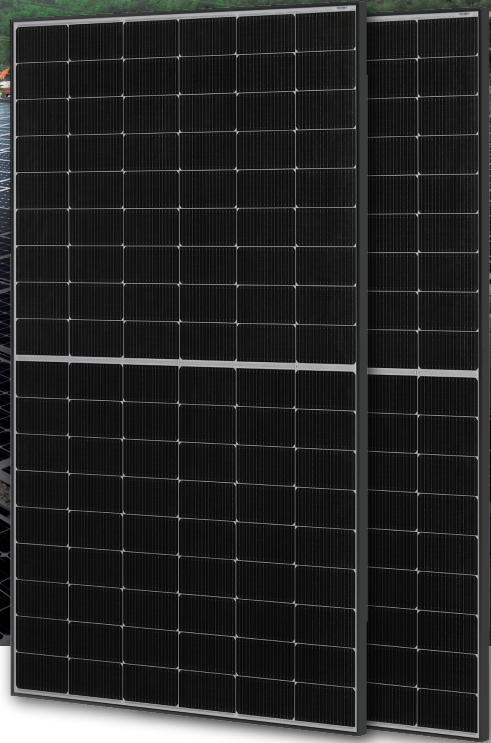
## DEEP BLUE 4.0

**Mono**

435W n-type Bifacial Double Glass  
High Efficiency Mono Module  
JAM54D40 410-435/MB Series

### Introduction

Powered by the latest SMBB n-type solar cell and half-cell configuration, these modules have higher output power, lower LID, better weak illumination response, and better temperature coefficient.



Higher power generation  
better LCOE



n-type with very Lower LID



Better weak illumination response



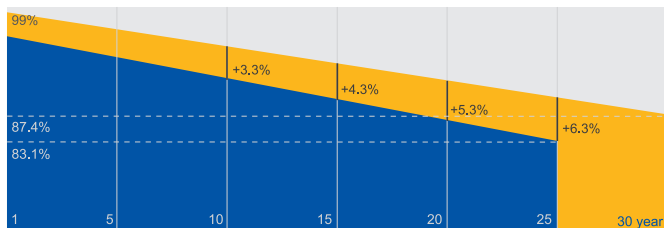
Better Temperature Coefficient

### Superior Warranty

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

1% 1st-year Degradation

0.4% Annual Degradation  
Over 30 years



■ n-type Bifacial Double Glass Module Linear Performance Warranty  
■ Standard Module Linear Performance Warranty

\*Subject to the terms and conditions contained in the Limited Warranty Statement.  
Also this 25-year limited product warranty is available only for products installed and operating on residential rooftops in certain regions.

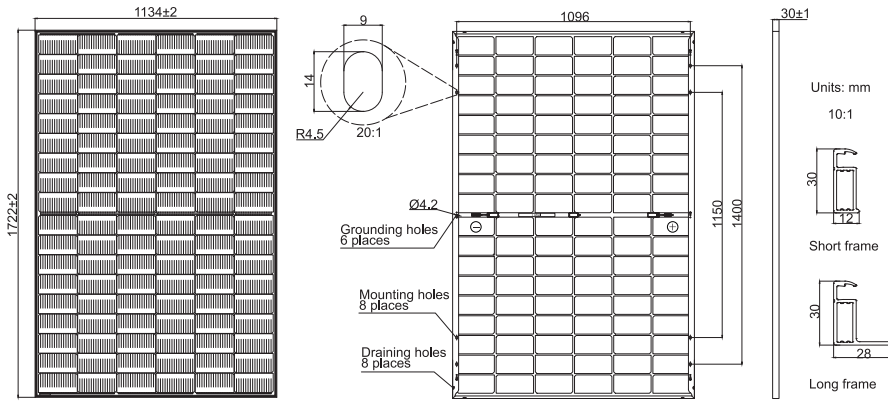
### Comprehensive Certificates

- 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



**MECHANICAL DIAGRAMS**

**SPECIFICATIONS**



Cell	Mono-16BB
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, 3 diodes
Connector	QC 4.10-351/ MC4-EVO2A
Cable Length (Including Connector)	Portrait: 200mm(+)/300mm(-); 800mm(+)/800mm(-)(Leapfrog) 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	JAM54D40 -410/MB	JAM54D40 -415/MB	JAM54D40 -420/MB	JAM54D40 -425/MB	JAM54D40 -430/MB	JAM54D40 -435/MB
Rated Maximum Power(Pmax) [W]	410	415	420	425	430	435
Open Circuit Voltage(Voc) [V]	37.71	38.00	38.28	38.56	38.84	39.11
Maximum Power Voltage(Vmp) [V]	31.88	32.13	32.38	32.64	32.88	33.13
Short Circuit Current(Isc) [A]	13.55	13.60	13.65	13.70	13.75	13.80
Maximum Power Current(Imp) [A]	12.86	12.92	12.97	13.02	13.08	13.13
Module Efficiency [%]	21.0	21.3	21.5	21.8	22.0	22.3
Power Tolerance	0~+5W					
Temperature Coefficient of Isc(α <sub>Isc</sub> )	+0.046%/°C					
Temperature Coefficient of Voc(β <sub>Voc</sub> )	-0.260%/°C					
Temperature Coefficient of Pmax(γ <sub>Pmp</sub> )	-0.300%/°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.

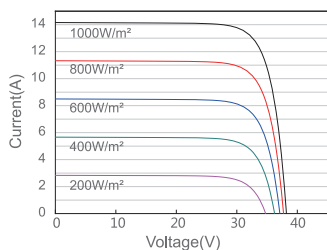
**ELECTRICAL CHARACTERISTICS WITH 10% SOLAR IRRADIATION RATIO**

**OPERATING CONDITIONS**

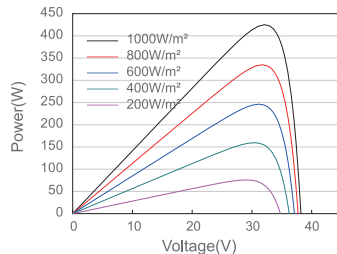
TYPE	JAM54D40 -410/MB	JAM54D40 -415/MB	JAM54D40 -420/MB	JAM54D40 -425/MB	JAM54D40 -430/MB	JAM54D40 -435/MB	Operating Conditions
Rated Max Power(Pmax) [W]	443	448	454	459	464	470	Maximum System Voltage: 1500V DC
Open Circuit Voltage(Voc) [V]	37.71	38.00	38.28	38.56	38.84	39.11	Operating Temperature: -40°C~+85°C
Max Power Voltage(Vmp) [V]	31.88	32.13	32.38	32.64	32.88	33.13	Maximum Series Fuse Rating: 30A
Short Circuit Current(Isc) [A]	14.63	14.69	14.74	14.80	14.85	14.90	Maximum Static Load,Front Maximum Static Load,Back: 5400Pa(112 lb/ft <sup>2</sup> ) 2400Pa(50 lb/ft <sup>2</sup> )
Max Power Current(Imp) [A]	13.89	13.95	14.01	14.06	14.12	14.18	NOCT: 45±2°C
Irradiation Ratio (rear/front)	10%						Bifaciality*: 80%±10%
*Bifaciality=Pmax,rear/Rated Pmax,front							Fire Performance: UL Type 29

**CHARACTERISTICS**

Current-Voltage Curve JAM54D40-425/MB



Power-Voltage Curve JAM54D40-425/MB



Current-Voltage Curve JAM54D40-425/MB

