

Harvest the Sunshine

DEEP BLUE 4.0

Mono

440W n-type Bifacial Double Glass
High Efficiency Mono Module
JAM54D40 415-440/GB/1500V 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



Better weak illumination response



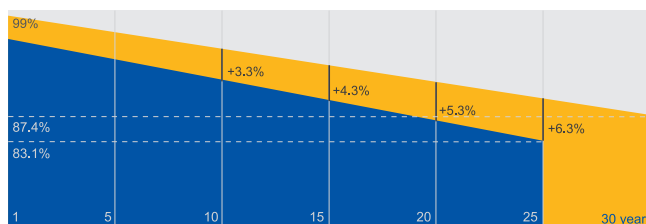
Better Temperature Coefficient

Superior Warranty

- 12-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

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



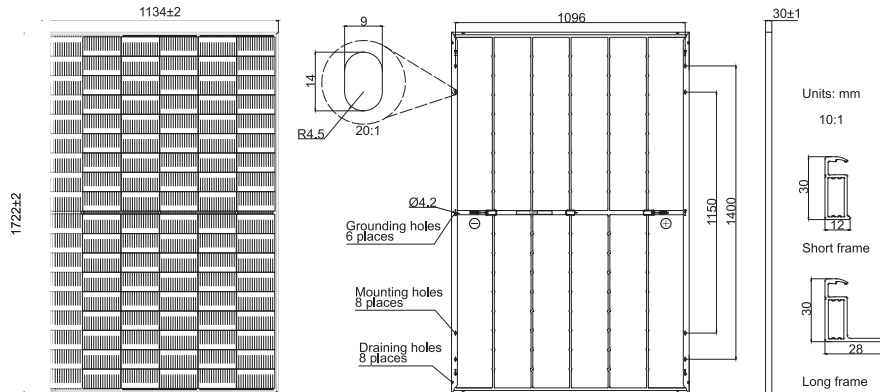
JA SOLAR

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Specifications subject to technical changes and tests.
JA Solar reserves the right of final interpretation.
Shanghai JA Solar Technology Co., Ltd.



MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono-16BB
Weight	21.5kg
Dimensions	1722±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm ² (IEC), 12 AWG(UL)
No. of cells	108(6×18)
Junction Box	IP68, 3 diodes
Connector	Stäubli MC4-EVO2A/ MC4-EVO2 QC Solar QC 4.10-351/ QC 4.10-35
Cable Length (Including Connector)	Portrait:200mm(+)/300mm(-); Landscape:1100mm(+)/1100mm(-)
Front Glass/Back Glass	1.6mm/1.6mm
Country of Manufacturer	China/Vietnam

ELECTRICAL PARAMETERS AT STC

TYPE	JAM54D40 -415/GB/1500V	JAM54D40 -420/GB/1500V	JAM54D40 -425/GB/1500V	JAM54D40 -430/GB/1500V	JAM54D40 -435/GB/1500V	JAM54D40 -440/GB/1500V
Rated Maximum Power(P _{max}) [W]	415	420	425	430	435	440
Open Circuit Voltage(V _{oc}) [V]	37.92	38.05	38.20	38.32	38.45	38.60
Maximum Power Voltage(V _{mp}) [V]	31.59	31.80	32.01	32.21	32.42	32.65
Short Circuit Current(I _{sc}) [A]	14.02	14.09	14.16	14.23	14.30	14.36
Maximum Power Current(I _{mp}) [A]	13.14	13.21	13.28	13.35	13.42	13.48
Module Efficiency [%]	21.3	21.5	21.8	22.0	22.3	22.5
Power Tolerance	0~+5W					
Temperature Coefficient of I _{sc} (α _{Isc})	+0.046%/°C					
Temperature Coefficient of V _{oc} (β _{Voc})	-0.260%/°C					
Temperature Coefficient of P _{max} (γ _{Pmp})	-0.300%/°C					
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G					

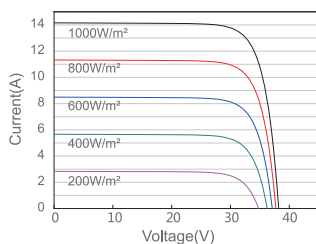
Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.
Measurement tolerance at STC: P_{max} ±3%, V_{oc} ±3% and I_{sc} ±4%.

ELECTRICAL CHARACTERISTICS WITH 10% SOLAR IRRADIATION RATIO

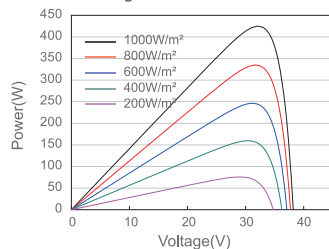
TYPE	JAM54D40 -415/GB/1500V	JAM54D40 -420/GB/1500V	JAM54D40 -425/GB/1500V	JAM54D40 -430/GB/1500V	JAM54D40 -435/GB/1500V	JAM54D40 -440/GB/1500V	Maximum System Voltage	1500V DC
Rated Max Power(Pmax) [W]	448	454	459	464	470	475	Operating Temperature	-40°C~+85°C
Open Circuit Voltage(Voc) [V]	37.95	38.08	38.23	38.35	38.48	38.63	Maximum Series Fuse Rating	30A
Max Power Voltage(Vmp) [V]	31.58	31.79	32.00	32.21	32.41	32.64	Maximum Static Load,Front Maximum Static Load,Back	2400Pa, 1.5 1600Pa, 1.5
Short Circuit Current(Isc) [A]	15.14	15.22	15.29	15.37	15.44	15.51	NOCT	45±2°C
Max Power Current(Imp) [A]	14.19	14.27	14.34	14.42	14.49	14.56	Bifaciality*	80%±10%
Irradiation Ratio (rear/front)							10%	
*Bifaciality=Pmax,rear/Rated Pmax,front							Fire Safety Class	Class C

CHARACTERISTICS

Current-Voltage Curve JAM54D40-425/GB/1500V



Power-Voltage Curve JAM54D40-425/GB/1500V



Current-Voltage Curve JAM54D40-425/GB/1500V

