JA SOLAR | DEEP BLUE 4.0 Pro

465W JAM54D41 LR Black Modules

n-type Double Glass Monofacial Modules

Premium Cells

n-Bycium+ 16BB	MBB Half-Cell Technology

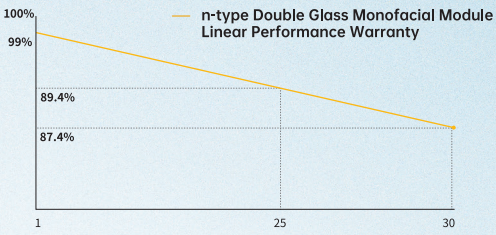
Premium Modules

Superior energy yield for lower LCOE

High-efficiency with advanced n-type Bycium+ cell technology

Higher power output with High-density module design

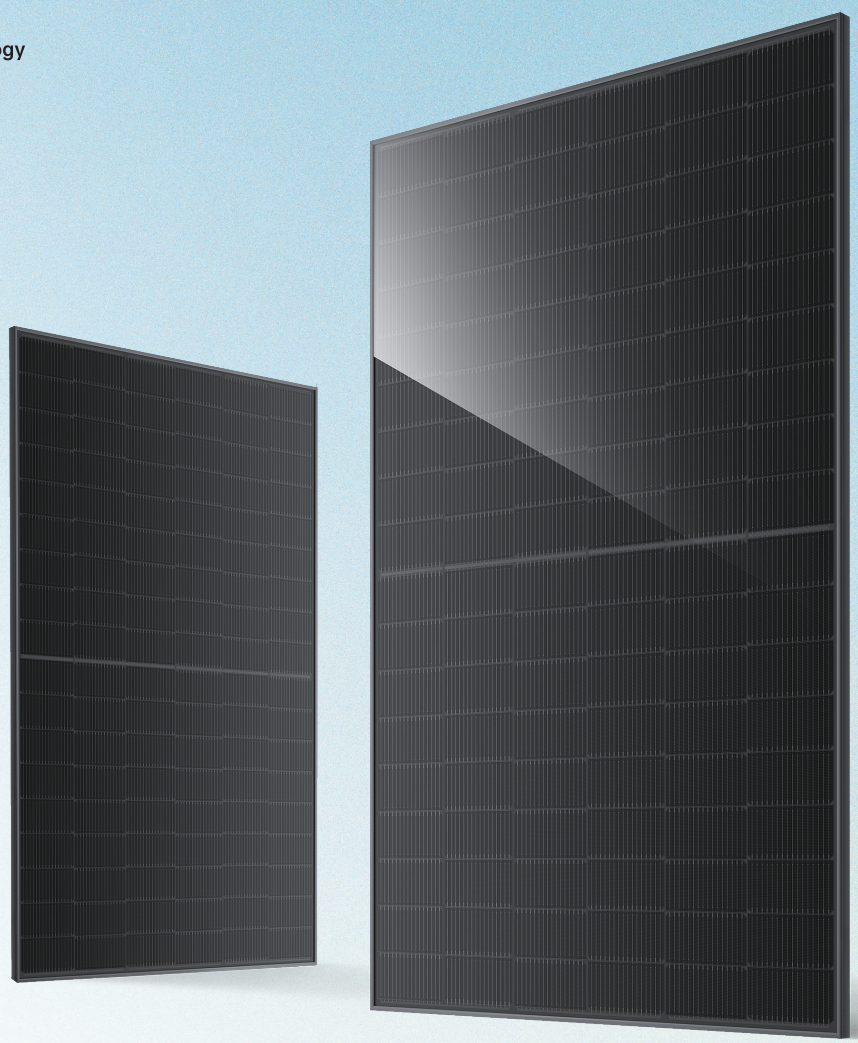
Excellent reliability, certified by authoritative institutions



1% 1st-year Degradation 0.4% Annual Degradation Over 30 years

25 25-year product warranty

30 30-year linear power output warranty

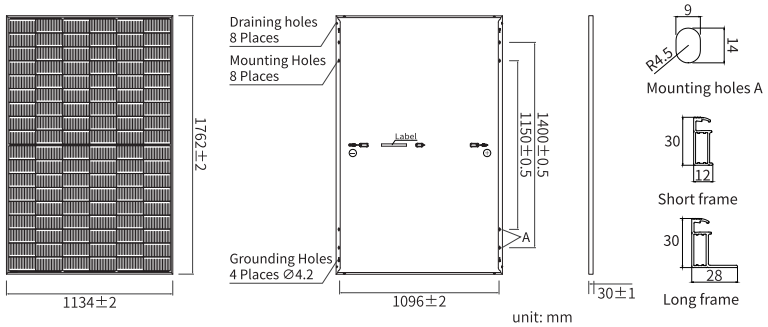


Comprehensive Certificates

- IEC 61215, IEC 61730
- 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

465W JAM54D41 LR
n-type Double Glass Monofacial Modules

DEEP BLUE 4.0 Pro



MECHANICAL PARAMETERS

Cell	Mono
Weight	21.5kg
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(-)
Frame	Anodized Aluminium Alloy
Front Glass	1.6mm,Anti-reflection Coating
Back Glass	1.6mm, Heat Strengthened Glass
Packaging Configuration	36pcs/Pallet, 936pcs/40HQ Container

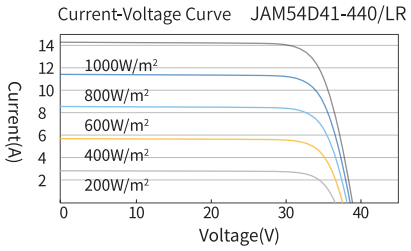
Remark: customized frame color and cable length available upon request

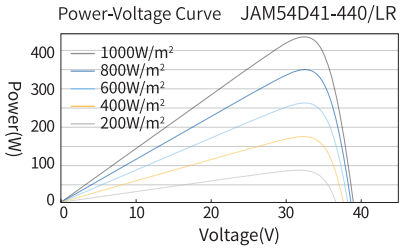
ELECTRICAL PARAMETERS AT STC

TYPE	JAM54D41 -440/LR	JAM54D41 -445/LR	JAM54D41 -450/LR	JAM54D41 -455/LR	JAM54D41 -460/LR	JAM54D41 -465/LR
Rated Maximum Power(Pmax) [W]	440	445	450	455	460	465
Open Circuit Voltage (Voc) [V]	38.90	39.10	40.30	40.50	40.60	40.70
Maximum Power Voltage(Vmp) [V]	32.47	32.65	32.99	33.33	33.68	34.02
Short Circuit Current(Isc) [A]	14.31	14.40	14.41	14.42	14.43	14.44
Maximum Power Current(Imp) [A]	13.55	13.63	13.64	13.65	13.66	13.67
Module Efficiency [%]	22.0	22.3	22.5	22.8	23.0	23.3
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 PARAMETERS AT NOCT

TYPE	JAM54D41 -440/LR	JAM54D41 -445/LR	JAM54D41 -450/LR	JAM54D41 -455/LR	JAM54D41 -460/LR	JAM54D41 -465/LR
Rated Max Power(Pmax) [W]	333	337	341	344	348	352
Open Circuit Voltage(Voc) [V]	36.81	37.00	38.14	38.33	38.42	38.51
Max Power Voltage(Vmp) [V]	30.73	30.89	31.22	31.54	31.86	32.19
Short Circuit Current(Isc) [A]	11.45	11.52	11.53	11.54	11.55	11.56
Max Power Current(Imp) [A]	10.84	10.90	10.91	10.92	10.93	10.94
NOCT	Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s, AM1.5G					

OPERATING CONDITIONS

Maximum System Voltage	1500V DC
Operating Temperature*	-40°C~+70°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

*PV module 98th percentile operating temperature : 70°C

JA SOLAR

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Specifications subject to technical changes and tests.
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