



# ALL BLACK SOLAR MODULE

## JINERGY DESIGN SERIES

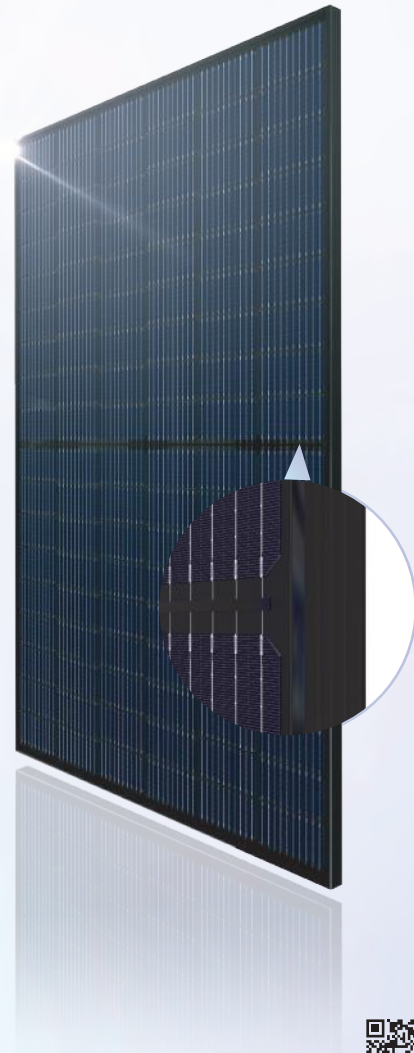
Black frame | Black backsheet | Black bus bar | Black encapsulant material

Optional: JNHM120 - 370~390 | JNBN108 - 425~445 | JNMN108 - 430~450

- ✓ Aesthetic-driven design
- ✓ Small and flexible for system layout
- ✓ Enhanced reliability
- ✓ Guaranteed power generation

### OUTSTANDING APPEARANCE AND PERFORMANCE

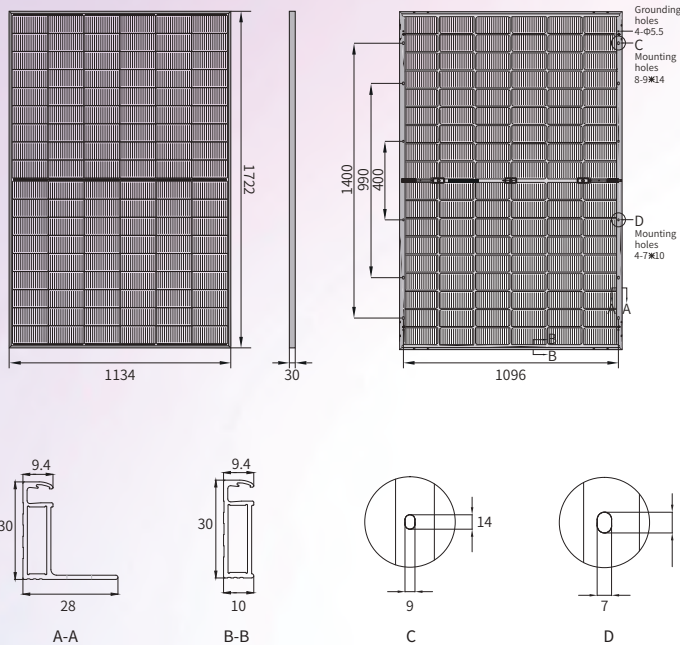
- Designed for an aesthetic and stylish rooftop, meanwhile maintaining the conventional advantages and enhancing the reliability via optimized production process.
- Both monofacial and bifacial are available, with excellent anti-PID performance. Suitable for various scenarios such as housetop,carport,commercial and industrial roof etc.



○ 12 year product warranty  
○ 30 year power generation warranty (Bifacial)



## ENGINEERING DRAWING



## MECHANICAL PARAMETERS

Cell (mm)	182.2*91.875 TOPCon
Dimensions (L*W*H) (mm)	1722*1134*30
Weight (kg)	24.8
Cable Cross Section Size (mm <sup>2</sup> )	4
No. of Cells & Connections	108(6*18)
No. of Diodes	3
Frame	Anodized Aluminium Alloy
Glass Thickness (mm)	2.0
Frame color	Black

## QUALIFICATION

Temperature Cycling Range (°C)	-40~+85
Max. Series Fuse Rating (A)	30
Max.Wind Load/Max.Snow Load (Pa)	2400/5400
Fire Rating	Class C
Junction Box & Connector Protection Grade	IP68
Bifacial Factor(%)	80±5

## TEMPERATURE COEFFICIENTS

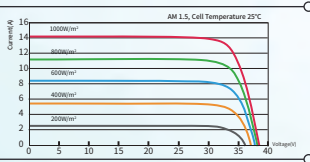
Nominal Module Operating Temperature (NMOT)	43±2°C
Temperature Coefficient Voltage (Voc)	-0.25 %/°C
Temperature Coefficient Current (Isc)	0.045 %/°C
Temperature Coefficient Power (Pm)	-0.29 %/°C

## ELECTRICAL PARAMETERS

Module Type (1500V DC)	JNBN108-425	JNBN108-430	JNBN108-435	JNBN108-440	JNBN108-445	
STC AM1.5 1000W/m <sup>2</sup> Cell Temperature 25°C	Max. Power at STC (Pmpp/W)	425	430	435	440	445
	Output Tolerance (W)	0~+5	0~+5	0~+5	0~+5	0~+5
	Max. Power Voltage (Vmp/V)	31.86	32.07	32.28	32.48	32.69
	Max. Power Current (Imp/A)	13.34	13.41	13.48	13.55	13.62
	Open Circuit Voltage (Voc/V)	38.18	38.35	38.52	38.69	38.86
	Short Circuit Current (Isc/A)	14.00	14.06	14.12	14.18	14.24
	Module Efficiency (%)	21.76	22.02	22.28	22.53	22.79
With Different Power Generation Gain (Regarding 435W as an example)	Backside Power Gain	10%		20%		30%
	Max. Power (Pmpp/W)	478.5		522.0		565.5
	Max. Power Voltage (Vmp/V)	32.28		32.28		32.28
	Max. Power Current (Imp/A)	14.83		16.18		17.52
	Open Circuit Voltage (Voc/V)	38.52		38.52		38.52
	Short Circuit Current (Isc/A)	15.53		16.94		18.36
	Module Efficiency (%)	24.50		26.73		28.96

\*Measurement tolerance: Pmax:±3%, Voc:±3%, Isc: ±5%.

## I-V CURVE (435W)



## PACKING CONFIGURATION

Pieces Per Pallet	36
Pallets Per Container	26
Pieces Per Container	936

## Default

## Optional

Connector Type	<input type="checkbox"/> MC4 Compatible	<input type="checkbox"/> MC4
Cable Length	<input type="checkbox"/> 350mm/280mm	<input type="checkbox"/> Customized



TUV: IEC/EN 61215, IEC/EN 61730  
 GB/T 19001-2016/ ISO 9001:2015  
 GB/T 24001-2016/ ISO 14001:2015  
 GB/T 45001-2020/ ISO 45001:2018  
 CNAS-CL01: ISO/IEC 17025:2017

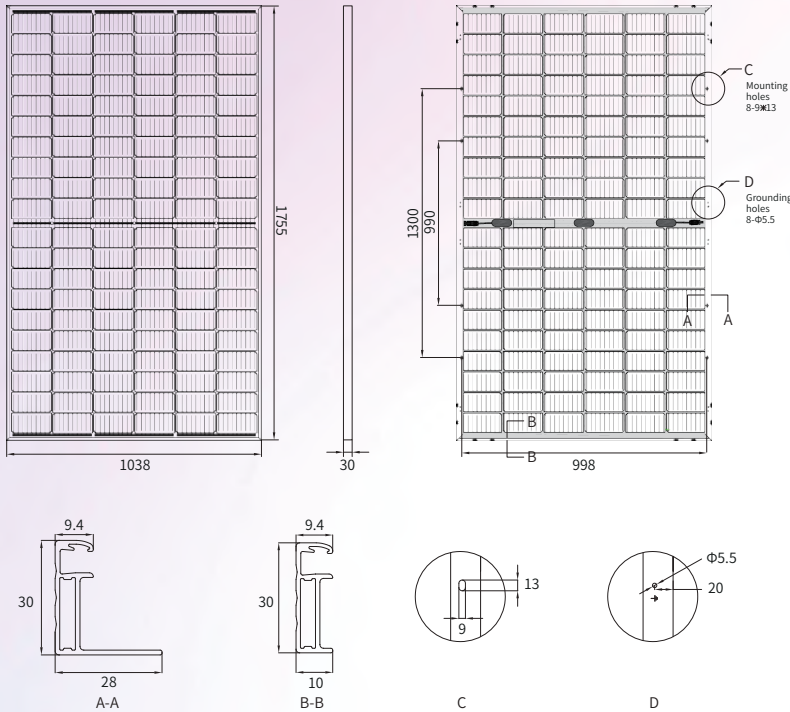
## 12-year Product materials and workmanship quality warranty

Output power		
The 1st year	The 12th year	The 30th year
≥ 99.00%	≥ 94.60%	≥ 87.40%

CAUTION: The electrical parameters in this product datasheet do not refer to only one module. Read safety and installation instructions before using the product. The contents of this specification are for reference only and are subject to change without notice. Jinery reserves the right of final interpretation. JNM-20240520-14.0.T © 2024 JINNING CLEAN ENERGY TECHNOLOGY LTD. ALL RIGHTS RESERVED.



## ENGINEERING DRAWING



## MECHANICAL PARAMETERS

Cell (mm)	166*83 HJT
Dimensions (L*W*H) (mm)	1755*1038*30
Weight (kg)	22.2
Cable Cross Section Size (mm <sup>2</sup> )	4
No. of Cells & Connections	120(6*20)
No. of Diodes	3
Frame	Anodized Aluminium Alloy
Glass Thickness (mm)	2.0
Frame color	Black

## QUALIFICATION

Temperature Cycling Range (°C)	-40~+85
Max. Series Fuse Rating (A)	20
Max.Wind Load/Max.Snow Load (Pa)	2400/5400
Fire Rating	Class C
Junction Box & Connector Protection Grade	IP68
Bifacial Factor(%)	>85

## TEMPERATURE COEFFICIENTS

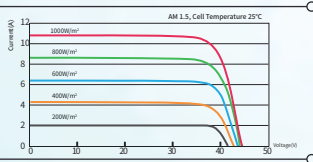
Nominal Module Operating Temperature (NMOT)	43±2°C
Temperature Coefficient Voltage (Voc)	-0.21 %/°C
Temperature Coefficient Current (Isc)	0.04 %/°C
Temperature Coefficient Power (Pm)	-0.26 %/°C

## ELECTRICAL PARAMETERS

Module Type (1500V DC)	JNHM120-370	JNHM120-375	JNHM120-380	JNHM120-385	JNHM120-390
Max. Power at STC (Pmpp/W)	370	375	380	385	390
Output Tolerance (W)	0~+5	0~+5	0~+5	0~+5	0~+5
STC					
Max. Power Voltage (Vmp/V)	37.32	37.50	37.68	37.74	38.04
AM1.5					
Max. Power Current (Imp/A)	9.92	10.00	10.09	10.21	10.26
1000W/m <sup>2</sup>					
Cell Temperature 25°C					
Open Circuit Voltage (Voc/V)	44.16	44.28	44.40	44.46	44.64
Short Circuit Current (Isc/A)	10.60	10.68	10.77	10.84	10.91
Module Efficiency (%)	20.31	20.59	20.86	21.13	21.41
Backside Power Gain		10%	20%		30%
With Different Power Generation Gain					
Max. Power (Pmpp/W)		418	456		494
Max. Power Voltage (Vmp/V)		37.66	37.66		37.66
Max. Power Current (Imp/A)		11.10	12.11		13.12
(Regarding 380W as an example)					
Open Circuit Voltage (Voc/V)		44.37	44.40		44.38
Short Circuit Current (Isc/A)		11.85	12.92		14.00
Module Efficiency (%)		22.95	25.03		27.12

\*Measurement tolerance: Pmax:±3%, Voc:±3%, Isc:±5%.

## I-V CURVE (380W)



## PACKING CONFIGURATION

Pieces Per Pallet	36
Pallets Per Container	26
Pieces Per Container	936

## Default

## Optional

Connector Type	<input type="checkbox"/> MC4 Compatible	<input type="checkbox"/> MC4
Cable Length	<input type="checkbox"/> 400mm/200mm	<input type="checkbox"/> Customized



TUV: IEC/EN 61215, IEC/EN 61730  
 GB/T 19001-2016/ ISO 9001:2015  
 GB/T 24001-2016/ ISO 14001:2015  
 GB/T 45001-2020/ ISO 45001:2018  
 CNAS-CL01: ISO/IEC 17025:2017

## 12-year Product materials and workmanship quality warranty

Output power			
The 1st year	The 12th year	The 30th year	
≥ 98.00%	≥ 93.60%	≥ 86.40%	

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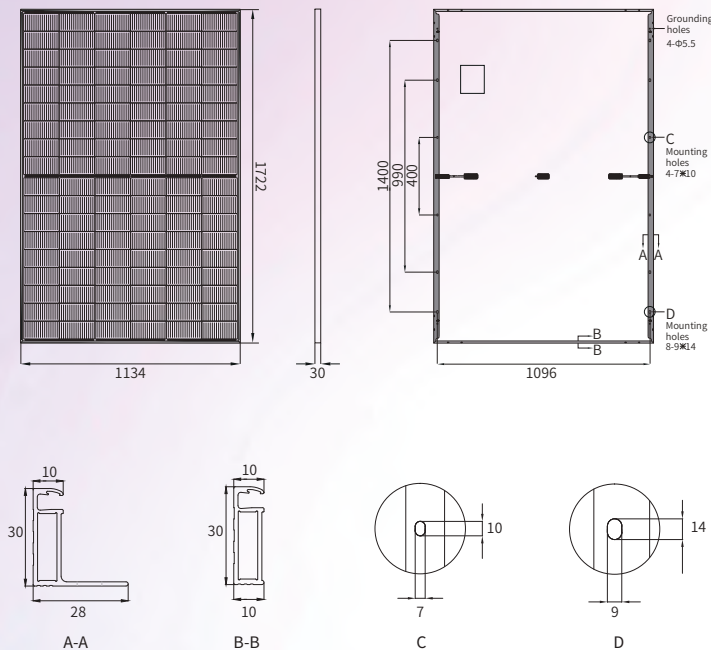




# Monofacial Single Glass TOPCon All Black Module

JNMN108-430~450

## ENGINEERING DRAWING



## MECHANICAL PARAMETERS

Cell (mm)	182*91 TOPCon
Dimensions (L*W*H) (mm)	1722*1134*30
Weight (kg)	21.0
Cable Cross Section Size (mm <sup>2</sup> )	4
No. of Cells & Connections	108(6*18)
No. of Diodes	3
Frame	Anodized Aluminium Alloy
Glass Thickness (mm)	3.2

## QUALIFICATION

Temperature Cycling Range (°C)	-40~+85
Max. Series Fuse Rating (A)	25
Max.Wind Load/Max.Snow Load (Pa)	2400/5400
Fire Rating	Class C
Junction Box & Connector Protection Grade	IP68

## TEMPERATURE COEFFICIENTS

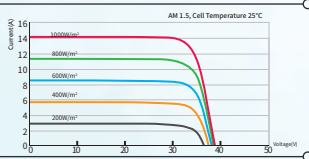
Nominal Module Operating Temperature (NMOT)	43±2°C
Temperature Coefficient Voltage (Voc)	-0.25 %/°C
Temperature Coefficient Current (Isc)	0.045 %/°C
Temperature Coefficient Power (Pm)	-0.29 %/°C

## ELECTRICAL PARAMETERS

Module Type (1500V DC)	JNMN108-430	JNMN108-435	JNMN108-440	JNMN108-445	JNMN108-450	
STC AM1.5 1000W/m <sup>2</sup> Cell Temperature 25°C	Max. Power at STC (Pmpp/W)	430	435	440	445	450
	Output Tolerance (W)	0-+5	0-+5	0-+5	0-+5	0-+5
	Max. Power Voltage (Vmp/V)	32.10	32.31	32.52	32.72	32.92
	Max. Power Current (Imp/A)	13.40	13.47	13.54	13.61	13.68
	Open Circuit Voltage (Voc/V)	38.50	38.64	38.78	38.92	39.06
	Short Circuit Current (Isc/A)	14.06	14.14	14.22	14.30	14.38
NMOT AM1.5 800W/m <sup>2</sup> Ambient Temperature 20°C Wind Speed 1m/s	Module Efficiency (%)	22.02	22.28	22.53	22.79	23.04
	Max. Power (Pmpp/W)	328.0	331.9	335.7	339.5	343.3
	Max. Power Voltage (Vmp/V)	30.60	30.80	30.99	31.18	31.37
	Max. Power Current (Imp/A)	10.72	10.78	10.83	10.89	10.94
	Open Circuit Voltage (Voc/V)	36.59	36.72	36.86	36.99	37.12
	Short Circuit Current (Isc/A)	11.33	11.39	11.46	11.52	11.59

\*Measurement tolerance: Pmax: ±3%, Voc: ±3%; Isc: ±5%.

## I-V CURVE (440W)



## PACKING CONFIGURATION

Pieces Per Pallet	36
Pallets Per Container	26
Pieces Per Container	936

## Default

## Optional

Connector Type	<input type="checkbox"/> MC4 Compatible	<input type="checkbox"/> MC4
Cable Length	<input type="checkbox"/> 350mm/280mm	<input type="checkbox"/> Customized



TUV: IEC/EN 61215, IEC/EN 61730  
 GB/T 19001-2016/ ISO 9001:2015  
 GB/T 24001-2016/ ISO 14001:2015  
 GB/T 45001-2020/ ISO 45001:2018  
 CNAS-CL01: ISO/IEC 17025:2017

## 12-year Product materials and workmanship quality warranty

Output power			
The 1st year	The 12th year	The 25th year	
≥99.00%	≥94.60%	≥87.40%	

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