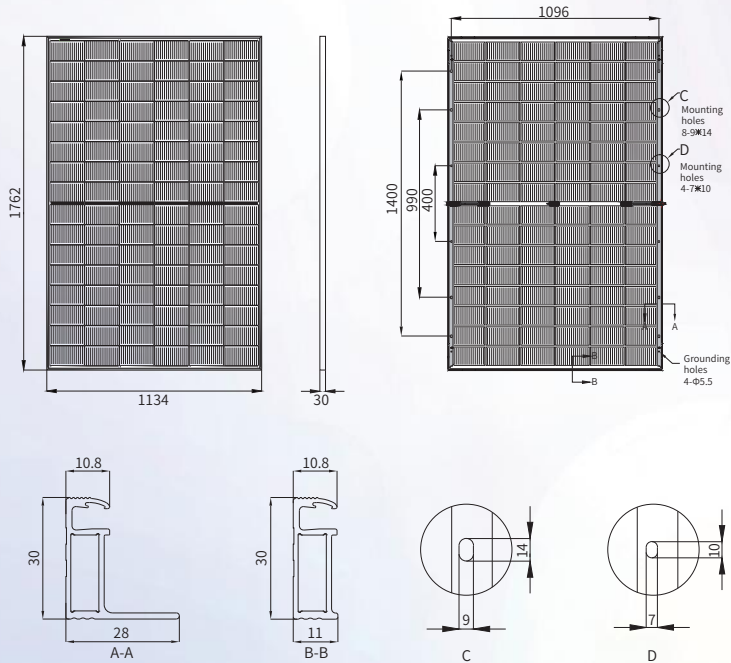


# High efficiency N-TOPCon bifacial solar module

## JNBN96-440~460

### ENGINEERING DRAWING



### MECHANICAL PARAMETERS

Cell (mm)	182*105 TOPCon
Dimensions (L*W*H) (mm)	1762*1134*30
Weight (kg)	21.2
Cable Cross Section Size (mm <sup>2</sup> )	4
No. of Cells & Connections	96(6*16)
No. of Diodes	3
Frame	Anodized Aluminium Alloy
Glass Thickness (mm)	1.6

### 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

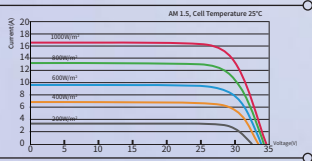
Nominal Module Operating Temperature (NMOT)	43±2°C
Temperature Coefficient Voltage (Voc)	-0.25%/°C
Temperature Coefficient Current (Isc)	0.045%/°C
Temperature Coefficient Power (Pm)	-0.29%/°C

### ELECTRICAL PARAMETERS

Module Type (1500V DC)	JNBN96-440	JNBN96-445	JNBN96-450	JNBN96-455	JNBN96-460	
STC AM1.5 1000W/m <sup>2</sup> Cell Temperature 25°C	Max. Power at STC (Pmpp/W)	440	445	450	455	460
	Output Tolerance (W)	0-+5	0-+5	0-+5	0-+5	0-+5
	Max. Power Voltage (Vmp/V)	28.48	28.65	28.82	28.99	29.16
	Max. Power Current (Imp/A)	15.46	15.54	15.62	15.70	15.78
	Open Circuit Voltage (Voc/V)	34.00	34.17	34.34	34.51	34.68
	Short Circuit Current (Isc/A)	16.16	16.24	16.32	16.40	16.48
	Module Efficiency (%)	22.02	22.27	22.52	22.77	23.02
With Different Power Generation Gain (Regarding 450W as an example)	Backside Power Gain	10%		20%		30%
	Max. Power (Pmpp/W)	495.0		540.0		585.0
	Max. Power Voltage (Vmp/V)	28.82		28.82		28.82
	Max. Power Current (Imp/A)	17.18		18.74		20.31
	Open Circuit Voltage (Voc/V)	34.34		34.34		34.34
	Short Circuit Current (Isc/A)	17.95		19.58		21.22
	Module Efficiency (%)	24.77		27.03		29.28

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

### I-V CURVE (450W)



### 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
Frame Color	<input type="checkbox"/> Silver	<input type="checkbox"/> Black



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-20240117-13.05 © 2024 JINNING CLEAN ENERGY TECHNOLOGY LTD. ALL RIGHTS RESERVED.

