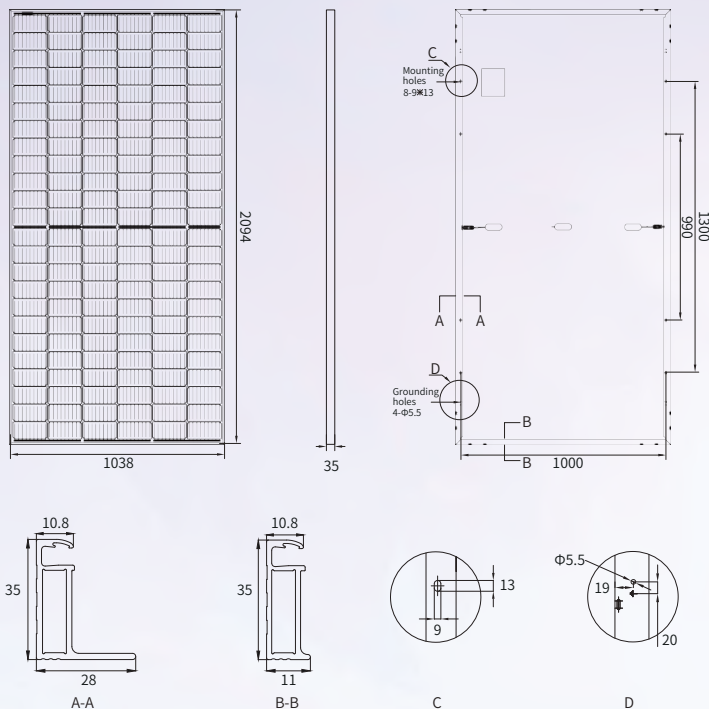


# High efficiency PERC solar module

**JNMM144-435~455(L)**

## ENGINEERING DRAWING



## MECHANICAL PARAMETERS

|   |                          |
|---|--------------------------|
| Cell (mm)                                   | 166*83 PERC              |
| Dimensions (L*W*H) (mm)                     | 2094*1038*35             |
| Weight (kg)                                 | 22.9                     |
| Cable Cross Section Size (mm <sup>2</sup> ) | 4                        |
| No. of Cells & Connections                  | 144(6*24)                |
| 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)               | 20        |
| Max.Wind Load/Max.Snow Load (Pa)          | 2400/5400 |
| Hot Spot Rate                             | 100% Free |
| Fire Rating                               | Class C   |
| Junction Box & Connector Protection Grade | IP68      |

## TEMPERATURE COEFFICIENTS

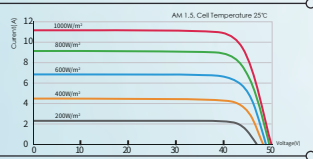
|   |            |
|---|------------|
| Nominal Module Operating Temperature (NMOT) | 43±2°C     |
| Temperature Coefficient Voltage (Voc)       | -0.29 %/°C |
| Temperature Coefficient Current (Isc)       | 0.04 %/°C  |
| Temperature Coefficient Power (Pm)          | -0.35 %/°C |

## ELECTRICAL PARAMETERS

| Module Type   | (1000V DC)                    | JNMM144-435L | JNMM144-440L | JNMM144-445L | JNMM144-450L | JNMM144-455L |
|---|-------------------------------|--------------|--------------|--------------|--------------|--------------|
|   | (1500V DC)                    | JNMM144-435  | JNMM144-440  | JNMM144-445  | JNMM144-450  | JNMM144-455  |
| STC<br>AM1.5<br>1000W/m <sup>2</sup><br>Cell Temperature 25°C                       | Max. Power at STC (Pmpp/W)    | 435          | 440          | 445          | 450          | 455          |
|   | Output Tolerance (W)          | 0+5          | 0+5          | 0+5          | 0+5          | 0+5          |
|   | Max. Power Voltage (Vmp/V)    | 40.77        | 40.97        | 41.16        | 41.36        | 41.56        |
|   | Max. Power Current (Imp/A)    | 10.67        | 10.74        | 10.82        | 10.89        | 10.96        |
|   | Open Circuit Voltage (Voc/V)  | 49.39        | 49.58        | 49.78        | 49.98        | 50.18        |
|   | Short Circuit Current (Isc/A) | 11.28        | 11.35        | 11.42        | 11.50        | 11.58        |
| NMOT<br>AM1.5<br>800W/m <sup>2</sup><br>Ambient Temperature 20°C<br>Wind Speed 1m/s | Max. Power (Pmpp/W)           | 327.4        | 331.2        | 334.9        | 338.7        | 342.5        |
|   | Max. Power Voltage (Vmp/V)    | 38.36        | 38.54        | 38.69        | 38.88        | 39.06        |
|   | Max. Power Current (Imp/A)    | 8.54         | 8.59         | 8.66         | 8.71         | 8.77         |
|   | Open Circuit Voltage (Voc/V)  | 46.63        | 46.81        | 47.00        | 47.18        | 47.37        |
|   | Short Circuit Current (Isc/A) | 9.08         | 9.14         | 9.19         | 9.26         | 9.32         |

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

## I-V CURVE (445W)



## PACKING CONFIGURATION

|                       |     |
|-----------------------|-----|
| Pieces Per Pallet     | 31  |
| Pallets Per Container | 22  |
| Pieces Per Container  | 682 |

## Default

## Optional

|                     |   |                                     |
|---------------------|---|-------------------------------------|
| Connector Type      | <input type="checkbox"/> MC4 Compatible | <input type="checkbox"/> MC4        |
| Cable Length        | <input type="checkbox"/> 400mm/200mm    | <input type="checkbox"/> Customized |
| Frame Color         | <input type="checkbox"/> Silver         | <input type="checkbox"/> Black      |
| Max. System Voltage | <input type="checkbox"/> 1500V          | <input type="checkbox"/> 1000V      |



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 |
| ≥98.00%      | ≥91.95%       | ≥84.80%       |

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-20220822-10.0P © 2022 JINNING CLEAN ENERGY TECHNOLOGY LTD. ALL RIGHTS RESERVED.

