



# TWMNH

N-type Half-cell  
Bifacial Module (66)

## 66HD610-630W

<https://en.tongwei.cn/>

High Power Output  
Low LCOE



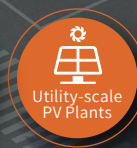
Maximum Power  
630W+



Commercial  
Rooftop



Utility-scale  
PV Plants



12  
YEAR  
Materials  
Warranty



30  
YEAR  
Power  
Warranty

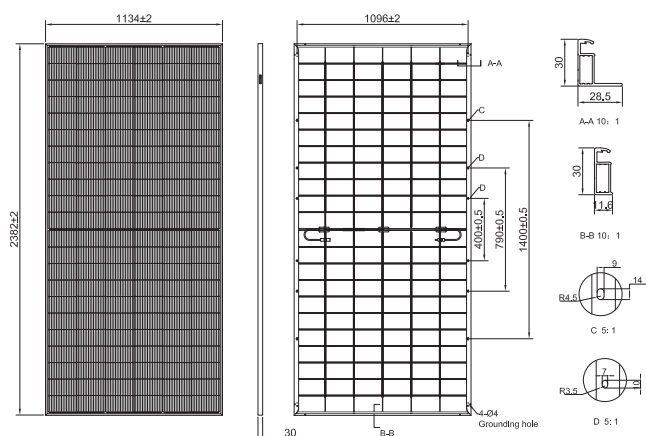


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## Drawings (Unit: mm)



## Electrical Characteristics (STC)

Module type: TWMNH-66HDXXX

|                                   |       |       |       |       |       |
|-----------------------------------|-------|-------|-------|-------|-------|
| Maximum Power: Pmax [W]           | 610   | 615   | 620   | 625   | 630   |
| Open Circuit Voltage: Voc [V]     | 48.70 | 48.90 | 49.10 | 49.30 | 49.50 |
| Short Circuit Current: Isc [A]    | 15.94 | 16.00 | 16.06 | 16.12 | 16.18 |
| Voltage at Maximum Power: Vmp [V] | 40.48 | 40.65 | 40.82 | 40.96 | 41.10 |
| Current at Maximum Power: Imp [A] | 15.07 | 15.13 | 15.19 | 15.26 | 15.33 |
| Module Efficiency: η [%]          | 22.6  | 22.8  | 23.0  | 23.1  | 23.3  |

\* STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, AM=1.5, Power measurement tolerance: ±3%

## Electrical Characteristics (BNPI)

|                                   |       |       |       |       |       |
|-----------------------------------|-------|-------|-------|-------|-------|
| Maximum Power: Pmax [W]           | 673.6 | 678.9 | 684.6 | 690.2 | 695.4 |
| Open Circuit Voltage: Voc [V]     | 48.70 | 48.90 | 49.10 | 49.30 | 49.50 |
| Short Circuit Current: Isc [A]    | 17.60 | 17.66 | 17.73 | 17.80 | 17.86 |
| Voltage at Maximum Power: Vmp [V] | 40.48 | 40.65 | 40.82 | 40.96 | 41.10 |
| Current at Maximum Power: Imp [A] | 16.64 | 16.70 | 16.77 | 16.85 | 16.92 |

\* BNPI: Front side irradiance 1000W/m<sup>2</sup>, Rear side irradiance 135W/m<sup>2</sup>, Cell Temperature=25°C, AM=1.5  
Power measurement tolerance: ±3%

## Electrical characteristics with different rear side power gain

|     |                          |      |      |      |      |      |
|-----|--------------------------|------|------|------|------|------|
| 5%  | Maximum Power: Pmax[W]   | 640  | 645  | 651  | 656  | 661  |
|     | Module Efficiency: η [%] | 23.7 | 23.9 | 24.1 | 24.3 | 24.5 |
| 15% | Maximum Power: Pmax[W]   | 701  | 707  | 713  | 718  | 724  |
|     | Module Efficiency: η [%] | 26.0 | 26.2 | 26.4 | 26.6 | 26.8 |
| 25% | Maximum Power: Pmax[W]   | 762  | 768  | 775  | 781  | 787  |
|     | Module Efficiency: η [%] | 28.2 | 28.4 | 28.7 | 28.9 | 29.1 |

## Temperature Rating

|                                 |            |
|---------------------------------|------------|
| Temperature Coefficient of Pmax | -0.28%/°C  |
| Temperature Coefficient of Voc  | -0.24%/°C  |
| Temperature Coefficient of Isc  | +0.046%/°C |

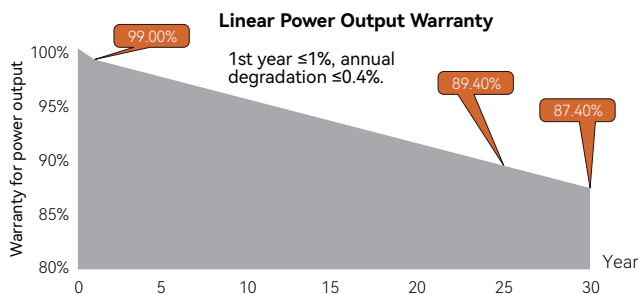
## Operating Parameters

|                                 |             |
|---------------------------------|-------------|
| Operating Temperature           | -40°C~+70°C |
| Maximum System Voltage          | 1500V DC    |
| Maximum Series Fuse Rating      | 30A         |
| Power Output Tolerance          | 0~+3%       |
| Bifaciality coefficient of Pmax | 80±5%       |
| Bifaciality coefficient of Voc  | 98±5%       |
| Bifaciality coefficient of Isc  | 80±5%       |

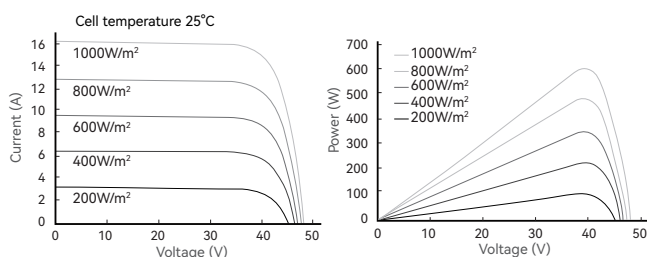
## Mechanical Parameters

|                  |                                                   |
|------------------|---------------------------------------------------|
| Cell Type        | TNC (N Type Monocrystalline Cell)                 |
| Cell Orientation | 132[6×22]                                         |
| Dimensions       | 2382±2×1134±2×30mm                                |
| Weight           | 32.5kg                                            |
| Front Glass      | 2.0mm AR coating semi tempered glass              |
| Rear Glass       | 2.0mm semi tempered glass                         |
| Frame            | Anodized aluminum alloy frame                     |
| Junction Box     | IP68, 3 diodes                                    |
| Cable            | 4.0mm <sup>2</sup>                                |
| Cable length     | +400mm,-200mm or ±1400mm,length can be customized |
| Wind/Snow load   | 2400Pa/5400Pa                                     |
| Per pallet       | 36 pcs                                            |
| Packaging        | 720 pcs per 40'HC                                 |

## Linear Warranty



## I-V Curve



## Certifications

## Quality Management System and Product Certification

ISO 9001: 2015/Quality management systems  
ISO 14001: 2015/Environmental management systems  
ISO 45001: 2018/Occupation health and safety management systems  
ISO 50001: 2018/Energy management systems  
IEC 62941: 2019/Quality system for PV module manufacturing  
IEC 61215(2021) / IEC 61730(2023), IEC 62804(PID),  
IEC 61701(Salt), IEC 62716 (Ammonia), IEC 60068-2-68(Sand)

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