



# TWMND

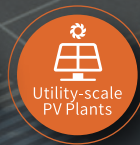
N-type Half-cell  
Bifacial Module (72)

## 72HD575-595W

High Power Output  
Low LCOE



Maximum Power  
595W+



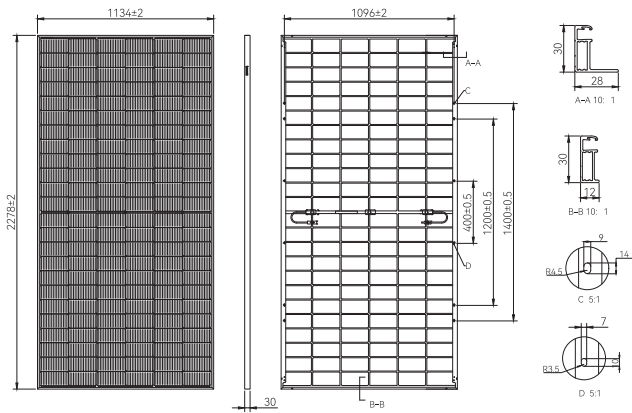
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## DRAWINGS (Unit: mm)



## ELECTRICAL CHARACTERISTICS (STC)

Module Type: TWMND-72HDXXX

|                                               |       |       |       |       |       |
|-----------------------------------------------|-------|-------|-------|-------|-------|
| Maximum Power: P <sub>max</sub> [W]           | 575   | 580   | 585   | 590   | 595   |
| Open Circuit Voltage: V <sub>oc</sub> [V]     | 52.10 | 52.30 | 52.50 | 52.70 | 53.20 |
| Short Circuit Current: I <sub>sc</sub> [A]    | 13.80 | 13.85 | 13.90 | 13.95 | 14.15 |
| Voltage at Maximum Power: V <sub>mp</sub> [V] | 43.76 | 43.93 | 44.10 | 44.27 | 44.41 |
| Current at Maximum Power: I <sub>mp</sub> [A] | 13.14 | 13.21 | 13.27 | 13.33 | 13.40 |
| Module Efficiency: η [%]                      | 22.3  | 22.5  | 22.6  | 22.8  | 23.0  |

\* STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass1.5, Measuring Tolerance: ±3%

## ELECTRICAL CHARACTERISTICS (NMOT)

|                                               |       |       |       |       |       |
|-----------------------------------------------|-------|-------|-------|-------|-------|
| Maximum Power: P <sub>max</sub> [W]           | 432.4 | 436.2 | 439.9 | 443.7 | 447.4 |
| Open Circuit Voltage: V <sub>oc</sub> [V]     | 49.50 | 49.69 | 49.88 | 50.07 | 50.54 |
| Short Circuit Current: I <sub>sc</sub> [A]    | 11.14 | 11.18 | 11.22 | 11.26 | 11.42 |
| Voltage at Maximum Power: V <sub>mp</sub> [V] | 40.76 | 40.89 | 41.08 | 41.24 | 41.35 |
| Current at Maximum Power: I <sub>mp</sub> [A] | 10.61 | 10.67 | 10.71 | 10.76 | 10.82 |

\* NMOT: Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Air Mass1.5, Wind Speed 1m/s

## ELECTRICAL CHARACTERISTICS (Rear Power Gain)

|     |                                     |       |       |       |       |       |
|-----|-------------------------------------|-------|-------|-------|-------|-------|
| 5%  | Maximum Power: P <sub>max</sub> [W] | 603.8 | 609.0 | 614.3 | 619.5 | 624.8 |
|     | Module Efficiency: η [%]            | 23.4  | 23.6  | 23.8  | 24.0  | 24.2  |
| 15% | Maximum Power: P <sub>max</sub> [W] | 661.3 | 667.0 | 672.8 | 678.5 | 684.3 |
|     | Module Efficiency: η [%]            | 25.6  | 25.8  | 26.0  | 26.3  | 26.5  |
| 25% | Maximum Power: P <sub>max</sub> [W] | 718.8 | 725.0 | 731.3 | 737.5 | 743.8 |
|     | Module Efficiency: η [%]            | 27.8  | 28.1  | 28.3  | 28.5  | 28.8  |

## TEMPERATURE PARAMETERS

|                                             |            |
|---------------------------------------------|------------|
| Temperature Coefficient (P <sub>max</sub> ) | -0.28%/°C  |
| Temperature Coefficient (V <sub>oc</sub> )  | -0.24%/°C  |
| Temperature Coefficient (I <sub>sc</sub> )  | +0.046%/°C |
| NMOT                                        | 45±2°C     |

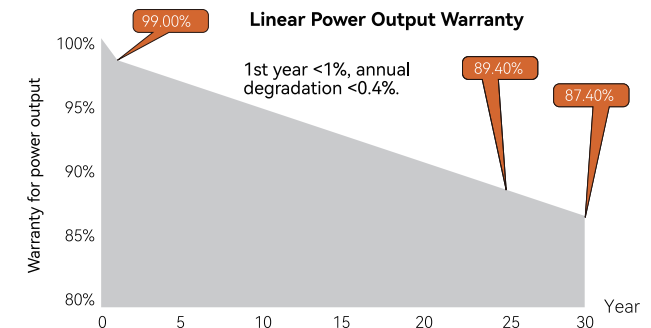
## MAXIMUM RATINGS

|                            |             |
|----------------------------|-------------|
| Operational Temperature    | -40°C~+85°C |
| Maximum System Voltage     | 1500V DC    |
| Maximum Series Fuse Rating | 30A         |
| Power Output Tolerance     | 0~+3%       |
| Bifaciality                | 80±5%       |

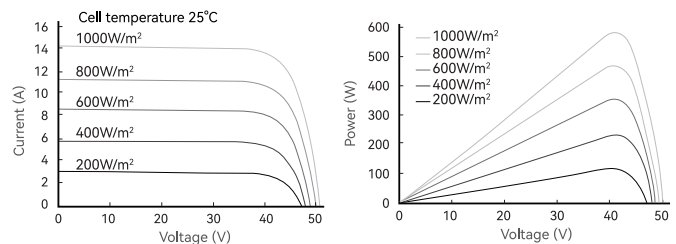
## MECHANICAL PARAMETERS

|                  |                                                  |
|------------------|--------------------------------------------------|
| Cells            | TNC (N Type Monocrystalline Cell)                |
| Cell Orientation | 144[6×24]                                        |
| Dimension        | 2278±2×1134±2×30mm                               |
| Weight           | 31.5kg                                           |
| Front Glass      | 2.0mm high transmittance, AR semi-tempered glass |
| Rear Glass       | 2.0mm semi-tempered glass                        |
| Frame            | Anodized aluminum alloy frame                    |
| Junction Box     | IP68, 3 diodes                                   |
| Output Cable     | 4.0mm <sup>2</sup>                               |
| Cable Length     | +400mm, -200mm, length can be customized         |
| Wind/Snow Load   | 2400Pa/5400Pa                                    |
| Packaging        | 36pcs per pallet, 720pcs per 40'HC               |

## WARRANTY



## I-V CURVE



## CERTIFICATIONS

## Quality Management System and Product Certification

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

