



TWMND

N-type Half-cell
Bifacial Module (72)

72HD580-600W

High Power Output
Low LCOE



Maximum Power
600W+



TIER 1
Bloomberg
NEW ENERGY FINANCE

Commercial
Rooftop

Utility-scale
PV Plants

12
YEAR
Materials
Warranty

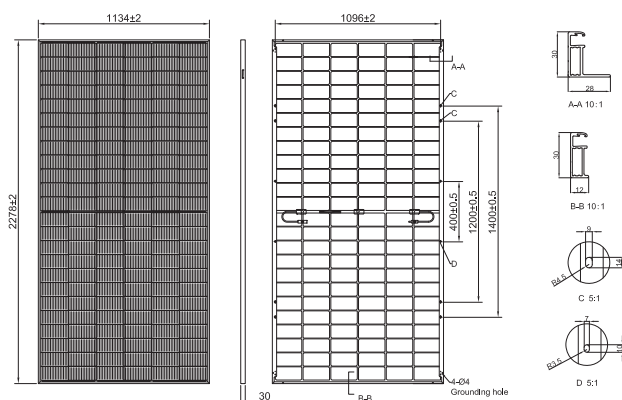
30
YEAR
Power
Warranty

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



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Drawings (Unit: mm)



Electrical Characteristics (STC)

Module type: TWMND-72HDXXX

Maximum Power: Pmax [W]	580	585	590	595	600
Open Circuit Voltage: Voc [V]	52.30	52.50	52.70	53.20	53.40
Short Circuit Current: Isc [A]	13.85	13.90	13.95	14.15	14.20
Voltage at Maximum Power: Vmp [V]	43.93	44.10	44.27	44.41	44.55
Current at Maximum Power: Imp [A]	13.21	13.27	13.33	13.40	13.47
Module Efficiency: η [%]	22.5	22.6	22.8	23.0	23.2

* STC: Irradiance 1000W/m², Cell temperature 25°C, AM=1.5, Power measurement tolerance: ±3%

Electrical Characteristics (BNPI)

Maximum Power: Pmax [W]	640.5	646.1	651.6	656.8	662.5
Open Circuit Voltage: Voc [V]	52.30	52.50	52.70	53.20	53.40
Short Circuit Current: Isc [A]	15.29	15.34	15.40	15.62	15.68
Voltage at Maximum Power: Vmp [V]	43.93	44.10	44.27	44.41	44.55
Current at Maximum Power: Imp [A]	14.58	14.65	14.72	14.79	14.87

* BNPI: Front side irradiance 1000W/m², Rear side irradiance 135W/m², Cell Temperature=25°C, AM=1.5
Power measurement tolerance: ±3%

Electrical characteristics with different rear side power gain

5%	Maximum Power: Pmax[W]	609	614	619	624	630
	Module Efficiency: η [%]	23.6	23.8	24.0	24.2	24.4
15%	Maximum Power: Pmax[W]	667	672	678	684	690
	Module Efficiency: η [%]	25.8	26.0	26.2	26.5	26.7
25%	Maximum Power: Pmax[W]	725	731	737	743	750
	Module Efficiency: η [%]	28.1	28.3	28.5	28.8	29.0

Temperature Rating

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

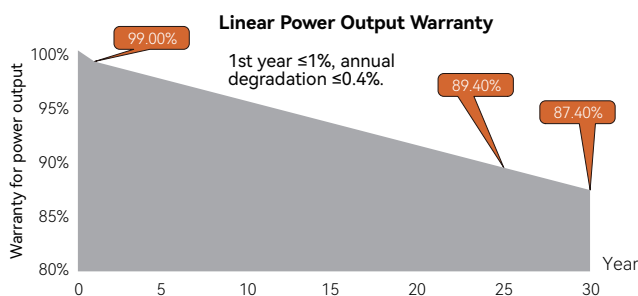
Operating Parameters

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%

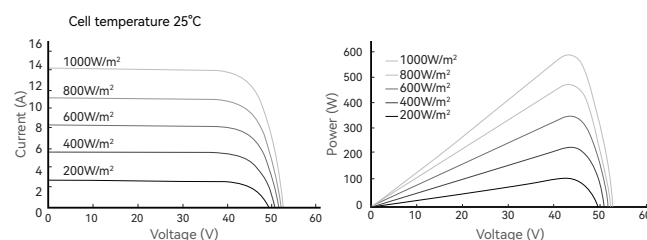
Mechanical Parameters

Cell Type	TNC (N Type Monocrystalline Cell)
Cell Orientation	144[6×24]
Dimensions	2278±2×1134±2×30mm
Weight	31.5kg
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 ²
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 曲线



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)

Email: sales@tongwei.com Website: <https://en.tongwei.cn/> Add: No.588, Middle Section Tianfu Avenue, High-Tech Zone, Chengdu, China (Sichuan) Pilot Free Trade Zone Tel: +86-028-60707985

Statement: With technological process and product update, there maybe deviation between the technical parameters of Tongwei's module products and the technical parameters contained in the specification, and Tongwei Solar has the right to adjust the technical parameters at any time without notifying the customer, the final interpretation of the technical specification is vested in Tongwei Solar. (Preview-20250410)