

High Power Output  
Low LCOE



Maximum Power  
600W+

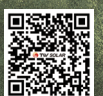
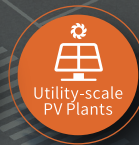


# TWMND

N-type Half-cell  
Bifacial Module (72)

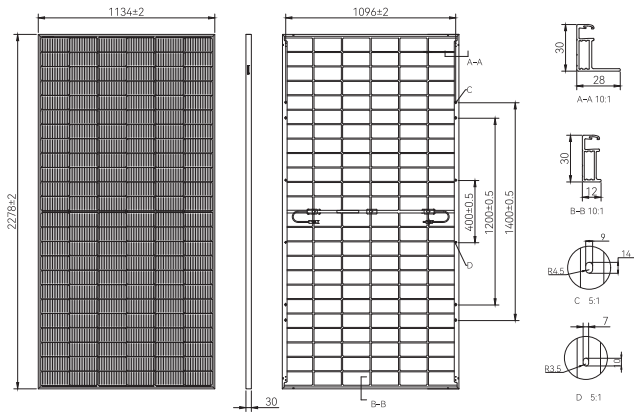
## 72HD580-600W

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



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**Drawing (Unit: mm)**



**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 AR coated heat strengthened glass
Rear Glass	2.0mm heat strengthened glass
Frame	Anodized aluminum alloy frame
Junction Box	IP68, 3 diodes
Output Cable	4.0mm <sup>2</sup>
Cable Length	+400mm, -200mm or ±1400mm, length can be customized
Wind/Snow Load	2400Pa / 5400Pa
Packaging	36pcs per pallet, 720pcs per 40'HC

**Electrical Characteristics (STC)**

Model 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/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

**Electrical Characteristics (NMOT)**

Maximum Power: Pmax [W]	436.2	439.9	443.7	447.4	451.2
Open Circuit Voltage: Voc [V]	49.69	49.88	50.07	50.54	50.73
Short Circuit Current: Isc [A]	11.18	11.22	11.26	11.42	11.46
Voltage at Maximum Power: Vmp [V]	40.89	41.08	41.24	41.35	41.48
Current at Maximum Power: Imp [A]	10.67	10.71	10.76	10.82	10.88

\* NMOT: Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

**Electrical characteristics with different rear side power gain**

5%	Maximum Power: Pmax [W]	609.0	614.3	619.5	624.8	630.0
	Module Efficiency: η [%]	23.6	23.8	24.0	24.2	24.4
15%	Maximum Power: Pmax [W]	667.0	672.8	678.5	684.3	690.0
	Module Efficiency: η [%]	25.8	26.0	26.3	26.5	26.7
25%	Maximum Power: Pmax [W]	725.0	731.3	737.5	743.8	750.0
	Module Efficiency: η [%]	28.1	28.3	28.5	28.8	29.0

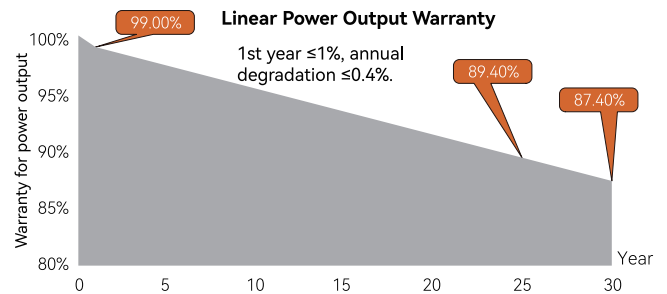
**Temperature Rating**

Temperature Coefficient of Pmax	-0.28%/°C
Temperature Coefficient of Voc	-0.24%/°C
Temperature Coefficient of Isc	+0.046%/°C
NMOT	45±2°C

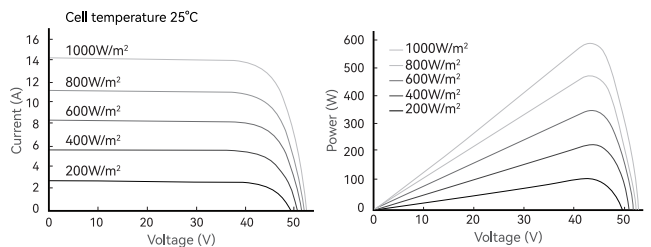
**Operating Parameters**

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

**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)



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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. (20250206)