

High Power Output  
Low LCOE



Maximum Power  
600W+

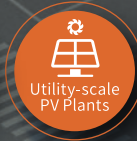


# TWMND

N-type Half-cell  
Bifacial Module (72)

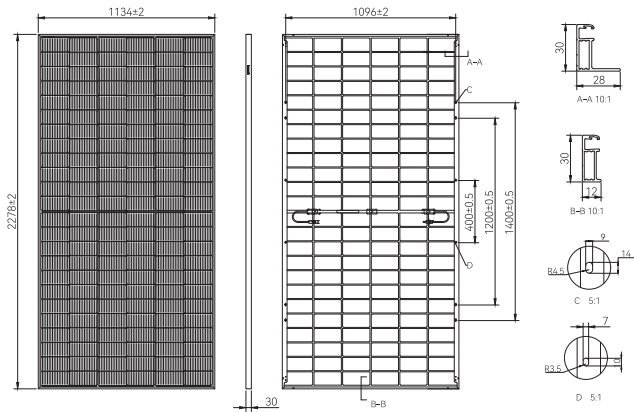
## 72HD580-600W

[en.tongwei.com.cn](http://en.tongwei.com.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

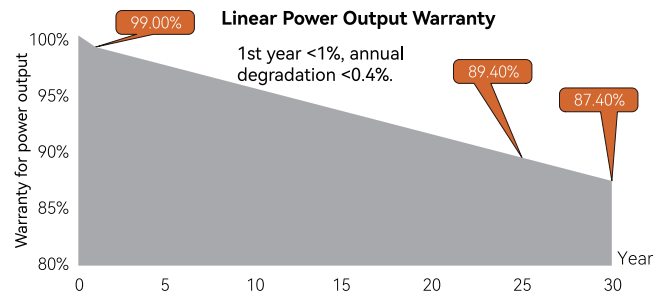
**Temperature Rating**

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

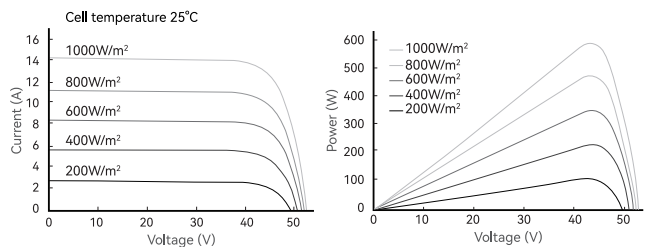
**Operating Parameters**

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)

