



TWMND

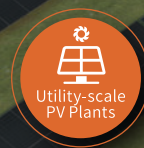
N-type Half-cell
Bifacial Module (78)

78HD620-640W

High Power Output
Low LCOE



Maximum Power
640W+



Utility-scale
PV Plants



12
YEAR
Materials
Warranty



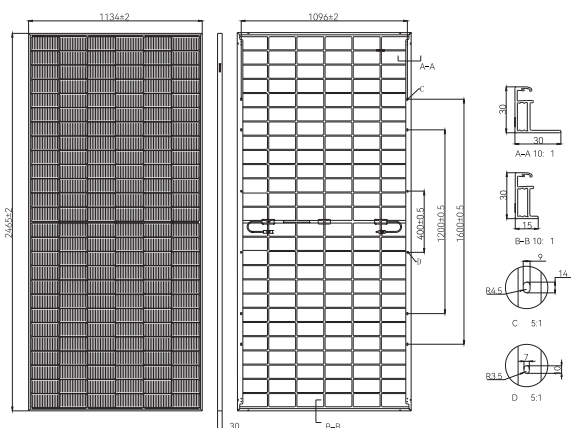
30
YEAR
Power
Warranty

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DRAWINGS (Unit: mm)



MECHANICAL PARAMETERS

Cell Type	TNC (N Type Monocrystalline Cell)
Cell Orientation	156[6×26]
Dimensions	2465±2×1134±2×30mm
Weight	33.8kg
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
Cable	4.0mm ²
Cable length	+400mm, -200mm, length can be customized
Wind/Snow load	2400Pa/5400Pa
Packaging	36pcs per pallet, 576pcs per 40'HC

ELECTRICAL CHARACTERISTICS (STC)



Moduel type: TWMND-78HDXXX

Maximum Power: Pmax [W]	620	625	630	635	640
Open Circuit Voltage: Voc [V]	56.60	56.80	57.00	57.20	57.40
Short Circuit Current: Isc [A]	13.70	13.74	13.78	13.82	13.86
Voltage at Maximum Power: Vmp [V]	47.54	47.71	47.88	48.05	48.22
Current at Maximum Power: Imp [A]	13.05	13.10	13.16	13.22	13.28
Module Efficiency: η [%]	22.2	22.4	22.5	22.7	22.9

* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass1.5, Measuring Tolerance: ±3%

ELECTRICAL CHARACTERISTICS (NMOT)

Maximum Power: Pmax [W]	466.2	470.0	473.8	477.5	481.3
Open Circuit Voltage: Voc [V]	53.77	53.96	54.15	54.34	54.53
Short Circuit Current: Isc [A]	11.06	11.09	11.13	11.16	11.19
Voltage at Maximum Power: Vmp [V]	44.24	44.43	44.62	44.76	44.90
Current at Maximum Power: Imp [A]	10.54	10.58	10.62	10.67	10.72

* NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass1.5, Wind Speed 1m/s

ELECTRICAL CHARACTERISTICS (Rear Power Gain)

5%	Maximum Power: Pmax[W]	651.0	656.3	661.5	666.8	672.0
	Module Efficiency: η [%]	23.3	23.5	23.7	23.9	24.0
15%	Maximum Power: Pmax[W]	713.0	718.8	724.5	730.3	736.0
	Module Efficiency: η [%]	25.5	25.7	25.9	26.1	26.3
25%	Maximum Power: Pmax[W]	775.0	781.3	787.5	793.8	800.0
	Module Efficiency: η [%]	27.7	27.9	28.2	28.4	28.6

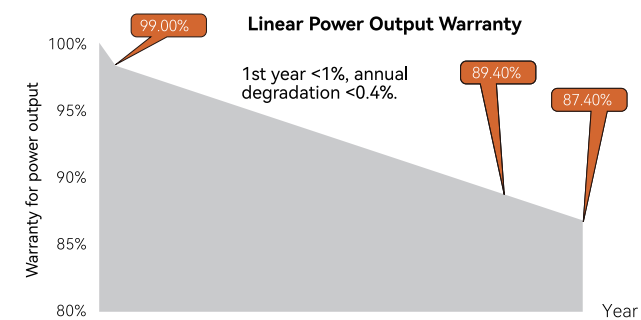
TEMPERATURE PARAMETERS

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

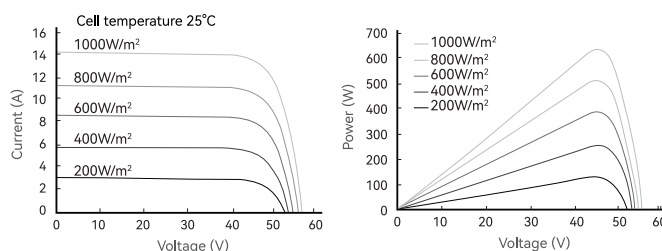
MAXIMUM RATINGS

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. (20240516)