

High Power Output
Low LCOE



Maximum Power
445W+



TWMND

N-type Half-cell Monofacial Module (54)

54HS425-445W

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Residential
Rooftop

15
YEAR
Materials
Warranty

30
YEAR
Power
Warranty

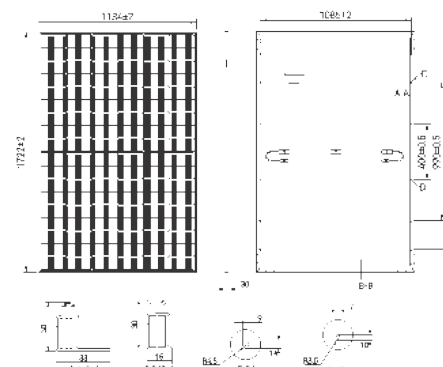


Learn More

TWMND N-type Half-cell Monofacial Module (54)

54HS425-445W

DRAWINGS (Unit: mm)



ELECTRICAL CHARACTERISTICS (STC)

Module Type: TWMND-54HSXXX					
Maximum Power: P _{max} [W]	425	430	435	440	445
Open Circuit Voltage: V _{oc} [V]	39.00	39.15	39.30	39.45	39.65
Short Circuit Current: I _{sc} [A]	13.62	13.67	13.72	13.77	14.00
Voltage at Maximum Power: V _{mp} [V]	33.09	33.26	33.43	33.60	33.75
Current at Maximum Power: I _{mp} [A]	12.85	12.93	13.01	13.10	13.19
Module Efficiency: η [%]	21.8	22.0	22.3	22.5	22.8

* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5

ELECTRICAL CHARACTERISTICS (NMOT)

Maximum Power: P _{max} [W]	320.0	324.0	327.8	331.8	335.8
Open Circuit Voltage: V _{oc} [V]	37.04	37.19	37.33	37.47	37.65
Short Circuit Current: I _{sc} [A]	10.96	11.02	11.06	11.10	11.29
Voltage at Maximum Power: V _{mp} [V]	30.81	30.98	31.14	31.30	31.44
Current at Maximum Power: I _{mp} [A]	10.39	10.46	10.62	10.60	10.67

* NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass 1.5, Wind Speed 1m/s

TEMPERATURE PARAMETERS

Temperature Coefficient (P _{max})	-0.28%/°C
Temperature Coefficient (V _{oc})	-0.24%/°C
Temperature Coefficient (I _{sc})	+0.046%/°C
NMOT	45±2°C

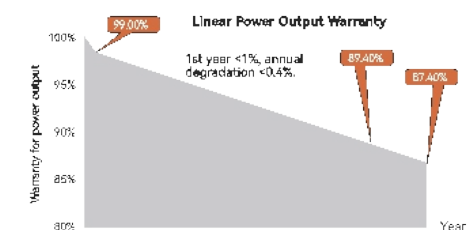
MAXIMUM RATINGS

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25A
Power Output Tolerance	0~+3%

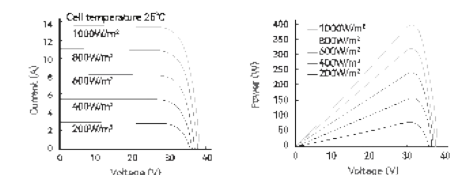
MECHANICAL PARAMETERS

Cells	TNC (N Type Monocrystalline Cell)
Cell Orientation	108[6×18]
Dimension	1722±2×1134±2×30mm
Weight	20.5kg
Front Glass	3.2mm high transmittance, AR tempered glass
Backsheet	White
Frame	Anodized aluminum alloy frame
Junction Box	IP68, 3 diodes
Output Cable	4.0mm ²
Cable Length	±1200mm, length can be customized
Wind/Snow Load	2400Pa/5400Pa
Packaging	36pcs per pallet, 936pcs 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/Occupational health safety management system
ISO 50001: 2018/Energy management system
IEC 62941: 2019/Quality system for PV module manufacturing
IEC 61215/61730, IEC 62504(PID), IEC 61701(Salt),
IEC 62716 (Ammonia), IEC 60068-2-66(Sand)



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Statement: With technological process and product update, there may be 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 interpreter of the technical specification is vested in Tongwei Solar. (20210519)