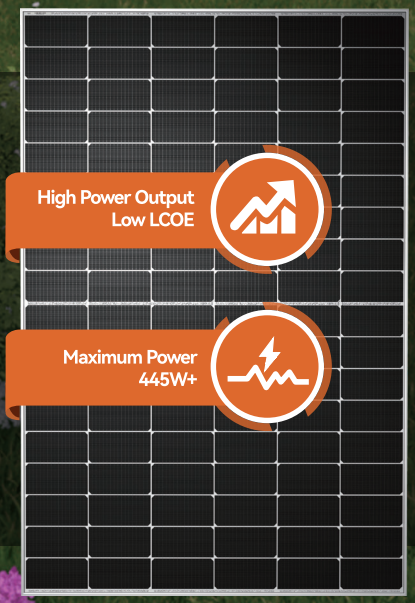
TW SOLAR



TWMND

N-type Half-cell Monofacial Module (54)

54HS425-445W

Certisolis Carbon Footprint

TIER 1 Bloomberg NEW ENERGY FINANCE

Telhado Residencial

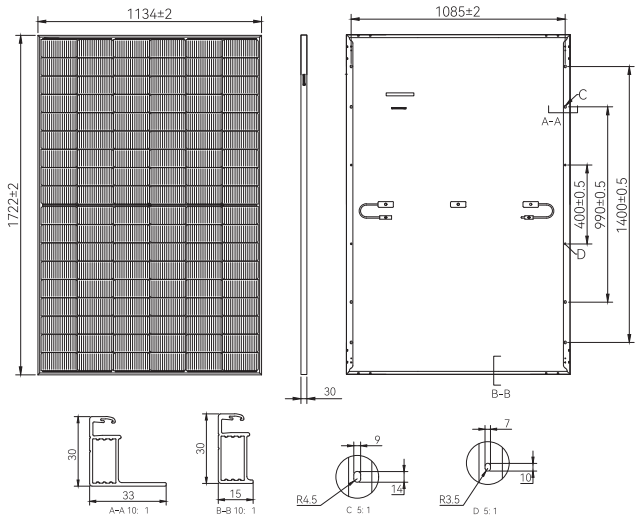
15 YEAR Materials Warranty

30 YEAR Power Warranty

Tongwei Co.,Ltd.
https://en.tongwei.cn/

Learn More

DRAWINGS (Unit: mm)



ELECTRICAL CHARACTERISTICS (STC)

Module Type:	TWMND-54 HS425	TWMND-54 HS430	TWMND-54 HS435	TWMND-54 HS440	TWMND-54 HS445
Maximum Power: Pmax [W]	425	430	435	440	445
Open Circuit Voltage: Voc [V]	39.00	39.15	39.30	39.45	39.85
Short Circuit Current: Isc [A]	13.62	13.67	13.72	13.77	14.00
Voltage at Maximum Power: Vmp [V]	33.09	33.26	33.43	33.60	33.75
Current at Maximum Power: Imp [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℃, AM=1.5, Power measurement tolerance: ±3%

ELECTRICAL CHARACTERISTICS (NMOT)

Maximum Power: Pmax [W]	320.0	324.0	327.8	331.8	335.3
Open Circuit Voltage: Voc [V]	37.04	37.19	37.33	37.47	37.85
Short Circuit Current: Isc [A]	10.96	11.02	11.06	11.10	11.29
Voltage at Maximum Power: Vmp [V]	30.81	30.98	31.14	31.30	31.44
Current at Maximum Power: Imp [A]	10.39	10.46	10.52	10.60	10.67

* NMOT: Irradiance 800W/m², Ambient Temperature 20℃, AM=1.5, Wind Speed 1m/s

TEMPERATURE RATING

Temperature Coefficient (Pmax)	-0.28%/℃
Temperature Coefficient (Voc)	-0.24%/℃
Temperature Coefficient (Isc)	+0.046%/℃
NMOT	45±2℃

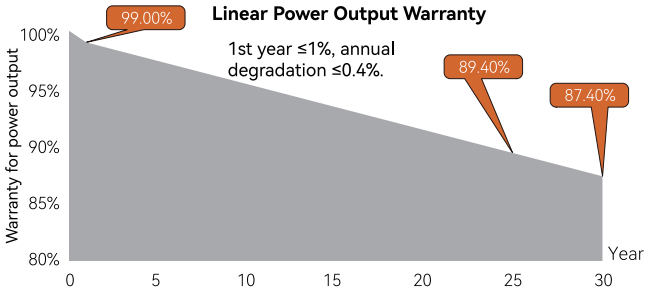
OPERATING PARAMETERS

Operating Temperature	-40℃~+70℃
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25A
Power Selection Tolerance	0~+3%
Fire Class Rating	Class C

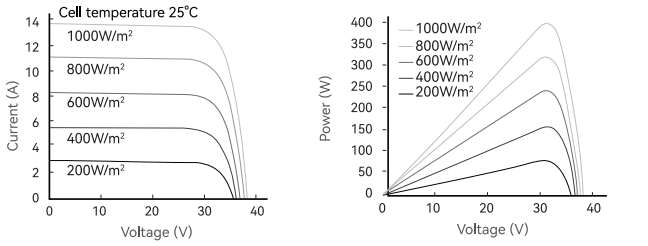
MECHANICAL PARAMETERS

Cell Type	TNC (N Type Monocrystalline Cell)
Cell Orientation	108[6×18]
Dimensions	1722±2×1134±2×30mm
Weight	20.5kg
Front Glass	3.2mm AR coated heat strengthened glass
Backsheet	White
Frame	Anodized aluminum alloy frame
Junction Box	IP68, 3 diodes
Cable	4.0mm²
Cable length	+1200mm, -1200mm, length can be customized
Connector	TW-PVCON-01(Tongwei Solar) PV-KST4-EVO2/xy_UR, PV-KBT4-EVO2/xy_UR(Stäubli) PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy(Stäubli) PV-ZH202B(Zhonghuan), PV-JK03M2/xy(Jinko)
Wind/Snow load	2400Pa/5400Pa
Per pallet	36pcs
Packaging	936pcs per 40'HC

WARRANTY



I-V CURVE



CERTIFICATIONS

Quality Management System and Product Certification

ISO 9001: 2015 / Quality management systems
ISO 14001: 2015 / Environmental management systems
ISO 45001: 2018 / Occupational 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)

CE (Europe) CQC(China) TÜV NORD MCS (UK) KS (Korea) INMETRO (Brazil) JPEA (Japan) CSI (Italy)

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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. (AU-20250220) Made in China