



TWMNH

N-type Half-cell
Bifacial Module (54)

54HD495-515W

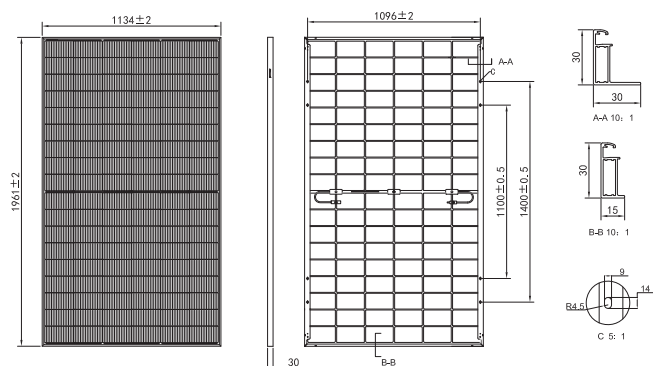


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DRAWINGS (Unit: mm)



ELECTRICAL CHARACTERISTICS (STC)

Module Type: TWMNH-54HDXXX

Maximum Power: P _{max} [W]	495	500	505	510	515
Open Circuit Voltage: V _{oc} [V]	39.88	40.06	40.24	40.42	40.60
Short Circuit Current: I _{sc} [A]	15.86	15.89	15.92	15.95	15.98
Voltage at Maximum Power: V _{mp} [V]	33.45	33.70	33.94	34.19	34.43
Current at Maximum Power: I _{mp} [A]	14.80	14.84	14.88	14.92	14.96
Module Efficiency: η [%]	22.3	22.5	22.7	22.9	23.2

* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass1.5

ELECTRICAL CHARACTERISTICS (NMOT)

Maximum Power: P _{max} [W]	374	378	381	385	389
Open Circuit Voltage: V _{oc} [V]	37.97	38.14	38.31	38.48	38.65
Short Circuit Current: I _{sc} [A]	12.80	12.83	12.85	12.88	12.90
Voltage at Maximum Power: V _{mp} [V]	31.30	31.56	31.73	31.96	32.21
Current at Maximum Power: I _{mp} [A]	11.95	11.98	12.01	12.05	12.08

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

Electrical characteristics with different rear side power gain

5%	Maximum Power: P _{max} [W]	519	525	530	535	540
	Module Efficiency: η [%]	23.3	23.6	23.8	24.1	24.3
15%	Maximum Power: P _{max} [W]	569	575	580	586	592
	Module Efficiency: η [%]	25.6	25.9	26.1	26.4	26.6
25%	Maximum Power: P _{max} [W]	618	625	631	637	643
	Module Efficiency: η [%]	27.8	28.1	28.4	28.6	28.9

TEMPERATURE RATING

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

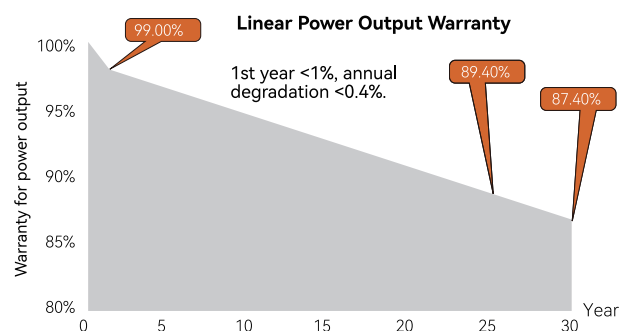
OPERATING PARAMETERS

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

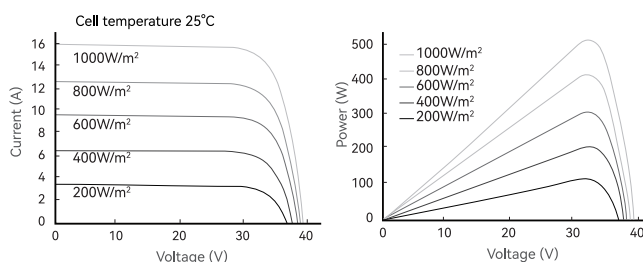
MECHANICAL PARAMETERS

Cell Type	TNC (N Type Monocrystalline Cell)
Cell Orientation	108[6×18]
Dimensions	1961±2×1134±2×30mm
Weight	27.4 kg
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	±1200mm, length can be customized
Wind/Snow load	2400Pa/5400Pa
Packaging	36pcs per pallet, 864pcs 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/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)

