



Hitouch^{6N}

HN21RN-54HT

485-510W

BIFACIAL

High Efficiency Module

22.9%

Maximum Efficiency



Long-Term Reliability

Module certified to withstand 5400 Pa positive static load and 2400 Pa negative static load.

Excellent anti-PID performance to guarantee a better sustainability in harsh environment.



Higher Power Output

Higher module conversion efficiency benefit from bigger wafer and half-cell structure.

MBB technology enhances current collection with lower series resistance.



Lower Hot Spot and Crack Risk

Reduce hot-spot risk with optimized electrical design and lower operating current.

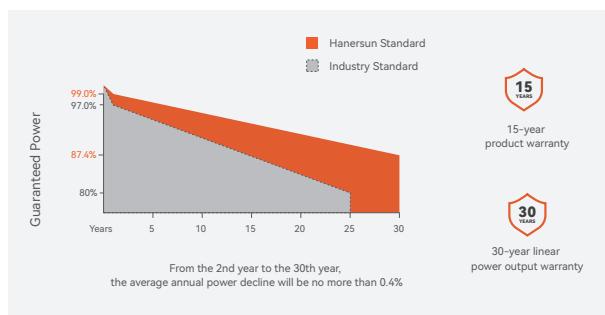
Reduce crack risk by MBB solar cell design.



Excellent Temperature Coefficient

Lower operating temperature and temperature coefficient increases the power output.

Power Warranty



Certificates



Warranty partner

Munich RE

About Hanersun

Hanersun is a world-leading clean energy company, focusing on R&D, manufacturing and distribution of solar module and energy storage system, as well as comprehensive clean energy solutions. Committed to high-efficiency technologies, the company is one of the first to launch PV modules of 600W+ and 700W+ in the industry.

Electrical Characteristics (STC)

Module Type	HN21RN-54HT485W	HN21RN-54HT490W	HN21RN-54HT495W	HN21RN-54HT500W	HN21RN-54HT505W	HN21RN-54HT510W
Maximum Power (Pmax)	485	490	495	500	505	510
Maximum Power Voltage (Vmp)	32.70	32.88	33.06	33.24	33.42	33.60
Maximum Power Current (Imp)	14.84	14.91	14.98	15.05	15.12	15.18
Open-circuit Voltage (Voc)	39.30	39.50	39.70	39.90	40.10	40.30
Short-circuit Current (Isc)	15.72	15.80	15.88	15.95	16.02	16.10
Module Efficiency(%)	21.8%	22.0%	22.3%	22.5%	22.7%	22.9%

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.

Power Tolerance: 0~+3%

Electrical Characteristics (BNPI)

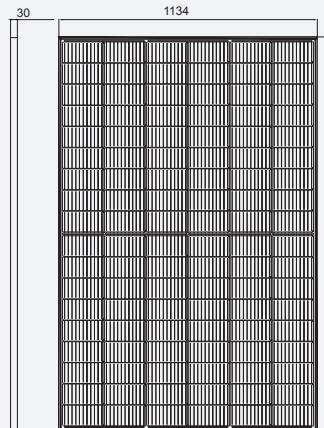
Module Type	485W	490W	495W	500W	505W	510W
Maximum Power (Pmax)	538	543	549	554	560	566
Maximum Power Voltage (Vmp)	32.70	32.88	33.06	33.24	33.42	33.60
Maximum Power Current (Imp)	16.46	16.52	16.61	16.67	16.76	16.85
Open-circuit Voltage (Voc)	39.30	39.50	39.70	39.90	40.10	40.30
Short-circuit Current (Isc)	17.42	17.51	17.60	17.68	17.76	17.84

BNPI: Irradiance: Front 1000W/m², Rear 135W/m², Cell Temperature 25°C, Air Mass AM1.5.

Mechanical Parameters

Solar Cells	N-TYPE Monocrystalline(210R)	No. of Cells	108 [2 x (9 x 6)]
Module Dimensions	1961*1134*30mm	Weight	26.4kg
Glass	2mm-2mm	J-Box	IP68
Frame	Anodized Aluminium Alloy	Connector	Z4S-abcd/MC4-EVO 2A/Others
Output Cable	4.0mm ²	Cable Length	300/300mm (can be customized)

Dimensions (Unit: mm)



Front View

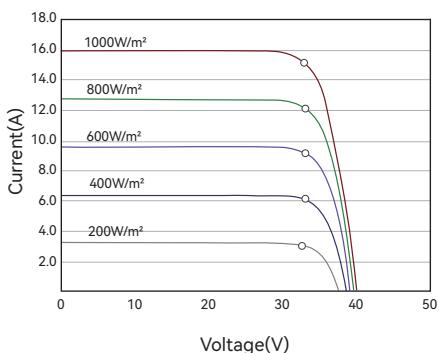
Operating Parameters

Operational Temperature	-40°C~+70°C	Temperature Coefficient of Pmax	-0.28%/°C
Maximum System Voltage	1500V DC (IEC)	Temperature Coefficient of Voc	-0.23%/°C
Maximum Series Fuse Rating	35A	Temperature Coefficient of Isc	+0.045%/°C
Bifascility	80±5%		
Fire Class Rating	Class C		

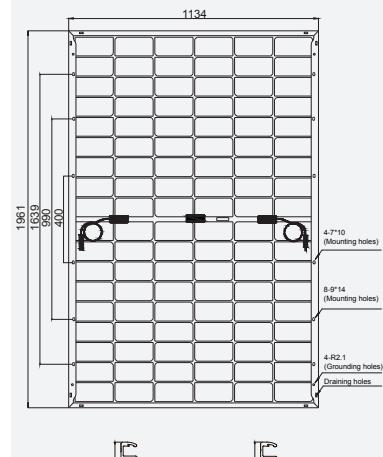
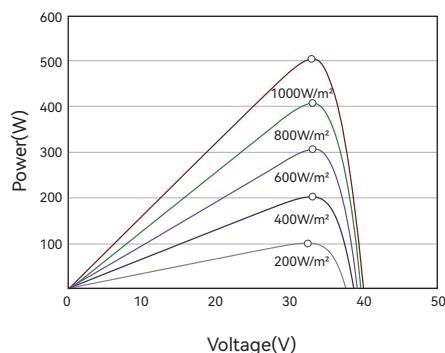
Packaging

Pcs per Pallet:	37	Pcs per 40' HC:	888
-----------------	----	-----------------	-----

I-V Curves of PV Module (505W)



P-V Curves of PV Module (505W)



Back View