



## Hitouch 5N

HN18RN-54H

## 435-460W

### MONOFACIAL

High Efficiency Module

### 23.0%

Maximum Efficiency



#### Long-Term Reliability

Module certified to withstand mechanical test load +5400Pa / -2400Pa.

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.

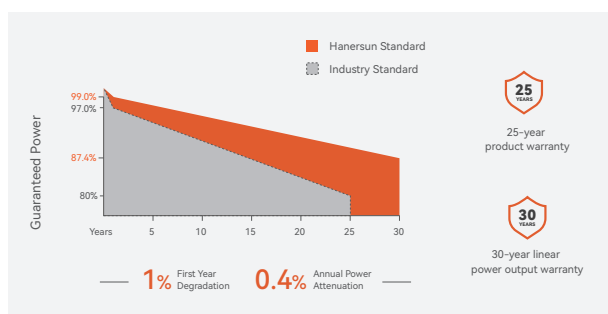
Reduce crack risk by MBB solar cell design.



#### 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.

Made in China

## Electrical Characteristics (STC)

Module Type	HN18RN-54H435W	HN18RN-54H440W	HN18RN-54H445W	HN18RN-54H450W	HN18RN-54H455W	HN18RN-54H460W
Maximum Power (Pmax)*	435	440	445	450	455	460
Maximum Power Voltage (Vmp)	32.29	32.47	32.65	32.82	33.00	33.18
Maximum Power Current (Imp)	13.47	13.55	13.63	13.71	13.79	13.87
Open-circuit Voltage (Voc)*	38.70	38.90	39.10	39.30	39.50	39.70
Short-circuit Current (Isc)*	14.23	14.31	14.40	14.48	14.56	14.64
Module Efficiency(%)	21.8%	22.0%	22.3%	22.5%	22.8%	23.0%

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.

\*Measuring Tolerance: ±3%  
Power Binning Tolerance: 0~+5W

## Mechanical Parameters

Solar Cells	N-TYPE Monocrystalline (188R)
No. of Cells	108 [2 x (9 x 6) ]
Module Dimensions	1762*1134*30/35mm
Weight	21.0kg
Glass	3.2mm, Anti-reflection Coating, High Transmission, Low Iron, Tempered Glass
Backsheet	White
Frame	Anodized Aluminium Alloy
J-Box	IP68
Output Cable	4.0mm <sup>2</sup>
Cable Length	Length Portrait:300/300mm (can be customized)
Connector	Zerun Co.,Ltd / Z4S-abcd Stäubli Electrical connectors AG / PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy

## Operating Parameters

Operational Temperature	-40°C~+70°C
Maximum System Voltage	1500V DC (IEC)
Maximum Series Fuse Rating	25A
Bifacility	/
Fire Class Rating	Class C

## Temperature Ratings

Temperature Coefficient of Pmax	-0.28%/°C
Temperature Coefficient of Voc	-0.23%/°C
Temperature Coefficient of Isc	+0.045%/°C

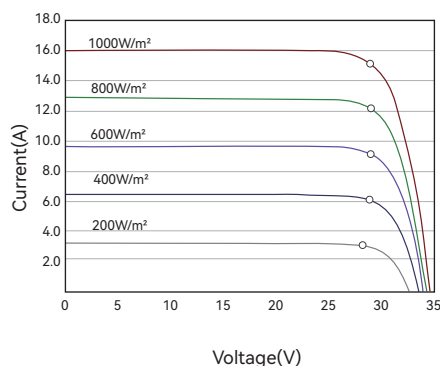
(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

## Packaging

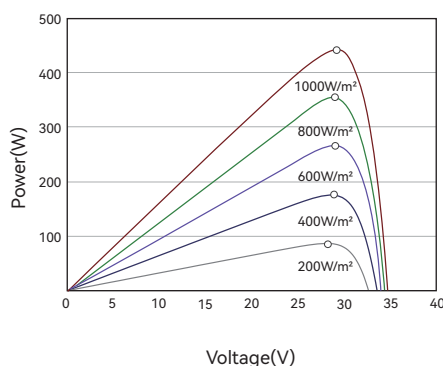
Pcs per Pallet: 37
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Pcs per 40' HC: 962
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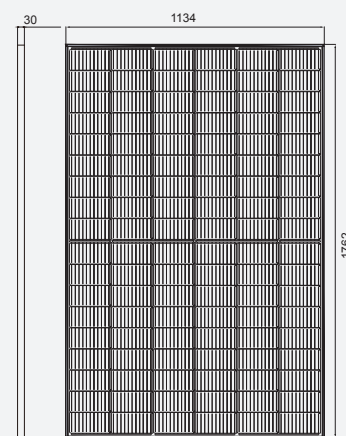
## I-V Curves of PV Module (440W)



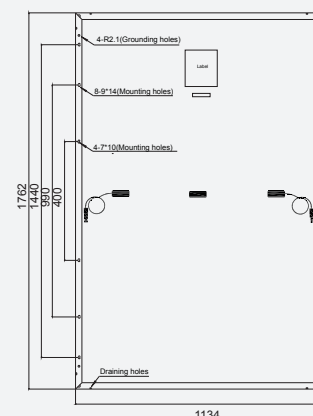
## P-V Curves of PV Module (440W)



## Dimensions (Unit: mm)



Front View



Long frame



Short frame

Back View