



## Hitouch 6N

HN21RN-48H

**430-455W**

**MONOFACIAL**

High Efficiency Module

**22.8%**

Maximum Efficiency



### Long-Term Reliability

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal).

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.

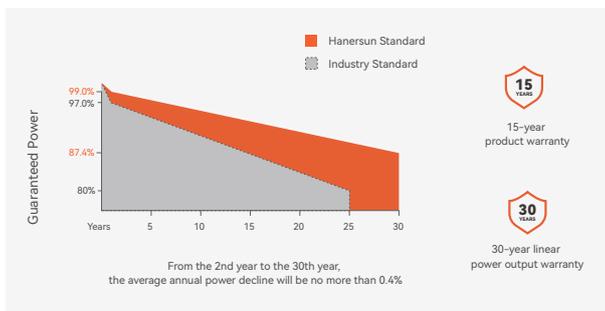
Reduce crack risk by MBB solar cell design.



### Excellent Temperature Coefficient

Lower operating temperature and temperature coefficient increases the power output.

## Power Warranty



## Certificates



Warranty partner



## 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-48H430W	HN21RN-48H435W	HN21RN-48H440W	HN21RN-48H445W	HN21RN-48H450W	HN21RN-48H455W
Maximum Power (Pmax)	430	435	440	445	450	455
Maximum Power Voltage (Vmp)	29.14	29.30	29.46	29.62	29.78	29.94
Maximum Power Current (Imp)	14.76	14.85	14.94	15.03	15.12	15.20
Open-circuit Voltage (Voc)	34.93	35.13	35.33	35.53	35.73	35.93
Short-circuit Current (Isc)	15.76	15.82	15.88	15.94	16.00	16.06
Module Efficiency(%)	21.5%	21.8%	22.0%	22.3%	22.5%	22.8%

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

Power Tolerance: 0~+3%

## Mechanical Parameters

Solar Cells	N-TYPE Monocrystalline(210R)
No. of Cells	96 [2 x (8 x 6) ]
Module Dimensions	1762*1134*30mm
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	MC4-EVO 2A/Z4S-abcd/Others

## Operating Parameters

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC (IEC)
Maximum Series Fuse Rating	30A
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

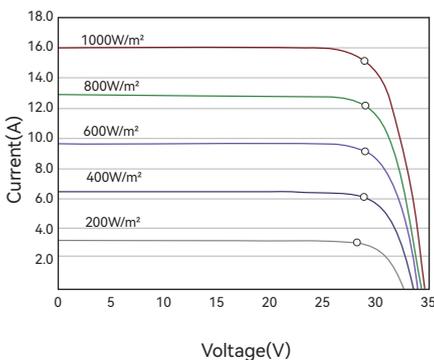
(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

## Packaging

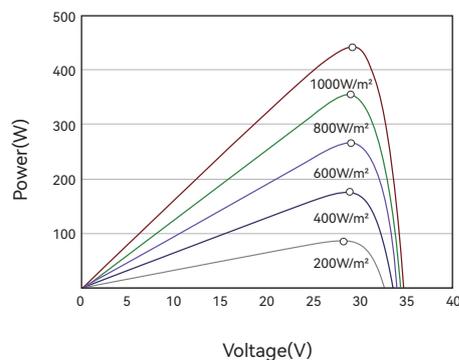
Pcs per Pallet: 37

Pcs per 40' HC: 962

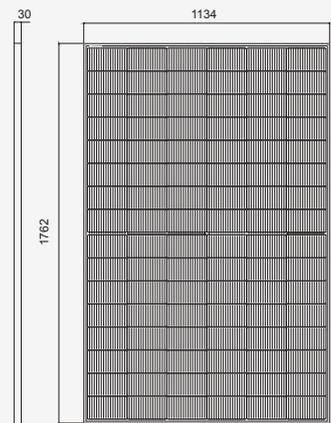
## I-V Curves of PV Module (440W)



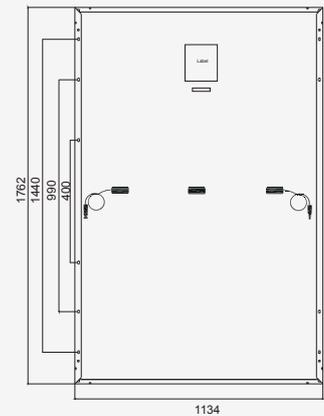
## P-V Curves of PV Module (440W)



## Dimensions (Unit: mm)



Front View



Back View

