# **N-TOPCon**







HN18N-54H

420-445W

MONOFACIAL

22.8%

High Efficiency Module

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.



## **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.



# **Higher Power Output**

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

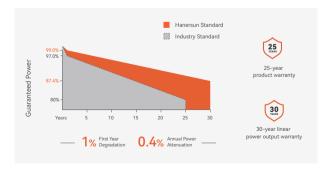
MBB technology enhances current collection with lower series resistance.



## **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	HN18N-54H420W	HN18N-54H425W	HN18N-54H430W	HN18N-54H435W	HN18N-54H440W	HN18N-54H445W
Maximum Power (Pmax)*	420	425	430	435	440	445
Maximum Power Voltage (Vmp)	31.90	32.10	32.30	32.50	32.70	32.90
Maximum Power Current (Imp)	13.17	13.24	13.32	13.39	13.46	13.53
Open-circuit Voltage (Voc)*	37.90	38.10	38.30	38.50	38.70	38.90
Short-circuit Current (Isc)*	13.98	14.05	14.12	14.19	14.26	14.33
Module Efficiency(%)	21.5%	21.8%	22.0%	22.3%	22.5%	22.8%

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

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

#### **Mechanical Parameters**

Solar Cells	N-TYPE Monocrystalline(182mm)		
No. of Cells	108 [2 x (9 x 6) ]		
Module Dimensions	1722*1134*30/35mm		
Weight	20.2kg		
Glass	3.2mm, Anti-reflection Coating, High Transmission, Low Iron, Tempered Glass		
Backsheet	White		
Frame	Anodized Aluminium Alloy		
J-Box	IP68		
Output Cable	4.0mm²		
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	

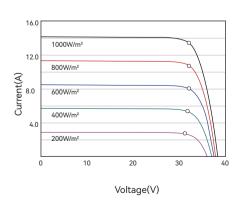
(Do not connect Fuse in Combiner Box with two or more strings in  $\,$  parallel connection)

### **Packaging**

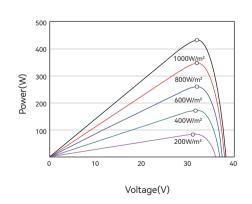
Pcs per Pallet: 37

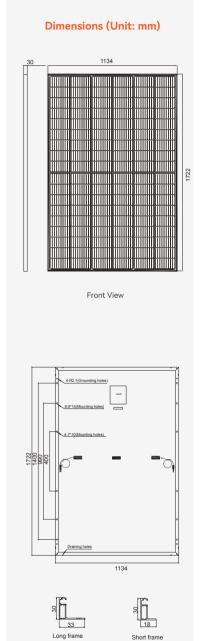
Pcs per 40' HC: 962

# I-V Curves of PV Module (430W)



# P-V Curves of PV Module (430W)







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Back View