# **N-TOPCon**







HN18N-54H

420-445W

**MONOFACIAL** 

22.8%

High Efficiency Module

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.



#### **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.

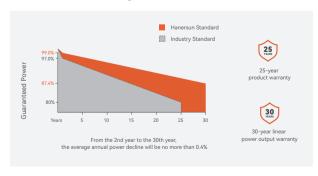
MBB technology enhances current collection with lower series resistance.



#### **Excellent Temperature Coefficient**

Lower operating temperature and temperature coefficient increases the power output.

## **Power Warranty**



## **Certificates**



















## Insurance



#### **About Hanersun**

Hanersun is a world-leading clean energy company, with a business scope from the R&D and intelligent manufacturing of solar modules, energy storage products, to comprehensive energy solutions.

#### **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.

Power Tolerance: 0~+3%

#### **Mechanical Parameters**

Solar Cells	N-TYPE Monocrystalline(182mm)	
No. of Cells	108 [2 x (9 x 6)]	
Module Dimensions	1722*1134*30mm	
Weight	21.5kg	
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	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

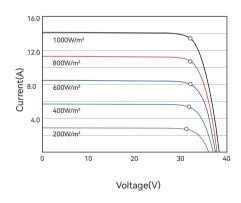
(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

#### **Packaging**

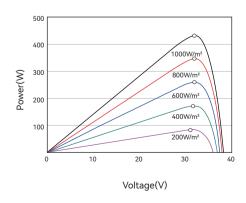
Pcs per Pallet: 37

#### Pcs per 40' HC: 962

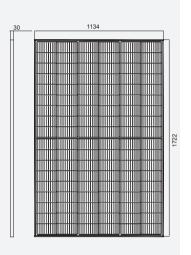
## I-V Curves of PV Module (430W)



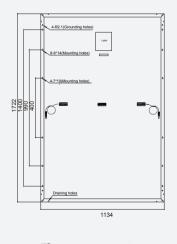
## P-V Curves of PV Module (430W)

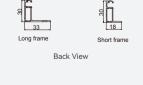






Front View







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