PIONEERING IN N-TYPE RESHAPING THE GREEN FUTURE

The world's leading high-efficiency solar technology company



Headquarter: Hanersun Technology Co., Ltd. Add: 10F, B4 Block, No. 19, Suyuan Avenue, Jiangning District, Nanjing, China E-mail: sales@hanersun.com Tel: +86-25-5279-1766

Delaware, U.S.A

Add: 251 Little Falls Drive, Wilmington in New Castle Country Delaware 19808 E-mail: sales@hanersun.com

Tokyo, Japan

Add: 1001, Mido-cho, MARK SQUARE, 3-15-3 Taito, Taito-ku, Tokyo, Japan E-mail: sales@hanersun.jp

Hanersun EU B.V.

Add: Fascinatio Boulevard 216 - 220 3065WB Rotterdam, Netherlands E-mail: sales@hanersun.com

Lahore, Pakistan

Add: Shop NO. 103, Floor-M1, EDEN Tower Gulberg-III E-mail: sales@hanersun.com





THE PIONEER OF 700W+ TECHNOLOGY

Take technology as the bridge, approach to a zero-carbon world

600W+ and 700W+ in the industry. By the end of 2023, Hanersun has cumulatively delivered over 12GW solar modules to more than 90 countries and has developed and built 800MW of solar projects in the Asia Pacific. Its branches have been set up in Europe, the US, Japan, Vietnam, Hong Kong, and Pakistan to provide seamless services for local customers.

In 2023, Hanersun was ranked as a BNEF Tier 1 module manufacturer, one of PVBL's 'Top 100 Global PV companies' and 'The Fastest Growing PV Company'.

01

$\begin{array}{c} {}_{\text{PIONEERING IN}} N \, \text{-type} \\ {}_{\text{RESHAPING THE GREEN FUTURE}} \end{array}$

Hanersun is a world-leading energy technology company, with a business scope from the R&D and manufacturing of solar modules, energy storage products, to energy solutions. By focusing on high-efficiency technologies, it is one of the first to launch solar module of 600W+ and 700W+ in the industry.

SUSTAINED GROWTH

MILESTONES

2004
Originated in
Nanjing, China

2015

Set up Hong Kong company

One of the first to release PERC PV module series

2016

The capacity of commissioned projects exceeded 300MW

2017

Practices globalization strategy, set up the Japan, US, and Pakistani branches

TOP 10 PV module exporter in Southeast Asia and grew into a global mainstream module supplie

The shipments of bifacial 600W+ module ranked among the top five in the world

2021









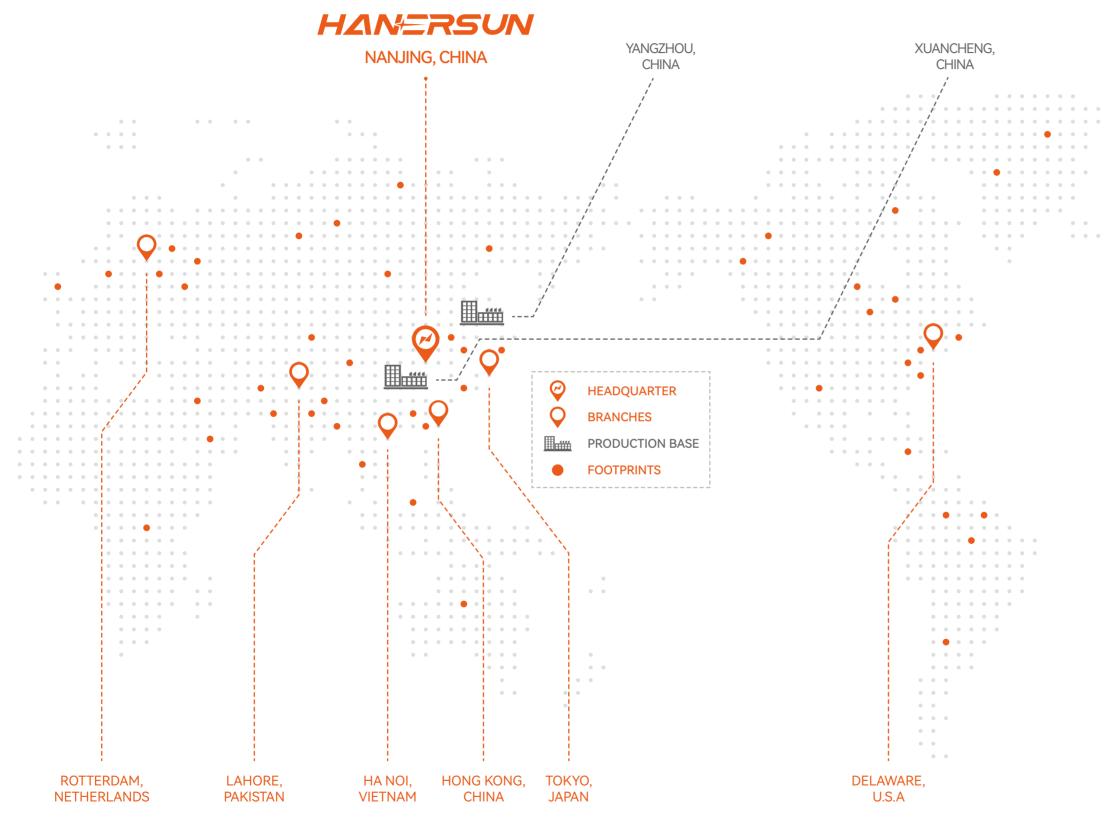
2022

Expanded into energy storage industry, set up Hanersun ESS Solution company

2023 fully entered the N-Type era



GLOBAL NETWORK

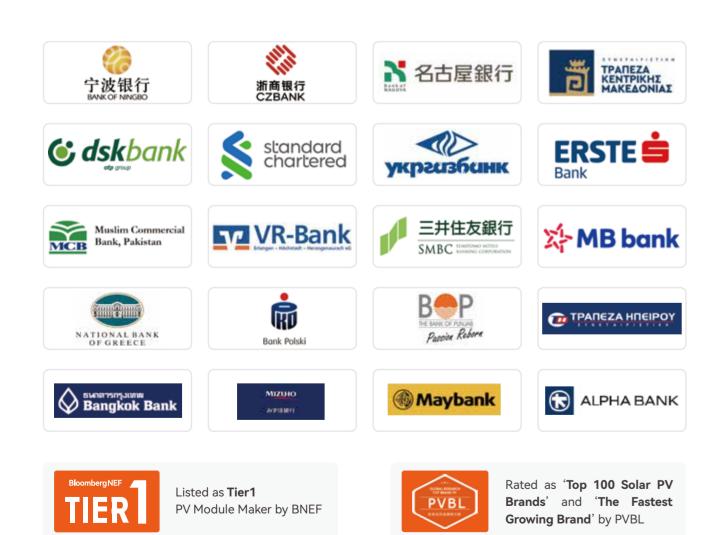


PIONEERING IN \mathbf{N} -TYPE RESHAPING THE GREEN FUTURE

Headquartered in Nanjing, China, with business footprints in over 90 countries and regions worldwide, Hanersun has established branches in the USA, Europe, Japan, Vietnam, Pakistan, and Hong Kong to provide high-efficiency, high-quality products and reliable services to global customers.

SUPERIOR VALUE

Trusted by more than 50 international banks and financial institutions, bringing continuous and stable return on investment to global clients.



WIN-WIN **COOPERATION**



PIONEERING IN N-TYPE **RESHAPING THE GREEN FUTURE**

INNOVATION DRIVEN

Hanersun is committed to the continuous R&D of solar modules and owns more than 100 technology patents, with independent intellectual property rights in the core areas of bifacial and TOPCon technology. We have taken the lead in launching the 210mm module and TOPCon module in the industry.

2021

- Released the **HITOUCH 5** 182mm half-cell module
- Released the **HITOUCH 6** 210mm half-cell module

2022

USHERING IN A NEW ERA OF N-TYPE

• Released the **HITOUCH 5N** 182mm TOPCon module

2023

700W+ ULTRA-HIGH EFFICIENCY MODULES

- Released the **HITOUCH 6N** 210mm TOPCon module
- Released the HITOUCH 5A 182mm ABC module



• Release new heterojunction solar module







 $\begin{array}{c} \text{PIONEERING IN } N \text{-type} \\ \text{RESHAPING THE GREEN FUTURE} \end{array}$



100+ Solar Patents



Experienced R & D Engineers



Module Efficiency up to 23.2%



Highly Competitive Product Iterations

10

MODULE SERIES

HITOUCH

PERC SOLAR CELL HIGH COST-EFFECTIVENESS HIGH RELIABILITY FLEXIBLE APPLICATION

Advanced 182 / 210mm technology platform

High-efficiency PERC cell with non-destructive cutting

Multiple busbar design increases power output by 1-2%

0.5mm cell spacing, high-density encapsulation

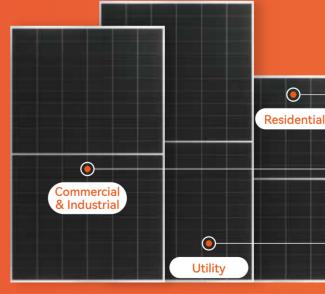
Round wire busbars increase power output by 2%

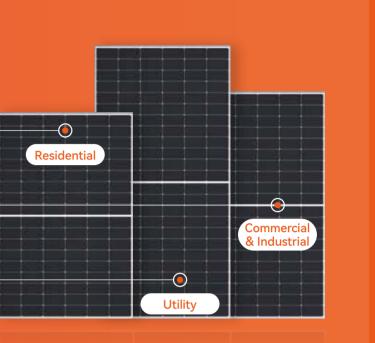
All black customizable

Hitouch 5

182mm PERC Series

108 cells	54H	415W	21.25%
120 cells	60H	460W	21.24%
144 cells	72H	560W	21.68%





Hitouch 6

210mm PERC Series

80 cells	40H	405W	21.07%
120 cells	60H	610W	21.55%
132 cells	66H	670W	21.60%

HITOUCH

TOPCON SOLAR CELL ZERO LID/LETID EFFECT

HIGH EFFICIENCY EXCELLENT BIFACIAL RATE

High-efficiency TOPCon cell with non-destructive cutting

Multiple busbar design increases power output by 1-2%

0.5mm cell spacing, high-density encapsulation

Round wire busbars increase power output by 2%

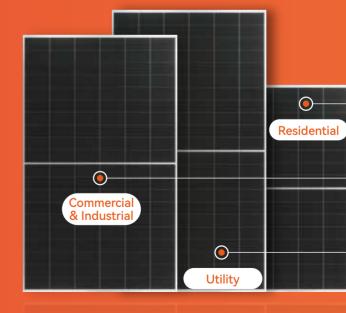
Bifaciality up to 80%-85%

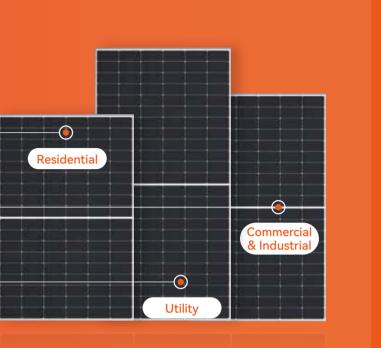
All black customizable

Hitouch 5N

182mm TOPCon Series

108 cells	54H	440W	22.53%
120 cells	60H	490W	22.62%
144 cells	72H	590W	22.84%





Hitouch 6N 210mm TOPCon Series

80 cells	40H	425W	22.11%
120 cells	60H	635W	22.44%
132 cells	66H	700W	22.53%

14

HITOUCH

BACK CONTACT SOLAR CELL HIGHER EFFICIENCY

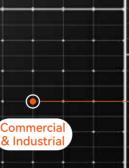
AESTHETIC APPEARANCE MORE RELIABLE AND DURABLE

182mm all back contact cell with non-destructive cutting

Front-side busbar-free design achieves perfect balance between aesthetics and efficiency

> Full back interconnection increases front light absorption by about 2%

All-back soldering technology allows for reducing stress on cell strip edges



. .

Residentia

PIONEERING IN N-TYPE RESHAPING THE GREEN FUTURE

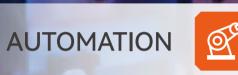
Hitouch 5A

182mm ABC Series

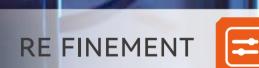
108 cells | 54H | 450W | 23.00%

144 cells | 72H | 600W | 23.20%

INTELLIGENT MANUFACTURING



INTELLIGENCE



WHOLE PROCESS TRANSPARENT AND TRASEABLE

7*24 ON-LINE

Hanersun continues to improve the automation and intelligence of the production process, and build a lean and flexible intelligent production mode, with the integration of production and research at its core. In 2023, Hanersun completed the comprehensive upgrade of the existing production lines, equipping them with TOPCon-compatible production equipment. With high precision, high yield, and fast switching advantages, the company has effectively improved capacity utilization and reduced production costs.









PROVEN QUALITY



Quality is our core value. With unceasing efforts, Hanersun has developed its exclusive quality management system based on international advanced management experience.



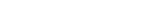
Flawless supplier management and evaluation system, 100% batch inspection



100% OQC inspection, random OBA inspection



Full data monitoring through MES and AOI to promote process upgrading



TUV



52 quality check points, 3*100% EL tests



2%



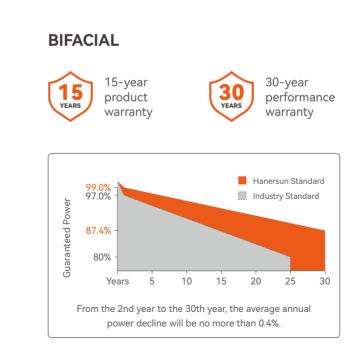


INMETRO





EXTRA-LONG WARRANTY



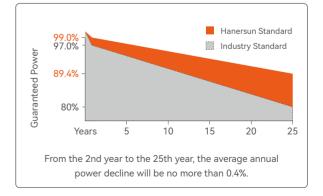
MONOFACIAL



12-year product warranty



25-year performance warranty



PV-STORAGE INTEGRATION

In areas where electricity prices are high, solar energy storage system is the best solution to reduce power purchase expenses. Established in 2022, Hanersun ESS Solution Co., Ltd. is a wholly-owned subsidiary of Hanersun Technology Co., Ltd., focusing on energy storage products and solutions. The company released the new generation of residential energy storage systems, HISMART-HV and HISMART-LV series, at the end of 2022. In 2023, Hanersun developed its smart C&I system solution to fulfill various C&I storage needs.

EXPANDING THE BOUNDARIES OF SOLAR

To Meet More Diversified Applications





+ RESIDENTIAL SOLUTIONS





WIDE OUTPUT RANGE, HIGH RELIABILITY.





 HNESS344-L
 344 kWh

 Utility Storage System
 Liquid Cooling

 BMS
 MONESS215-L
 100 kWr 215 kWh

 Utility Storage System
 Liquid Cooling

 BMS, Battery, PCS
 Image: Storage System

 Utility Storage System
 Image: Storage System

PIONEERING IN \mathbf{N} -TYPE RESHAPING THE GREEN FUTURE

HNESS3440/L-20H 3.44 MWh

Intelligent Energy Storage Cabinet Liquid Cooling BMS, Battery, EMS



GLOBAL PROJECTS

Hanersun provides a wide range of high efficiency modules and professional solar system solutions depending on the different types of application scenarios and customer needs. It is Hanersun's mission to continuously push boundaries and broaden the possibilities of solar applications.







$\begin{array}{c} \text{PIONEERING IN } N \text{-type} \\ \text{RESHAPING THE GREEN FUTURE} \end{array}$





PIONEERING IN N-TYPE RESHAPING THE GREEN FUTURE









