Trinasolar

FACT SHEET

About Trinasolar

We are committed to leading the way in smart PV and energy storage solutions and facilitating the transformation of new power systems for a net-zero future.
Mission: "Solar Energy for All"

Financial Soundness

Revenue
8.88 billion USD
First three quarters of 2024

Operating cash flow
539 million USD
First three quarters of 2024

Total assets
19.34 billion USD
First three quarters of 2024

Global presence



By the end of September 2024
Over 40,000 employees
70+ countries global employees

Capacity

By the end of 2024

Module capacity:	Cell capacity:	Wafer capacity:	TrinaTracker capacity:	ESS capacity:
120 GW	105 GW	60 GW	10 GW	12 GWh

With innovation-driven development as its most important strategy and core driving force, Trinasolar has put in place a comprehensive and leading science and innovation system.

First three quarters of 2024 — Invested $606 million in R&D

By the end of December 2024 — Over 6,000 patent and software copyright applications

Over 3,000 granted patents

Milestone

1997
Trinasolar was founded in 1997 when the Chairman, Mr. Gao Jifan, took inspiration from the Kyoto Protocol and the U.S. Million Solar Roofs Initiative.

2006
Trinasolar was listed on NYSE.

2015
Trinasolar rolled out energy storage business.

2018
Trinasolar acquired Spanish tracker company Nclave and started the Tracker business.

2020
In June 2020, Trinasolar listed on the STAR Market of Shanghai Stock Exchange.

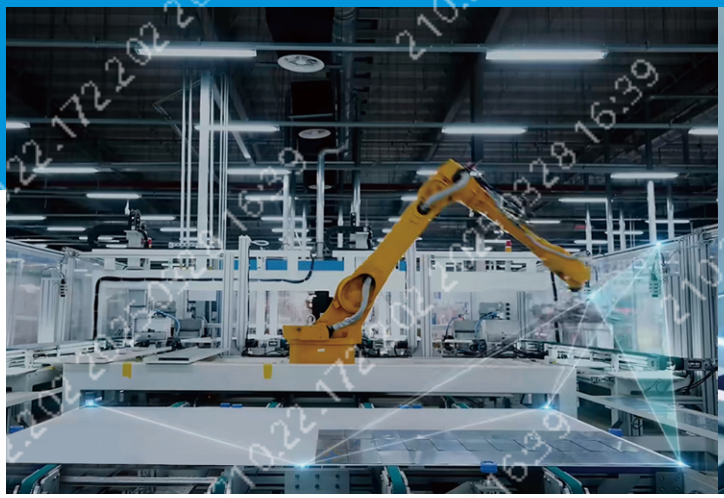
2023
Trinasolar takes lead in standardization initiative to unify 700W+ module dimensions.

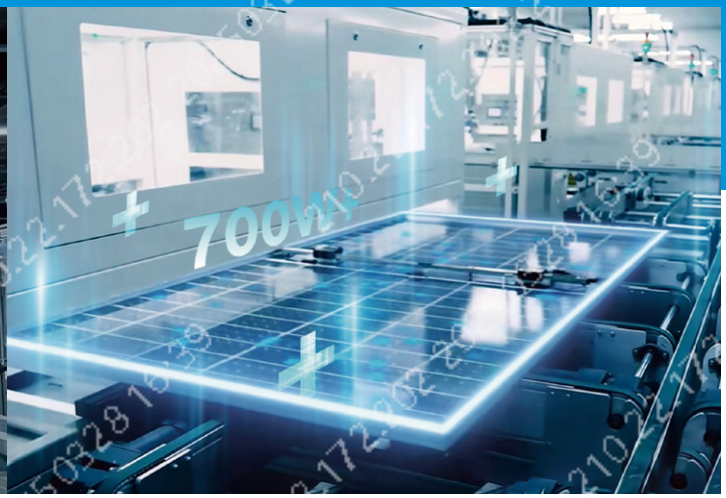
2024
In November 2024, Trinasolar's industrial larger-area n-type bifacial i-TOPCon solar cells has achieved 26.58% efficiency, setting a new record for large-area industrial TOPCon solar cell
By the end 2024, cumulative shipments of 210mm module had reached 170GW, ranking first in the world.

2025
Trinasolar's high-efficiency n-type solar total passivation (TOPAS) heterojunction (HJT) PV modules have achieved an aperture module efficiency of 25.44%, setting a world record for large-area HJT PV modules.

Module

With 28 years' legacy of solar technology innovation, Trinasolar takes the lead in module dimension standardization, including large, medium and small-format modules. Built on the advanced 210mm product technology platform, innovative low-voltage design, Trinasolar's Vertex module portfolio covers various application scenarios including utility power stations, residential and commercial and industrial settings. Trinasolar started the 700W+ era as the first to mass-produce TOPCon modules exceeding 700W. In November 2024, Trina Solar released the i-TOPCon Ultra Technology, which increased power output of the product by 30-40W, leading the industry into the TOPCon 2.0 era. Furthermore, with high-performance and aesthetics design, Vertex S+ modules establish a new global trend in PV aesthetics innovation and have won a string of world-renowned design awards, including the Red Dot Award, the German Design Award, the IDEA Award and the Good Design Award.





Shipments

50 GW+
module shipments
in the first three quarters of 2024

240 GW+
cumulative module shipments
by the end of September 2024

170 GW+
cumulative 210mm module shipments
by the end of December 2024
ranking first globally

R&D

With i-TOPCon Ultra technology, Vertex N modules have been upgraded, leading the industry into the "TOPCon 2.0" era.

Trinasolar is the first module manufacturer to achieve mass production of 700W+ *n*-type TOPCon modules, leading the industry into the "PV 700W+" era.

In January 2025, Trinasolar set a new record with n-type solar total passivation (TOPAS) heterojunction (HJT) PV modules achieving aperture module efficiency of 25.44%, marking the 30th time the company has set and broken solar cell efficiency and module output world records.

In November 2024, Trinasolar's industrial larger-area n-type bifacial i-TOPCon solar cells has achieved 26.58% efficiency, setting a new record for large-area industrial TOPCon solar cell.

In 2024 Trinasolar successfully produced the world's first fully recycled c-Si module.

Global trust and reputation

Bankability and reliability recognized by top financial institution and third-parties.

BNEF
Tier 1 module maker
Top 3 bankable PV module companies

PVEL
Named PVEL TOP Performer
ten years in a row

RETC
Named Overall
Highest Achiever
by RETC four times in a row

PV ModuleTech
PV ModuleTech Bankability Ratings

Wood Mackenzie
Top 10 Global Photovoltaic
Module Manufacturers in 2024

Storage

Trina Storage, a business unit of Trinasolar established in 2015, is a global leader in energy storage products and solutions, dedicated to transforming the way we provide energy. As an all-inclusive cell-to-AC solution provider, we pioneer in offering solutions for grid-scale shared energy storage stations, solar-storage integrated charging stations and net-zero industry parks, etc.



Manufacturing Strength

Manufacturing bases
Chuzhou, Anhui province,
Changzhou, Jiangsu province

ESS capacity
12GWh
By the end of 2024

Delivery Assurance

Three system integration engineering centers providing localized professional services to customers.

Shipments

Energy storage system shipments in the first three quarters of 2024	Energy storage system shipments by the end of September 2024	Cumulative energy storage system shipments in UK
2.5 GWh	7.5 GWh	1 GWh+

R&D

- By the end of September 2024, over 1,300 patent applications, including 500+ invention patents and participance in the formulation of multiple national standards.
- 4 R&D platforms: Advanced Energy Storage Technology Research Institute, Energy Storage Engineering Center, Digital Power Research Institute and Power Electronic Research and Development Center.
- Partners with Singapore's Agency for Science, Technology and Research (A*STAR) on innovation in advanced energy storage battery technologies.
- Trina Storage earns the world's first UL Verified Mark certificate for thermal performance of its liquid-cooled energy storage containers.
- In-house Trina Storage Cells: Extended battery lifetime & performance with up to 12000 cycles.
- Elementa 2:Advanced, flexible, high-efficiency energy storage system.
- Potentia C&I ESS cabinet*: Integrates in-house Trina Storage Cells for a seamless PV+storage ecosystem.

* only available in several regions

Global trust and reputation

BNEF	DNV	S&P	SMM
Tier 1 energy storage manufacturers Top bankable storage providers and integrators	Technical due diligence evaluation	Top 10 energy storage integrators in China, the UK and Australia by S&P Global	Tier 1 utility-scale BESS Provider Tier 1 grid-level BESS Supplier

Building a Net-Zero Future

Trinasolar's Sustainability Management Concept

S	O	L	A	R
Sustainability	Optimization	Leading	Action	Responsibility

In 2024, Trinasolar's MSCI ESG rating was upgraded to "BBB". The company has participated in EcoVadis's CSR assessments for 10 consecutive years, winning gold medals multiple times. Trinasolar joined the United Nations Global Compact (UNGC), advancing broader social goals and building a more sustainable future together with global participants.

Climate Strategy

Climate Ambition Goal: Strive to achieve carbon neutrality at global organization level in 2030.
In 2023, Trinasolar has established a "Net-Zero System" covering the dimensions of "Net-Zero Operation, Net-Zero Value Chain, and Net-Zero Products".

Environmental Performance

GHG Emissions Intensity of

- Cell: decreased by 42.74% from the 2020 baseline
- Module: decreased by 61.47% from the 2020 baseline, achieving target

Integrated Energy Consumption Intensity of

- Cell: decreased by 47.47% from the 2020 baseline
- Module: decreased by 38.32% from the 2020 baseline

Water Consumption Intensity of

- Cell: decreased by 85.48% from the 2020 baseline, achieving target
- Module: decreased by 44.40% from the 2020 baseline, achieving target

Sustainable Manufacturing

- All of our factories in China and overseas established and performed an internal environmental management system in accordance with ISO 14001 and obtained ISO 14001 Environmental Management System Certification.
- In 2024, Trinasolar achieved the APAC Water stewardship of the year by Environmental Finance.
- In 2023, Trinasolar's renewable energy proportion in the total electricity consumption reached 24.09%. Multiple sites made good use of the spare space on the plant roofs to lay solar panels, contributing to a total of 136,398 MWh of electricity, which is 2.43 times that of 2022 (56,203 MWh).
- Trinasolar's Changzhou, Suqian and Yancheng manufacturing facilities have been recognized as National Green Factory; Yiwu manufacturing facility is awarded with a four-star "Zero-carbon" certification; Yancheng Dafeng manufacturing facility received zero-carbon factory and zero waste landfill certificates from TÜV Rheinland.
- Trinasolar has become the first company in the sector to have two manufacturing sites certified against the Solar Stewardship Initiative's ESG Standard.
- TrinaTracker has received carbon footprint certification for its manufacturing plant in Viana, Spain, granted by Bureau Veritas.

Product Lifecycle Green Management

- In 2024, Trinasolar successfully produced the world's first fully recycled c-Si module.
- Trinasolar's Vertex, Vertex N modules are granted UL EPD certifications and EPD Italy certification; the full range of Vertex N modules have obtained carbon footprint certification; Vertex S+ modules are awarded for EPD Norway and EPD International.
- All Vertex N modules are certified for France's carbon footprint standards. The company can manufacture low carbon footprint (400 kg CO2/kW) products.
- In 2022, Trinasolar's Vertex modules received the Life Cycle Assessment (LCA) Certificate and Carbon Footprint Certificate by TÜV Rheinland.

Social Performance

Total number of employees: 43,031
Female employees: 26.06%
Total number of foreign employees: 3,429
Total number of minority employees: 1,875

Annual training hours per employee: 22.09 hours
(14.44 hours increase from 2022)

Occupational health and safety investment: 67.63 million RMB

Total community contribution and charities investment: 10.97 million RMB

Trinasolar has obtained ISO 27001 Information Security Management System Certification, ISO 45001 Occupational Safety and Health Management System, SA8000 Social Responsibility Certification, and ISO 9001 Quality Management System.
Trinasolar has signed the UN Women's Empowerment Principles (WEPs), demonstrating its strong commitment to global gender equality and women's empowerment.

Corporate Governance

Cumulative completion of business ethics audits at headquarters and home and overseas subsidiaries and bases	Completion rate of business ethics report processing	Trinasolar received AA assessment from TÜV Rheinland of the full traceability chain	The percentage of suppliers who have signed the Supplier Social Responsibility Commitment	The percentage of suppliers assessed with supplier EHS and social responsibility audit
26	100%		95.67%	95.67%

Trinasolar has been granted ISO 37301: 2021 compliance management system certification