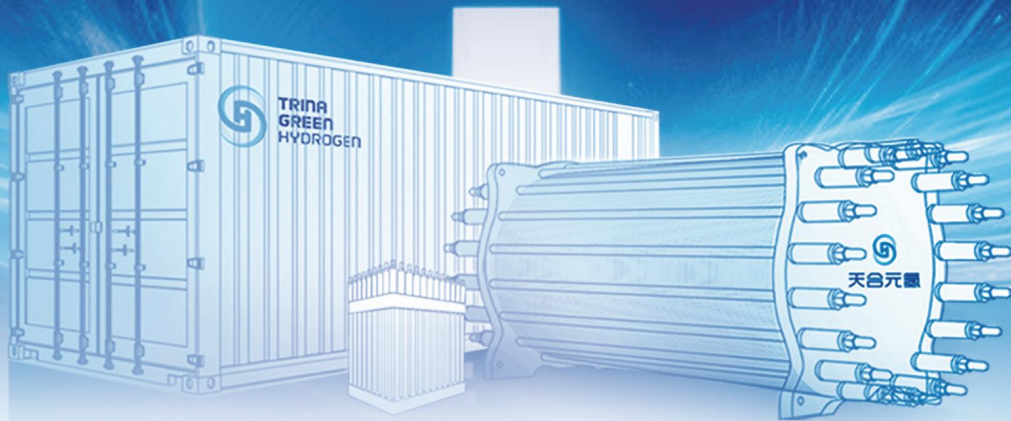
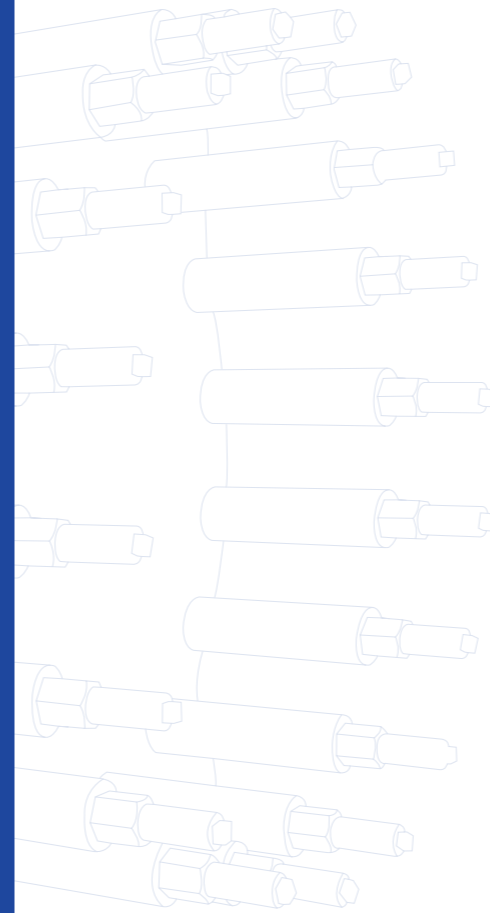


Devote To Becoming The World's Leading Hydrogen Energy Integrated Solution Provider





*Green hydrogen Create
Zero Carbon Emissions Future*

About Us

Jiangsu Trina Green Hydrogen Technology CO., Ltd. (hereinafter referred to as Trina Green Hydrogen) a subsidiary of Trina Group, is a pioneer in the hydrogen energy industry. Since its establishment, it has been committed to the deep cultivation and development of the hydrogen energy field. Our main business covers the research and development, production, and sales of alkaline and PEM electrolysis water hydrogen production equipment, BOP system equipment, and provides comprehensive hydrogen energy solutions and services. Relying on the advantages of the group, we aim to create an integrated development concept of "photovoltaic hydrogen storage", and take a dual approach from the equipment and system levels to help the global hydrogen energy industry thrive.

The Trina Green Hydrogen Production Base is located in Yangzhou Comprehensive Bonded Zone, Jiangsu Province. It already has a production capacity of 1GW of alkaline electrolysis water hydrogen equipment, and the maximum production capacity in the future can reach 4GW, covering various types of technologies. At the same time, plans are being made to build a 10MW equipment testing platform, an electrochemical/anti-corrosion production and research base, and a CNAS laboratory in the field of hydrogen energy. It is a comprehensive hydrogen energy equipment manufacturing base that integrates production, learning, research, and inspection. It is currently the most automated and comprehensive modern and intelligent production base in the world.

1997

Inspired by the Kyoto Protocol and the "Million Roof Plan" of the United States, Gao Jifan founded Trina Solar

2006

Successfully listed on the New York Stock Exchange, becoming one of the earliest Chinese solar energy companies to be listed in the United States stock market

2014

PV module shipments ranked first in the world

2015

Set energy storage business layout

2020

Become the first photovoltaic smart energy enterprise to be listed on the SSE STAR Market

2021

Arrange for Hydrogen business and establish Trina Green Hydrogen

2022

Changzhou production base completed
First 1000 Nm³/h Alkaline water electrolysis issued
First commercial order signing

2023

Industrial cooperation with Yangzhou Government
Foundation laying and commencement of production base

2024

Yangzhou R&D production base operated
Second-generation series electrolyzer shipped

2025

The 10MW photovoltaic and hydrogen storage integrated testing platform has been completed and put into operation

2023

PV modules shipment Ranked globally Top3
Energy storage shipments exceed 5GWh

2025

The perovskite crystalline silicon tandem technology has broken the world record twice in a row, ranking first in the global perovskite solar cell patent ranking



The world's first

210 Cumulative shipment of components



180+

Business coverage countries/regions



7↑

Corporate & Regional headquarters



70 Countries

Global employees

Business

Cumulative shipment of 210 components

170⁺ GW

Global shipments of smart mounts

27⁺ GW

Global cumulative shipments of energy storage

10⁺ GWh



- Global Hydrogen Business and Manufacturing Base
- Corporate & Regional Headquarters
- Regional Offices
- Manufacturing Base

"PV-Storage-Hydrogen" Integration

Renewable energy is the best approach to achieve global Carbon peaking and carbon neutrality goals. In the last decade, the low-carbon attributes of renewable energy sources like photovoltaics and wind power have significantly curtailed carbon emissions within the global electricity sector. To achieve decarbonization in non-electric sectors, the integration of green hydrogen energy is essential. Considering carbon emission, only hydrogen produced through direct electrolysis using renewable energy can be considered green hydrogen.

Zero carbon energy
Solar wafer/Cell/
PV Module/Tracker

Solar

Solar-Storage-Hydrogen Business

Basic Chemicals
Methanol/Synthetic ammonia

Industrial application
Metallurgy/Refining

Fuel
Trucks/Ships/Aerospace

More possibilities

Hydrogen

Long time/
Cross regional
Stack/gas-liquid
separation and
purification skid

Storage

Short time/
On site consumption
Energy storage
battery package/
AC&DC products



Products

Vertex 210 modules

Significantly Reduce Project Costs

Wide product range for multiple scenarios
Compared with same-class products on the market

0.03–0.1RMB/W

Lower Cost

1%–3%

LCOE Decrease



Vertex N 450W

Vertex N 610W

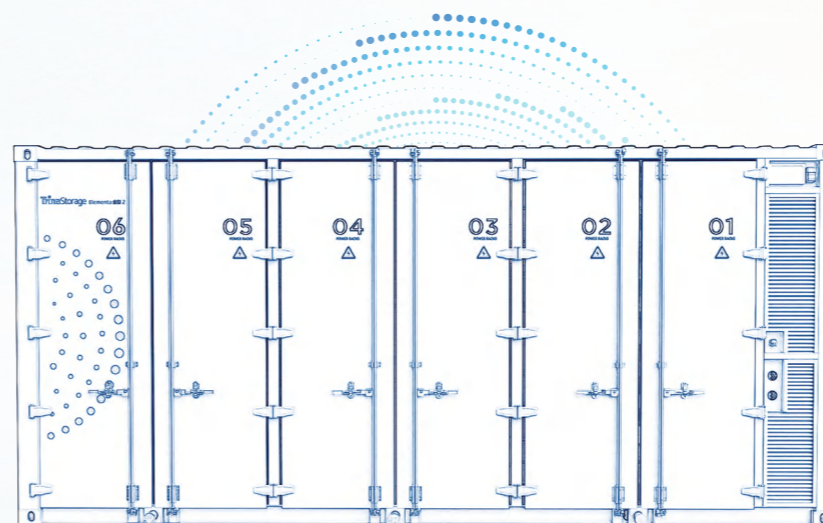
Vertex N 700W

Hydrogen Production Equipment

Safe, efficient, and stable operation with guaranteed hydrogen and oxygen purity at low loads

Trina Storage Elementa

Exceptional performance and safety, optimized to save space and lower initial investment



High-Efficiency ESS

Independently developed 314Ah high-density battery cells to create the best solution for 20-foot 5MWh production capacity



Comprehensive Safety

Trinity all-round protection, caring for customer assets



Intelligence

Energy storage smart cloud platform management system, more convenient operation and maintenance throughout the life cycle



Highly Integrated & Flexible Solution

Efficient layout of full container transport, shortening construction period by 40%



Low energy consumption

The full load DC power consumption is as low as 4.0kWh/Nm³



High security

Low load operation with purity not exceeding the standard, no sparking or alkali leakage



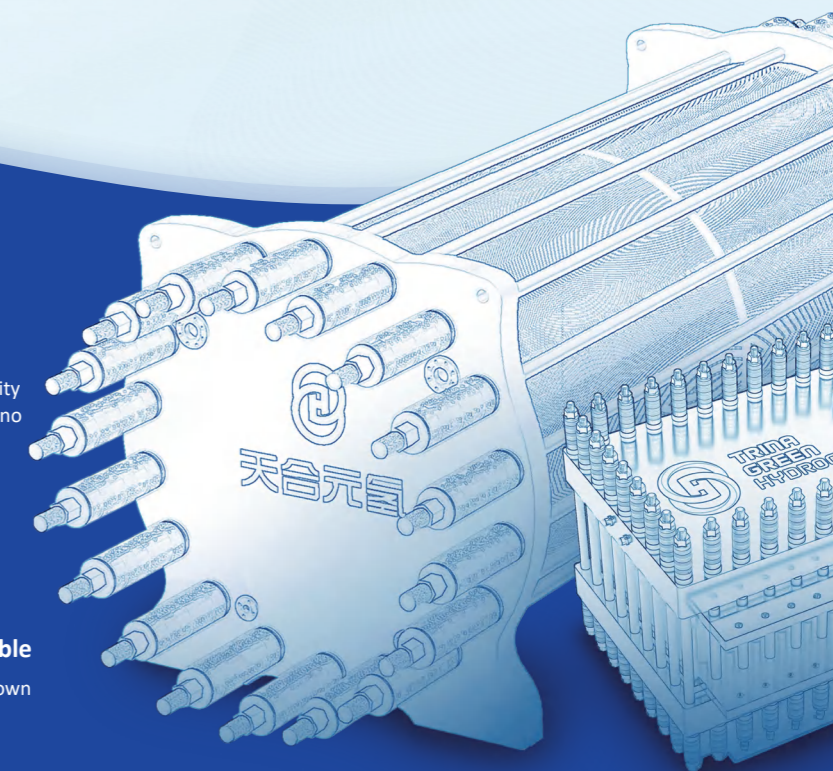
Long lifespan

100000 hours without major repairs, Design lifespan exceeding 200000 hours



Flexibly adapt to variable

load conditions Ramp up&down rate 5-10%/s



Green hydrogen Create Zero Carbon Emissions Future

- ⊙ No-ignition、no short-circuit、No-leakage
- ⊙ Low energy consumption、high efficiency、long lifespan
- ⊙ Safe and stable materials
- ⊙ Refined design of flow field

Energy Management Smart O&M

Container Type Hydrogen Production Equipment

Mobile Hydrogen Production Station

The PEM Electrolyzer

Gas/Lye separation and purification skid

The-One Series Alkaline Electrolyzer

Safe and reliable

Strict quality control of electrolytic cells ensures quality and safety

System stability

The hydrogen production system runs smoothly and produces hydrogen smoothly

Long term lifespan

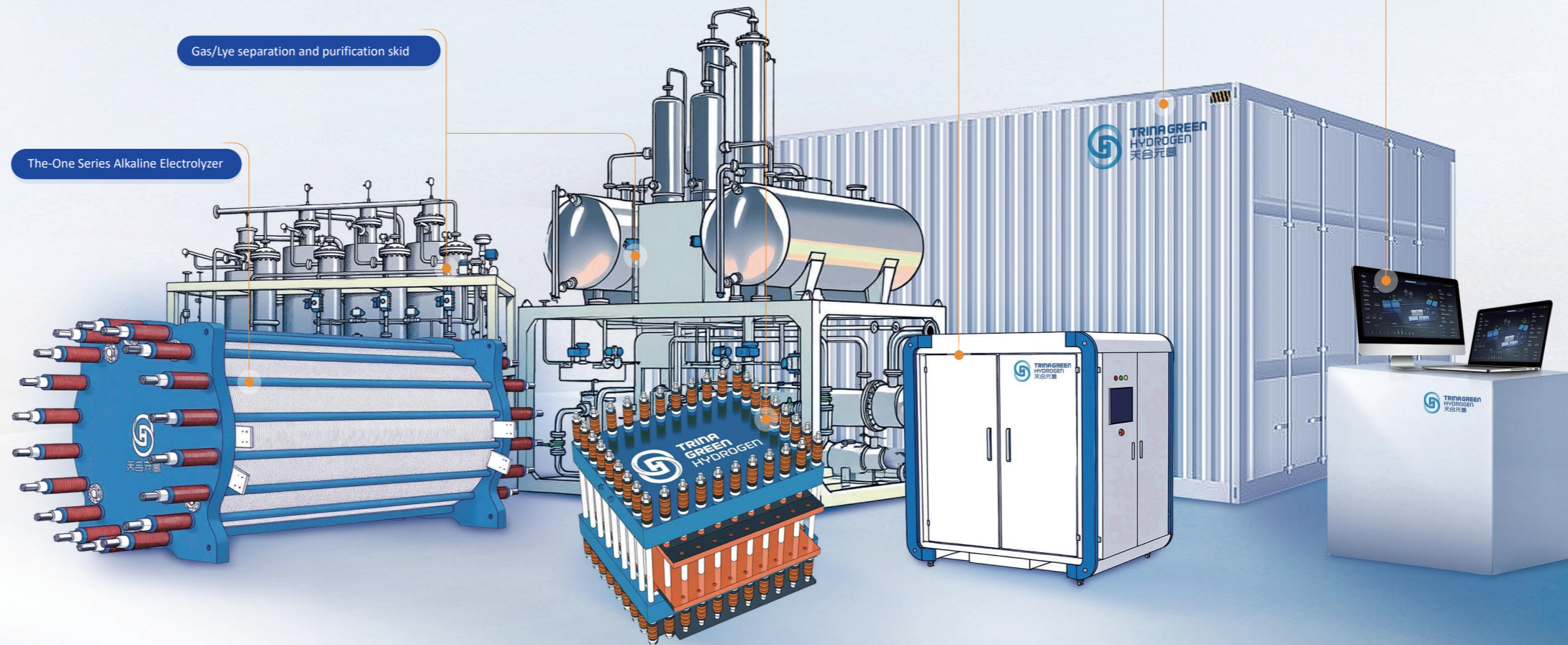
Long term controllable product lifespan

Fully loaded guarantee

The PV-Storage-Hydrogen system Increases operating hours

Quality Service

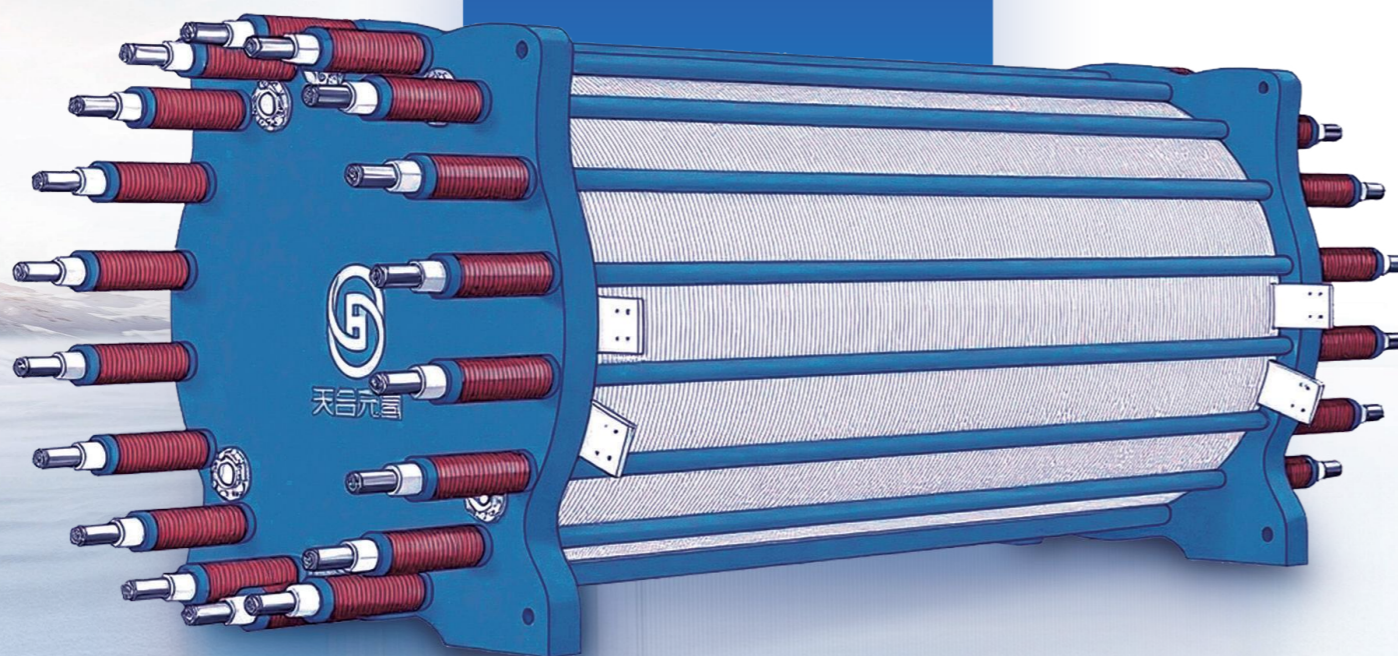
Provide high-quality services throughout the entire lifecycle



The-One Series Alkaline Electrolyzer

Hydrogen capacity 500~3000Nm³/h

- ◎ Adapted to large chemical application scenarios
- ◎ Flexible to variable load conditions
- ◎ Gas purity guaranteed



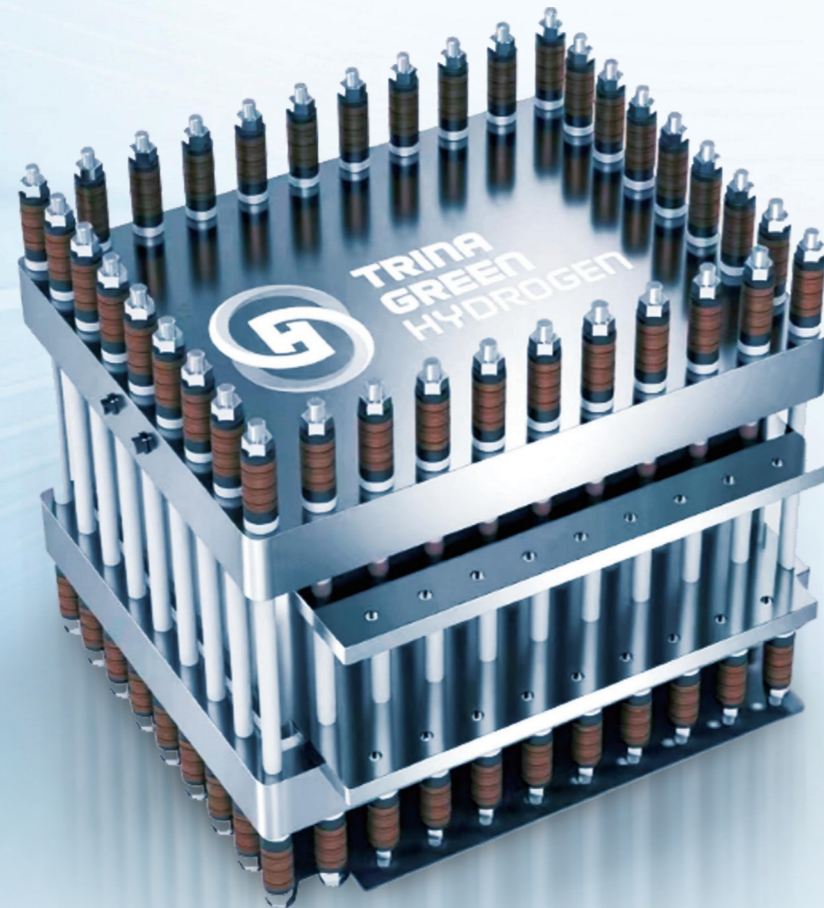
Technical parameters of The-One Series Alkaline Electrolyzer

Specification	TQ1000	TQ2000
Hydrogen production (Nm ³ /h)	1000	2000
Oxygen production (Nm ³ /h)	500	1000
Operating pressure (MPa)	1.6	
DC power consumption(kWh/Nm ³)	4.0-4.4	
Rated power (MW)	5	10
Power fluctuation range (%)	30-110	
Operating temperature (°C)	90±2	
Electrolyte	30% KOH	

The PEM Electrolyzer

Hydrogen capacity 50~300Nm³/h

- ◎ Low Cost、Low power consumption
- ◎ Better consistency
- ◎ Better safety



Technical parameters of the PEM Electrolyzer

Specification	TP-50	TP-100	TP-200	TP-250	TP-300
Rated hydrogen production (Nm ³ /h)	50	100	200	250	300
Rated oxygen production (Nm ³ /h)	25	50	100	125	150
Rated electrical density (A/cm ²)	3				
Hydrogen pressure (mpa)	1.5~3.0				
Oxygen pressure (mpa)	0~0.5				
Operation temperature (°C)	60±5				
Ambient temperature (°C)	5~40				
Rated power (Mw)	0.25	0.5	1	1.25	1.5
Rated power consumption (kWh/Nm ³)	≤4.3				
Range (%)	10~120				
Plant Life (h)	80000				
Water quality requirements (μS/cm)	≤0.1				

MW level container hydrogen production system

Hydrogen capacity 20 - 500Nm³/h

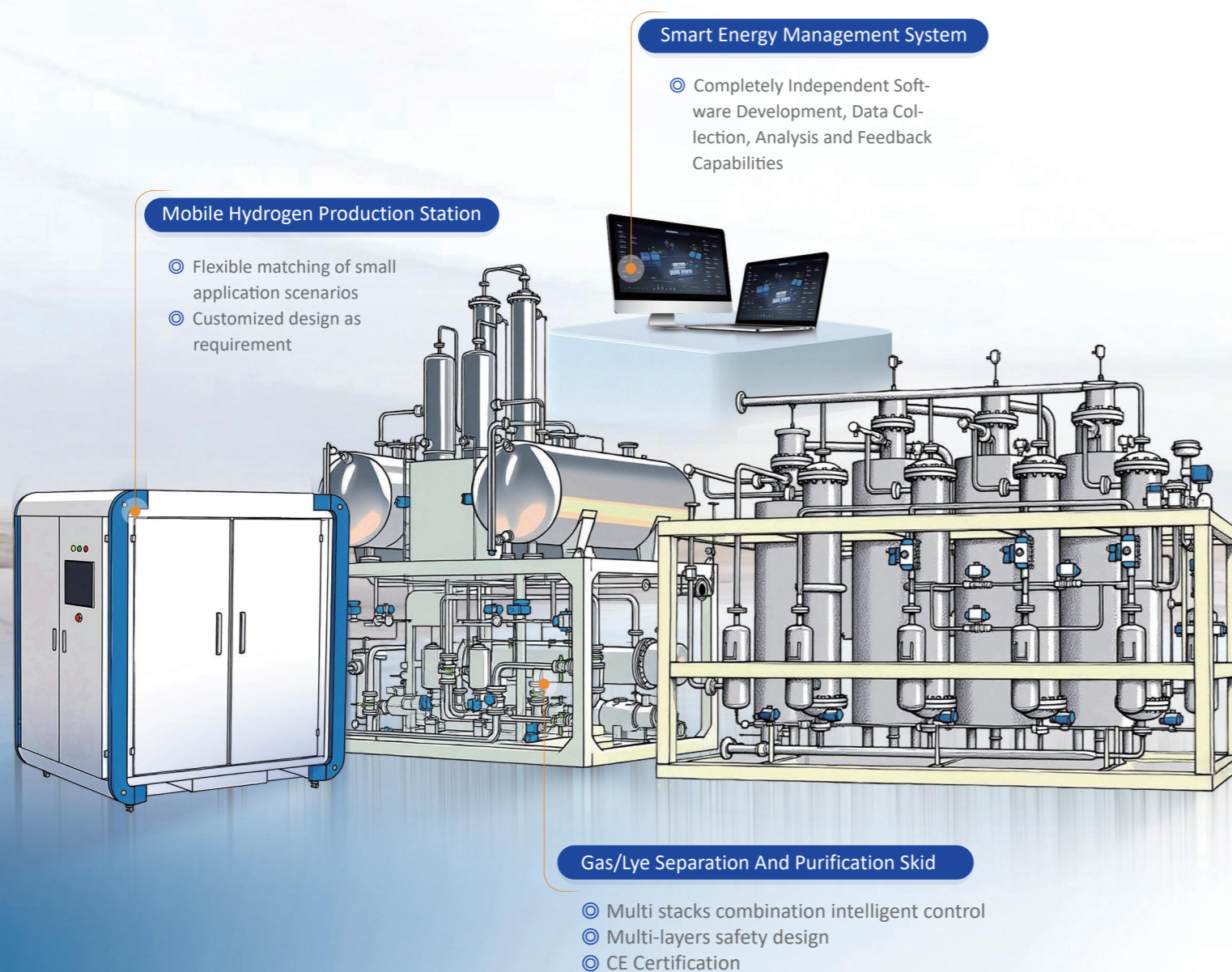
- ◎ Plug and Play, Flexible and Convenient
- ◎ Plug and Play, Easy to Transport
- ◎ Save Floor Space, more than 50%



Technical parameters of MW level container hydrogen production system

Specification	TJ 50	TJ 100	TJ 200	TJ 500
standard container (set)	40HQ+20HQ	2*40HQ	2*40HQ+20HQ	5*40HQ
Oxygen production (Nm ³ /h)	50	100	200	500
Operating pressure (MPa)	1.6			
DC power consumption (kWh/Nm ³)	4.0-4.4			
Rated power (MW)	0.25	0.5	1	2.5
Power fluctuation range (%)	30-110			
Operating temperature (°C)	90±2			
Electrolyte (KOH solution)	30% KOH			

Other Core Products



Mobile Hydrogen Production Station

- Flexible matching of small application scenarios
- Customized design as requirement

Smart Energy Management System

- Completely Independent Software Development, Data Collection, Analysis and Feedback Capabilities

Gas/Lye Separation And Purification Skid

- Multi stacks combination intelligent control
- Multi-layers safety design
- CE Certification

Technical parameters of Mobile Hydrogen Production Station

Specification	Mobile hydrogen production station2	Mobile hydrogen production station5	Mobile hydrogen production station10
hydrogen production (Nm ³ /h)	2	5	10
oxygen production (Nm ³ /h)	1	2.5	5
Operating pressure (MPa)	0.5-1		
DC power consumption (kWh/Nm ³)	4.0-4.4		
Load range (%)	30-110%		
Operating temperature (°C)	90±2		
Electrolyte (KOH solution)	30%		

Technical parameters of gas/lye separation and purification skid

Specification	Gas liquid separation 1000	Gas liquid separation 2000	Gas liquid separation 4000
Hydrogen treatment capacity (Nm ³ /h)	1000	2000	4000
Oxygen treatment capacity (Nm ³ /h)	500	1000	2000
Operating pressure (MPa)	1.6		
control mode	PLC/DCS		

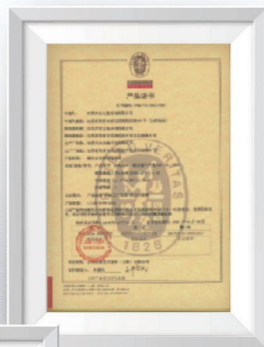
Specification	Purification drying system
Hydrogen treatment capacity (Nm ³ /h)	1000-12000
Hydrogen dew point (°C)	-70
Operating pressure (MPa)	1.6
Hydrogen purity (%)	99.999
control mode	PLC/DCS

Industry Leading

CE Certificate



Bureau Veritas Product Certificate



Hydrogen Energy Leader Action Evaluation Certificate



ASME Certification



Quality Management System Certification

DEKRA Evaluation Certificate



Yangzhou Production Base



1GW Yangzhou Production Base
Established

4GW Planning Max. Capacity

9.78 ha

Planned land area 146.7 acre
Total construction area 97800 square meters

100 million

Total investment 100 million US dollars Integrating testing, R&D and Production

200 sets

First phase 1GW annual capacity-achieved Max. annual capacity reaches to 4GW

Digitalization

AI Video surveillance system
Industrial control network and Intelligent logistics
Automated processing and assembly system



Plate automatic welding line



Flow-channel auto production line



Plate mesh-Electrode auto welding line



Electrolytic cell assembly line



The production line integrates various technologies such as automatic control, acousto-optic detection, VI algorithm, big data, cloud platform, etc., realizing the world's leading "4-100%" intelligent production line.

Sales Service

Full life-cycle service concept

Delivery period

Includes material procurement and warehousing, equipment manufacturing, equipment delivery, on-site installation, debugging and system acceptance

Running-in period

One-year warranty period, which includes from the system acceptance to the system operation for one year

Stable period

After the basic one-year warranty period, the system will operate for seven years

Attention period

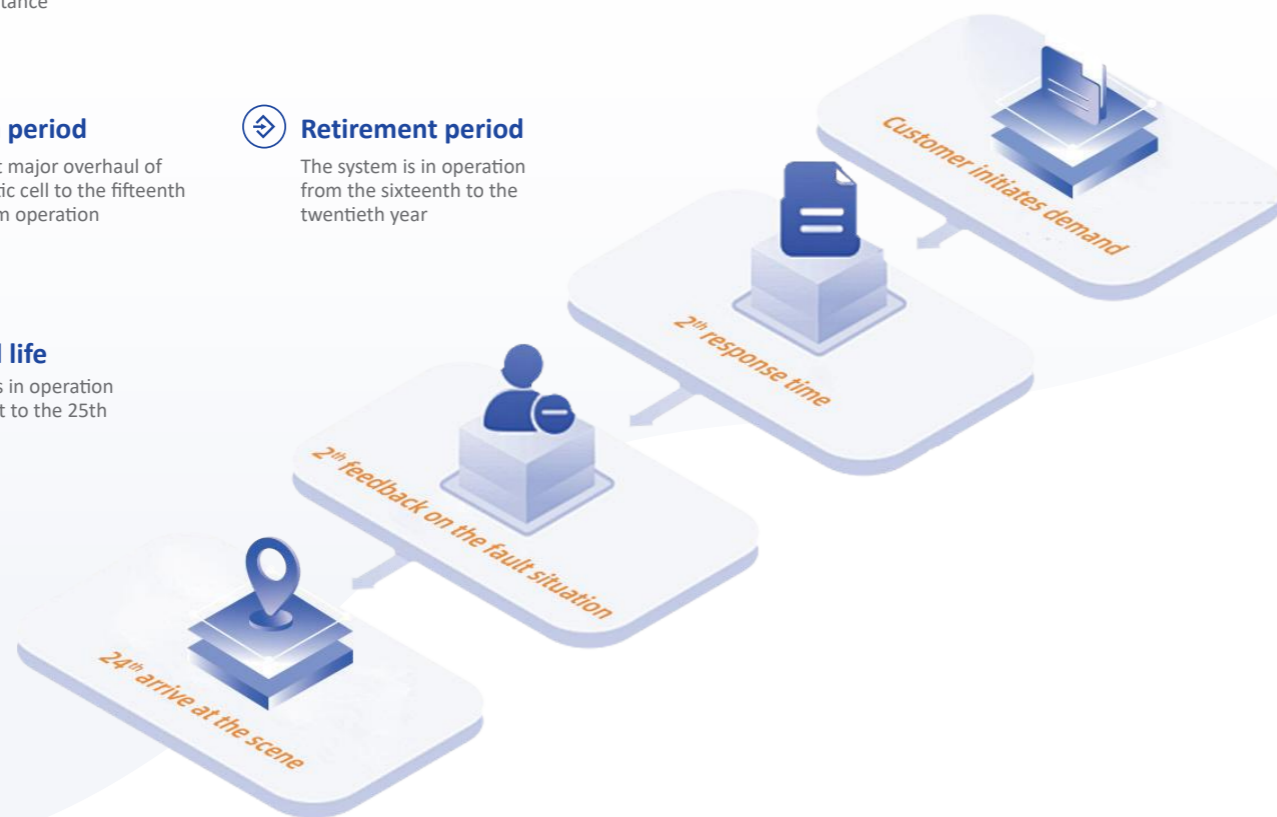
From the first major overhaul of the electrolytic cell to the fifteenth year of system operation

Retirement period

The system is in operation from the sixteenth to the twentieth year

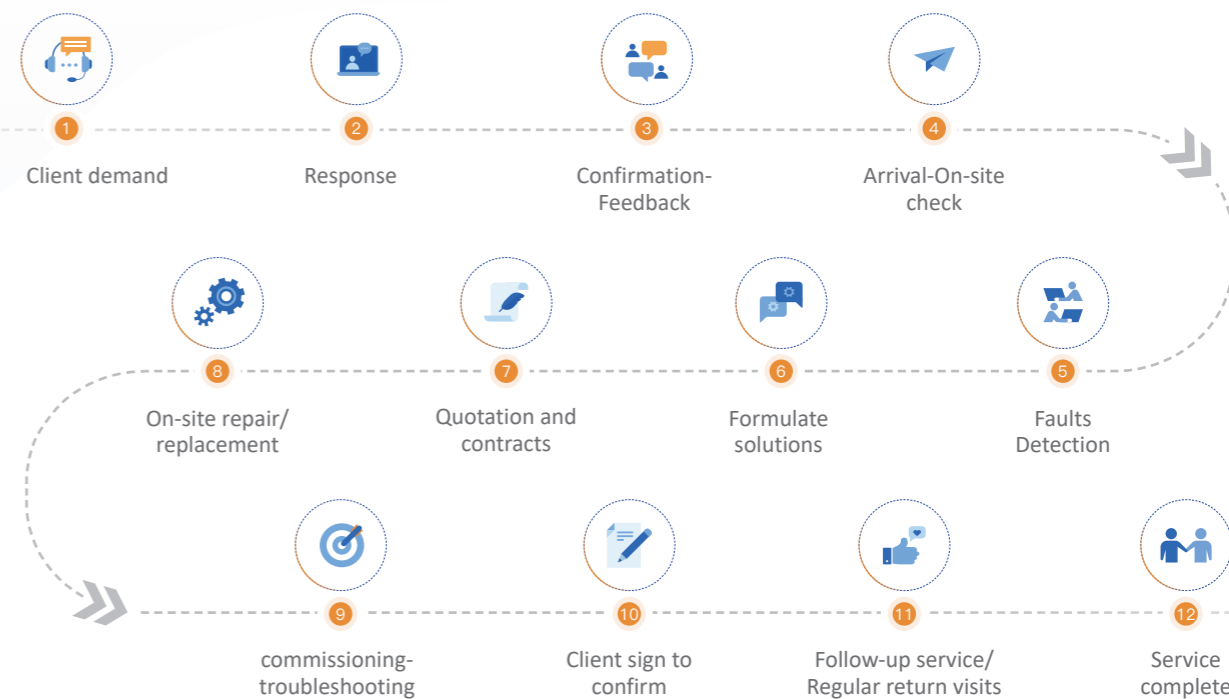
Extended life

The system is in operation from the 21st to the 25th year



Trina Green Hydrogen has a high-quality professional technical and after-sales team. Based on the theory of equipment lifecycle management, it integrates equipment operation status diagnosis system and comprehensive service plan to comprehensively assist customers in improving the overall operation reliability and stability of water electrolysis hydrogen production system. Committed to reducing equipment operating costs, extending operating time, and improving equipment investment return rate as daily standards, to achieve quality assurance throughout the entire lifecycle of equipment.

After sales service outside the warranty period: customer-centric, service first



Case Study

01

Polycrystalline silicon manufacturing base in Yichang, China

Delivery date: October 2023

Product model:

Tianqing series alkaline electrolytic cell: 1000Nm³/h

Gas liquid separation system: 1000Nm³/h

Purification and drying system: 1000Nm³/h



02

Yulin Shaanxi Hydrogen Energy Industrial Park, China

Delivery date: December 2025

Product model:

Tianqing series alkaline electrolytic cell: 1000Nm³/h

Gas liquid separation system: 1000Nm³/h

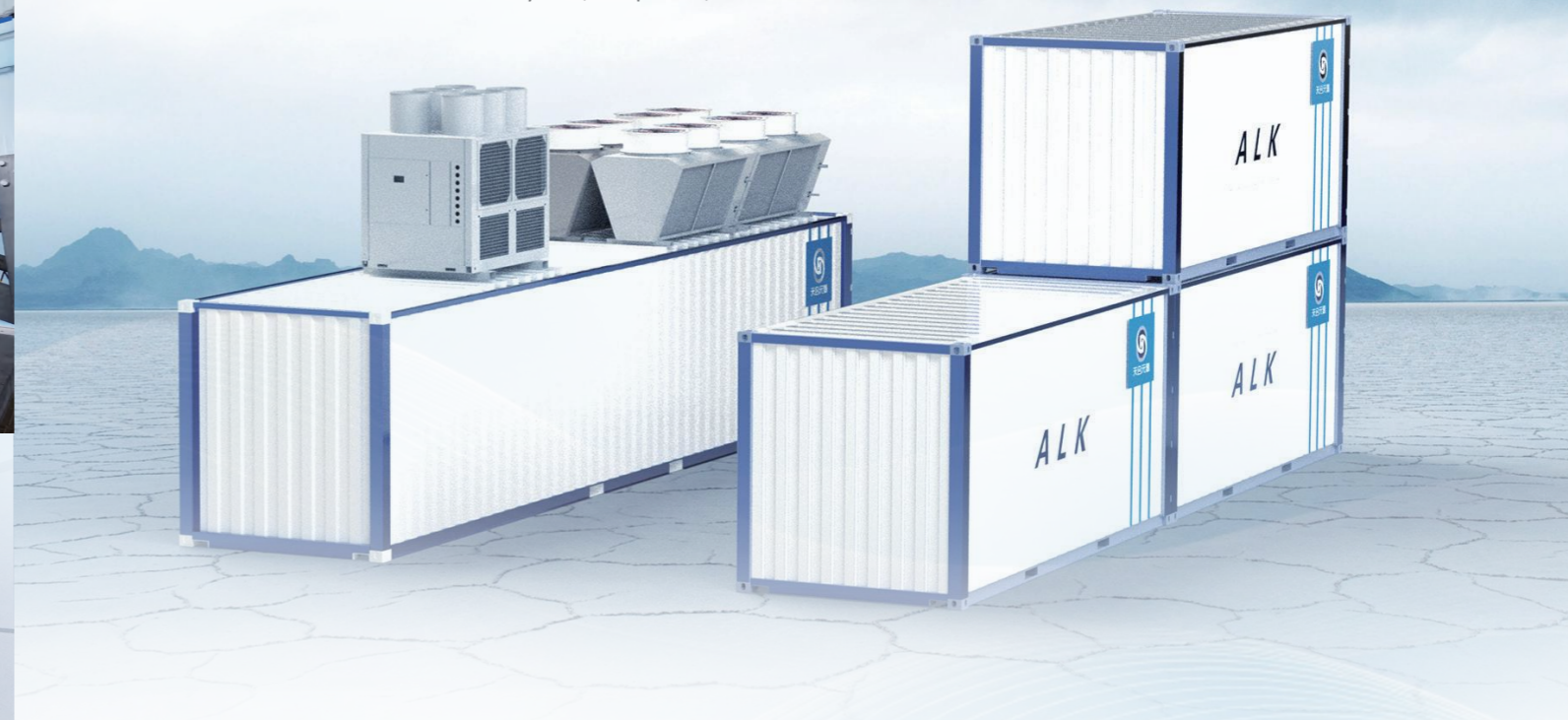


03

Portugal Government Demonstration Project Hydrogen Refueling Station

Delivery date: October 2025

Product Model: Containerized Hydrogen Production System, Alkaline electrolytic cell, gas-liquid separation system, purification and drying system, hydrogen production power supply, control cabinet, distribution cabinet, water treatment system, compressor, etc.



04

National Nuclear Power Planning and Design Institute, china

Delivery date: February 2025

Product model: Mobile hydrogen production equipment, Salt alkali water in-situ electrolysis tank, gas-liquid separation system

DC power consumption: 3.87kWh/Nm³

Current density: 5000A/m²





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