



EMPOWER A GREENER FUTURE

Hydrogen Redefined: High Performance, Low Maintenance, Infinite Possibilities

Industrial Hydrogen Generator



COMPANY PROFILE



PRODUCTION BASE



Technical advantages

Master PEM water electrolysis hydrogen production core technology.

Supply chain supporting

R&d, production, sales and service quality supply chain system to shorten the development cycle;

Service advantages

High Standard, high quality, high efficiency, high cost-effective customer-centric, according to demand professional customization.

20000 m²/Production base
Lay the foundation for efficient production

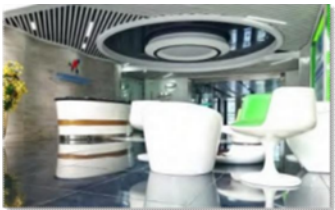
5500 m²/Diversity office
High-quality technology development space

500 m²/ Exhibition Hall
Provide the ultimate experience environment

PEM HYDROGEN ELECTROLYSER SUPPLIER

As a leading technology company in the hydrogen industry, we are driven by an unwavering commitment to the development and research of PEM (Proton Exchange Membrane) hydrogen electrolyzers and cutting-edge products. By leveraging our technical expertise, we are paving the way for a sustainable future.

HOVOGEN is a state-level high-tech enterprise dedicated to the advancement of the hydrogen energy industry. It operates research and development, production, and operational facilities in both the Songshan Lake Hi-Tech Industrial Development Zone and the Zhuzhou Hi-Tech Industrial Development Zone.



After 10 years of product development, testing, technology reserves and market docking, investment of more than 60 million yuan, has a complete independent intellectual property system, he has obtained many national invention patents in the field of PEM hydrogen production by water electrolysis and participated in the formulation of two national standards, have Rich Technical Research, product development, industrial production experience.



CORPORATE HONOR



To participate in the formulation of national standards

The company has participated in the formulation of two hydrogen production industry standards: technical requirements for hydrogen production system by pressure water electrolysis (GB/T 37562-2019) and safety requirements for hydrogen production system by pressure water electrolysis (GB/T37563-2019)



Passed ISO14001 Environmental Management System certification

Through ISO9001 Quality Management System certification

Occupational Health and Safety Management System certification



Obtained AAA Credit Rating Qualification Certificate
Credit-abiding enterprises
model units of credit management, quality service units of credit,
Credit Enterprises, credit suppliers, credit enterprises



HOVOGEN obtained a number of PEM hydrogen electrolysis invention patents



Patent certificate



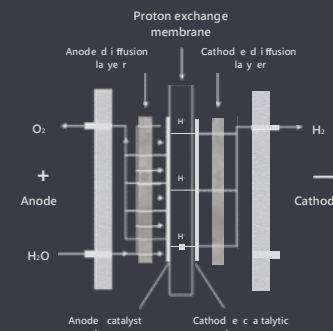
Authoritative Product Inspection Reports



Technology and products

Master PEM water electrolysis hydrogen production core technology

Compared with other water electrolysis technology, PEM can work at high current density, small size, high efficiency, the purity of hydrogen generated by up to 99.999%, is considered as the most promising water electrolysis technology. HOVOGEN hydrogen can improve the quality of PME water electrolysis cell by fine work, and strict process requirements, committed to become the world's leading PEM water electrolysis hydrogen production equipment provider.



A series of high- efficiency membrane elect rode preparation and production technology

Preparation and production technology of super corrosion resistant collector

High performance bi polar plate design technology and processing technology

High energy efficiency and high pressure resistance

Series PEM water elect rolytic reactor design and integrated test technology

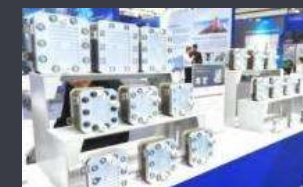
P EM hydrogen production system design and system i ntegration technology

Self-developed PEM water electrolysis hydrogen production core products

Hydrogen production equipment

Hydrogen industrial PEME

Hydrogen PEME for consumer product



Generator System

PEM water electrolysis hydrogen production system

Can be customized according to application
requirement



Application area

Application fields of PEM hydrogen production system by water electrolysis

Can be customized according to application requirement

Applications

Petroleum refining / semiconductor manufacturing / glass making
metals smelting / food processing / chemical space technology
transportation / agriculture



Product line	S series	H series	C series	M series
Range of hydrogen production	0.01-1Nm ³ /h	1-10Nm ³ /h	10-50Nm ³ /h	50-300Nm ³ /h
Regulation	0-120%	0-120%	0-120%	0-120%
Hydrogen pressure	0.1-3.5Mpa	0.1-3.5Mpa	0.1-3.5Mpa	0.1-3.5Mpa
Hydrogen purity DC power	99.999%	99.999%	99.999%	99.999%
Consumption	<4.4kW·h/Nm ³	<4.4kW·h/Nm ³	<4.4kW·h/Nm ³	<4.4kW·h/Nm ³
Power supply mode	220V/380V	220V/380V	220V/380V	220V/380V
Major applications	Lifestyle hydrogen-rich water machines, hydrogen absorption machines, laboratory hydrogen production equipment, mobile hydrogen refueling stations, etc.	Fuel cells, multi-energy complementary independent microgrids, power plants, semiconductor industry, etc.	Fuel hydrogen refueling station, polysilicon, chemical industry, semiconductor, electronics/optoelectronics industry, etc.	Hydrogen production and refueling stations, energy storage power stations, abandoned power firefighting, wind and solar hydrogen production, etc.

Big Health sector



Medical Industry, endowment industry, beauty industry real estate industry, smart home, endowment club.

Energy storage



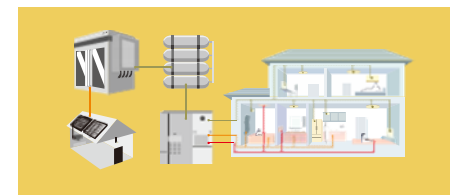
Using wind or solar energy to convert into hydrogen, the stored hydrogen will be used in fuel cells to generate electricity, and the hydrogen energy will be converted into electricity again.

Military industrial field military station



Based on PEM hydrogen electrolysis and oxygen generation technology, combined with photovoltaic.

Construction



Combined with photovoltaic power generation system, hydrogen storage system and fuel cell



Generator System

PEM water electrolysis hydrogen production system 200Nm³/h

Can be customized according to application
requirement



Generator System

PEM water electrolysis hydrogen production system 50Nm³/h

Can be customized according to application
requirement



- ✓ High pressure hydrogen production
Producing high purity hydrogen
- ✓ Hydrogen leak detection
Safety protection function
- ✓ Product performance is efficient
Load Adaptability
- ✓ Single-chamber voltage measurement
Accurate monitoring of hydrogen
- ✓ Cold/hot start
High efficiency and low energy consumption

- ✓ High pressure hydrogen production
Producing high purity hydrogen
- ✓ Hydrogen leak detection
Safety protection function
- ✓ Product performance is efficient
Load Adaptability
- ✓ Single-chamber voltage measurement
Accurate monitoring of hydrogen
- ✓ Cold/hot start
High efficiency and low energy consumption

CH-200Nm³/h PEM hydrogen production system

Oxygen flow rate	Nm ³ /h	100
Hydrogen production	Nm ³ /h	200
Operating temperature	°C	5-70
Hydrogen purity	%	99.999
Dew point	°C	-74 ASTM D1193 Type
Water quality demand	/	Type I deionized water (r > 10MΩ·CM)
Maximum stress	Mpa	3.5
Supply voltage	V	380/10K
Water consumption	L/h	200
Size Direct current	mm	6100×2400×2600
consumption	kW·h/Nm ³ H ₂	4.4
Load regulation range	%	5-120
Application area	Photovoltaic off-grid hydrogen production, wind hydrogen production, cogeneration, semiconductor, multi-energy complementary micro-network and other industrial environment	

CH-50Nm³/h PEM hydrogen production system

Oxygen flow rate	Nm ³ /h	25
Hydrogen production	Nm ³ /h	50
Operating temperature	°C	5-70
Hydrogen purity	%	99.999
Dew point	°C	-74 ASTM D1193 Type
Water quality demand	/	Type I deionized water (r > 10MΩ·CM)
Maximum stress	Mpa	3.5
Supply voltage	V	380
Water consumption	L/h	50
Size Direct current	mm	3000×12000×2700
consumption	kW·h/Nm ³ H ₂	4.4
Load regulation range	%	5-120
Application area	Photovoltaic off-grid hydrogen production, wind hydrogen production, cogeneration, semiconductor, multi-energy complementary micro-network and other industrial environment	



Generator System

PEM water electrolysis hydrogen production system 10Nm³/h

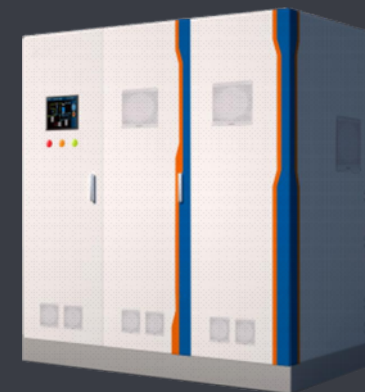
Can be customized according to application
requirement



Generator System

PEM water electrolysis hydrogen production system 6Nm³/h

Can be customized according to application
requirement



- ✓ High pressure hydrogen production
Producing high purity hydrogen
- ✓ Hydrogen leak detection
Safety protection function

- ✓ Product performance is efficient
Load Adaptability
- ✓ Single-chamber voltage measurement
Accurate monitoring of hydrogen
- ✓ Cold/hot start
High efficiency and low energy consumption

- ✓ High pressure hydrogen production
Producing high purity hydrogen
- ✓ Hydrogen leak detection
Safety protection function

- ✓ Product performance is efficient
Load Adaptability
- ✓ Single-chamber voltage measurement
Accurate monitoring of hydrogen
- ✓ Cold/hot start
High efficiency and low energy consumption

CH-10Nm³/h PEM hydrogen production system

Oxygen flow rate	Nm ³ /h	15
Hydrogen production	Nm ³ /h	10
Operating temperature	°C	5-70
Hydrogen purity	%	99.999
Dew point	°C	-74 ASTM D1193 Type
Water quality demand	/	Type I deionized water (r > 10MΩ·CM)
Maximum stress	Mpa	3.5
Supply voltage	V	380
Water consumption	L/h	10
Size Direct current	mm	3000×1400×2100
consumption	kW·h/Nm ³ H ₂	4.4
Load regulation range	%	5-120
Application area	Photovoltaic off-grid hydrogen production, wind hydrogen production, cogeneration, semiconductor, multi-energy complementary micro-network and other industrial environment	

CH-6Nm³/h PEM hydrogen production system

Oxygen flow rate	Nm ³ /h	3
Hydrogen production	Nm ³ /h	6
Operating temperature	°C	5-70
Hydrogen purity	%	99.999
Dew point	°C	-74 ASTM D1193 Type
Water quality demand	/	Type I deionized water (r > 10MΩ·CM)
Maximum stress	Mpa	3.5
Supply voltage	V	380
Water consumption	L/h	6
Size Direct current	mm	1800×1100×2000
consumption	kW·h/Nm ³ H ₂	4.4
Load regulation range	%	5-120
Application area	Photovoltaic off-grid hydrogen production, wind hydrogen production, cogeneration, semiconductor, multi-energy complementary micro-network and other industrial environment	



Generator System

PEM water electrolysis hydrogen production system 1Nm³/h

Can be customized according to application
requirement



Generator System

PEM water electrolysis hydrogen production system 0.6Nm³/h

Can be customized according to application
requirement



- ✓ High pressure hydrogen production
Producing high purity hydrogen
- ✓ Hydrogen leak detection
Safety protection function

- ✓ Product performance is efficient
Load Adaptability
- ✓ Single-chamber voltage measurement
Accurate monitoring of hydrogen
- ✓ Cold/hot start
High efficiency and low energy consumption

- ✓ High pressure hydrogen production
Producing high purity hydrogen
- ✓ Hydrogen leak detection
Safety protection function

- ✓ Product performance is efficient
Load Adaptability
- ✓ Single-chamber voltage measurement
Accurate monitoring of hydrogen
- ✓ Cold/hot start
High efficiency and low energy consumption

CH-1Nm³/h PEM hydrogen production system

Oxygen flow rate	Nm ³ /h	0.5
Hydrogen production	Nm ³ /h	1
Operating temperature	°C	5-70
Hydrogen purity	%	99.9999
Dew point	°C	-74 ASTM D1193 Type
Water quality demand	/	Type I deionized wate (r > 10MΩ·CM)
Maximum stress	Mpa	3.5
Supply voltage	V	380
Water consumption	L/h	1
Size Direct current	mm	1800×1100×2000
consumption	kW·h/Nm ³ H ₂	4.4
Load regulation range	%	5-120
Application area	Photovoltaic off-grid hydrogen production, wind hydrogen production, cogeneration, semiconductor, multi-energy complementary micro-network and other industrial environment	



CH-0.6 Nm³/h PEM hydrogen production system

Oxygen flow rate	Nm ³ /h	0.3
Hydrogen production	Nm ³ /h	0.6
Operating temperature	°C	5-70
Hydrogen purity	%	> 99.99
Water quality demand	/	Type I deionized wate (r > 10MΩ·CM)
Maximum stress	Mpa	1
Supply voltage	V	220
Water consumption	L/h	0.6
Size Direct current	mm	700×550×1100
consumption	kW·h/Nm ³ H ₂	4.4
Load regulation range	%	5-120
Application area	Photovoltaic off-grid hydrogen production, wind hydrogen production, cogeneration, semiconductor, multi-energy complementary micro-network and other industrial environment	

