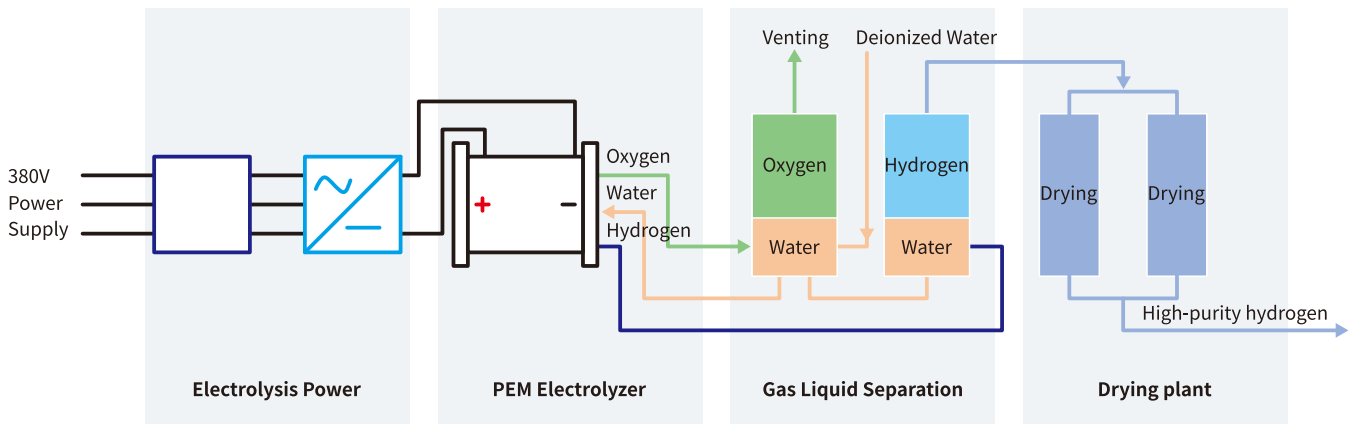


PEM Electrolytic Cell

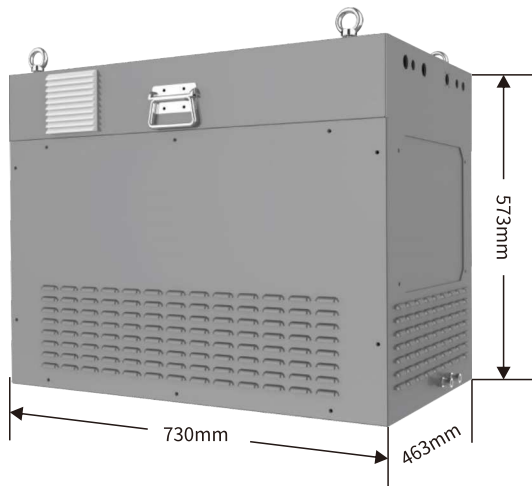
Cosber's electrolytic cell use proton exchange membrane, water electrolysis technology to produce hydrogen. The product occupies only a small area and light. It can start and stop quickly, is easy to realize automatic control and unattended, and is suitable for the application scenarios of distributed photovoltaic generation and small off-grid wind power, power energy storage and hydrogen production.



Electrolysis System Flowchart

Product Overview

PEM electrolysis hydrogen production system is generally composed of electrolysis power supply, PEM electrolytic cell, gas-liquid separation, drying and purification, water replenishment system, cooling system, etc., as shown in the below figure.



0.5—2Nm³/h



Cabinet design, small and flexible, easy to use. It can be used in well-ventilated workshops, or outdoors with shelters, to provide high-quality electronic-grade ultra-pure hydrogen for various precision product, scientific and experimental purposes. It can also be combined with hydrogen storage and fuel cell co-generation systems to provide 24-hour and zero-carbon electricity and heat for small power generation station with photovoltaic or wind power.

Product Overview

- ▶ Electrolysis of pure water to produce hydrogen, no corrosion, no pollution, high hydrogen purity;
- ▶ Product modularity, different hydrogen output can be customized according to customer requirements, and provides professional suggestions;
- ▶ Membrane electrode production technology is mature, product performance is efficient with fast response and high current density;
- ▶ Strong ability to adapt to the site, can be tailored according to the site conditions and ensure the quality;
- ▶ Search key start/shutdown, emergency shutdown, real-time hydrogen leak detection, automatic fault detection system; depressurization ;
- ▶ Adjustment range: 0-100% automatic adjustment;
- ▶ After-sales service, solve the customer's problem in time.



2—10Nm³/h

Technical Data

Indicator Model	C— PEM-05	C— PEM-1	C— PEM-2	C— PEM-4	C— PEM-5	C— PEM-8	C— PEM-10
Hydrogen outlet (Nm ³ /h)	0.5	1	2	4	5	8	10
Oxygen outlet (Nm ³ /h)	0.25	0.5	1	2	2.5	4	5
Rated power of electrolytic cell (kW)	2.4	5	10	20	27	39	55
Rated operating voltage (VDC)	24	50	100	36	48	70	38
Rated operating current (ADC)	100	100	100	560	560	560	1450
Hydrogen outlet pressure (MPa)	3						
Oxygen outlet pressure (MPa)	normal						
Inlet water pressure (MPa)	≤0.2						
Inlet water quality requirement	ASTM 01193 Type II Deionized water (< 1μS/cm, > 1MΩ·cm), propose ASTM 01193 Type I Deionized water (< 0.1μS/cm, >10MΩ·cm)						
Water consumption (L/Nm ³)	0.95						
Ambient temperature (°C)	45-65						
Energy consumption (kWh/m ³)	4.78						
Energy efficiency (%)	74						

