

SENZA PEM Hydrogen Electrolyzer

1. Product specification

Model	SZPE-150	SZPE-300	SZPE-600	SZPE-1000	SZPE-1500	SZPE-2000	SZPE-3000	SZPE-5000
Hydrogen Production (ml/min)	150	300	600	1000	1500	2000	3000	5000
Stack	1	2	2	4	5	7	10	17
Current (A)	20	20	40	40	40	40	40	40
Voltage (V)	5	7	7	12	15	24	30	48
Pressure (Mpa)	0-0.6	0-0.6	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Diaphragm material	DuPontN 117	DuPontN 117	DuPontN 117	DuPontN 117	DuPontN 117	DuPontN 117	DuPontN 117	DuPontN 117
Coating	IrO2	IrO2	IrO2	IrO2	IrO2	IrO2	IrO2	IrO2
Temperature(°C)	5-80	5-80	5-80	5-80	5-80	5-80	5-80	5-80

Remarks: After leaving the factory, according to the electrochemical principle, the performance will change with the use time and storage time.

2. Precautions

A. Before use, make sure that the water quality reaches the standard (conductivity is less than $2\mu\text{s}/\text{cm}$), and at the same time, add a purification resin before the water inlet of the electrolyzer to ensure that the ions generated during operation are adsorbed, thereby ensuring the water quality is stable.

Note: The use of substandard water will accelerate the degradation of electrolyzer performance and cause irreparable damage.

B. The electrolyzer must be run under water circulation, "dry burning" will cause loss of function, and even running under water circulation again will accelerate aging and rapid performance degradation. It is recommended to add a circulating water pump at the water inlet end, before purifying the resin, to force water in to avoid "dry burning" that may be caused by the design of the water circuit.

C. All circulating water tanks, pipelines, etc. that are in contact with water must not have precipitation components (such as iron, aluminum, etc., metal ions are precipitated during use).

D. Positive and negative power supply wiring:

- 1) The power cord must ensure that it can withstand a current of more than hydrogen electrolyzer required current for long-term operation (it is recommended to use an oxygen-free red copper wire with a cross-sectional area of $8\sim 10\text{mm}^2$).
- 2) The positive and negative poles of the wiring must correspond, and the wrong connection may cause the electrolyzer to age rapidly and irreparably damaged.
- 3) The wiring must be firm to ensure good connection. The recommended torque is $6\sim 8\text{N}\cdot\text{m}$, and the additional spring washer should be used for tightening. Poor connection leads to high contact resistance, heat generation, and the risk of burning.

4) Wiring is to ensure that the terminal can contact with the end plate to avoid short circuit.

A. If the storage time is more than 1 month, pure water needs to be circulated for 1 hour (pump circulation can be energized for use), and the water temperature is about 20 celsius ~40 celsius.

B. The storage temperature ranges from 1 celsius to 40 celsius, and storage at or below freezing point is prohibited.

C. The electrolyzer shall not be hit or disassembled privately.