

HETS-PWE-S-500 Series

PEM Electrolyzer Test System



Product Introduction

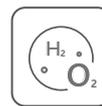
The HETS-PWE-S-500 system is aimed at providing the PEM electrolyzer with an accurate and reliable test platform for PEM electrolyzer. The system consists of deionized water circulation system, pressure regulating unit, gas-water separation unit, gas dry and flow monitoring unit, sampling and control unit and safety monitoring unit. The system test software independently developed by the company is used and it can meet PEM electrolyzer performance, durability, reliability and safety test. The system is applicable to the R&D and performance testing of 500W PEM electrolyzer.



Polarization curve test



Electrochemical test
(optional)



Online monitoring of
hydrogen concentration in oxygen



Sensitivity test



Durability test

Product Features

- Data recording and analysis capacities.
- PEM electrolyzer temperature control.
- Hydrogen & oxygen pressure and temperature control and adjust function.
- Coolant temperature, flow and pressure control function.
- Efficient gas-water separator design.
- Nitrogen purging, online monitoring of gas concentration, automatic DI-water replenishment, coolant flow regulation, etc.
- Supports long periods unattended work.
- Compact structure design (Dimensions: 600mm*600mm*750mm, W*D*H).
- High precision, high repeatability of electrochemical testing capability. (optional)
- Compatible with AEM electrolytic test capability.



Technical Parameters

Model		HETS-PWE-S-500
	Rated Power	500W
Hydrogen & Oxygen unit	Hydrogen flow range	1.5L/min(max)
	Hydrogen pressure range	0.2-2bar(g)
	Oxygen flow range	0.75L/min(max)
	Oxygen pressure range	0.2-2bar(g)
Water supplement control system	Water flow range	50-1500 mL/min
	Medium	Deionized water
	Temperature control range	RT+5°C ~ 95°C, control accuracy $\leq\pm 1^\circ\text{C}$
	Automatic water replenishing	Automatic water replenishing function
Detection unit	Hydrogen Concentration Sensor (in oxygen pipeline)	0-5%VOL, 2%F.S.
Cell voltage inspection	Measuring range	(-5~5) VDC
	Measurement accuracy	$\pm 1\text{mV}$
Cell voltage inspection	Voltage range *	0-5V
	Voltage accuracy *	$\pm 0.3\%FS$
Power Supply	Current range *	0-200A
	Current accuracy *	$\pm 0.3\%FS$
	Operating mode	Constant voltage, constant current
General specifications	Control system	Upper computer + acquisition system
	Communication interface	LAN/USB
	Power supply	AC,220V
	Ambient temperature	0-40°C

Note: * The voltage and current in the above table can be customized.

Optional Functions

- (1) Hydrogen & oxygen flow test function
- (2) Online monitoring of oxygen concentration in hydrogen
- (3) Electrochemical test function
- (4) Fixture selection for 500W PEM electrolyzer test system:
5cm²/25cm²/50cm² (with heating function)

