

Hydrogen Generator

HGM

600
1000



PLC Control

- ★ 7" LCD Touch Panel.
- ★ Operation Status Display.
- ★ Adjustable Pressure & Flow Rate.
- ★ Remote Monitoring via Internet.
- ★ Data Recording Operation.

Power Manager

- ★ AC/DC Dual Power Modes.
- ★ Support Renewable Energy, (PV · Wind · UPS...etc.)

System Power

- ★ Built-in active PFC.
- ★ Whole range Voltage input.
- ★ Current limiting circuit.
- ★ Protection : short circuit / over loading over voltage / over heat.

Main Power

- ★ Modular Power Supply.
- ★ AC/DC Inverter Efficiency > 88%.
- ★ Input Power Factor > 98% .
- ★ Auto Shutdown.

Water Electrolyser

- ★ High Hydrogen Production Efficiency.
- ★ High Hydrogen Purity.
- ★ Adjustable Pressure up to 15 bar.
- ★ Automatic Water Feed.
- ★ Automatic Control.

Other thoughtful designs

- ★ Pressure safe control
- ★ H2 leakage check

GOC (General Optics Corporation), a global provider of key components for both Hydrogen utilization and production, has developed the **HO-PEM** product line for onsite hydrogen generation with zero emission of greenhouse gases. **HGM series** are models for operation with fuel cell test stations, or as a source of clean-burning fuel for flame tools and many others. **HGM series** employ a proton exchange membrane as the electrolyte for water electrolysis, and feature low power consumption, rapid startup and high gas purity.

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R&D team



Projects participated



Specifications

Property	HGM-600	HGM-1000
Purity	dew point < -70°C, O ₂ < 5 ppm	
Delivery Pressure	15 Bar	
Production Rate	0.6 Nm ³ /hr 600 L/hr	1Nm ³ /hr 1000 L/hr
Adjustable Flow Rate	yes	
Gas Flow Indicator	yes	
Pressure Safety	dual	
System Check	yes	
Leak Detection	yes	
Automatic Water Pump	yes	
Water Purity Required (Resistivity)	> 1.0 MΩ·cm	
Water Consumption	0.6 L/hr	1.0 L/hr
Power Consumption	3500 W Typical / 3900 W Max	5500 W Typical / 5900 W Max
Operating Temperature	5 ~ 50 °C	
Input Power (For System)	AC Single Phase 200~240V 45~65Hz or DC 24V 20A	
Input Power (For Electrolyzer)	AC 3Φ 4 Wire Δ connection 187~250V 45Hz~65Hz or	
	AC 3Φ 5 Wire Y connection 323~437V 45Hz~65Hz or	
	Renewable Energy DC 19~28V	Renewable Energy DC 32~46V
Remote Monitoring	Ethernet	
Certifications	2006/42/EC, 2006/95/EC, 2004/108/EC, 97/23/EC	
Weight	250kg	
Dimension	758 (W) x 730 (D) x 1600 (H) mm	
Outlet Port	1/4 inch	

1 Regenerative energy storage at a power company .

2 3 A mobile office on campus.

Other applications

Power plant cooling
MOCVD
PECVD
Fuel cell test stations
Material heat treatment

⚠ Typical properties are based on internal test results, not guaranteed values, it may be updated due to technology development.