



PEARL HYDROGEN

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Our Products

All of fuel cell products developed by PEARL is branded with practicability, ingenuity and high cost efficiency. It is believed by PEARL that the three respects above are key factors to develop successful products.

PEARL can supply you all series fuel cells whose power vary from 20W to 5000W. For some special applications, PEARL can customize fuel cells with low cost and short delivery time! To ensure PEARL's products competitive in performance, usability and cost, PEARL developed its own unique technology.

PEARL's fuel cells are characterized by its air-cooling and self-humidification technology(PASH). The technology ensures CCM, key parts of fuel cells, works well in big temperature and humidity range.

By right of excellent PASH technology, Pearl Hydrogen's products have outstanding performance in items of structure, size, weight and reliability.

All the data in this file is on fuel cells without casing if the data is not marked with ■.

List version 3.0

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EOS 50

EOS series fuel cells are all based on Pearl's PASH technology. The unique technology can ensure fuel cells' stable operation in atrocious weather.

EOS 50 fuel cell system is a highly integrated fuel cell system with compact design, who includes: fuel cell stack, fans, IC board and electromagnetive valve. 50W is a suitable power for the mobile applications, for instance PSP and laptop.

Products characters:

1. Light weight and small size;
2. Low noise;
3. Simple system and high reliability;
4. Quick startup, good dynamic performance;
5. Excellent environment adaptability;
6. Simple control and communication policy.

Type	Based on Pearl's PASH technology	
Performance	Rated power	50W*
	Rated voltage	19.2V
	Rated current	2.6A
	DC Voltage range	16-30V
	Efficiency	≥50%
Fuel	Pure hydrogen	≥99.95%
	Pressure	0.4 –0.5bar
	Hydrogen consumption	0.85L/min(rated power)
Oxidant/coolant	Air	
	Pressure	Ambient Pressure
Stack Physical	Mass	450g
Characteristics	Length×width×height	155mm*70mm*68mm
Operation	Environment temperature	-5—40℃
Condition	Relative Humidity	20%—95%

*Data achieved at the air temperature range from 15℃-30℃ and the RH% from 30 - 90%



EOS 220

EOS series fuel cells are all based on Pearl's PASH technology. The unique technology can ensure fuel cells' stable operation in atrocious weather.

EOS 220 fuel cell system is a highly integrated fuel cell system with compact design, who includes: fuel cell stack, fans, IC board and electromagnetive valve. 200W is a suitable power for the mobile applications, for instance PSP, laptop and electric bicycle.

Products characters:

1. Light weight and small size;
2. Low noise;
3. Simple system and high reliability;
4. Quick startup, good dynamic performance;
5. Excellent environment adaptability;
6. Simple control and communication policy.

Type	Based on Pearl's PASH technology	
Performance	Rated power	220W*
	Rated voltage	24V
	Rated current	9.2A
	DC Voltage range	20-38V
	Fuel Efficiency	≥50%
Fuel	Pure hydrogen	≥99.95%
	Pressure	0.4–0.5bar
	Hydrogen consumption	3L/min(rated power)
Oxidant/coolant	Air	
	Pressure	Ambient Pressure
Physical	Mass	1800g
Characteristics	Length×width×height	187mm×84mm×138mm
Operation	Environment temperature	-5℃—40℃
Condition	Relative Humidity	10%—95%

*Data achieved at the surrounding temperature range from 15℃-35℃ and the RH% from 30 - 90%.



EOS 320

EOS series fuel cells are all based on Pearl's PASH technology. The unique technology can ensure fuel cells' stable operation in atrocious weather.

EOS 320 fuel cell system is a highly integrated fuel cell system with compact design, who includes: fuel cell stack, fans, IC board and electromagnetive valve. 300W is a suitable power for the mobile applications, for instance PC, scooter and portable power generator.

Products characters:

1. Light weight and small size;
2. Low noise;
3. Simple system and high reliability;
4. Quick startup, good dynamic performance;
5. Excellent environment adaptability;
6. Simple control and communication policy.

Type	Based on Pearl's PASH technology	
Performance	Rated power	320W*
	Rated voltage	24V
	Rated current	13.3A
	Voltage range	20-38V
	Efficiency	≥50%
Fuel	Pure hydrogen	≥99.95%
	Pressure	0.4-0.5Bar
	Hydrogen consumption	4.1L/min(rated power)
Oxidant/coolant	Air	
	Pressure	Ambient Pressure
Physical	Mass	2760g
Characteristics	Length×width×height	236mm×84mm×138mm
Operation	Environment temperature	-5℃—40℃
Condition	Relative Humidity	10%—95%

*Data achieved at the surrounding temperature range from 15℃-35℃ and the RH% from 30 - 90%.



EOS-1000

EOS series fuel cells are all based on Pearl's PASH technology. The unique technology can ensure fuel cells' stable operation in atrocious weather and working environment.

EOS-1000 fuel cell system is a highly integrated fuel cell system with compact design, who includes: fuel cell stack, fans, IC board and electromagnetic valve. 1000W is a suitable power for the mobile applications, for instance PC, motorcycle and portable power generator.

Products characters:

1. Light weight and small size;
2. Low noise;
3. Simple system and high reliability;
4. Quick startup, good dynamic performance;
5. Excellent environment adaptability;
6. Simple control and communication policy.

Type	Based on Pearl's PASH technology	
Performance	Rated power	1000W*
	Rated voltage	36 V
	Rated current	27.8 A
	DC Voltage range	30-59V
	Efficiency	≥50%
Fuel	Pure hydrogen	≥99.95%
	Pressure	0.5–0.6bar
	Hydrogen consumption	13L/min(rated power)
Oxidant/coolant	Air	
	Pressure	Ambient Pressure
Physical	Mass	5.8 Kg
Characteristics	Length×width×height	333×160×147mm
Operation	Environment temperature	-5℃—45℃
Condition	Relative Humidity	10%—95%
	Length×width×height	140mm×90mm×50mm
Accessory	Weight	1kg
	Accessaries	Controller, electromagnetic valve, DC/DC for fans

*Data achieved at the surrounding temperature range from 15℃-35℃ and the RH% from 30 - 90%.



EOS-3000

EOS series fuel cells are all based on Pearl's PASH technology. It is a upgraded version of EOS series fuel cells. The unique technology can ensure fuel cells' more stable operation in atrocious weather and working environment.

EOS-**3000** fuel cell system is a highly integrated fuel cell system with compact design, who includes: fuel cell stack, fans, IC board and electromagnetic valve. 3000W is a suitable power for the mobile applications, for instance PC, motorcycle and backup power system.

Products characters:

1. Light weight and compact design;
2. Low noise;
3. Simple system and high reliability;
4. Quick startup, good dynamic performance;
- 5. Excellent environment adaptability;**

Simple control and communication policy.

Type	Based on Pearl's PASH technology	
Performance	Rated power	3000W*
	Rated voltage	48V
	Rated current	62.5A
	DC Voltage range	45-78V
	Efficiency	≥50%
Fuel	Pure hydrogen	≥99.95%
	Pressure	0.7 - 0.8bar
	Hydrogen consumption	36L/min
Oxidant/coolant	Air	
	Pressure	Ambient Pressure
Physical	Mass	16.5Kg
Characteristics	Length×width×height	550×250×200mm
Operation	Environment temperature	-5—45℃
Condition	Relative Humidity	10%—95%
Accessory	Length×width×height	230mm×170mm×150mm
	Weight	4 kg
	Accessaries	Controller, electromagnetic valve, DC/DC for fans

*Data achieved at the surrounding temperature range from 15℃-35℃ and the RH% from 30 - 90%.



EOS 5000

EOS series fuel cells are all based on Pearl's PASH technology. The unique technology can ensure fuel cells' stable operation in atrocious weather.

EOS 5000 fuel cell system is a highly integrated fuel cell system with compact design, who includes: fuel cell stack, fans, IC board and electromagnetive valve. 5000W is a suitable power for the mobile applications, for instance PC, tourist car and backup power system.

Products characters:

1. Light weight and compact design;
2. Low noise;
3. Simple system and high reliability;
4. Quick startup, good dynamic performance;
5. Excellent environment adaptability;
6. Simple control and communication policy.

Type	Based on Pearl's PASH technology	
Performance	Rated power	5000W
	Rated voltage	60V
	Rated current	83.5A
	DC Voltage range	50-96V
	Efficiency	≥50%
Fuel	Pure hydrogen	≥99.95%
	Pressure	0.7–0.8bar
	Hydrogen consumption	62.5L/min(rated power)
Oxidant/coolant	Air	
	Pressure	Ambient Pressure
Physical	Mass*	22 Kg
Characteristics	Length×width×height	590mm×300mm×200mm
Operation	Environment temperature	-5℃—40℃
Condition	Relative Humidity	20%—95%
	Length×width×height	230mm×170mm×150mm
Accessory	Weight	4 kg
	Accessories	Controller, electromagnetic valve, DC/DC for fans

*Data achieved at the surrounding temperature range from 15℃-35℃ and the RH% from 30 - 90%.