

# HDF FC 1500

## 1.5 MW PEM FUEL CELL SYSTEM

### GENERAL DESCRIPTION

The HDF FC 1500 fuel cell system has been designed to meet the demands of energy-intensive applications. **Fueled with hydrogen, it can generate up to 1.5 MW of clean, emission-free electricity.** With minimal energy loss and exceptional efficiency, HDF Energy's fuel cell unit allows for maximized productivity.

What sets it apart is the utilization of cutting-edge **PEM stack technology**, ensuring the highest levels of reliability and adaptability to fulfill the requirements of high-power endeavors.

The HDF FC 1500 fuel cell boasts international engineering and safety certifications, guaranteeing its security. Coupled with its outstanding capacity factor and fast response time, it is a dependable source of power generation.

The HDF FC 1500 modular unit can be combined to achieve multi-megawatt power ranges, providing **a flexible, sustainable, and cost-effective solution for a broad spectrum of energy-intensive activities.**

These high-power fuel cells will be **mass produced in HDF Energy's factory** in France.

### BENEFITS



**Modular Design**



**PEM (Proton Exchange Membrane) technology**



**Emission free**



**Minimal noise pollution**



**25+ years lifetime**



**Quick start-up and immediate response to fluctuations in power demand**



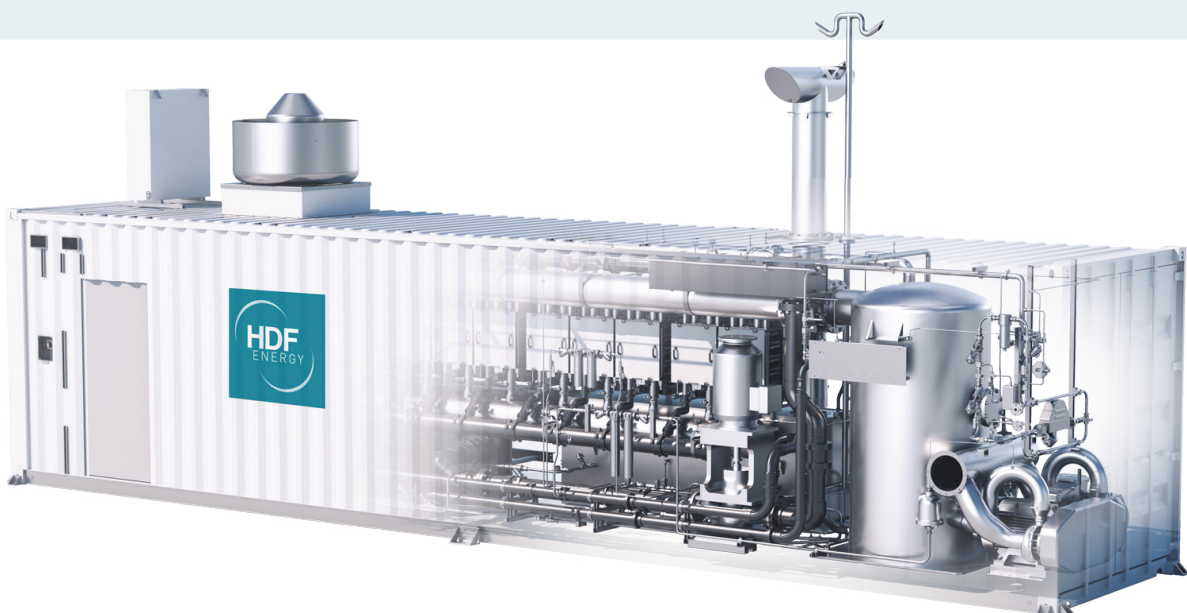
**Easy maintenance**



**Low operating costs**



**Safety and CE certified**



Type	PEM (Proton Exchange Membrane) fuel cell generator		
<b>Performance</b>	Net Power	1.5 MW	
	Electrical Efficiency (BOL)	49%: 61 kg/MWh (+/-2%)	
	Output Voltage	450-500 VAC	
	Output Frequency	50 or 60 Hz	
<b>Physical Characteristics</b>	Format	Hi cube container 40' ISO	+ container 20' ISO
	Dimensions (W x H x L)	2.5 x 2.9 x 12.2 m	2.44 m x 2.59 m x 6.05 m
	Weight	27 000 kg	7 000 kg
<b>Hydrogen</b>	Supply Pressure	5 barg	
	Quality	ISO 14687 Grade D	
<b>Certification</b>	CE certified		
<b>Emissions</b>	Pollutants	Zero emissions	
<b>Norms/standards</b>	Compliant	IEC 62282-3-100 Stationary fuel cell power system - Safety IEC 62282-3-300 Stationary fuel cell power system - Installation	
<b>Lifetime</b>	System	25 years	
<b>Ambient conditions</b>	Operating Temperature	5-40°C (below 5°C optional)	

## APPLICATIONS



1

### POWER

The HDF FC 1500 unit is a strategic component of high-power hydrogen power plants developed by HDF Energy. It is designed to generate zero-emission baseload or on-demand power.

2

### RAILWAY

Furthermore, HDF Energy's fuel cells are one of the key solutions to decarbonize rail transport. By replacing diesel engines of freight and shunting locomotives, these fuel cell systems offer a tailor-made zero-emission solution for freight operators.

3

### MARITIME

HDF Energy's high-power fuel cells are also at the forefront of a transformative journey towards decarbonizing maritime transport. They offer a game-changing solution, extending from providing clean electricity to vessels at dockside to supporting auxiliary operations and driving ship propulsion systems.

## CONTACT US



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