



**HYDROGEN  
GENSET & BACKUP  
POWER SYSTEM**  
ranging from  
100 kW to 2+ MW

Powering your future

Helion

HYDROGEN POWER

by **ALSTOM**



## TECHNICAL DATA



### Electrical performance

Nominal Net Power (kW)  
Voltage tri-phase at 50 Hz  
Operating maximum current (A)

#### FC-RACK™ - 200

200

400

360

#### FC-RACK™ - 400

400

400

720

### Mechanical structure

Dimensions L x W x H (mm)  
Weight (kg)

6058 x 2438 x 2591 (20-foot container)

8,000

12,000

### Hydrogen

Purity requirements  
Pressure storage compatibility  
H<sub>2</sub> connection  
Internal H<sub>2</sub> storage

Gaseous hydrogen satisfying ISO 14687 (2019) Grade D Type I

Any pressure over 10 bar / Compatibility with low pressure under development

Continuity of service guaranteed

Included 2 hours

and 30 minutes of operation

Not included

### Air

Air quality  
Pressure

Ambient filtered by default / adaptable depending on environmental conditions

Atmospheric

### Operating conditions

Operating temperature  
Humidity  
Altitude

-20°C / + 40°C

95%

1,000 m without derating and up to 2,500 m with derating

### E-Monitoring

ALSTOM HealthHub™

Remote monitoring and predictive maintenance

**YOUR ENERGY  
AT THE  
LOWEST TCO\*\***

30% more  
efficient  
than H<sub>2</sub> ICE\*

No charging  
time  
vs battery

Recyclability  
vs battery

**CARBON  
-FREE  
SOLUTION**

1 MWh of diesel  
generator  
=  
1 ton of CO<sub>2</sub>

No SOx,  
no NOx...

Twice  
the lifetime  
of metallic  
technology

Produces  
electricity,  
heat, air  
conditioning



Zero-emission



Plug & play



Reliable  
& Efficient



Low maintenance



Containerized



E-Monitoring  
tool



FC-Rack™ Stationary

### AUTONOMY



H<sub>2</sub> storage  
integrated



at 200 kW



H<sub>2</sub> delivery  
in rotation



at 400 kW



Transportable



Scalable



High residual  
value



Turnkey



\* Internal Combustion Engine \*\* Total Cost of Ownership



# TYPICAL APPLICATIONS



CRITICAL  
SITE



DATA  
CENTER



REMOTE  
SITE



PORT



CONSTRUCTION  
SITE



LOW EMISSION  
ZONE

## REFERENCES



**Backup fuel cell generator  
at the Atomic Energy Commission**  
(Paris Saclay)



**The largest green H<sub>2</sub>  
ecosystem in France in 2023**  
(Ajaccio)



**World 1st hydrogen back-up power  
system for data centers**  
(Aix-en-Provence)



**Power supply of CMA CGM's reefers**  
(Marseille)



**World 1st green hydrogen data center**  
(Avignon)

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