

OFF-HIGHWAY FUEL CELL SOLUTIONS

ZERO-EMISSION POWER from 100 kW to 2+ MW

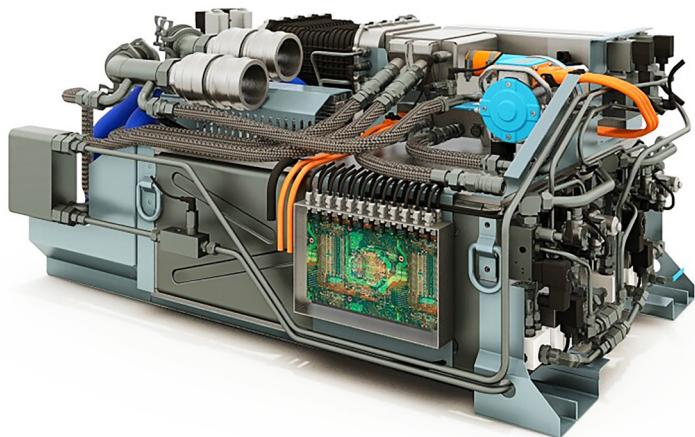
Emission-free technology for heavy-duty vehicles

Main features

- Quick start PEM fuel cell
- Modular and scalable
- Resistant to shocks and vibrations
- Adapted to harsh conditions
- Digital maintenance tool & associated services
- Operational time before overhaul : 25,000 hours
- Fast refueling



FC-RACK™



Zero-emission



Low maintenance



Reliable
& Robust



Scalable



e-Monitoring
tool



Suitable for
retrofitting

FC-RACK™ OFF-HIGHWAY

Electrical performance

- Maximum Net Power available (kW)
- Voltage range (V)
- Operating maximum current (A)
- Maximum efficiency

155
288 - 660
470
56%

Mechanical structure

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

1331 x 832 x 845
431

Hydrogen

- Purity requirements
- Pressure storage compatibility

Caseous hydrogen satisfying ISO 14687-2
Any pressure over 8,5 barg

Air

- Air quality
- Pressure

Ambient filtered by default / Adaptable depending on environmental conditions (sea, dust, etc.)
Atmospheric

Thermal management

- Outlet cooling temperature
- Stack coolant

Up to 81°C
Glycol and deionized water

Operating conditions

- Operating temperature
- Storage temperature
- Humidity

-25°C / + 55°C
-25°C / + 70°C
≤ 95%

E-Monitoring

- ALSTOM HEALTH-HUB™

Remote monitoring and predictive maintenance

APPLICATIONS



Construction vehicles

Complying with environmental and emission measures



Agricultural machines

Replacing diesel engines with a zero-emission technology



Mining vehicles

Producing minerals with low carbon footprint



Urban vehicles

Decarbonizing urban areas

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