

# Get longer range, shorter refueling time and zero tail pipe emission with myFC micro Fuel Cell Technology

Our engineers have created a modular system that enables true Freedom-in-Design, no matter the platform. A slimmed down system consisting of H<sub>2</sub> tank(s), Fuel Cells and an Active Power Balancing Software and Hardware work in symbiosis with batteries, allowing the vehicle to reach further, refuel faster and greatly prolong the lifespan of the batteries.

In addition this system improves upon electric vehicles for the consumer and also offsets the concerns for sustainable electrified mobility and a zero-emission society.

myFC's revolutionary technology disrupts the market by breaking the conventions of fuel cells and batteries. myFC allows them both to come alive and truly sing as one, enabling an entirely new way of powering and fueling electric vehicles and auxiliaries.

*"By designing and integrating energy system solutions we support a zero-emission vision. By combining our fuel cell with a battery, we can leverage each technology's advantages, offering our customers high performance, long life and great usability."*

Sebastian Weber, CTO

## Exemplified use case

At myFC we see typical use cases in last mile transports, carpenter and painter craftsman businesses or similar, to utilize the versatile plethora of opportunities that arise with a myFC fuel cell system in place; that can power auxiliaries in the vehicle, supplying green emission free electricity.

Instant power available to charge power tools, cooling or heating of goods in the cargo space or powering a light rig at a construction site, without affecting the range or the environment.



## A unique system

myFC provides complete Hydrogen Fuel Cells that are air fed, air cooled and self-humidified. With our technology we control the "State of Charge" in the battery, thus improving its "State of Health".

### WITH THE SYSTEM IN PLACE myFC ENABLE

- Fast refueling
- Mid-"State of Charge" and minimized charge window
- Slow "State of Health" reduction
- Extended battery lifetime
- Improved system efficiency
- Extended cold weather range by keeping the battery within the optimal temperature range

## Our system compared with a traditional EV

### RANGE



### REFUELING TIME



### BATTERY LIFE



### WEIGHT



### FREEDOM-IN-DESIGN



### EMISSION



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# BATTERIES



# FUEL CELLS

## myFC Hybrid Fuel cell system allows:

- stress reduction on the battery by continuous partial charge and minimized discharge.
- prevention of high current and low or high temperature that fast deteriorates battery life.
- optimization to keep batteries at mid "State of Charge" for best longevity.
- minimization of high charge voltage and by that no unnecessary battery stress created.

*"All these features allows for a better user experience with longer range, faster refueling times, longer battery life, less system weight, easier adaption to existing design due to modularity and "Freedom-in-Design" and lastly a fossil free environment."*

**Per Zetterberg, Head of Sales**

## TECHNICAL SPECIFICATIONS\*

**Fuel cell type:** Open-ended PEM

**Rated power (kW):** Up to 5 kW with 200 W per module

**Voltage:** 3.6–96 V

**Power density:** 0.19 kW/l

**Reactants:** Hydrogen gas and air

**Hydrogen gas purity:** 99.995%

**Max operating temperature :** Up to 70°C

**Fuel cell efficiency:** Close to 50% electrochemical efficiency

**Humidification:** Self humidified and regulated

**Coolant pressure :** Ambient (+)

**Air pressure:** Ambient (+)

**Hydrogen pressure:** Ambient (+)

**Cooling type/thermal mgm:** Air (liquid possible)

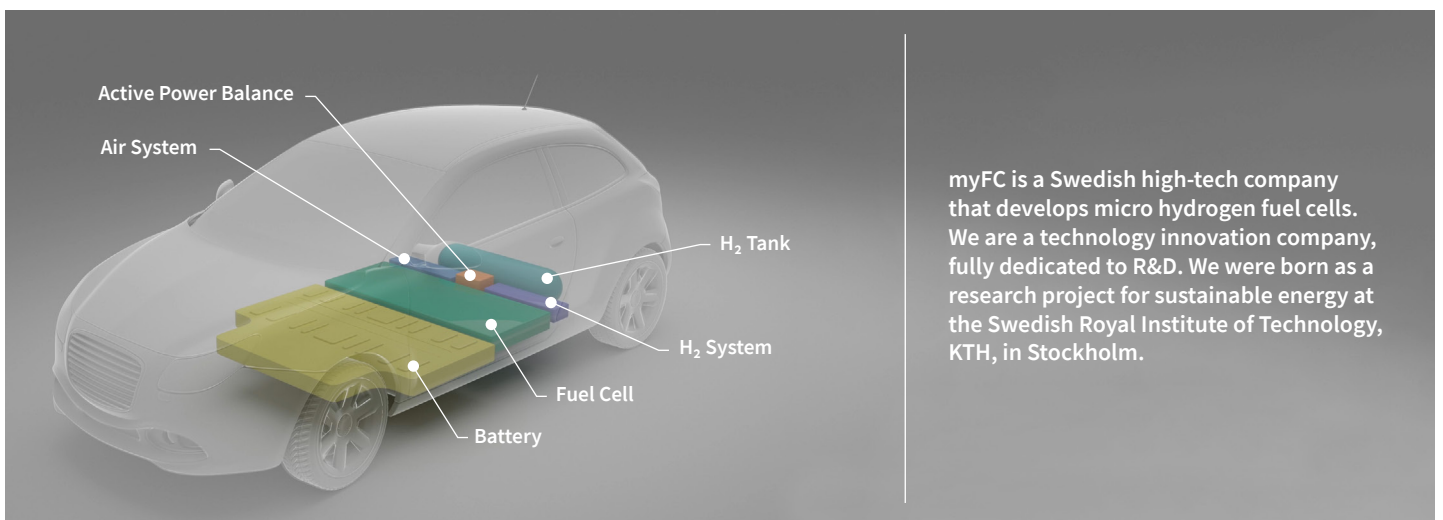
**Size:** 100x180x100 mm (module including air cooling channels)

**Weight:** 250 g

**Lifetime:** >10 000 h

\*Includes fuel cell component data only, auxiliaries excluded.

version 1.0



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