

FACT SHEET / Company Profile

Company name	Proton Motor Fuel Cell GmbH (www.proton-motor.de)
Founding year	1998 (founded as a spin-off from the fuel cell development branch of "Magnet-Motor GmbH" started in 1994)
Director	Francois Faiz Nahab Ph.D.
Employees	More than 100
Company locations	- Benzstrasse 7, D-82178 Puchheim (approx. 25 km west of Munich) - Fraunhofer Str. 9, D-82256 Fürstentfeldbruck
Consolidated companies	Proton Motor Fuel Cell GmbH is a wholly owned subsidiary registered in Germany of "Proton Motor Power Systems plc" (www.protonmotor-powersystems.com). The parent company is based in Newcastle upon Tyne (Great Britain) and on 10-31-2006 was admitted to trading on the AIM (Alternative Investment Market) of the London Stock Exchange with a market capitalisation of GBP 25 million.
Company purpose	Development, production and distribution of fuel cell systems based on PEM technology for the automotive, maritime, stationary and rail sectors.
Philosophy	Climate change is currently the greatest challenge facing humanity. The burning of fossil fuels is markedly heating the planet. Because of this, the energy transition is necessary. Early on, Proton Motor Fuel Cell GmbH understood the urgent need for alternative energy sources. It has been a pioneer in the development and implementation of innovative technologies for more than 20 years, and with flying colours. Proton Motor wants to shape and maintain the world of tomorrow through sustainable energy solutions in the mobile and stationary sectors.
CleanTech competence	Proton Motor customers profit from the innovative development company's CleanTech competence. It enables the development of future-ready products, as well as the use of modern technologies. Thanks to expertise in integrating fuel cell technology into complete systems, Proton Motor's services go far beyond the system interfaces. The Puchheim-based company supports its customers as a project partner in the planning and implementation phases with design, testing, commissioning and servicing, as well as certification and third-party acceptance. This is how optimal system integration is ensured.
Core service/Technology	Proton Motor has developed a standardised hydrogen fuel cell module, produced at the company's German location near Munich. A fuel cell is a mechanism that converts the chemical energy in the molecular bonds between hydrogen and oxygen into electrical energy: Hydrogen + oxygen → electricity + steam + heat

In PEM technology (polymer electrolyte membrane technology), gaseous hydrogen (H₂) is used as fuel and, with oxygen (O₂) from the air, is converted to pure water. Further reaction products in the cell are electricity and heat.

Advantages

In comparison to conventional technologies, the advantages of the standard fuel cell model from Proton Motor are: lower fuel consumption, longer times between refuelling, shorter fuel filling times and equally high power output.

In contrast to conventional combustion engines, coal-fired power plants and nuclear power stations, no poisonous, radioactive or environmentally harmful by-products are produced.

Goal

Proton Motor Fuel Cell GmbH wants to offer a new, attractive alternative to current energy production, establishing it as mainstream and spurring on the energy transition.

Milestones

2022 – Announcement of new additional site for production expansion with sevenfold increase in area.

2022 – Alignment by name of Hy-brand product portfolio 2022 (HyRange®, HyShip®, HyRail®, HyShelter®, HyModule®, HyStack®).

2022 – Delivery of the maritime product innovation "HyShip" (propulsion solution) to "Fincantieri" for "ZEUS" (Zero Emission Ship).

2021 – Delivery of the stationary product innovation "HyShelter" (power plant) to "Shell New Energies" for hydrogen filling station.

2021 – Presentation of the new rail fuel cell drive solution for world's first innovation "hydrogen powered rail milling train" (www.linsinger.com).

2021 – For the 1st time in company history over 100 employees.

2021 – Proton Motor is e-SHyIPS project partner (maritime sector).

2021 – EU consortium member "StasHH" (heavy-duty applications).

2020 – Record-breaking quarter despite Corona situation; contract manufacturing for the first European grid-connected hydrogen power plant.

2020 – Name change of the UK parent company to "Proton Motor Power Systems plc".

2019 – Commissioning of the "Fit-4-AMandA" stack production robot, increasing the production capacity to between 5,000 and 10,000 fuel cell units per year, depending on stack size.

2019 – New founding of "NEXUS-e GmbH" for the production of hydrogen fast charging stations.

2019 – Founding of the "Pure Power Pool" consortium for one-source supply of hydrogen energy supply.

2019 – New order for 15 hydrogen-based fuel cells for ebe EUROPA GmbH, a specialist for electric buses.

2019 – Cooperation agreement with Škoda Electric a.s. for collaboration in the development of fuel cell electric buses.

2019 – Joint venture "Clean Logistics GmbH" for up to 44 tonne-lorries with fuel cells.

2018 – Anniversary celebration: "20 years Proton Motor".

2017 – Delivery of a containerised fuel cell power plant for supplying energy to the main port on the Orkney Islands.

2016 – Opening of the first emission-free electricity filling station in Puchheim.

2016 – Delivery of 22 emergency power supply systems.
2016 – First apartment building in the world, in Switzerland, that powers itself using its own hydrogen produced by solar power and a fuel cell from Proton Motor.
2016 – Retrofitting of a Mercedes Vito with a fuel cell hybrid drive, in collaboration with "Magna Steyr" (first presentation at the Vienna Motor Symposium).
2015 – Cooperation agreement with the Deutsche Bahn AG subsidiary "Bahnbaugruppe" on sale and servicing of hydrogen fuel cell UPS systems.
2014 – World record drive from Munich to Berlin in a 7.5 ton truck with a hybrid 8 kW fuel cell battery system (HyRange®) from Proton Motor.
2013 – Presentation of the world's first electric commercial vehicle operated in parallel with battery and fuel cell in the weight class of 7.5 to 12 tons.
2009 – World premiere for triple hybrid bus in cooperation with "Škoda Electric".
2009 – Significant participation in the development of the first fuel cell powered municipal vehicle.
2008 – Delivery of a fuel cell hybrid drive for the world's first fuel cell powered passenger ferry boat "Alsterwasser".
2008 – World premiere for the EcoCarrier HY3: Proton Motor and Karmann present joint fuel cell vehicle.
2007 – World premiere for triple hybrid forklifts: Proton Motor presents next generation of fuel cell hybrid vehicles.
2007 – New company location in Puchheim, near Munich.
2004 – Start of the first emission-free minibus with a 40 kW fuel cell system at the Bavarian bus company "Z Mobility GmbH".
2001 – Operation of the world's first fuel cell forklift at Munich Airport.
2000 – Proton Motor brings fuel cell-powered Bayernbus into line operation.

Awards

2022 – "Hessian State Prize for Energy 2022" to emission-free H2 fuel cell HyRange® system in the category "Mobility".
2022 – Award "Top Service 2022" from German Institute for Sustainability and Digitalisation.
2022 – Top 3 nomination for HyRange® at "Renewables Award".
2021 – Winner of "International busplaner Sustainability Award".
2020 – Top 25 nomination at the "Innovation Life Award".
2018 – "Energy Globe Austria Award 2018" together with Magna Steyr Engineering AG & Co KG and other project partners.
2010 – Future award of the IDW (Innovation Association of German Business) for the "Triple Hybrid® fuel cell drive" of "TriHyBus" city bus.
2008 – Bavarian innovation award for triple hybrid technology.
2008 – Silver f-cell award for the world's first fuel cell TÜV certification.