



MHP BY QUEST ONE – ENGINEERED TO PERFORM

Modular hydrogen solutions
that scale with your application.

PEM electrolyzers for a sustainable energy system – Quest One Modular Hydrogen Platform

Modular, skid-mounted, ready-to-install: The Quest One Modular Hydrogen Platform is a scalable platform for industrial production of green hydrogen based on PEM technology. 10 MW blocks can be combined to multi-MW systems serving projects with an electrolysis capacity of 10 to more than 100 MW. The system is ready for outdoor and indoor installation on preassembled skids. It is equipped with integrated process water treatment and electrical power supply.

Configurable for your project – The offering is highly flexible and further enhanced by an extended project scope, including optional fresh-water treatment, hydrogen purification, and cooling solutions. The Quest One MHP electrolyzer stands out with its unrivalled system efficiency, high availability and a well-thought-out maintenance concept, which results in low hydrogen production costs and stable safe operation.

10 MW BLOCK

H ₂ production nominal	4600 kg/d 2130 Nm ³ /h
Specific energy consumption ¹	4.6 kWh/Nm ³ H ₂ 51 kWh/kg H ₂
System efficiency ¹	77%
Performance class	10 MW
H ₂ production modulation range	213 to 2130 Nm ³ /h 10 to 100%
Extended scope (optional) ² :	Fresh water treatment, Hydrogen purification, Cooling
H ₂ purity without with optional hydrogen purification	Water saturated at 65 °C up to quality 5.0
H ₂ output pressure	30 barg
Load change	30 s (Minimal load to nominal load)
H ₂ O required quality, without with optional fresh water treatment	DI water (fully desalinated) Fresh water
DI water consumption nominal	Approx. 2000 kg/h
Dimensions L x W (indoor) and (outdoor) without Power Supply Unit	ca 10 x 24 m
Ambient temperature conditions	From -40 °C with cold package up to +50 °C

Technical changes reserved

¹ Battery limit for the efficiency: stacks and converters; standard conditions: BoL (Begin of Life), 15 °C, 30 barg H₂ transfer pressure, 2000 Nm³/h, based on Higher Heating Value (HHV).

² Optional modules are tailored to the project's specific operating conditions and performance requirements.

We are the fuel of the global energy transition

As a technological pioneer, we have been playing a decisive role in shaping hydrogen technology for over 25 years. We believe that mobility, production, and consumption are possible without emissions. To achieve this, Quest One

builds on cooperation with visionary customers and partners, and the power of our parent company Volkswagen. Together, we are making hydrogen production green and the CO₂-neutral transformation of all sectors a reality.