Hydrogen is now.

H-TEC SYSTEMS

LARGE SCALE. MAX OUTPUT.

H-TEC SYSTEMS High Efficiency Electrolyzers

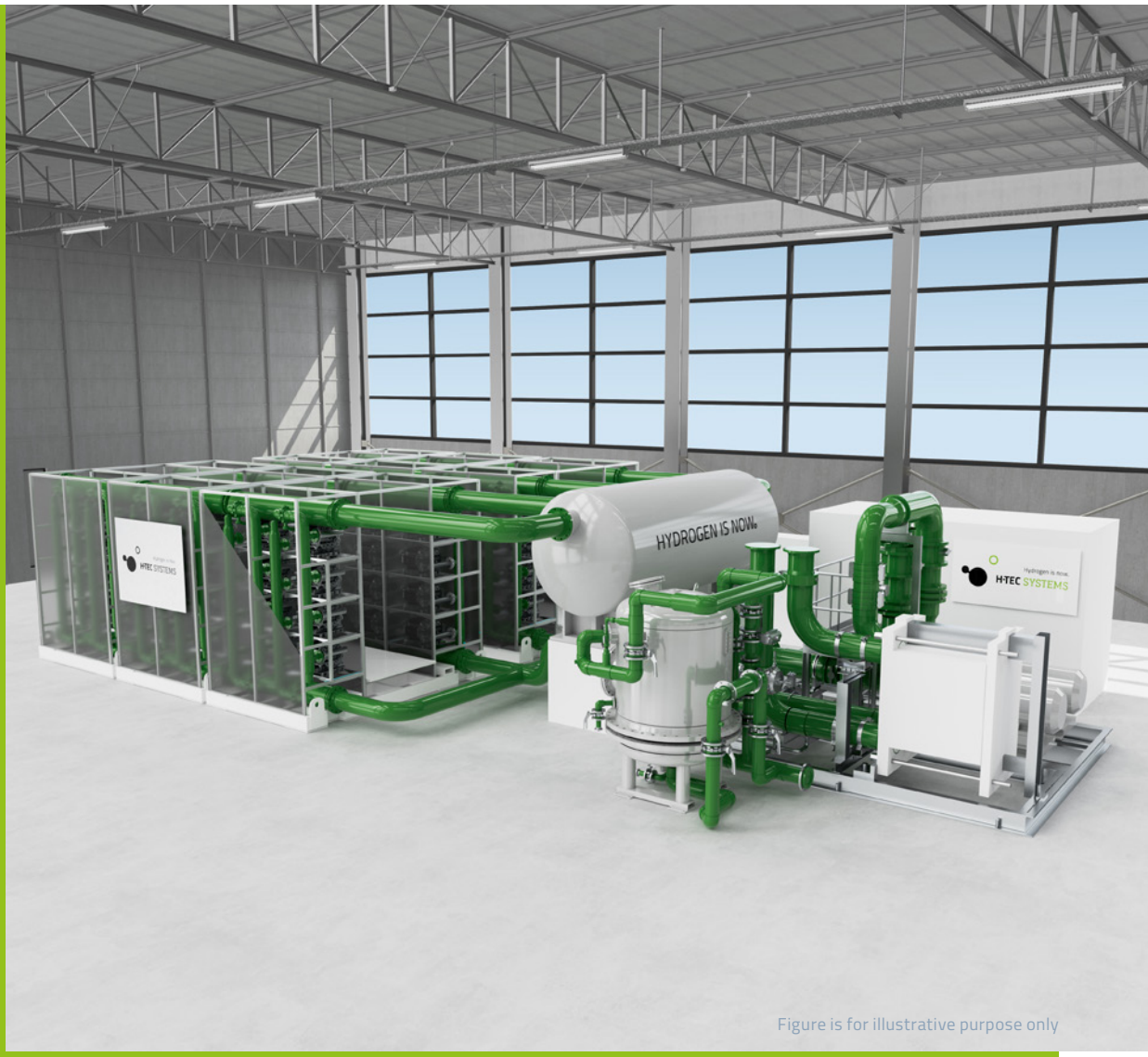

Figure is for illustrative purpose only

H-TEC SYSTEMS PEM-Electrolyzer **Modular Hydrogen Platform (MHP)**

EN

PEM electrolyzers for a sustainable energy system – **H-TEC SYSTEMS Modular Hydrogen Platform (MHP)**

Modular, skid-mounted, ready-to-install: The H-TEC SYSTEMS Modular Hydrogen Platform (MHP) 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 indoor installation on pre-assembled skids. It is equipped with integrated process water treatment and electrical power supply. Optionally, the system can be supplemented with fresh water and hydrogen treatment, as well as process heat recovery or oxygen utilization, as required. The H-TEC SYSTEMS MHP electrolyzer stands out with its unrivalled system efficiency, high availability and proven 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
Energy consumption [1]	4.6 kWh/Nm^3 H_2 | 51 kWh/kg
System efficiency [1]	77 %
Performance class	10 MW
H_2 production modulation range	213 – 2130 Nm^3/h | 10 – 100 %
H_2 purity including optional hydrogen purification	3.0 or 5.0 (meets ISO 14687:2019 Table 2)
H_2 purity without optional hydrogen purification	Water saturated at 65°C and 30 bar (g)
H_2 output pressure	15 – 30 bar (g)
Load change	30 s (Standby to nominal load)
H_2O required quality, including optional fresh water treatment	TrinkwV 2020 | EU Directive 2020/2184-EU
H_2O required quality, without optional fresh water treatment	DI water (fully desalinated)
DI water consumption nominal	1850 kg / h
Dimensions L x W x H (indoor)	ca. 10 x 21.5 x 4.5 m
Temperature (indoor)	+5°C to +40°C

Technical changes reserved

[1] Battery limit for the efficiency: stacks and converters; standard conditions: BoL (Begin of Life), 15°C, 30 bar (g) H_2 transfer pressure, 2000 Nm^3/h, based on Higher Heating Value (HHV).

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 20 years. We believe that mobility, production, and consumption are possible without emissions. To achieve this, H-TEC SYSTEMS builds on cooperation with visionary customers and partners, and the power of our parent company MAN Energy Solutions. Together, we are making hydrogen production green and the CO_2-neutral transformation of all sectors a reality.

HTEC-EN-03-23