

PEM - Electrolysers

PROTON EXCHANGE MEMBRANE

Gas Production	Hydrogen	Oxygen
Max. output pressure	30 barg	14 barg
Purity without additional purification	>99.9 %	>97 %

Hydrogen Purification System

Industrial purification system with automatic regeneration.

The hydrogen purity according to ISO 14687-2 for the use in fuel cell vehicles is met.

Max. hydrogen purity	99.999 %
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Feeding Water (Tap Water)

Water quality acc.	98/83/EG Pressure	2 to 6 bar
PH	4 to 10 Temperature	+5 to +35 °C
Water treatment	Integrated Reverse Osmosis System (ROS) + electro de-ionisation system	

Power Input

Voltage	From 400 V AC to high voltage, alternatively a transformer can be included
Frequency	50 Hz

Safety Norms and Regulations

Compliance	Machine directive 2006/42/CE Pressurised equipment directive 2014/68/UE Low voltage directive 2014/35/UE Electromagnetic compatibility directive 2014/30/UE ATEX directive 2014/34/UE CE Mark
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Multi MW Systems

Specification

Hydrogen Production	
H ₂ flow rate [Nm ³ /h]	Min. 2 000
Oxygen Production	
O ₂ flow rate [Nm ³ /h]	Min. 1 000
Operating range	
Hydrogen production [%]	0.1-100
Power input [%]	0.1-100
Feeding Water	
Consumption [l/Nm ³ H ₂]	< 2
Installed Power	
Electrolysis [kW]	Min. 10 000
Power [kVA]	Min. 13 000
Specific Energy consumption	
Stack consumption [kWh/Nm ³ H ₂]	4.3
System consumption [kWh/Nm ³ H ₂]	4.8
Footprint	
Dimensions	< 31.25 m ² /MW _{el}

