

AEM ELECTROLYSER EL 4.1



AEM Electrolyser 4.1

Enapter's patented anion exchange membrane (AEM) electrolyser is a standardised, stackable and flexible system to produce on-site hydrogen. The modular design – paired with advanced software integration – allows set up in minutes and remote control and management. Stack this electrolyser to achieve the required hydrogen flowrate.

Production rate	Up to 500 NL/h, up to 1.0785 kg/24 h
Hydrogen output purity	35 barg: 99.9% (< 1,000 ppm H ₂ O and < 5 ppm O ₂) at 25 °C 8 barg: 98.8% (< 12,000 ppm H ₂ O and < 5 ppm O ₂) at 25 °C
Output pressure	Up to 35 barg
Nominal power consumption per Nm³ of H₂ produced	4.8 kWh/Nm ³ , beginning of life
Operative power consumption	2.4 kW, beginning of life
Peak power consumption	3 kW
Heat dissipation	0.6 kW, beginning of life
Max heat dissipation	0.9 kW, end of life
Standby power consumption¹	0.3 kW
Power supply	220 – 240 V (AC), 50/60 Hz
Maximum water input conductivity	Minimum ASTM D1193-06 Type IV or recommended Type II or Type III ²
Water consumption	~ 420 mL/h at 25 °C
Water input pressure range	1 – 4 barg
Ambient operative temperature range	5 °C – 45 °C
Ambient operative humidity range	Up to 90% humidity, non-condensing
IP rating	IP 20



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Dimensions

W: 482 mm × D: 635 mm × H: 266 mm

Weight

42 kg

Space inside cabinet

6U

Control and monitoring

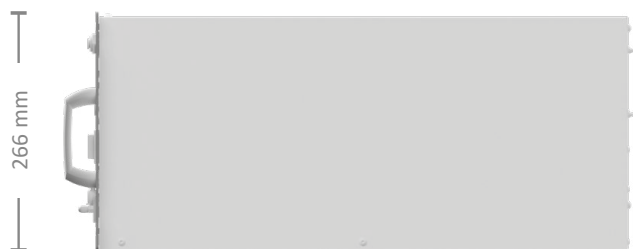
Fully automatic with Enapter's EMS via 2.4 GHz Wi-Fi and Bluetooth, Modbus TCP over Ethernet OPC UA

Conformity

CE mark according to the machine directive 2006/42/CE³
UKCA mark according to Supply Machinery (Safety) Regulations 2008⁴
CSA/ANSI B22734:2023 Ed.1 Hydrogen Generators Using Water Electrolysis - Industrial, Commercial, and Residential Applications⁵



482 mm



266 mm

635 mm

¹ Standby refers to the condition in which no hydrogen is being produced and the auxiliary components are not powered.

² Please, check the Battery limits and the Owner's Manual for the complete requirements list

³ The Electrolyser belongs to S.E.P. category according to Pressure Equipment Directive 2014/68/EU

⁴ The Electrolyser belongs to S.E.P. category according to Pressure Equipment (Safety) Regulations 2016

⁵ ETL recognized electrolyser versions only