Enapter

AEM EL 4.1

Air Cooled AC

Enapter's patented anion exchange membrane (AEM) electrolyzer 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 electrolyzer to achieve the required hydrogen flowrate.

RECOGNIZED COMPONENT

C ETL LISTED US

Intertek

UK CA

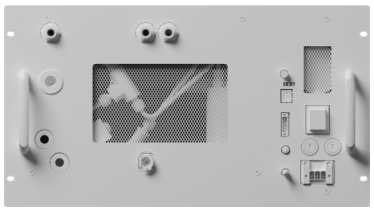
CE

AEM Electrolyzer EL 4.1

www.enapter.com/aem-el-4

Specifications

Enapter AEM Electrolyzer
EL 4.1 Air Cooled AC



482 mm

635 mm

Production rate	Up to 500 NL/h, up to 1.0785 kg/24 h
Hydrogen output purity	35barg (508 psig): 99.90 % (<1000 ppm H2O and <5ppm O2) at 25°C (77°F) 8barg (116 psig): 98,8 % (<12000 ppm H2O and <5ppm O2) at 25°C (77°F)
Output pressure	Up to 35 barg (Up to 507.63 psig)
Nominal power consumption per Nm^3 of H^2 produced (beginning of life)	4.8 kWh/Nm^3, beginning of life
Operative power consumption	2.4 kW, beginning of life
Heat dissipation	0.6 kW, beginning of life
Standby power consumption[1]	0.03 kW
Power supply	208-240 V(AC), 50/60 Hz, both split phase and 3-phase
Water input requirements	- recommended Type II according to ASTM D1193-06 and required acidity < 0.1 meq/l according to ASTM D1067 - minimum conductivity of < 2 µS/cm
Water consumption	~420 mL/h at 25°C (~0.11 gal/h at 77°F)
Water input pressure range	1 – 4 barg (14.5 – 58 psig)
Ambient operative temperature range	5 °C – 45 °C (41 °F – 113 °F)
Ambient operative humidity range	Up to 90% humidity, non-condensing
Storage conditions	2 °C to 55 °C, up to 90 % humidity, non-condensing
IP rating	IP 20
Dimensions (W x D x H in mm)	482 mm × 635 mm × 266 mm (19" × 25" × 10.5")
Weight	42 kg (92.6 lbs)
Space inside cabinet	6 U
Control and monitoring	Fully automatic with Enapter's EMS via 2.4 GHz Wi-Fi and Bluetooth, Modbus TCP over Ethernet
Conformity	CE mark according to the machine directive 2006/42/CE[2] UKCA mark according to Supply Machinery (Safety) Regulations 2008[3] CSA/ANSI B22734:2023 Ed.1 Hydrogen Generators Using Water Electrolysis - Industrial, Commercial, and Residential Applications[4]

[1] Standby refers to the condition in which no hydrogen is being produced and the auxiliar components are not powered.
[2] The Electrolyzer belongs to S.E.P. category according to Pressure Equipment Directive 2014/68/EU
[3] The Electrolyzer belongs to S.E.P. category according to Pressure Equipment (Safety) Regulations 2016
[4] ETL recognized electrolyzer versions only (ELE410535A2AE, ELE410535A2LE)

Note: The product is under continuous improvement and the technical specifications might be subject to change. Please make sure to refer to our website for the most recent specifications.

AEM Electrolyzer EL 4.1
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Enapter

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AEM EL 4.1

Liquid Cooled AC

Enapter's patented anion exchange membrane (AEM) electrolyzer 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 electrolyzer to achieve the required hydrogen flowrate.

RECOGNIZED COMPONENT

C ETL LISTED US

Intertek

UK CA

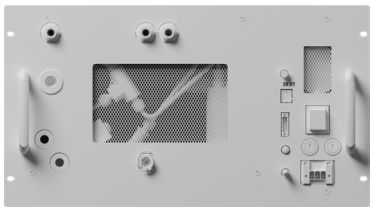
CE

AEM Electrolyzer EL 4.1

www.enapter.com/aem-el-4

Specifications

Enapter AEM Electrolyzer
EL 4.1 Liquid Cooled AC



482 mm

635 mm

Production rate	Up to 500 NL/h, up to 1.0785 kg/24 h
Hydrogen output purity	35barg (508 psig): 99.90 % (<1000 ppm H2O and <5ppm O2) at 25°C (77°F) 8barg (116 psig): > 98.8 % (<12000 ppm H2O and <5ppm O2) at 25°C (77°F)
Output pressure	Up to 35 barg (Up to 507.63 psig)
Nominal power consumption per Nm^3 of H_2 produced	4.8 kWh/Nm^3, beginning of life
Operative power consumption	2.4 kW, beginning of life
Heat dissipation	0.6 kW, beginning of life
Standby power consumption[1]	0.03 kW
Power supply	208 – 240 V (AC), 50/60 Hz, both split phase and 3-phase
Waterinput requirements	- recommended Type II according to ASTM D1193-06 and required acidity < 0.1 meq/l according to ASTM D1067 - minimum conductivity of < 2 µS/cm
Water consumption	~420 mL/h (~0.11 gal/h at 77°F)
Water input pressure range	1 – 4 barg (14.5 – 58 psig)
Cooling water pressure range	1 – 4 barg (14.5 – 58 psig)
Cooling water temperature range	5 °C – 40 °C[2] (41 °F – 104 °F)
Cooling water flow	1- 2 L/min (0.26 – 0.53 gal/min)
Ambient operative temperature range	5 °C – 45 °C (41 °F – 113 °F)
Ambient operative humidity range	Up to 90% humidity, non-condensing
Storage conditions	2 °C to 55 °C, up to 90 % humidity, non-condensing
IP rating	IP 20
Dimensions (W x D x H in mm)	482 mm × 635 mm × 266 mm (19" × 25" × 10.5")
Weight	41 kg (90.4 lbs)
Space inside cabinet	6 U
Control and monitoring	Fully automatic with Enapter's EMS via 2.4 GHz Wi-Fi and Bluetooth, Modbus TCP over Ethernet
Conformity	CE mark according to the machine directive 2006/42/CE[3] UKCA mark according to Supply Machinery (Safety) Regulations 2008[4] CSA/ANSI B22734:2023 Ed.1 Hydrogen Generators Using Water Electrolysis - Industrial, Commercial, and Residential Applications[5]

[1] Standby refers to the condition in which no hydrogen is being produced and the auxiliary components are not powered.
[2] Please, check the Owner's Manual for operational values
[3] The Electrolyzer belongs to S.E.P. category according to Pressure Equipment Directive 2014/68/EU
[4] The Electrolyzer belongs to S.E.P. category according to Pressure Equipment (Safety) Regulations 2016
[5] ETL recognized electrolyzer versions only (ELE410535A2AE, ELE410535A2LE)

Note: The product is under continuous improvement and the technical specifications might be subject to change. Please make sure to refer to our website for the most recent specifications.

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