

ENAPTER ELECTROLYSER SYSTEMS

ENAPTER ELECTROLYSERS ARE THE PORTAL TO THE HYDROGEN ECONOMY

Our AEM electrolyzers are the most cost-effective and high performance solution for hydrogen production ranging from 0.5Nm³/hr to 10Nm³/hr.

FLEXIBLE • SCALABLE • FAST TO DEPLOY

EL 2.0



Up to four EL 2.0 modules and one optional dryer can be combined in a single 19" cabinet by Enapter or a qualified system integration partner. Please see next page for more details on the optional modules offered by Enapter.

Key Features

- 500 NL/hr or 0.5 Nm³/hr hydrogen output
- Stackable to form larger electrolyser systems
- Output pressure up to 35 bar
- Hydrogen purity 99.95%, 99.999% with optional dryer module
- High efficiency (4.8 kWh for 1 Nm³ of H₂ at system level)
- Rack-mountable in standard 19" cabinet
- Native operation with Enapter EMS (remote monitoring and control system)
- Simple installation and low maintenance
- Low requirements for input water purity




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EL 2.0 Data Sheet

Technical Data	
H ₂ production rate	500 NL/hr
Working pressure	35 Bar
Water consumption	0,4 L/hr
Water specification	<20 microS (at 25°C) µS/cm
Water input pressure	1-2 Bar
Power supply options	AC 100-240 Vac, 50-60Hz
Operative power consumption (at standard conditions)	2,4 kW
Peak power consumption (max power draw at anytime)	3,0 kW
Module dimensions (WxDxH)	483 x 490 x 354 mm (8U)
Module weight (without water)	53 Kg
Ambient temperature	5-45 °C
Ambient humidity	20-95%



EL 2.0



Dryer 2.0

The optional dryer module can process up to 2Nm³/hr of hydrogen gas from the EL 2.0 and bring the output purity to >99.999%.

H ₂ flow rate	Up to 2 Nm ³ /hr (4 x EL 2.0)
Operative power consumption	375 W
Dimension	483 x 490 x 178 mm (4U)

Dryer 2.0

EL 2.0

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19" Cabinet Integration

Enapter offers integration of EL 2.0 in a weatherproof cabinet for deployment directly on the customer site.

Enapter Water Supply System Components



Water Purification Module (WPM)


Input water	tap / rain water
Output water	<20 µS/cm
Operative power consumption	200 W (20W standby)
Typical flow rate	0.2-0.4L/min

Mounted on sidewall of caninet or other wall surface

Water Tank

An optional 40L clean water tank can be integrated into the cabinet.

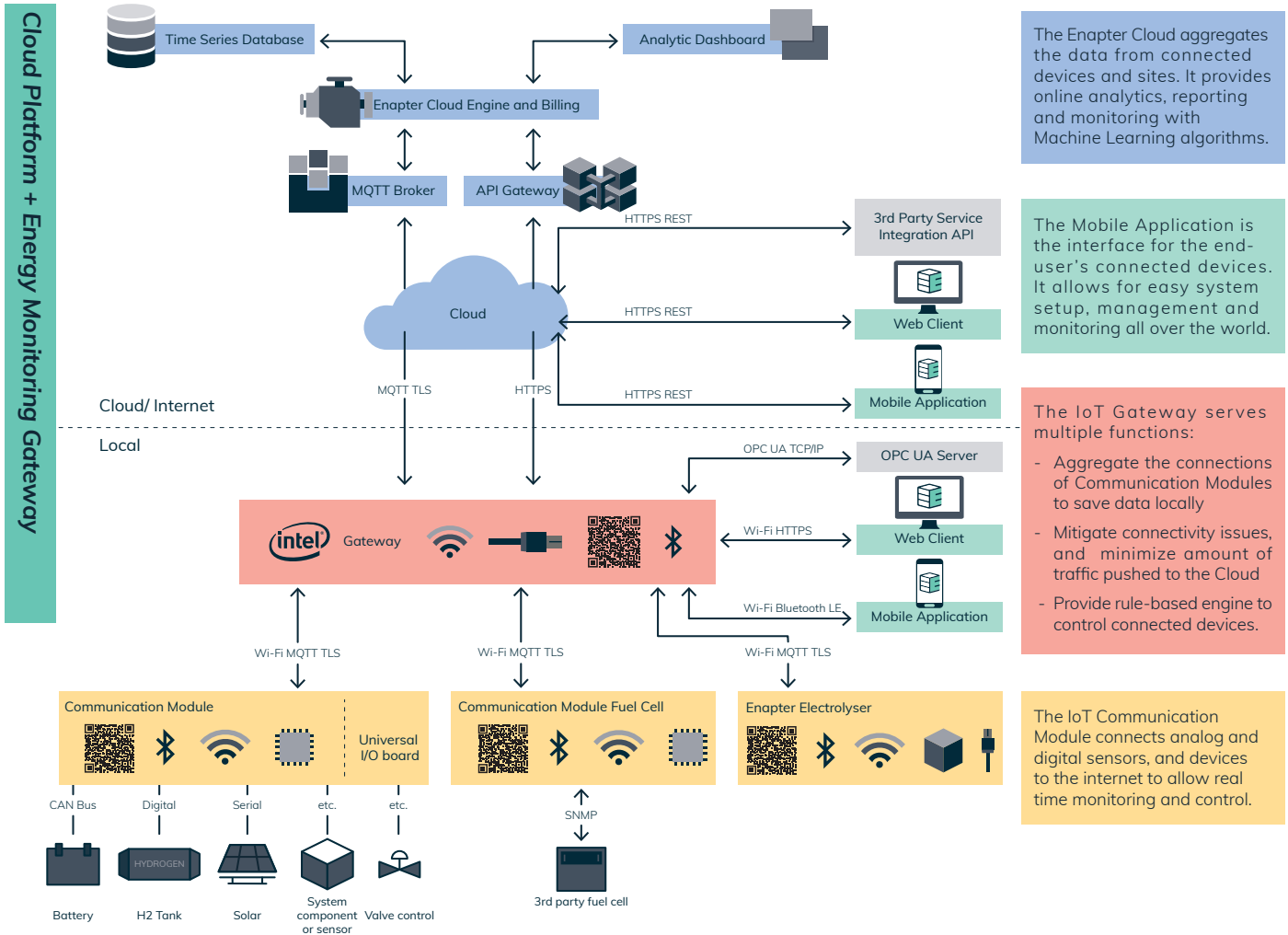
It can be filled by the WPM or other clean water supply and includes a pumping system to supply the electrolyser. Size in cabinet: 8U.



Enapter's water supply system is completely optional and our customers are welcome to use any water supply system to EL that meets the specifications (<20 µS/cm).

ENAPTER EMS MONITORING SYSTEM

Enapter addresses the critical importance of understanding both your system and the environment it operates in. Made of a network of sensors and interfaces, the monitoring and control solution complements our electrolyzers. It enables complete control and peace of mind, no matter where in the world you or your system are.



Energy Management Platform

The screenshots show the user interface of the Enapter EMS, featuring:

- Dashboard:** Overview of system status and production metrics.
- Production Table:** Detailed view of production data, including device ID, status, and production volume.
- Charts:** Real-time and historical production trends.
- Device Details:** In-depth view of individual electrolyzer units, including status, production, and control options.
- Mobile Views:** Optimized interfaces for smartphones and tablets, showing key metrics and control buttons.

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Use Cases

Enapter electrolyzers are installed in numerous applications around the world. More examples are available on request.

France



Off-grid with seasonal hydrogen energy storage

Enapter electrolyzers produce hydrogen to keep this refuge in the Alps operational year-round

Electrolyser : 500 NL/hr
 Fuel Cell : 2.5 kW
 Storage : 5kg of hydrogen (90 kWh)

Malaysia



Telecom back up power

Enapter electrolyzers generate hydrogen to power remote towers during a grid outage

Electrolyser : 1000 NL/hr
 Fuel Cell : 5 kW

Egypt



Telecom back up power

Enapter electrolyzers provide long term backup capability for a telecom tower in New Cairo close to the mosque

Electrolyser : 1000 NL/hr
 Fuel Cell : 4 kW
 Storage : 500 L (1.35Kg)

Portugal



Industrial onsite hydrogen generation

Enapter electrolyzers are integrated into a nitrogen purification system

Electrolyser : 1000 NL/hr

Thailand



24 hour off-grid solar and hydrogen

The Phi Suea House, a world's first in solar- hydrogen residential storage

Electrolyser : 2000 NL/hr
 Fuel Cell : 4 kW
 Storage : 7.5kg of hydrogen (130 kWh)

Australia



Energy independence in remote area

Enapter electrolyzers are the key component in this off-grid project in the county of Melbourne

Electrolyser : 1000 NL/hr
 Fuel cell : 2 kW
 Storage : 300L (0.81 Kg)



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