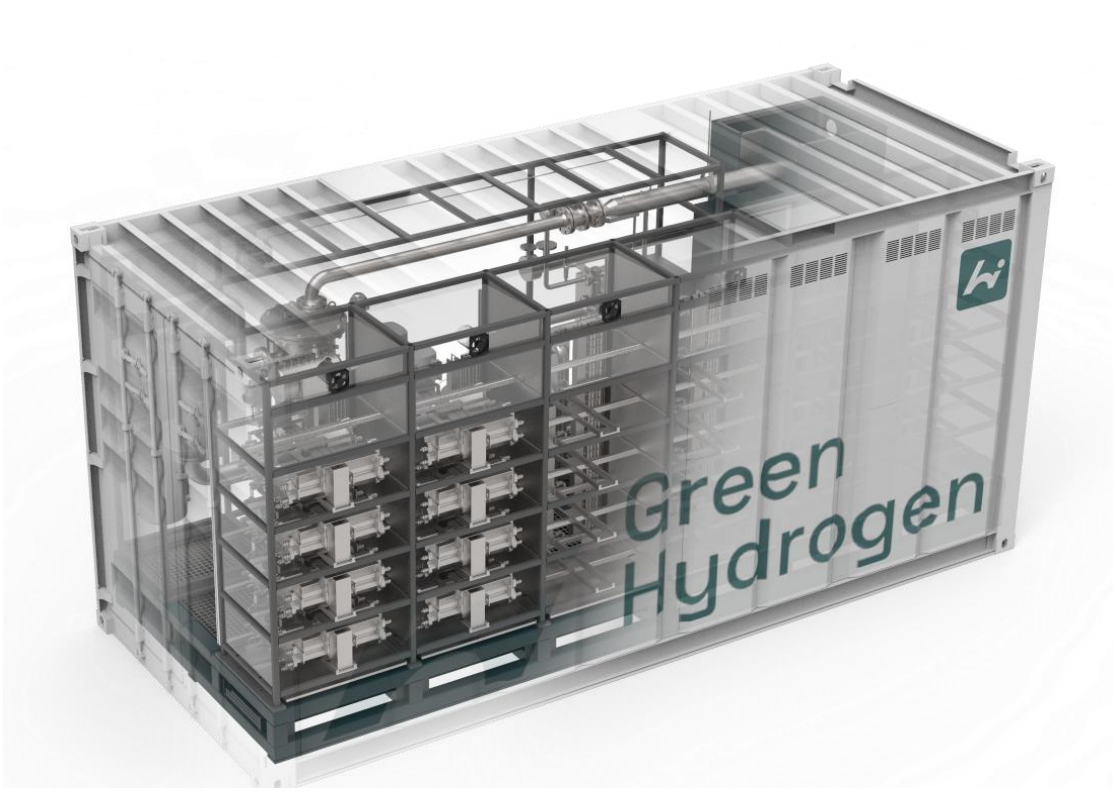
Green Hydrogen

AEM ELECTROLYSIS PLATFORM

H2iVE-SKID

520 kg of green hydrogen per day from a single 20 ft platform, for container or indoor installation.



520 kg/d
hydrogen production

1.25 MW
rated electrolysis power

30 bar(g)
H_2 delivery pressure

Ready for 20 ft containers
Defined interfaces for water, heat, H_2, O_2 and purge gas; indoor installation possible.

Follows wind and solar
10–100 % load range and ramps of up to 5 %/s.

Availability by design
The adaptive H2iVE operating strategy keeps output at 520 kg/d, even during module service.

Scales SKID by SKID
Several SKIDs share water treatment and gas purification.

H2iVE-SKID

Technical data

Green Hydrogen

HYDROGEN

H_2 production, nominal	520 kg/d · 240 Nm³/h
Annual production	approx. 180 t
Load range	10–100 % (24–240 Nm³/h)
Load dynamics	up to 5 %/s [1]
H_2 purity at outlet	99.9 % (grade 3.0), ready for DeOxo
H_2 delivery pressure	30 bar(g)

POWER AND EFFICIENCY

Rated electrolysis power	1.25 MW [2]
Specific energy consumption	52 kWh/kg · 4.7 kWh/Nm³ [3]
Grid connection	400 V AC | 50 Hz · 1.5 MVA
Power electronics	power factor 0.99 · THDi < 5 % (50–100 % load)

WATER, HEAT AND OXYGEN

Fresh water	tap water, treated by reverse osmosis; on-site DI water can be used
Water consumption	280 kg/h tap water · 194 l/h pure water
Waste heat (optional)	< 185 kW BoL · Up to 350 kW (design value), handover at 50 °C
Oxygen (optional)	4.1 t/d · 120 Nm³/h, purity 99 % (grade 2.0) [4]

DESIGN

Technology	AEM electrolysis, 24 H2i-POWERPACKs in 6 independent modules
Operating temperature	Up to 70 °C
Installation	20 ft skid frame for container or indoor installation [5]
Operating mode	6 independent modules, N-1 redundancy, H2iVE load management [6]

Included in the SKID

- H2i-POWERPACKs and process equipment
- Integrated alkaline (KOH) circuit
- Hydrogen dryer
- Safety equipment
- Central supply unit with connections for fresh water, waste heat flow, H_2 and O_2

Included, installed separately

- Power electronics and control, in a separate container section or room

Shared across several SKIDs

- Water treatment, gas purification and nitrogen supply, provided centrally for several SKIDs

[1] With electrolysis already running.
[2] AC input of power electronics at end of life, 520 kg/d (N-1 operation); excluding balance of plant.
[3] Beginning of life, with H2iVE operating strategy and maintenance intervals.
[4] Excluding dissolved water (moisture).
[5] Power electronics, controls and miscellaneous are installed separately.
[6] Patented H2iVE operating strategy: distributes load across modules to minimize lifetime LCOH.
Preliminary data, subject to change.

PLANNING A HYDROGEN PROJECT?

Contact us for a layout and quote tailored to your site.

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