



# HubGen 1-MW hydrogen electrolyser

## Pressurised alkaline electrolyser optimised for lowest LCOH

ST Engineering Energy Solutions brings to the table the next frontier in hydrogen production. Fast, Simple, Reliable: Install the container on just 8 concrete plinths, connect effortlessly to predefined interfaces and be operationally ready within 3 days time-on-site.

**The HubGen 1-MW hydrogen electrolyser is a proven solution for small and medium applications, such as:**



Chemical feedstock



Process heat



Energy storage



Transport fuel

<b>30 bar (g)</b> Delivery pressure	<b>50 ft</b> Compact footprint
<b>99.999 %</b> Hydrogen purity	<b>72 %</b> System efficiency

## 1-MW module:

Our standardised 1-MW all-in-one solutions in minimal space – easily accessible, simple to maintain and scalable when demand increases. Designed for maximum reliability, using only proven components. Data-driven, intelligent monitoring for highly efficient system operation – protected by a robust AI cyber security solution for operational technology (OT).

## Hydrogen production:

Performance class	1 MW
Net production rate	200 Nm <sup>3</sup> /h, 431 kgH <sub>2</sub> /day
System specific energy consumption <sup>1</sup>	55 kWh/kgH <sub>2</sub> , 4.9 kWh/Nm <sup>3</sup>
System efficiency <sup>1</sup>	72 %
Dynamic production	15–100 %
H <sub>2</sub> purity after gas cleaning	up to 99.999 % / meets ISO 14687:2019
Delivery pressure	30 bar (g)

### Electrical efficiency

Electrical connection	10 kV or 20 kV / Mid-voltage power grid
Power supply electrolysis <sup>2</sup>	3 x 400 V / 50 Hz (acc. IEC 60038), Connecting power: 1.25 MVA
Power supply auxiliary	3 x 400 V / 50 Hz (acc. IEC 60038), Connecting value: 315 kVA

### Feedstock

Electrolyte	30 wt % KOH aqueous solution
H <sub>2</sub> O required quality	i.a.w. EU drinking water directive EU2020/2184

### Hardware

Dimensions L x W x H	15 x 2.8 x 3.9 (+ upper platform 1.1m–2.5m)
Weight <sup>3</sup>	57.1 t
System lifetime	20 years (expected)
Ambient temperature	-20 to 45 °C
Noise emission	90–95 dB(A)
Electrolysis technology	Alkaline – CE certified

<sup>1</sup> Standard conditions: BoL, 10 °C outdoor temperature, 30 bar (g) H<sub>2</sub>

<sup>2</sup> Transformer is required

<sup>3</sup> Dry weight excluding filling media

All specifications refer to our product: HubGen 1-MW hydrogen electrolyser, graphics and illustrations may vary, some components and specifications in this illustration are tailored to customer and project requirements. Information in this version (06/2026) is valid until the next version.