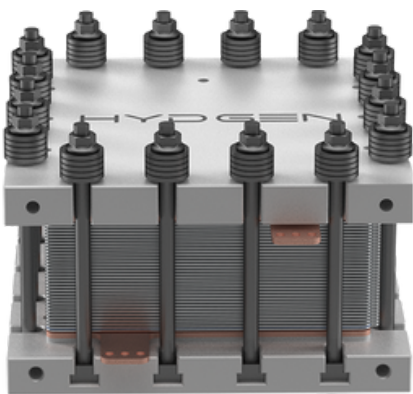


# 1kW AEM Stack

The HYDGEN 1 kW AEM stack is a compact, entry-level system ideal for small-scale hydrogen production. Designed for research labs, pilot projects, and niche industrial applications that need less than 5 kg/day of hydrogen, it offers an efficient and modular solution for decentralized hydrogen generation.



## Input

Stack Power Consumption	1kW
DC Power Consumption	4.8 ( rated Power ) kWh/Nm3 H2
Feed Water Quality	≤10 μS/cm (ISO 3696:1987 Grade1)
Water Flow Rate	0.034 m³/h
Current Density	0.625 A/cm²
Cells	2 Pcs
Rated Current	250 A
Rated Voltage	4 V
Rated Temperature	50±5 °C
Ambient Temperature	10-40 °C

## Mechanical Parameters

Size (W×L×H)	420*420*140 mm
Weight	~100 - 120 Kg

## Output

Volume	0.2 Nm3/h
Mass	~ 0.43 kg H2/day
H2 Output Pressure	~5 Barg
O2 Side Pressure	~1 Barg
O2 in H2	≤0.1 ( dry basis ) %
H2 in O2	≤1 ( dry basis ) %
Purity	99.97%

## Performance Parameters

DC efficiency	75-82 %HHV
Start Up Time	10s/8min Warm/Cold
Response time	30s
Water Consumption	~0.16 L/h
Power Range	25~125 %
Design Life	40 000 hours