

ENABLER OF COST-EFFECTIVE GREEN HYDROGEN

HYMETH-HYAEON25 PRESSURIZED ALKALINE ELECTROLYZER



PRODUCT

HYAEON25 is our high-efficienct alkaline electrolyzer. With a verified cell-level efficiency of 90%, HYAEON is the market-leader of alkaline electrolyzers. The patented system will deliver cost-effective hydrogen up to 350 bars for any hydrogen project.

APPLICATIONS

Our electrolyzer is providing green hydrogen at high pressure and low cost which is essential to decarbonize mobility, industry and energy segments.

Chemicals: Ammonia production, fertilizers.

Mobilty: Long-haul trucks, shipping and airplanes.

Energy: Grid balancing and energy storage.

Unique Selling Points

- ✓ 90% efficiency on cell-level which is 15-30% better than competitors.
- ✓ Pressurization system makes external compressor redundant.
- Recyclable and nondependent of rare and noble metals.
- ✓ Lifetime of 20 years.



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Hydrogen Production	
Net Production	5.5 Nm ³ /h
	0.5 kg/h
Production capacity range	25% 100%
Delivery pressure ¹	0-350 bar without additional compression
Hydrogen Purity	98.5-99.5% before gas cleaning
Electrical Efficiency	
Specific power consump. At stack level (DC)	4.28 - 4.47 KWh/Nm ³
Feedstock	
Demineralized Water	4.5 l/h
Electrolyte	30% KOH aqueous solution
Other Specs	
Stack Lifetime ²	80.000-90.000 h
Operating temperature	55-65 Celcius
Footprint ³	2.2 x 1.5 x 0.6 m (19-inch rack)

- 1. Hydraulic unit based on customers need
- 2. Benchmark for alkaline electrolyzers
- 3. Including pumps, powerpack, electrical and plumbing