The Plug Merrimack Electrolyzer Stack

Plug is the only company able to deliver on the entire hydrogen ecosystem.
Our portfolio includes products that produce, store, transport, dispense, and convert hydrogen to carbon-free electricity. Plug electrolyzers utilize proton exchange membrane (PEM) technology with decades of field experience and a track record of high performance and reliability. The Plug Merrimack electrolyzer is a building block to support your hydrogen production needs.



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Plug's electrolyzers are the safest, most efficient, and deliver the lowest total cost of ownership on the market today.

PEM electrolyzers generate hydrogen from water using electricity and a special membrane. No caustic chemical solutions required.

The Plug Gigafactory has the highest capacity in the industry (up to 1GW), utilizing lean principles and cutting-edge technology.

In addition, all Plug electolyzer stacks are manufactured with high quality standards in certified compliance with ISO 9001:2015.

Plug Merrimack Stack Specifications

The Plug Merrimack provides up to 67 kg/day of high-quality on-site hydrogen.

Optimized Stack Responsiveness
Lightning-fast response times during ramp-up, ramp-down, cold start, and standby system operating modes

Instant Load Adaptability
Seamlessly adjusts to load changes with instant response, ensuring optimal performance and energy usage

Compact Design
Maximizes space efficiency with a small footprint perfect for space-constrained installations

Unparalleled Efficiency at High Pressures
Operates at the highest pressure in the industry, delivering superior efficiency at equivalent current densities

Model	10N	20N	30N
Performance			
Max. H2 Production	10 Nm3/hr	20 Nm3/hr	30 Nm3/hr
Max. O2 Production	5.4 Nm3/hr	10.6 Nm3/hr	15.7 Nm3/hr
Hydrogen Purity	99.99% dry basis		
Delivery Pressure[1]	1- 40 barg		
Voltage[2]	57.7 V	113.4 V	169.2 V
Current	90-900 Amps DC		
Efficiency	73.7% – 87.6%		
Life Expectancy	80,000 hours		
Operating Conditions			
Operating Temp.	5 – 70°C		
Water Consumption	11 l/kg		
Water Flow	51 LPM	100 LPM	149 LPM
Physical Attributes			
Number of Cells	29	57	85
Size (W x D)[3]	372 mm x 352 mm		
Height3	306 mm	443 mm	565 mm
Weight (dry)	110 kg	130 kg	148 kg
Design Conformity			
	CE, ASME, NFPA		

1. Hydrogen pressure must be maintained above Oxygen pressure.
2. ≤1.99 V/cell beginning of life; ≤2.40 V/cell at end of life. At maximum current (900 A), temperature (70°C), and pressure (40 barg). Lower operating temperature increases cell voltage.
3. All dimensions approximate within ±6 mm