PEM electrolyzers



HyLYZER® 1000-30

HyLYZER® is Accelera's globally proven modular water electrolyzer system designed for easy on-site installation, with simple interconnectivity to scale up, and an unrivaled record for reliability, low maintenance and on-site safety. Recommended for projects between 2,000-20,000 Nm³/h.

Benefits	1
Proven technology, compliant with highest safety standard	S
Exceptionally compact for indoor modular plant integration	1
30 bar _g hydrogen delivery pressure (without compression)	
14 bar _g oxygen delivery pressure available as an option	

Features	HyLYZER® 1000-30
Technology	PEM (proton exchange membrane)
Nominal power rating	5 MW
Number of cell stacks	2
Hydrogen production	90 kg/h, 1000 Nm³/h
Hydrogen delivery pressure	30 bar _g (435 psi _g) without a compressor
Hydrogen quality	99.9% (gas is fully saturated with water), max impurities: O_2 < 100 ppm, N_2 < 12 ppm
Options	\
Oxygen production	720 kg/h, (500 Nm³/h)
Oxygen delivery pressure	14 bar _g
Oxygen quality	99% (gas is fully saturated with water)



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Scope of supply

Stack and balance-of-stack (BOS)	Indoor	Outdoor	
Cell stacks and gas generation			
Power rectifiers			
Control panel			
Water polishing system			

: included

O: included but requires utility connection

Balance-of-plant (BOP)	Indoor	Outdoor
Rectifier cooling	0	
Gas cooling	0	
Electrolysis system cooling	0	
Water purification system		
Instrument air compressor		
Hydrogen purification system		

Technical specifications

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Operating range	15–100%
DC power consumption at stack*	51 kWh/kg
System specific consumption*	52 kWh/kg
Utilities required to operate the plant	Electrical power, demineralized water, cooling water, building HVAC, Instrument air, nitrogen for purging
Rectifier specifications	IGBT; 6 to 33kV; 50/60 Hz; 5.86 to 6.85 MVA; 97.5% efficiency
Auxiliary installed power	45 kVA
Demineralized water consumption	9 L/kg hydrogen (ASTM D1193 Type III Grade B)
Total footprint (including maintenance area)	Electrolyzer: 8.4 m x 2.3 m (19.3 m²) Rectifier: 13.5 m x 5.1 m (68.9 m²)
Installation environment	Indoors 5°C to 40°C / 41°F to 104°F

^{*}At nominal capacity, Beginning of Life (BOL)

Applicable codes and standards Pressure Equipment Directive 2014/68/EU, Machinery Directive 2006/42/EC, Electro-Magnetic Compatibility 2014/30/EU, IEC 60079-10-1, NFPA 2, NFPA 497, National Electrical Code (NEC), ANSI/NFPA 70, ASME B37.3-2016, ASME Boiler and Pressure Vessel Code 2077, CSA C22.I and C22.2, CSA B57 2079, CAN/BNQ 7784-000/2007, ISO22734, CE Declaration of Conformity.

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