PEM electrolyzers



HyLYZER® 400/500-30

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 400-5,000 Nm³/h.

Benefits

Proven technology, compliant with highest safety standards

Turnkey containerized solution for weather-proof outdoors installation

30 barg hydrogen delivery pressure (without compression)

Integrated hydrogen purification system

Features 	HyLYZER® 400-30	HyLYZER® 500-30	4
Technology	PEM (proton exchange membrane)		
Nominal power rating	2 MW	2.5 MW	
Number of cell stacks	2		
Hydrogen	36 kg/h	45 kg/h	
production	400 Nm³/h	500 Nm³/h	
Hydrogen delivery pressure	30 bar _g (435 psi _g) without a compressor		
Hydrogen quality	99.998% (dry basis), max impurities: $O_2 < 2$ ppm, $N_2 < 12$ ppm		



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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		

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

Technical specifications	HyLYZER® 400-30	HyLYZER® 500-30	\
Operating range	7-100%		
DC power consumption at stack*	51 kWh/kg		
System specific consumption*	53.4 kWh/kg	53.2 kWh/kg	
Utilities required to operate the plant	Electrical power, potable water, nitrogen for purging		
Rectifier specifications	IGBT; 6 to 33kV; 50/60 Hz; 2.6 MVA; 97% efficiency	IGBT; 6 to 33kV; 50/60 Hz; 3.2 MVA; 97% efficiency	
Auxiliary installed power	117 kVA		
Potable water consumption	13-17 L/kg hydrogen		
Total footprint (including maintenance area)	17 m x 13 m (221 m²)		
Installation environment	Outdoors -20°C to 40°C / -4°F to 10	04°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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