

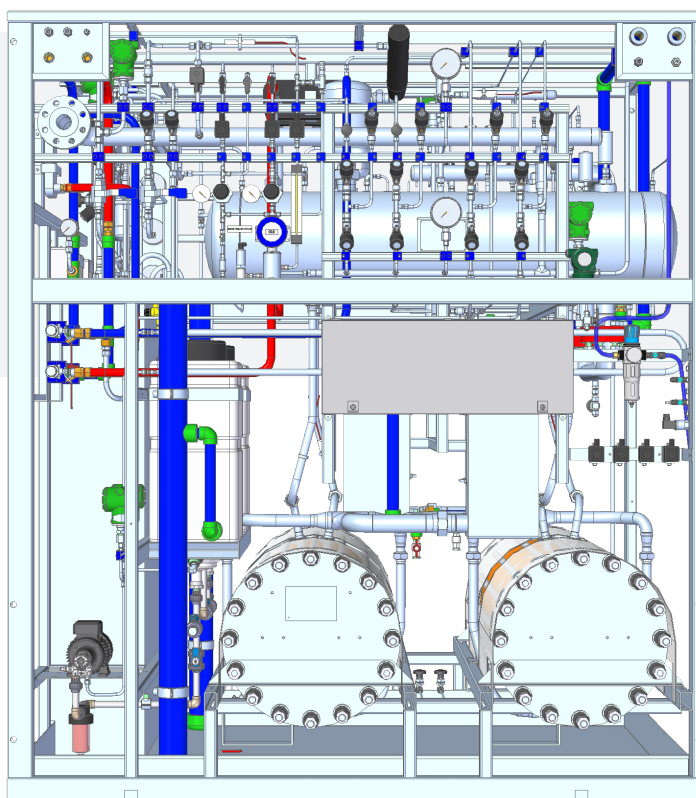
HySTAT® ALKALINE ELECTROLYZERS



HySTAT® is Cummins' globally proven modular alkaline electrolyzer system designed for easy on-site installation inside or out, with simple interconnectivity to scale up, and an unrivaled record for reliability, low maintenance and on-site safety. Recommended for projects between 10 - 90 Nm³/h.

Proven technology, compliant with highest safety standards

Turnkey solution



FEATURES

	HySTAT® - 10	HySTAT® - 15	HySTAT® - 30
Technology	Alkaline		
Hydrogen production	10 Nm³/h (21 kg/day)	15 Nm³/h (32 kg/day)	30 Nm³/h
H ₂ delivery pressure	10 bar _g (145 psig) without a compressor		10 bar _g
H ₂ quality max impurities	99.998% O ₂ < 2 ppm, N ₂ < 12 ppm (higher purities optional); Atm. Dew point: -75°C		99.998% O ₂ < 2 ppm; Atm. Dew point: -75°C

TECHNICAL SPECIFICATIONS

	HySTAT® - 10	HySTAT® - 15	HySTAT® - 30
Operating range	40-100%		40-100% (optional 20-100%)
System specific consumption*	55-60 kWh/kg		
Utilities required to operate the plant	Electrical power, potable water, nitrogen for purging requirements		
Rectifier input and efficiency	3 X 400 VAC ± 10% 50/60 Hz		
Installed power	115 kVA	155 kVA	275 kVA
Potable water consumption	Scope of supply includes a water treatment plant with reverse osmosis that requires 1.2 to 2 L/Nm ³ [13 to 17 L/kg of H ₂] (varies depending potable water quality) to produce 0.8 L/Nm ³ of demin water for the electrolysis process		
Total footprint (including maintenance area)	9.4 m x 5.8 m (~ 54 m ²)		
Product setup	Outdoor (20ft ISO container) / Indoor (skidded setup)		
Installation environment	Outdoors -20°C to 40°C / -4°F to 104°F		

*System specific consumption considers: the standard scope of supply refers to the outdoor version of this product (refer to BOS and BOP tables); 100% Load capacity; Beginning Of Life; 1% increase per annum (at ≥8500 hours operation); Range for indoor and outdoor setup

STACK AND BALANCE-OF-STACK (BOS)

	Outdoor	Indoor
Cell stacks and gas generation system	■	■
Power rectifiers	■	■
Control panel	■	■
Water quality monitoring system	■	■

BALANCE-OF-PLANT (BOP)

	Outdoor	Indoor
Rectifier cooling	■	■
Gas cooling	■	■
Electrolysis cooling	■	■
Water purification system	■	■
Instrument air compressor	■	■
Hydrogen purification system	■	■

Applicable Codes and Standards Pressure Equipment Directive 2014/68/EU, Low Voltage Directive 2014/35/EU, Machinery Directive 2006/42/EC, Electro-Magnetic Compatibility 2014/30/EU, ATEX Directive 2014/34/EU, IEC 61511, IEC 61508, IEC 60079-10-1, NFPA 2, NFPA 497, National Electrical Code (NEC), ANSI/NFPA 70, ASME B31.3-2016, ASME Boiler and Pressure Vessel Code 2017, CSA C22.1 and C22.2, CSA B51 2019, CAN/BNQ 1784-000/2007. Other jurisdictions available on request.

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