

PEM Electrolysis MODULAR SYSTEM

HyAxiom PEM Electrolysis products provide high system efficiency and scalable technology that connect to renewable power resources to generate 100% green hydrogen.

Flexible Operations

Load following and demand following for ease of integration with renewables.

Remote Monitoring & Control

Leveraging industry-leading remote monitoring and data analytics from our fuel cell experience to maximize product efficiency and uptime.

Modular & Scalable

Hydrogen and water processing equipment and installations that scale with application needs.

SYSTEM HIGHLIGHTS (per 10MW module)

HYDROGEN PRODUCTION

H ₂ Production Rate	4,300 kg/day
System Efficiency @ BOL	51 kWh/kg H_2
H ₂ Product Purity	99.995%+ (ISO 14687 Type I Grade C)
H ₂ Product Pressure	

OPERATING CHARACTERISTICS

Start Time from Standby	<60 sec
Ramp Time to Full Capacity	10 sec
Turndown Capability	≤10%

ENVIRONMENTAL CHARACTERISTICS

Ambient Operating Temp29	€°C to 50 °C
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WATER MANAGEMENT CHARACTERISTICS

Water Supply Quality	Potable Water
Water Consumption (40°C base model)	<0.0156 m3/kg H ₂
Water Discharge	<0.0051 m3/kg H ₂

SITE ELECTRICAL INTERFACES

Supply Voltage	4.16-35kV (13.8kV base)
Frequency	50/60 Hz
Power Quality (with aux load)	0.9 PF, <5% THD

CODES AND STANDARDS

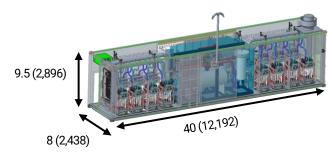
ISO 22734: Hydrogen generators using water electrolysis

Our system can adhere to region-specific certification requirements as needed, ensuring compliance wherever you operate

SYSTEM DIMENSIONS (per 10MW module)

HYDROGEN SUPPLY SYSTEM (HSS) Module (4300 kg H₂/day)

Dimensions in ft (mm):



- Modular hydrogen generation system allows for ease in multi-MW scale-up from 10MW to 100MW+
- Sub-assembly systems have been optimized for system efficiency and product cost, leading to lower production costs (LCOH)
- Flexible design allows for HyAxiom balance of plant scope optimization with partners based on site supply requirements

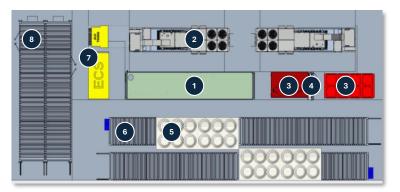
HyAxiom can supply all balance of plant items shown in illustrative layout

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The manufacturer reserves the right to change or modify, without notice, the design or equipment specifications without incurring any obligation either with respect to equipment previously sold or in the process of construction The manufacturer does not warrant the data on this document.

Example 4300 kg H₂/day site with Balance of Plant Equipment



- 1 HSS Hydrogen Supply System
- 2 PSCS Power Supply Conditioning System
- **3 HPS-DRY-CHL -** Hydrogen Purification System Dryer Stage
- 4 NPS Nitrogen Processing System
- 5 TMS Thermal Management System Cooling Module(s)
- 6 WTS Polish Cell Stack Water Treatment System
- 7 ECS Electrolyzer Control System
- 8 Pre-WTS/CIP Intake Water Treatment System

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