

PEM Electrolysis

CONTAINERIZED SOLUTION

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

SYSTEM HIGHLIGHTS

HYDROGEN PRODUCTION

H ₂ Production Rate	450-500 kg/day
System Efficiency @ BOL	51.6-51.8 kWh/kg H ₂
H ₂ Product Purity	99.995%+ (ISO 14687 Type I Grade C)
H ₂ Product Pressure	30 barg

OPERATING CHARACTERISTICS

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



ENVIRONMENTAL CHARACTERISTICS

Ambient Operating Temp	-20°C to 40°C (option for 50°C)
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WATER MANAGEMENT CHARACTERISTICS

Water Supply Quality.....	Potable Water
Water Consumption.....	<0.0156 m ³ /kg H ₂
Water Discharge	<0.0051 m ³ /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

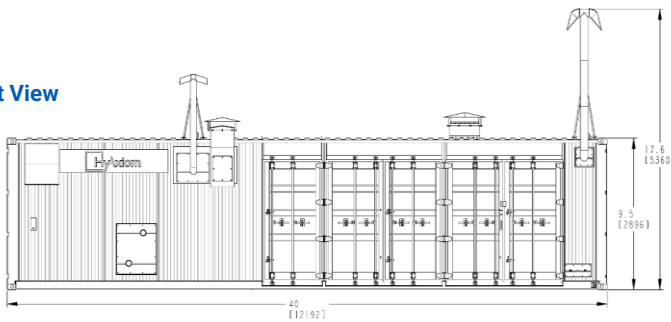
Our system can adhere to region-specific certification requirements as needed, ensuring compliance wherever you operate

SYSTEM DIMENSIONS (Containerized Solution – 1~1.25 MW)

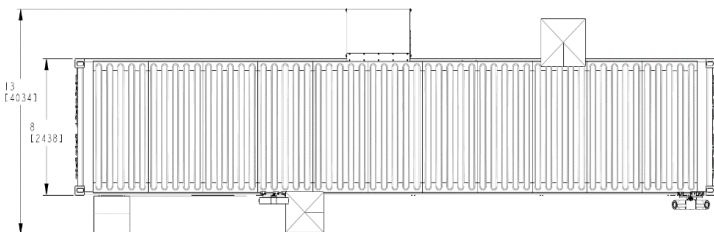
ELECTROLYSIS MODULE

Dimensions in ft (mm): 8 (2438) W X 40 (12192) L X 9.5 (2896) H

Front View



Top View



Example dimensions for reference:

POWER CONDITIONING HARDWARE

Transformer	10.5 (3200) W x 4.7 (1422) L x 8.5 (2578) H
Rectifier	3.3 (1000) W x 5.4 (1635) L x 7.3 (2225) H
Switchgear	3 (914) W x 4 (1207) L x 7.6 (2324) H
DC Enclosure	3 (914) W x 1.1 (325) L x 6 (1829) H

COOLER MODULE

Coolant	40 % ethylene glycol and balance water
Module	4 (1331) W x 16.9 (5166) L x 7 (2036) H

CHILLER MODULE

Coolant	40 % ethylene glycol and balance water
Module	2.9 (884) W x 3.9 (1194) L x 5.7 (1726) H



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