

DATASHEET SUNGREENH2 ELECTROLYZER SGH2- AE3S-20.1

SGH2-AE3S-20.1 20kW Electrolyzer Stack; 10kg/day H₂

Production Rate	4.667NM ³ /hr (10kg /day)
Output Pressure	<10 Bar
Efficiency (HHV)	82%
Stack Energy Consumption per kg H ₂	48 kWh/kg
Power Supply Requirements	80 - 120 VDC, 0-500A
Minimum water input quality	ASTM D1193-06 Type III, Recommend Type I
Water Consumption	5 L/hr
Stack Operating Temperature	60-70 °C
Dimensions	256.3mm (W) x 327.5mm (H) x 190mm (D)
Weight	300kg
Turn Down Ratio	30%
Turn Up Ratio [^]	200%
Electrolyte	1M KOH (5.34wt%)
Catalyst	PGM-Free Material
Degradation	~1% per year
Membrane Replacement*	Every 3-4 years

[^]Efficiencies will reduce to 70% HHV

*Performance will recover to 99% after membrane replacement

Stack Operating Requirements

Flow rate per Inlet	2.5 m ³ /hr
Pressure Head	10 m
Electrolyte	1M KOH (5.34wt%)
Water Consumption	<500 ml/hr
Minimum water input quality	ASTM D1193-06 Type III, Recommended Type I
Electrolyte Temperature	60-70 °C
Nominal Voltage	<90 V
Nominal Current	250 A
Operating Voltage Range	80-120 V
Operating Current Range	0-500 A
Stack Dimensions	348 mm W x 480 mm H x 400 mm L

Stack Connection List

Stack Inlet (2 Inlets)	1 Inch BSP Threaded
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