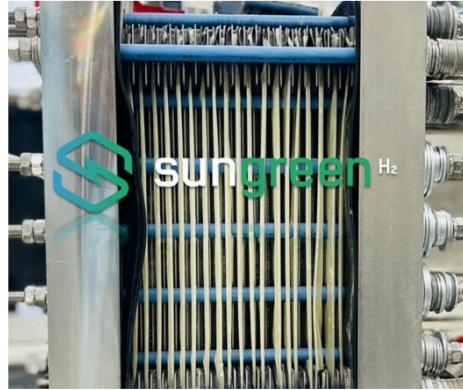




DATASHEET SUNGREENH2 ELECTROLYZER STACK AST0002-2.1



AST0002-2.1 2kW Electrolyzer Stack; 1kg/day H₂

Production Rate	0.467NM ³ /hr (1kg /day)
Output Pressure	<10 Bar
Efficiency (HHV)	82%
Stack Energy Consumption per kg H ₂	48 kWh/kg
Power Supply Requirements	32-40 VDC, 0-120A
Minimum water input quality	ASTM D1193-06 Type III, Recommend Type I
Water Consumption	<500 ml/hr
Stack Operating Temperature	60-70 °C
Dimensions	256.3mm (W) x 327.5mm (H) x 190mm (D)
Weight	50kg
Turn Down Ratio	10%
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	0.5 m ³ /hr
Pressure Head	1 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	<36 V
Nominal Current	60 A
Operating Voltage Range	34-40 V
Operating Current Range	0-120 A
Stack Dimensions	256.3mm (W) x 327.5mm (H) x 190mm (D)

Stack Connection List

Stack Inlet (2 Inlets)	3/8 Inch BSP Threaded
Stack Outlet (2 Outlets)	3/8 Inch BSP Threaded