



## DATASHEET SUNGREENH2 ELECTROLYZER STACK AST0020-1.3



### AST0020-1.3 20kW Electrolyzer Stack; 10kg/day H<sub>2</sub>

Production Rate	4.667NM <sup>3</sup> /hr (10kg /day)
Output Pressure	10-35 Bar
Efficiency (HHV)	82%
Stack Energy Consumption per kg H <sub>2</sub>	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 <sup>^</sup>	200%
Electrolyte	1M KOH (5.34wt%)
Catalyst	PGM-Free Material
Degradation	~1% per year
Membrane Replacement*	Every 3-4 years

<sup>^</sup>Efficiencies will reduce to 70% HHV

\*Performance will recover to 99% after membrane replacement

### Stack Operating Requirements

Flow rate per Inlet	2.5 m <sup>3</sup> /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
Stack Outlet (2 Outlets)	1 Inch BSP Threaded