



# H<sub>2</sub>B<sub>2</sub>



## Main Characteristics EL1N

Electrolysis Type	PEM (Proton exchange membrane, caustic free)
Number of Cell Stacks	1
<b>Hydrogen Gas Production</b>	
Max. Nominal Hydrogen Flow	1 Nm <sup>3</sup> /h
Hydrogen Flow Range	10 -100%
Operating Pressure	1-20 barg (14.5-290 psig)
Hydrogen Purity (before Gas Purification)	> 99.9%; < 25 ppm O <sub>2</sub> ; H <sub>2</sub> O saturated
Hydrogen Purity (after Gas Purification)	99.999%; < 5 ppm O <sub>2</sub> ; < 5 ppm H <sub>2</sub> O
<b>Electrical Requirements</b>	
Voltage	400 VAC ± 10% (3Ph+N) / 4800 VAC ± 10% (3Ph+N)
Frequency	50 Hz ± 5% / 60 Hz ± 3%
Power (BoP + Stack)	6.3 kW
Stack Consumption	4.7 kWh/Nm <sup>3</sup> H <sub>2</sub>
AC Power Consumption (BoP + Stack)	6.3 kWh/Nm <sup>3</sup> H <sub>2</sub>
<b>Feed Water - Tap Water (if Water Treatment Plant is included)</b>	
Consumption	< 2 l/hr
Conductivity	< 2,000 uS/cm (T 25 °C (77 °F))
Pressure	2-6 barg (29-87 psig)
Temperature	+5 °C to +40 °C (+41 °F to +104 °F)
<b>Feed Water - Demi Water (if Water Treatment Plant is not included)</b>	
Consumption	< 1 l/Nm <sup>3</sup> H <sub>2</sub>
Quality	> 10 MΩcm (< 0.1 uS/cm); TOC < 30 ppb
<b>Control System</b>	
PLC	Fully automated and unattended with 7" color touch screen
Communication	Modbus TCP/IP or Profinet (RJ45 port)
<b>Environmental Conditions</b>	
Ambient Temperature Range	+5 °C to +45 °C (+41 °F to +113 °F)
Humidity	0 to +95% (non-condensing)
Air Ventilation	Available from a non-hazardous area
Installation Area	Indoor/Outdoor
<b>Dimensions and weight</b>	
Dimensions (LxWxH)	Cabinet (1.8m x 0.8m x 2.1m) (5.9ft x 2.6ft x 6.9ft)
Approx. Weight	750 kg (1,653 lb)
<b>Standards &amp; Regulations</b>	
Compliance	CE, ISO 22734-1 /NFPA 2-2016 & NFPA 70
<b>Other Characteristics</b>	
Duty Cycle	100% (24/7)
Start-up Time (from Stand-by)	< 1 sec
Cold Start Time	< 5 min

Included	Additional Options
Hydrogen Cooling System	Oxygen Processing System
Emergency Shutdown System	Hydrogen Purification System (SAE J2719 September 2011)
Overpressure Relief System	Water Treatment System
Redundancy on Critical Safety Parameters	Extreme Environmental Conditions Package (Low and High Temp)
Heat Management (No Cooling Water is Needed)	