



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



Main Characteristics		EL10N	
Electrolysis Type	PEM (Proton exchange membrane, caustic free)		
Number of Cell Stacks	1		
Hydrogen Gas Production			
Max. Nominal Hydrogen Flow	10.05 Nm <sup>3</sup> /h		
Hydrogen Flow Range	10 -100%		
Operating Pressure	15 - 40 barg (217-580 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		
Electrical Requirements			
Voltage	3 x 400 VAC ± 10% (3Ph+N) / 3 x 480 VAC ± 10% (3Ph+N)		
Frequency	50 Hz ± 5% / 60 Hz ± 3%		
Power (BoP + Stack)	53.2 kW		
Stack Consumption	4.7 kWh/Nm <sup>3</sup> H <sub>2</sub>		
AC Power Consumption (BoP + Stack)	5.3 kWh/Nm <sup>3</sup> H <sub>2</sub>		
Feed Water - Tap Water (if Water Treatment Plant is included)			
Consumption	< 20.1 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)		
Feed Water - Demi Water (if Water Treatment Plant is not included)			
Consumption	< 1 l/Nm <sup>3</sup> H <sub>2</sub>		
Quality	> 10 MΩcm (< 0.1 uS/cm); TOC < 30 ppb		
Control System			
PLC	Fully automated and unattended with 7" color touch screen		
Communication	Modbus TCP/IP or Profinet (RJ45 port)		
Environmental Conditions			
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		
Dimensions and weight			
Dimensions (LxWxH)	10 ft container (3.0 m x 2.4m x 2.9m) (9.8ft x 7.9ft x 9.5ft)		
Approx. Weight	5000 kg (11,023 lb)		
Standards & Regulations			
Compliance	CE, ISO 22734-1 /NFPA 2-2016 & NFPA 70		
Other Characteristics			
Duty Cycle	100% (24/7)		
Start-up Time (from Stand-by)	< 1 sec		
Cold Start Time	< 5 min		
Nitrogen Supply System	For each purge, consumption is <0.1 kg at 3 barg (to be supplied by the customer)		
Instrumentation air System	Consumption 4 Nm <sup>3</sup> /h at 10 barg (to be supplied by the customer)		
		<b>Included</b>	<b>Additional Options</b>
Hydrogen Cooling System	Oxygen Processing System		
Emergency Shutdown System	Instrumentation Air System		
Overpressure Relief System	Nitrogen System		
Redundancy on Critical Safety Parameters	Hydrogen Purification System (SAE J2719 September 2011)		
Heat Management (No Cooling Water is Needed)	Water Treatment System		
	Uninterruptible Power Supply (UPS)		
	Extreme Environmental Conditions Package (Low and High Temp)		