



H₂B₂



Main Characteristics		EL1N	
Electrolysis Type	PEM (Proton exchange membrane, caustic free)		
Number of Cell Stacks	1		
Hydrogen Gas Production			
Max. Nominal Hydrogen Flow	1 Nm ³ /h (2.15 kg/day)		
Hydrogen Flow Range	10 -100%		
Operating Pressure	1-20 barg (14.5-290 psig)		
Hydrogen Purity (before Gas Purification)	> 99.9% ; < 25 ppm O ₂ ; H ₂ O saturated		
Hydrogen Purity (after Gas Purification)	99.999%; < 5 ppm O ₂ ; < 5 ppm H ₂ O		
Electrical Requirements			
Voltage	400 VAC ± 10% (3Ph+N) / 480 VAC ± 10% (3Ph+N)		
Frequency	50 Hz ± 5% / 60 Hz ± 3%		
Power (BoP + Stack)	6.3 kW		
Stack Consumption (*)	4.7 kWh/Nm ³ H ₂		
AC Power Consumption (BoP + Stack) (*)	6.3 kWh/Nm ³ H ₂		
Feed Water - Demi Water (optional Water Treatment Plant is not included)			
Consumption	< 1 L/Nm ³ H ₂		
Conductivity	> 10 MΩcm (< 0.1 uS/cm); TOC < 30 ppb		
Pressure	2-3 barg (29-43 psig)		
Temperature	+5 °C to +40 °C (+41 °F to +104 °F)		
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)	Cabinet (1.8m x 0.8m x 2.1m) (5.9ft x 2.6ft x 6.9ft)		
Approx. Weight	750 kg (1,653 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		
(*) Electrical consumption at maximum current density and operating pressure at the stack; this is reduced if those are not required.			
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)	
Uninterruptible Power Supply (UPS)		Hydrogen Mass Flow Measure & Purity Measure (H ₂ O & O ₂ Sensors)	
Heat Management (No Cooling Water is Needed)			
Virtual Private Network (VPN) connection			