



H₂B₂



Main Characteristics		EL100N	
Electrolysis Type	PEM (Proton exchange membrane, caustic free)		
Number of Cell Stacks	1		
Hydrogen Gas Production			
Max. Nominal Hydrogen Flow	105.5 Nm ³ /h		
Hydrogen Flow Range	10 - 100%		
Operating Pressure	15 - 40 barg (217-580 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	3 x 400 VAC ± 10% (3Ph+N) / 3 x 480 VAC ± 10% (3Ph+N)		
Frequency	50 Hz ± 5% / 60 Hz ± 3%		
Power (BoP + Stack)	538 kW		
AC Power Consumption (BoP + Stack)	5.1 kWh/Nm ³ H ₂		
Feed Water - Tap Water (if Water Treatment Plant is included)			
Consumption	150.7 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 ³ H ₂		
Quality	> 10 MΩcm (< 0.1 uS/cm); TOC < 30 ppb		
Control System			
PLC	Fully automated and unattended with 15" 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)	40 ft container (12.0m x 2.4m x 2.9m) (39.4ft x 7.9ft x 9.5ft)		
Approx. Weight	18,000 kg (39,683 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 <0.2 kg at 3 barg (to be supplied by the customer)		
Instrumentation air System	Consumption 7 Nm ³ /h at 10 barg (to be supplied by the customer)		
Included		Additional Options	
Hydrogen Purification System (SAE J2719 September 2011)	Oxygen Processing System		
Water Treatment System	Instrumentation Air System		
Hydrogen Cooling System	Nitrogen System		
Emergency Shutdown System	Extreme Environmental Conditions Package (Low and High Temp)		
Overpressure Relief System			
Redundancy on Critical Safety Parameters			
Uninterruptible Power Supply (UPS)			
Hydrogen Mass Flow Measure & Hydrogen Purity Measure (H ₂ O & O ₂ Sensors)			
Heat Management (No Cooling Water is Needed)			