



Main Characteristics		EL10N
Electrolysis Type	PEM (Proton exchange membrane, caustic free)	
Number of Cell Stacks	1	
Hydrogen Gas Production		
Max. Nominal Hydrogen Flow	0.957 kg/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)	As per ISO 14687	
Electrical Requirements		
Voltage	3 x 400 VAC ± 10% (3Ph+N) / 3 x 480 VAC ± 10% (3Ph+N)	
Frequency	50 Hz ± 5% / 60 Hz ± 3%	
Total installed power	68 kW	
Stack Consumption (*)	≤ 54.2 kWh/kg H ₂	
AC Power Consumption (BoP + Stack) (*)	≤ 68.2 kWh/kg (65.3 kW Nominal Power @ BoL, 100% load)	
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)	10 ft container (3.0m x 2.4m x 2.9m) (9.8ft x 7.9ft x 9.5ft)	
Approx. Weight	5,000 kg (11,023 lb)	
Standards & Regulations		
Compliance (**)	CE, ISO 22734-1 / NFPA 2-2020 & NFPA 70	
Other Characteristics		
Duty Cycle	100% (24/7)	
Start-up Time (from Stand-by)	< 30 sec	
Cold Start Time	< 20 min	
Nitrogen System	For each purge, consumption is <0.2 kg at >1 barg (to be supplied by the customer)	
Instrumentation Air System	Consumption 7 Nm ³ /h at 10 barg (to be supplied by the customer) Class V as per ISO 8573.1	
(*) This value could be lower, depending on final configuration		
(**) H2B2 can accommodate to local standards if 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)	Instrumentation Air System	
Virtual Private Network (VPN) connection	Nitrogen System	