



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



Main Characteristics		EL200N	
Electrolysis Type	PEM (Proton exchange membrane, caustic free)		
Number of Cell Stacks	1		
<b>Hydrogen Gas Production</b>			
Max. Nominal Hydrogen Flow	207 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		
<b>Electrical Requirements</b>			
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)	1,055.7 KW		
AC Power Consumption (BoP + Stack)	5.1 kWh/Nm <sup>3</sup> H <sub>2</sub>		
<b>Feed Water - Tap Water (if Water Treatment Plant is included)</b>			
Consumption	295.7 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)		
<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 15" 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)	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)		
<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		
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 <sup>3</sup> /h at 10 barg (to be supplied by the customer)		
<b>Included</b>		<b>Additional Options</b>	
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 <sub>2</sub> O & O <sub>2</sub> Sensors)			
Heat Management (No Cooling Water is Needed)			