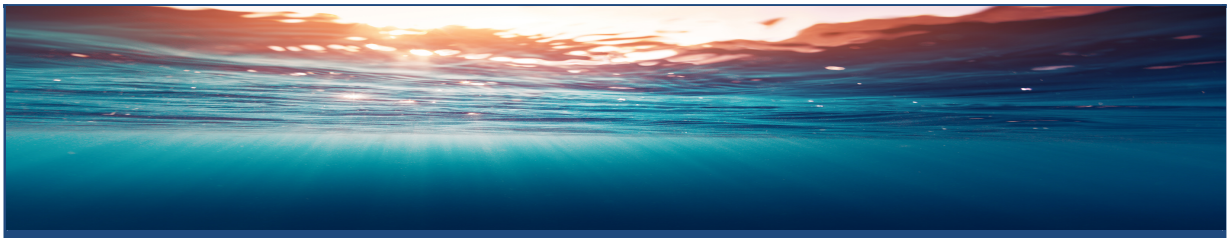

Main Characteristics	EL10N
Electrolysis Type	PEM (Proton exchange membrane, caustic free)
Number of Cell Stacks	1
Hydrogen Gas Production	
Max. Nominal Hydrogen Flow	10.05 Nm3/h (21.68 kg/day)
Hydrogen Flow Range	10 -100%
Operating Pressure	15 - 40 barg (217-580 psig)
Hydrogen Purity (before Gas Purification)	> 99.9% ; < 25 ppm O2; H2O saturated
Hydrogen Purity (after Gas Purification)	99.999%; < 5 ppm O2; < 5 ppm H2O
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/Nm3 H2
AC Power Consumption (BoP + Stack) (*)	5.3 kWh/Nm3 H2
Feed Water - Tap Water (if Water Treatment Plant is included)	
Consumption	< 20.1 L/h
Conductivity	< 2,000 uS/cm (T 25 oC (77 oF))
Pressure	2-6 barg (29-87 psig)
Temperature	+5 oC to +40 oC (+41 oF to +104 oF)
Feed Water - Demi Water (if Water Treatment Plant is not included)	
Consumption	< 1 L/Nm3 H2
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 oC to +45 oC (+41 oF to +113 oF)
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 2-2016 & NFPA 70
Other Characteristics	
Duty Cycle	100% (24/7)
Start-up Time (from Stand-by)	< 1 sec
Cold Start Time	< 5 min
Nitrogen System	For each purge, consumption is <0.1 kg at 3 barg (to be supplied by the customer)
Instrumentation Air System	Consumption 4 Nm3/h at 10 barg (to be supplied by the customer)

(*) Electrical consumption at maximum current density and operating pressure at the stack; thus 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 (H2O & O2 Sensors)**
Heat Management (No Cooling Water is Needed)	**Instrumentation Air System**
Virtual Private Network (VPN) connection	**Nitrogen System**