LABGREEM ELECTROLYZER

LABGREEM product family is a high-production polymer membrane electrolyzer with the following main properties:

KEY FEATURES

- ✓ ***Quick and easy installation***
- ✓ ***Scalable and modular with small footprint***
- ✓ ***High performance.***
- ✓ ***Safe, automated & remote operation***
- ✓ ***No water loss.***
- ✓ ***Low maintenance requirement***

HYDROGEN PRODUCTION

Nominal Production Rate	0,006 Nm3/hr– 0,06 Nm3 /hr
Nominal Power Consumption by Volume	4,6 kWh/Nm3 ± 1%
Nominal Power Consumption by Mass	50,5 kWh/kg ± 1%
H2 Purity	Up to 99,999 % (ISO 14687)
H2 Outlet Pressure	Up to 30 bar adjustable
Operation Range	5 % to 100 %
Dew Point Temp.	-71 ºC
H2/O2 Ports	Customized to client´s needs.

ELECTRICAL SPECIFICATIONS

Nominal Load	30 W - 300 kW
Electrical Connection	Three Phase 220 or 380V; 50/60Hz
Nominal system efficiency	Nominal Load: +/- 60%
AC/DC Rectifier	In accordance with project requirements
Max Power	1,25 kVA - 37,5 kVA
Rectifier	AC-DC or DC-DC
Electrical Safety	H2 detector

CONTROL SYSTEM

Communications	Ethernet // ModBus // TCP IP
Remote Operating	Control and communications via web-based platform

DI WATER SPECIFICATIONS

Water quality	ASTM Type II (<1 MicroS/cm)
Water consumption ratio	1 Lt H_2O → 1.2Nm^3 H_2

OPERATING CONDITIONS

Physical	Laptop Tower.
Ambient Conditions	– 12 ºC ↔ 40 ºC Humidity < 80%.
Response time	From Standby < 10 seconds Cold Start: +/-3 min
Weight	90 kg – 300 kg
Working conditions	45 ºC – 50 ºC
Location	Up to C% (ISO 12944:2018)
Max Noise (dB)	< 75
IP Rating	IP20

APPLICABLE STANDARDS

Hydrogen Generators by Water Electrolysis	ISO 22734:2019
Pressure Equipment Directive	2014/68/EU
Council Low Voltage Directive	2014/35/EU
Electro-Magnetic Compatibility	2014/30/EU
ATEX Directive	2014/34/EU
Functional Manufacturing Safety standards	ENISO 12100:2010, IEC 61508, IEC 62061,
Industrial Machine Guidelines	2006/42/CE

OPTIONS

- ➢ Gas analyzers.
- ➢ Gas flow meters.
- ➢ Communication Pacakges.
- ➢ Power Meters.
- ➢ Pressure meters.
- ➢ Other requirements

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ISO 9001 BUREAU VERITAS Certification

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