HPGREEM ELECTROLYZER

HPGREEM 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	6,6 Nm^3/hr– 66 Nm^3/hr 0,6 kg/hr - 6 kg/hr
Nominal Power Consumption by Volume	4,6 kWh/Nm3 ± 1%
Nominal Power Consumption by Mass	51,1 kWh/kg ± 1%
H2 Purity	Up to 99,9995 % (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 kW - 300 kW
Electrical Connection	Three Phase 380V; 50/60Hz
Nominal system efficiency	Nominal Load: +/- 60%
AC/DC Rectifier	In accordance with project requirements
Max Power	36 kVA - 360 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	1 unit of 20 feet container.
Ambient Conditions	– 12 ºC ↔ 40 ºC Humidity < 80%.
Response time	From Standby < 10 seconds Cold Start: +/-3 min
Weight	5 Tn – 15 Tn
Working conditions	45 ºC – 50 ºC
Location	Up to C% (ISO 12944:2018)
Max Noise (dB)	< 75
Ventilation	IP65

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 upon requirements

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CE

ISO 9001 BUREAU VERITAS Certification