

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

- Quick and easy installation  $\checkmark$
- ✓ Scalable and modular with small footprint
- KEY FEATURES
- Safe, automated & remote operation ✓
- ✓ No water loss.

✓ High performance.

Low maintenance requirement ✓

### HYDROGEN PRODUCTION

Nominal Production Rate	6,6 Nm³/hr– 66 Nm³/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

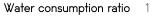
## CONTROL SYSTEM

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)



1 L† H<sub>2</sub>O → 1.2Nm<sup>3</sup> H<sub>2</sub>



## **OPERATING CONDITIONS**

Physical	1 unit of 20 feet container.
Ambient Conditions	– 12 °C ↔ 40 °C Humidity < 80%.
Response time	From Standby < 10 seconds Cold Start: +/-3 min
Weight	5 Tn – 15 Tn
Working conditions	45 °C - 50 °C
Location	Up to C% (ISO 12944:2018)
Max Noise (dB)	< 75
Ventilation	IP65

# APPLICABLE STANDARDS

Hydrogen Generators by Water Electrolysis Pressure Equipment Directive	ISO 22734:2019 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 Industrial Machine Guidelines	ENISO 12100:2010, IEC 61508, IEC 62061, 2006/42/CE

#### OPTIONS

- Gas analyzers. ≻
- Gas flow meters. ⊳
- Communication Pacakges. ⊳
- Power Meters. ≻
- Pressure meters.  $\triangleright$
- Other upon requirements ۶



