

L/M30 Hydrogen Generator

Hydrogen on demand: When you need it, where you need it!



Our range of reactors is tailored to the specific needs of each project, with one range for low consumption and another for those requiring larger volumes. Hydrogen generation capacity can go from 150 kW in the lower range to several MW in the upper one, taking advantage of the scalability of our products

Methanol Reformers' Hydrogen generation technology produces hydrogen from Methanol – on site and on board. The L/M30 hydrogen generator delivers up to 384 kg hydrogen per day to support fuel cells in excess of 200 kW.

Using an easily transported and stored blend of methanol plus water, the L/M30 product delivers high-purity hydrogen at pressures up to 2 bar. Integration with commercial fuel cell modules is easily achieved via a low-pressure hydrogen buffer tank. Applications include primary and backup power for stationary applications, distributed (grid independent) BEV charging stations, hydrogen fueling stations, and onboard heavy duty vehicles (trains, trucks, off-road machinery). Very low, and even negative, carbon intensities are achieved using renewable methanol.

For more information, please contact with info@methanolreformer.es

STRONG POINTS:

- ⚡ No harmful gas emissions (**No NOx, SOx, PMs**)
- ⚡ **Grid independent**
- ⚡ High purity (>99.97%) H₂ production
- ⚡ Low CO₂ emissions (-28% vs diesel) and **carbon neutral** with green methanol
- ⚡ **Low CAPEX / OPEX**
- ⚡ **Scalable** for expanded H₂ deployments
- ⚡ **Plug&Play**
- ⚡ **24/7** Run Times; no operator needed
- ⚡ Limited Power Requirements (2kW)
- ⚡ Reduced Noise and Pollution
- ⚡ **Low** level of maintenance
- ⚡ Fast implementation
- ⚡ Able to use **existing fuel deposits**

CROSS-SECTORIAL APPLICATIONS:

- ⚡ Mining / Construction
- ⚡ Service stations
- ⚡ Ports / Airports
- ⚡ Industrial
- ⚡ Data Centers
- ⚡ Warehouse / Logistics
- ⚡ On-board
- ⚡ Off-grid

Website: www.methanolreformer.com

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Global Headquarters: World Trade Center. Moll de Barcelona s/n Edificio Este Planta 5

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L/M30 Hydrogen Generator - Product Specifications*

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| | |
|---|---|
| System Architecture H ₂ Generator System H ₂ Purifier | Includes feedstock pump, air blower, feedstock reformer, H ₂ purifier, controls Proprietary bi-metallic membrane purifier |
| H₂ product Output Purity H ₂ Buffer Tank Delivery Pressure | 3,000 sLm 16.2 kg/hr (max output) ≥ 99.97% (dry basis) with < 0.2 ppm CO ₂ (meets ISO 14687 purity standard) 0.7 - 2.0 bar |
| Efficiency Methanol/ Water Consumption Efficiency at Steady State Optimal | 210 L/hr average at 3000 sLm Hydrogen production > 80% |
| Control options Controls Communication Protocol Operating Modes Remote Access | Bosch ECM control package CAN - SAE j1939 Automated or Manual Optional: Access to Wi-Fi required for remote access |
| Electrical power requirements Cold Startup Mode Hot Standby H ₂ Production Mode Minimum Power to H ₂ Generator | ≤ 8 kW at 200 VAC (Constant), < 0.2 kW at 24 VDC ≤ 4 kW at 200 VAC, <0.2 kW at 24 VDC (avg. energy consumption) ≤ 1.3 kW at 200 VAC, < 0.7 kW at 24 VDC ≥ 40 A at 200 VAC, ≥ 20A at 24 VDC |
| Startup time From Ambient Temperature From Hot Standby | 24 hrs. depending on system power conditions & ambient temp. < 5 min to H ₂ production; < 30 min to rated H ₂ production |
| Dimensions Size (L x W x H) = Volume Weight | (2.34 m X 1.13 m X 1.62 m) = 4.3 m ³ 1,770 kg |
| Feedstock requirements Methanol/ Water DI Blend Ratio Methanol Specifications De-Ionized Water Specifications | Premixed Methanol 62.5 +/- 0.5 wt% with balance DI water Methanol must meet IMPCA purity standard DI water must be ≥ 14MΩ-cm |

*Specifications subject to change

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