H$_2$Genset – the mobile, emission-free generator
Datasheet

H$_2$Genset

The H$_2$Genset is a flexible and mobile hydrogen-powered generator for areas without access to the conventional power grid, e.g. on construction sites, at outdoor events, for temporary power supply of telecommunication masts or as mobile emergency power supply in case of major emergencies.

It can also be optionally configured as a mobile uninterruptable power supply system - without the need for foundations or building permits.

Designed for your mobile application: the H$_2$Genset

H$_2$Genset models	H$_2$Genset 10-5/72	H$_2$Genset 20-10/21	H$_2$Genset 20-10/36
Peak power output (ca. 30 min)	10 kW	20 kW	20 kW
Overload power (max. 15 sec)	12.5 kW	25 kW	25 kW
Continuous power output [1]	5 kW	10 kW	10 kW
Output voltage	230 / 400 V AC, 50 Hz	230 / 400 V AC, 50 Hz	230 / 400 V AC, 50 Hz
Fuel	Hydrogen 3.0 or higher	Hydrogen 3.0 or higher	Hydrogen 3.0 or higher
Tank pressure	700 bar	700 bar	700 bar
Number of integrated tanks (H$_2$ storage capacity)	7 (14.6 kg)	4 (8.4 kg)	7 (14.6 kg)
Integrated EFOY Hydrogen fuel cell modules	2	4	4
H$_2$ consumption	0.06 kg/ kWh$_{el}$	0.06 kg/ kWh$_{el}$	0.06 kg/ kWh$_{el}$
Efficiency fuel cells	50 %	50 %	50 %
Operating time (continuous power output)	48 h @ 5 kW	14 h @ 10 kW	24 h @ 10 kW
Energy capacity	243 kWh$_{el}$	139 kWh$_{el}$	243 kWh$_{el}$
Integrated battery capacity	285 Ah (@ 48 V DC)	285 Ah (@ 48 V DC)	285 Ah (@ 48 V DC)
Operating temperature [2]	-20 °C to +50 °C	-20 °C to +50 °C	-20 °C to +50 °C
Storage temperature [3]	-30 °C to +60 °C	-30 °C to +60 °C	-30 °C to +60 °C
Expansion with external tank possible	✓	✓	✓
Remote monitoring (Cloud-platform)	✓	✓	✓
CE-certified	✓	✓	✓
Approved for road use (Europe)	✓	✓	✓
Dimensions (L x W x H) [4]	1,974 x 1,400 x 1,820 mm	1,974 x 1,400 x 1,820 mm	1,974 x 1,400 x 1,820 mm
Weight [4]	1,610 kg	1,512 kg	1,670 kg

[1] Only achievable at a supply air temperature of ‹ 30°C / 86°F.
[2] Start at temperatures below +3°C only possible after internal warm-up phase.
[3] Ideal storage at temperatures between +3°C to +30°C.
[4] Values excluding trailer frame.

All technical data at test conditions of 20 °C / 68 °F
Subject to modifications and errors
Valid from 22.07.2022

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Emission-free hydrogen fuel cells

The EFOY hydrogen fuel cell modules integrated in the H₂Genset are based on proven PEM (polymer electrolyte membrane) technology. The fuel cells produce electricity from hydrogen, supplemented by oxygen from the air. They convert hydrogen directly into electricity and the only waste product produced is water vapor.

This is exceptionally environmentally friendly.

Modular design with integrated tank system

Thanks to the modular design with integrated EFOY hydrogen fuel cells, the performance range can be precisely tailored to suit your requirements. The H₂Genset has an integrated hydrogen tank system and uses proven fuel cell technology to provide energy cleanly and quietly. It also needs little maintenance and is cheap to run.

The H₂Genset can be refueled quickly and easily at H₂ filling stations. For even greater self-sufficiency, the H₂Genset also has a connection for an external tank, e.g. a standard 12-cylinder gas cylinder bundle.

Flexible and emission-free

Hydrogen fuel cells are a climate-neutral, quiet and highly efficient alternative option for covering increased electricity demands and guaranteeing a (back-up) power supply without the need for diesel-powered solutions. The H₂Genset's uses are not limited to its standard role as a reliable emergency power generator. It can also secure the power supply in areas without access to the conventional power grid. The H₂ generator is an advanced, climate-neutral, and incredibly flexible power supply system.

Remote monitoring via cloud platform

Monitor individual generators or entire fleets conveniently and easily using a suitable IoT solution. The H₂Genset has an integrated cloud connection and can therefore be monitored using the associated web app. Your dashboard shows device data, such as the fill level or the location displayed on a map.

Information and contact

www.h2-genset.com/