



QUATTROGENERATION

The fuel cell for power supply and preventive fire protection in one system



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Highest primary energy savings in the world

QuattroGeneration is our fuel cell system with exclusive four-fold usage, with nothing of its kind in the world. In addition to the efficient energy conversion of natural gas to electricity, heat and cooling air, we also use the low-oxygen air from the fuel cell for the purposes of **preventive fire protection in your facilities.**

Oxygen reduction – the safest type of fire prevention

The controlled and permanent reduction of oxygen content is the safest form of fire protection. QuattroGeneration uses the nitrogen-rich air from the fuel cell. This leads to a **long-lasting protective atmosphere** where fires are unable to start. QuattroGeneration has a **modular design in 100 kW units** and produces oxygen-reduced air around the clock – so there are no limits to the size of the facilities you can protect.

Economical from day one

With QuattroGeneration, you will not just save on fire prevention systems in the future. You will also be able to reduce conventional procurement of electricity from the public grid, integrate the warm water from the fuel cell into your heating system and convert to cooling air

using absorber/adsorber systems. There are a range of benefits: you improve fire protection in your company, **increase power supply redundancy** and **reduce your operating costs.** Under the cogeneration act, fuel cell power receives an additional **compensation of 5.41 cent/kWh** – also in the case of self-use and for a ten year period.

QuattroGeneration for industry and trade

Fire protection with QuattroGeneration is ideally suited for use in a range of industries and for a wide variety of requirements, including **IT centres and facilities, warehouses and logistics centres, archives, museums and libraries.**

What you can expect from QuattroGeneration

- › Permanent fire prevention through oxygen reduction
- › Safety and redundancy in power supply
- › Reduction of operating costs through maximum efficiency
- › Environmental protection through high CO₂ savings
- › Modular system that grows with you and your requirements

Technical information

Electrical power	100 kW
Voltage	400 VAC
Frequency	50 Hz
Heat extraction	~ 54 kW to 62 °C ~ 54 kW to 92 °C ¹
Energy efficiency	> 90%
Fire protection	Protection for room sizes of up to several 1,000 m ³
Energy source	Natural gas
Operating mode	Fully automated, grid operation
Dimensions (WxLxH)	2.2 m x 6.5 m x 3.4 m
Weight	15.5t during operation

¹alternatively approx. 40 kW cooling capacity via external absorber

Functional principle of QuattroGeneration

