

Technical data for divers customer needs	Max. electrical efficiency	Max. total efficiency	Hot country	Biogas
Electrical Output	1,560 kW	1,560 kW	1,560 kW	1,560 kW
Electrical Efficiency	44.0%	42.8%	43.2%	43.2%
Thermal Efficiency	45.7%	48.7%	46.0%	42.5%
Gas Types	Natural gas	Natural gas	Natural gas	Biogas
GenSet dimensions l x w x h (m)	6.5 x 1.9 x 2.3			
Engine Speed (rpm)	1,500			
Bore / Stroke (mm)	145 / 185			

Technical data according to ISO 3046  
 Based on emission values of 500 mg/Nm<sup>3</sup> NOx at 5% O<sub>2</sub> at dry exhaust gas  
 Total heat output with a tolerance of +/- 8 %, exhaust gas outlet temperature 120°C, for biogas gas outlet temperature 180°C  
 Natural gas with a methan number at 70  
 All data according to full load and subject to technical development and modification. Further engines versions available on request.

INNIO\* is a leading solutions provider of gas engines, power equipment, a digital platform and related services for power generation and gas compression at or near the point of use. With our Jenbacher\* and Waukesha\* product brands, INNIO pushes beyond the possible and looks boldly toward tomorrow. Our diverse portfolio of reliable, economical and sustainable industrial gas engines generates 200 kW to 10 MW of power for numerous industries globally. We can provide life cycle support to the more than 48,000 delivered gas engines worldwide. And, backed by our service network in more than 100 countries, INNIO connects with you locally for rapid response to your service needs. Headquartered in Jenbach, Austria, the business also has primary operations in Welland, Ontario, Canada, and Waukesha, Wisconsin, US.



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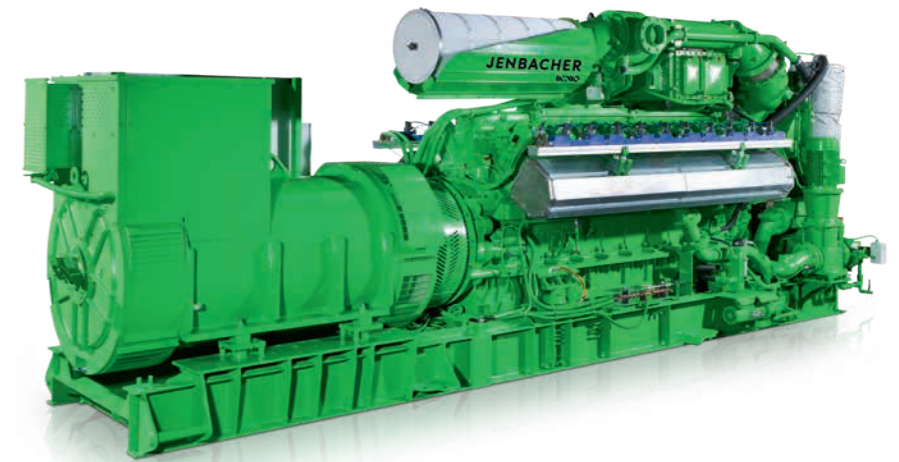
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## Jenbacher Type 4 Next-generation technology innovation

### Product highlights

- **Increased output** up to 1,560 kWel
- **Greater electrical efficiency**
  - up to 44% for Natural Gas
  - up to 43.2% for Biogas
- **Reduced footprint** – 0,6 meters shorter
- **Enhanced serviceability**



The new Jenbacher\* gas engine is based on the proven Type 4 platform of more than 4,000 installed engines generating about 4.5 GW of power worldwide. The innovative design and engineering excellence translate to as much as an up to 4% increase in output – to 1,560 kW – and about up to 1% point boost in electrical efficiency compared to the respective J420 B gas engine versions.

The new J420 exemplifies compact design, serviceability, and standardization. While these units provide significant advantages for pure power generation – fueled with natural or biogas, they truly excel in cogeneration (CHP) applications and as hot country version. Additionally, they are remarkably well-suited for container installations.



## Design Features

The new module delivers a robust compact footprint with a 0.6-meter reduction in length compared to the previous versions of engine Type 4. Aligned and integrated components with standardized interfaces increase reliability without compromising on the operator's flexibility.

### Steel piston technology (optional)

New steel pistons provide much higher power loading capability as well as significant efficiency improvement. Optimized piston cooling improves heat dissipation and reduces thermal load.

### Improved 3K-gas-mixer

Derived from proven Type 6 engine technology, the new design delivers a homogenous, stable, and smooth gas-to-air mixture – with any fuel gas type – over the entire power range.

### High performance turbocharger

Our latest turbocharger technology delivers top efficiency in addition to full output at high ambient temperatures and altitudes.

### Repositioned SAFI-rails

This modification translates to improved operating conditions for the ignition-rails and the knocking detection system.

### Improved cylinder head

Newly designed cylinder head with increased efficiency and improved cooling conditions in combination with further optimized cam-shaft-profile. At the same time, the improved cooling further reduces the thermal load.

### New throttle valve actuator and integrated flame arrestors

The new concept is not only maintenance-friendly, it also improves operational safety specifically for special gas applications.

### Improved frame and mounting system

- Split design frame provides easier insertion in restricted spaces.
- The new installation concept additionally minimizes the vibration level of the module and reduces thereby resulting impacts on the components.
- High-dynamic coupling significantly reduces vibration transmission to the generator.
- 3D-adjustable chocks provide rigid generator support and fast alignment possibilities.
- Quickly removable safety guards offer improvement over bell-housing design, e.g., no shifting of the generator is needed for coupling changes.

### Maintenance-friendly air filter

- Single cartridge with increased filter surface for longer lifetime
- Electronic differential pressure monitoring improves maintenance.

### Individual interface positioning

- Three pre-defined interface panel positions ensure an ideal adjustment to local conditions.
- Easy access to all maintenance relevant parts like filters, pumps and turbo-charger.

### Optimized blow-by filter

Increased life-time and exchangeable cartridge reduce service costs.

