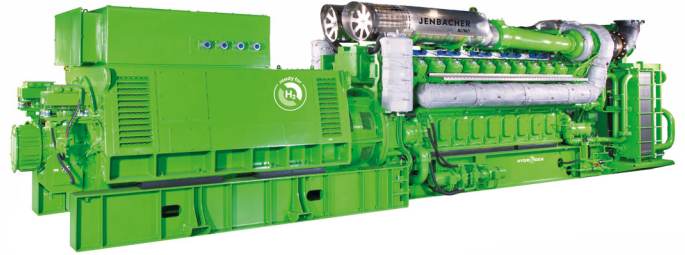


JENBACHER TYPE 6

Hot & Humid countries Cutting-edge technology

Continuously refined based on our extensive experience, Jenbacher type 6 engines are reliable, advanced products serving the 2 to 4.5 MW power range. The 1,500 rpm engine speed provides high power density and low installation costs. The type 6 precombustion chamber enables high efficiency with low emissions. Proven design and enhanced components support a service life of 60,000 operating hours before the first major overhaul. The J624 model features the advanced 2-stage turbocharging technology, which offers high electrical and total efficiencies combined with improved flexibility over a wide range of ambient conditions.



Reference installations

J612 & J620 Mamuda Foods Nigeria Ltd., Nigeria

Energy source	Engine type	Electrical output	Commissioning
Natural gas (LNG)	3 x J612 7 x J620	29.47 MW	2020, 2021, 2022, 2023

Three Jenbacher J612 and seven Jenbacher J620 engines fueled with natural gas derived from LNG meet the power needs at the Mamuda Foods plant in Kano, Nigeria. This infrastructure project includes a long-time agreement with one of the largest Nigerian LNG companies, which trucks LNG to the site.



J612 Vitalait, Tunisia

Energy source	Engine type	Electrical output	Thermal output	Commissioning
Pipeline gas	2 x J612	4 MW	3.1 MW	2019, 2021

With two Jenbacher J612 engines and a total electrical output of 4 MW, this cogeneration plant helps reduce Vitalait's energy costs with monthly savings of more than €51,000*. Plus, carbon emissions are reduced by more than 6,000 metric tons (tonnes) per year.

* 166,000 Tunisian Dinar



J624 City Group in Narayangonj, Bangladesh

Energy source	Engine type	Electrical output	Commissioning
Pipeline gas	9 x J624	39.57 MW	2019, 2020

Based in Narayangonj, City Group is one of Bangladesh's leading conglomerates and consumer goods manufacturers. Nine Jenbacher J624 gensets generate a total of 39,573 kW of electricity to support the factory and office buildings.



J624 Walton Hi-Tech Industries PLC. in Gazipur, Bangladesh

Energy source	Engine type	Electrical output	Commissioning
Pipeline gas	5 x J624	21.99 MW	2021

Walton Hi-Tech Industries PLC. is an electrical and electronics manufacturing company based in Gazipur. Five Jenbacher J624 gensets generate a total of 21,985 kW of electricity to support the company's refrigeration and air conditioning manufacturing section, its home appliance section, and its office buildings.



Technical features

Feature	Description	Advantages
Four-valve cylinder head	Centrally located purged pre-combustion chamber, developed using advanced calculation and simulation methods (CFD)	Reduced charge-exchange losses, highly efficient and stable combustion, optimal ignition conditions
Heat recovery	Flexible arrangement of heat exchanger, two stage oil plate heat exchanger on demand	High thermal efficiency, even at high and fluctuating return temperatures
Air / fuel mixture charging	Fuel gas and combustion air are mixed at low pressure before entering the turbocharger	Main gas supply with low gas pressure, mixture homogenized in the turbocharger
Pre-combustion chamber	The ignition energy of the spark plug is amplified in the pre-combustion chamber	High efficiency, lowest NO _x emission values, stable and reliable combustion
Gas dosing valve	Electronically controlled gas dosing valve with high degree of control accuracy (for natural gas)	Very quick response time, rapid adjustment of air / gas ratio, large adjustable calorific value range
2-stage turbocharging	Next generation turbocharging technology concept (for J624 only)	Improved performance in terms of output and efficiency, increased flexibility regarding ambient conditions

Technical data

Configuration	V 60°
Bore (mm)	190
Stroke (mm)	220
Displacement / cylinder (lit)	6.24
Speed (rpm)	1,500 (50 Hz) 1,500 with gearbox (60 Hz)
Mean piston speed (m/s)	11 (1,500 1/min)
Scope of supply	Generator set, cogeneration system, containerized package
Applicable gas types	Natural gas, flare gas, biogas, landfill gas, sewage gas, special gases (e.g. coal mine gas, coke gas, wood gas, pyrolysis gas)
Engine type	J612 J616 J620 J624
No. of cylinders	12 16 20 24
Total displacement (lit)	74.9 99.8 124.8 149.7

Dimensions l x w x h (mm)		
Containerized package	J612-J624	12,000 - 20,500 x 3,000 - 6,000 x 7,500
Generator set	J612	7,600 x 2,200 x 2,800
	J616	8,300 x 2,200 x 2,800
	J620	8,900 x 2,200 x 2,800
	J624	12,800 x 2,500 x 2,900
Cogeneration system	J612	7,600 x 2,200 x 2,800
	J616	8,300 x 2,200 x 2,800
	J620	8,900 x 2,200 x 2,800
	J624	12,800 x 2,500 x 2,900

Weights empty (kg)	J612	J616	J620	J624
Generator set	24,000	29,200	36,900	52,100
Cogeneration system	24,500	29,700	37,500	52,100

Dimensions and weights are valid for 50 Hz applications

Outputs and efficiencies

Natural gas		1,500 1/min 50 Hz					
NO _x †	Type	Pel (kW) ¹	Pth (kW) ³	Heat Rate (kJ/kWhe) ²	ηel (%) ¹	ηth (%) ²	ηTotal (%)
500 mg/m ³ _N	J612	2,000	1,993	8,028	44.9	44.7	89.6
	J612	2,004	1,993	7,992	45.0	44.7	89.7
	J616	2,675	2,669	8,028	44.9	44.8	89.8
	J616	2,671	2,669	8,028	44.9	44.8	89.7
	J620	3,352	3,355	8,028	44.9	44.9	89.8
	J624	4,499	4,031	7,776	46.4	41.5	87.9
	J624	4,499	4,409	7,884	45.7	44.8	90.4

¹ Type 6 gas engine with site condition ≤ 50m above sea level and T1 ≤ 40°C

² Technical data and fuel consumption according ISO 3046

³ Total heat output @ hot water 70°C/90°C

All data according to full load and subject to technical development and modification.

Further engines versions available on request.



Contact us:
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In general, "Ready for H₂" Jenbacher units can be converted to operate on up to 100% hydrogen in the future. Details on the cost and timeline for a future conversion may vary and need to be clarified individually.

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