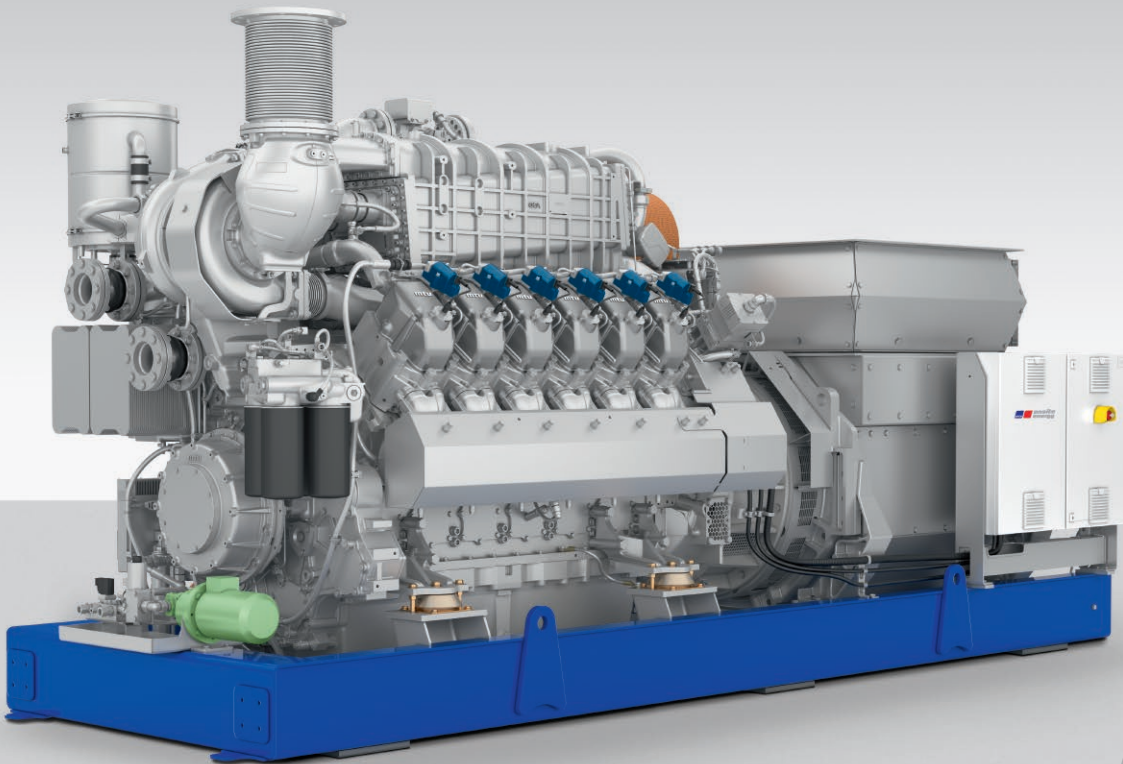


DRIVING EXCELLENCE FORWARD: THE NEW NATURAL GAS-POWERED SERIES 4000.



CONTINUOUS INNOVATION FOR THE FUTURE AND YOUR SUCCESS.

Worldwide demand for decentralized energy is increasing, and with it also the demand for extremely efficient generator sets and modules for independent power and heat supply. The new generation of our natural gas-powered MTU Series 4000 – with an electrical output range from 1,012 kW to 2,530 kW – meets these increased demands, while also setting the standard with maximum performance, efficiency and low emissions ratings.

High efficiency, high power density and a long service life with low service costs: no compromises have been made in the development of the natural gas engine Series 4000. Thousands of customers all over the world already rely on our Series 4000 engines and they drive us to continue the long tradition of continuous innovation. For this purpose, significant engine components have been optimized, intelligently combined and perfectly adapted to one another. This has produced a new generation of engines in which it has been possible to improve all important parameters without making any compromises in terms of the familiar reliability – with comprehensively impressive results.

Designed for maximum performance:

- // Significant increase in the effective engine power to 130 kW/cylinder
- // Downsizing effects by the achieved power increase
- // High power density combined with compact construction by significant average pressure increase

More efficient than ever before:

- // Significant increase in the electrical efficiency to a peak value of up to 44.3%, delivering a significant improvement in the fuel energy utilization with a high temperature level
- // Long service life and maximum availability by optimum harmonization of all components
- // Low maintenance costs because of long service intervals as well as easy to maintain components
- // Lower lifecycle costs
- // Fast availability of spare parts

Cleaner than ever before:

- // Significant reduction in nitrous oxide emissions (NOx) by optimizing relevant engine components

Technical data

Configuration		8V	12V	16V	20V
Bore/Stroke	mm	170/210	170/210	170/210	170/210
Rated speed	rpm	1500	1500	1500	1500
Mean piston speed	m/s	10,5	10,5	10,5	10,5
Length	mm	4.200	5.000	5.500	6.600
Width	mm	2.000	2.000	2.000	2.000
Height	mm	2.300	2.300	2.300	2.400
Dry weight	kg	11.000	14.000	17.000	21.000

Performance, efficiency

Configuration		8V	12V	16V	20V
Output					
Electrical output ¹	kW	1.012	1.523	2.028	2.530
Thermal output					
Mixture cooler ²	kW	475	712	965	1200
Exhaust (at 120°C) ³	kW	461	691	936	1.147
Low temperature (43°C) ⁴	kW	69	104	127	175
Input					
Energy input ⁴	kW	2.298	3.438	4.574	5.748
Efficiency					
Electrical efficiency ⁵	%	44,0	44,3	44,3	44,1
Fuel energy utilization	%	84,8	85,1	85,9	84,8

NOx < 500 mg/m₃ at 5% O₂ dry

All data refer to maximum load.

1) cos-phi = 1,0

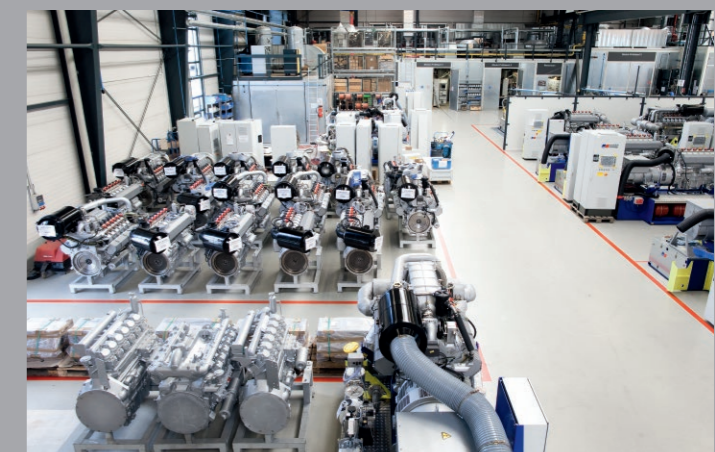
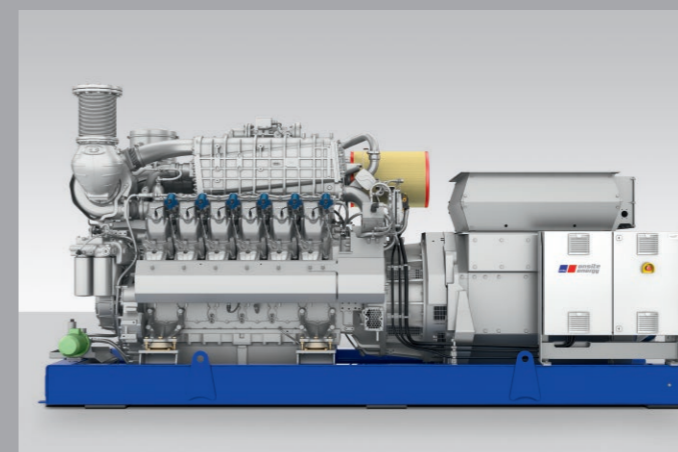
3) Heat output from exhaust (exhaust cooling to 120°C) with tolerance of ± 8%

5) Methan number: 80

2) Heat output from engine cooling with tolerance of ± 8%

4) Inlet temperature

Any specifications, descriptions, values, data or other information related to dimensions, power or other technical performance criteria of the goods as provided in this general product-information are to be understood as non-binding and may be subject to further changes such as but not limited to technical evolution at any time.



MTU Onsite Energy

A Rolls-Royce Power Systems Brand

www.mtuonsiteenergy.com