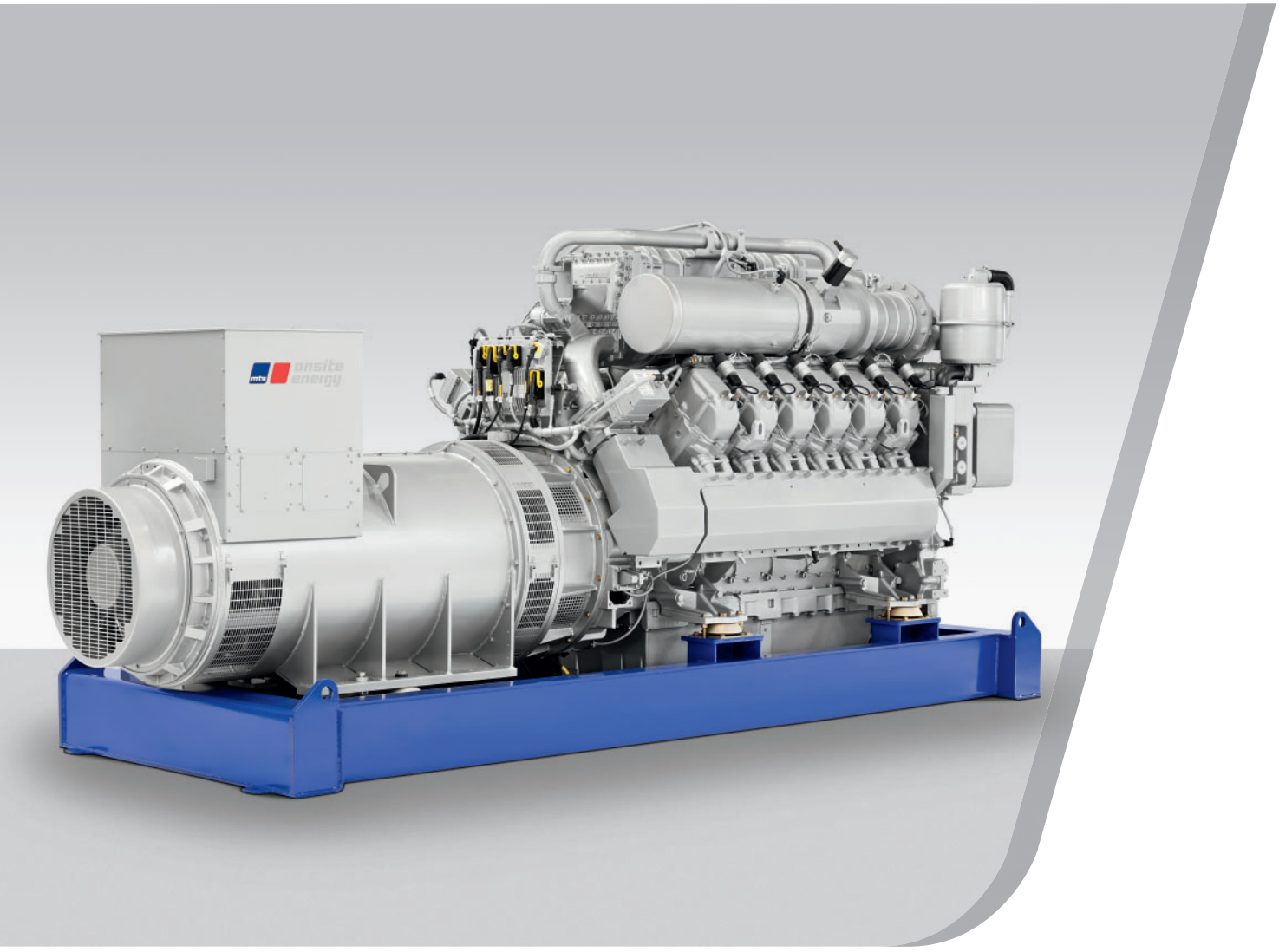
A COMPLETE SOLUTION FOR YOUR HEAT AND POWER NEEDS: THE BIOGAS SERIES 4000 WITH ENHANCED EFFICIENCY.



THE BIOGAS SERIES 4000
WITH ENHANCED EFFICIENCY.

Generating electricity and heat using biogas has never been so efficient. Generator sets and power modules using our enhanced biogas Series 4000 engine are technically advanced and highly efficient, ranging from 800 kW_{el} to 1,950 kW_{el}. By utilizing combustion optimization and improved mixture conditioning and control, these systems achieve 43.3% electrical efficiency. And that means your agricultural fuel crops and waste can be more effective at generating power and heat.

Your benefits:

// Wide range of rated outputs:
Electrical output ratings from 800 kW to 1,950 kW available.

// Economical to run:
Maximum efficiency of 43.3% combined with low fuel consumption and maintenance costs.

// Flexible configuration options:
Available as a generator set, power module or power container.

// Versatile deployment:
Suitable for biogas, sewage gas and landfill gas applications.

// Individually adaptable:
Versions with different mixtures and cooling temperatures available.

Technical data

		GB 800 B5	GB 1169 B5	GB 1560 B5	GB 1948 B5
Configuration		8V	12V	16V	20V
Bore/Stroke	mm	170/210	170/210	170/210	170/210
Capacity	dm^3	38.1	57.2	76.3	95.3
Rated speed	rpm	1500	1500	1500	1500
Mean piston speed	m/s	10.5	10.5	10.5	10.5
Length	mm	4,150	4,700	5,500	6,000
Width	mm	2,000	2,000	2,000	2,000
Height	mm	2,400	2,400	2,400	2,400
Dry weight	kg	10,000	12,000	15,000	17,900

Performance, efficiency

		GB 800 B5	GB 1169 B5	GB 1560 B5	GB 1948 B5
Output					
Electrical output [1]	kW	800	1,169	1,560	1,948
Thermal output					
Mixture cooler [2]	kW	392	572	628	734
Exhaust (at 120°C) [3]	kW	402	603	800	1,047
Low temperature	kW	78 (40)	103 (40)	318 (40)	394 (40)
Input					
Energy input [4]	kW	1,861	2,719	3,616	4,498
Efficiency					
Electrical efficiency	%	43	43	43.1	43.3
Fuel energy utilization	%	85.7	86.2	82.6	82.9

NOx < 500 mg/m_n^3 at 5% O_2 tr.
1) cos-phi =1,0 to VDE 0530 REM
3) Heat output from exhaust (exhaust cooling to 120°C) with tolerance of ± 8%

Biogas (CH_4 60 by vol. %; CO_2 40 by vol. %)
2) Heat output from engine cooling with tolerance of ± 8%
4) To ISO 3046/I-2002

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MTU Onsite Energy
A Rolls-Royce Power Systems Brand

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