Gas system

SERIES 4000 BIOGAS

400V/50 Hz/NOx < 500 mg/Nm³

System ratings

Gas genset with optional heat recovery

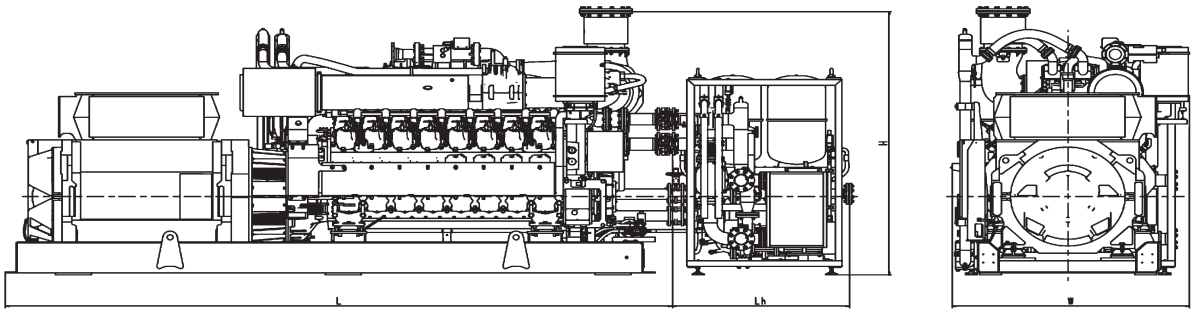
Genset type	Engine type	Output Elect. [1]	Therm. [2]	Exhaust [3]	Low Temp.	Energy input [4]	Efficiency Electr.	Efficiency Total	Methane number [5]
		$kW_{el.}$	$kW_{th.}$	kW_{th} (°C)	kW_{th} (°C)	kW	$n_{el.}$ (%)	n_{tot} (%)	
mtu 8V4000 GS	L32	800	392	402 (120)	78 (40)	1861	43.0	85.7	≥ 120
mtu 8V4000 GS	L64FB	1012	624	482 (120)	42 (64)	2348	43.1	92.0	≥ 130
mtu 12V4000 GS	L32	1169	572	603 (120)	103 (40)	2719	43.0	86.2	≥ 120
mtu 12V4000 GS	L64FB	1521	882	703 (120)	70 (64)	3446	44.1	90.1	≥ 130
mtu 16V4000 GS	L32	1560	628	800 (120)	318 (40)	3616	43.1	82.6	≥ 120
mtu 20V4000 GS	L32	1950	736	1048 (120)	394 (40)	4502	43.3	82.9	≥ 120
mtu 16V4000 GS	L64FB	2032	1221	974 (120)	78 (64)	4675	43.5	92.1	≥ 130
mtu 20V4000 GS	L64FB	2547	1538	1243 (120)	128 (64)	5913	43.1	90.1	≥ 130

1 Rated power at nominal voltage, power factor = 1,0 and nominal frequency
2 Heat output from engine cooling with tolerance of ± 8%
3 Heat output from exhaust (exhaust cooling to 120°C) with tolerance of ± 8%
4 Performance data in accordance with ISO 3046/I-2002 with tolerance of 5%
5 Referenced methane number

Project specific data on request:
- different alternator voltage
- different flow-/return-temperatures, hot cooling, methane number, installation conditions etc.
- Container

A Rolls-Royce solution

Drawings and dimensions



Note: This drawing is provided for reference only and should not be used for installation planning.

Genset type	Dimensions genset (LxWxH)	Heat recovery module (LhxWxH)
mtu 8V4000 GS	4200 x 2000 x 2400 mm	1500 x 1900 x 2000 mm
mtu 12V4000 GS	5000 x 2000 x 2400 mm	1500 x 1900 x 2000 mm
mtu 16V4000 GS	5500 x 2000 x 2600 mm	1500 x 1900 x 2000 mm
mtu 20V4000 GS	6600 x 2000 x 2600 mm	1500 x 1900 x 2000 mm

Engine data

4000	
Configuration	90° V
No. of cylinders	8/12/16/20
Bore/stroke	170/210 mm
Cyl. displacement	4,77 lit.

Design and equipment (extract)

- Sliding gear starter 24V
- Gas supply with electronically controlled gas metering valve
- Electronic high-voltage capacitor ignition system with one ignition coil per cylinder
- Electronic speed governor for speed and power output control with automatic knocking control

Subject to change. | 3234721 | Edition 02/23 | BMC 2023-07.

Rolls-Royce Group
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