



Gas system

SERIES 4000 NATURAL GAS

400V/50 Hz/NO_x < 500 mg/Nm³

System ratings

Gas genset with optional heat recovery module

Genset type	Engine type	Output				Energy input ⁴⁾	Efficiency		Methane number ⁵⁾
		Elect. ¹⁾	Therm. ²⁾	Exhaust ³⁾	Low Temp.		Electr.	Total	
		kW _{el}	kW _{th}	kW _{th} (°C)	kW _{th} (°C)		n _{el} (%)	n _{tot} (%)	
mtu 8V4000 GS	L33	776	414	422 (120)	47 (40)	1832	42,4	88,0	≥ 70
mtu 8V4000 GS	L33	854	457	448 (120)	49 (40)	1993	42,8	88,3	≥ 80
mtu 8V4000 GS	L64 FNER	999	522	490 (120)	99 (43)	2258	44,3	89,1	≥ 72
mtu 8V4000 GS	L64	1013	503	486 (120)	69 (43)	2304	44,0	86,9	≥ 80
mtu 8V4000 GS	L64 FNER	1013	530	494 (120)	59 (43)	2287	44,3	89,1	≥ 72
mtu 12V4000 GS	L33	1287	685	659 (120)	88 (40)	2974	43,3	88,5	≥ 80
mtu 12V4000 GS	L64	1521	766	691 (120)	104 (43)	3438	44,2	85,7	≥ 80
mtu 16V4000 GS	L33	1714	1005	821 (120)	113 (40)	3991	42,9	88,7	≥ 80
mtu 16V4000 GS	L64 FNER	1999	1043	984 (120)	143 (43)	4519	44,2	89,1	≥ 72
mtu 16V4000 GS	L64	2028	996	936 (120)	127 (43)	4573	44,3	86,6	≥ 80
mtu 16V4000 GS	L64 FNER	2028	1060	995 (120)	145 (43)	4583	44,3	89,0	≥ 72
mtu 20V4000 GS	L33	2145	1196	1078 (120)	142 (40)	4990	43,0	88,6	≥ 80
mtu 20V4000 GS	L64	2538	1241	1212 (120)	176 (43)	5751	44,1	86,6	≥ 80
Hot ambient conditions									
mtu 8V4000 GS	L32	776	460	420 (120)	32 (53)	1853	41,9	89,4	≥ 80
mtu 12V4000 GS	L32	1169	652	638 (120)	43 (53)	2747	42,6	89,5	≥ 80
mtu 16V4000 GS	L32	1560	890	805 (120)	76 (53)	3651	42,7	89,2	≥ 80
mtu 16V4000 GS	L64 FNER	1999	1155	965 (120)	90 (58)	4558	43,9	90,4	≥ 80
mtu 16V4000 GS	L64 FNER	2028	1173	974 (120)	93 (58)	4622	43,9	90,3	≥ 80
mtu 20V4000 GS	L64 FNER	2538	1441	1243 (120)	150 (58)	5781	43,9	90,3	≥ 80

- 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

System ratings

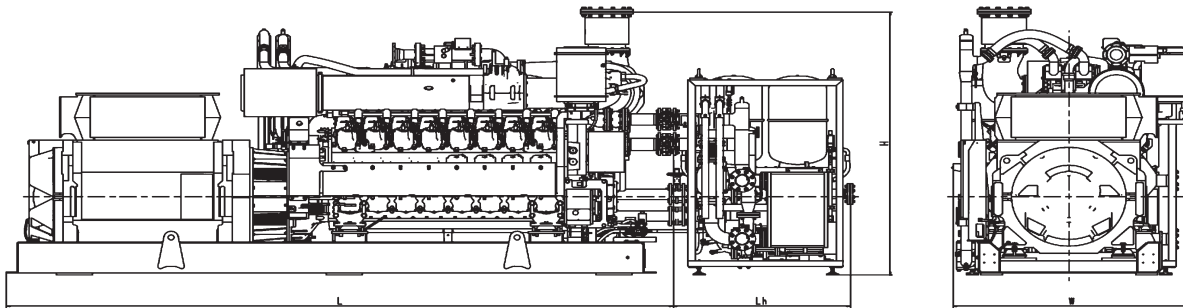
Gas genset with optional heat recovery module

Genset type	Engine type	Output				Energy input ⁴⁾	Efficiency		Methane number ⁵⁾
		Elect. ¹⁾	Therm. ²⁾	Exhaust ³⁾	Low Temp.		Electr.	Total	
Low methane number		kW _{el.}	kW _{th.}	kW _{th} (°C)	kW _{th} (°C)	kW	n _{el.} (%)	n _{tot} (%)	
mtu 16V4000 GS	L32 ER	1560	951	951 (120)	84 (53)	3848	40,5	89,6	≥ 60
mtu 20V4000 GS	L32 ER	1948	1180	1181 (120)	99 (53)	4812	40,5	89,5	≥ 60

- 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%
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- Project specific data on request:
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 - Container

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 2300 mm	1500 x 1900 x 2000 mm
mtu 12V4000 GS	5000 x 2000 x 2300 mm	1500 x 1900 x 2000 mm
mtu 16V4000 GS	5500 x 2000 x 2300 mm	1500 x 1900 x 2000 mm
mtu 20V4000 GS	6600 x 2000 x 2300 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

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