

# GAS SYSTEM SERIES 4000 NATURAL GAS

400V / 50 Hz\*



## SYSTEM RATINGS

Natural gas genset without heat extraction (heat recovery unit not included in delivery)

MTU Onsite Energy Type	Former Genset Type AoE	Output			Energy input <sup>4)</sup> kW	Efficiency		Methane Number <sup>5)</sup>	Dimensions (L x W x H) mm
		Elect. <sup>1)</sup>	Therm. <sup>2)</sup>	Low Temp.		Elect. (%)	Total (%)		
<b>L33 (Methane number 70)</b>									
GB 776 N5	8V4000L33	776	(401)	47 (40)	1832	42.4	(64.2)	≥ 70	4150x1990x2400
GB 1169 N5	12V4000L33	1169	(600)	80 (40)	2731	42.8	(64.8)	≥ 70	4700x1800x2400
GB 1560 N5	16V4000L33	1560	(885)	99 (40)	3649	42.8	(67.0)	≥ 70	5500x1800x2400
GB 1948 N5	20V4000L33	1948	(1050)	125 (40)	4560	42.7	(65.7)	≥ 70	6000x1800x2400
<b>L32 (High ambient temperatures)</b>									
GB 776 N5	8V4000L32	776	(446)	32 (53)	1853	41.9	(65.9)	≥ 80	4150x1990x2400
GB 1169 N5	12V4000L32	1169	(632)	43 (53)	2747	42.5	(65.6)	≥ 80	4700x1800x2400
GB 1560 N5	16V4000L32	1560	(863)	76 (53)	3651	42.7	(66.4)	≥ 80	5500x1800x2400
GB 1948 N5	20V4000L32	1948	(1035)	78 (53)	4577	42.6	(65.2)	≥ 80	6000x1800x2400
<b>L33 (Highest output)</b>									
GB 854 N5	8V4000L33	854	(443)	49 (40)	1993	42.8	(65.1)	≥ 80	4150x1990x2400
GB 1286 N5	12V4000L33	1286	(664)	88 (40)	2974	43.2	(65.6)	≥ 80	4700x1800x2400
GB 1718 N5	16V4000L33	1718	(974)	113 (40)	3991	43.0	(67.5)	≥ 80	5500x1800x2400
GB 2145 N5	20V4000L33	2145	(1158)	142 (40)	4985	43.0	(66.3)	≥ 80	6000x1800x2400

\* NO<sub>x</sub> < 500 mg/m<sup>3</sup> (NO<sub>x</sub> < 250 mg/m<sup>3</sup> available)

1) Rated power at nominal voltage, power factor = 1 and nominal frequency

2) from jacket water, tolerance 8%

3) from jacket water and exhaust gas (120°C), tolerance 8%

4) performance data in accordance with ISO 3046, tolerance 5%

5) referenced methane number

6) dimensions without exhaust gas heat exchanger

All data according to full load, indicated gas mixture cooler water inlet temperature and are subject to technical development.

### Project specific data on request:

- Other gas types
- Individual data (e.g. flow-/return-temperatures, hot cooling, methane number, assembly space, etc.)
- Container
- Gas Processing

# GAS SYSTEM SERIES 4000 NATURAL GAS

400V / 50 Hz\*



## SYSTEM RATINGS

Natural gas genset with heat extraction from jacket water (heat recovery unit included in delivery)

MTU Onsite Energy Type	Former KWK Type AE	Output			Energy input <sup>4)</sup> kW	Efficiency		Methane Number <sup>5)</sup>	Dimensions (L x W x H) mm
		Elect. <sup>1)</sup>	Therm. <sup>2)</sup>	Low Temp.		Elect.	Total		
<b>L33 (Methane number 70)</b>									
GR 776 N5	8V4000L33	776	401	47 (40)	1832	42.4	64.2	≥ 70	5750x1990x2400
GR 1169 N5	12V4000L33	1169	600	80 (40)	2731	42.8	64.8	≥ 70	6300x1850x2400
GR 1560 N5	16V4000L33	1560	885	99 (40)	3649	42.8	67.0	≥ 70	7100x1850x2400
GR 1948 N5	20V4000L33	1948	1050	125 (40)	4560	42.7	65.7	≥ 70	7600x1850x2400
<b>L32 (High ambient temperatures)</b>									
GR 776 N5	8V4000L32	776	446	32 (53)	1853	41.9	65.9	≥ 80	5750x1990x2400
GR 1169 N5	12V4000L32	1169	632	43 (53)	2747	42.5	65.6	≥ 80	6300x1850x2400
GR 1560 N5	16V4000L32	1560	863	76 (53)	3651	42.7	66.4	≥ 80	7100x1850x2400
GR 1948 N5	20V4000L32	1948	1035	78 (53)	4577	42.6	65.2	≥ 80	7600x1850x2400
<b>L33 (Highest output)</b>									
GR 854 N5	8V4000L33	854	443	49 (40)	1993	42.8	65.1	≥ 80	5750x1990x2400
GR 1286 N5	12V4000L33	1286	664	88 (40)	2974	43.2	65.6	≥ 80	6300x1850x2400
GR 1718 N5	16V4000L33	1718	974	113 (40)	3991	43.0	67.5	≥ 80	7100x1850x2400
GR 2145 N5	20V4000L33	2145	1158	142 (40)	4985	43.0	66.3	≥ 80	7600x1850x2400

\* NO<sub>x</sub> < 500 mg/m<sup>3</sup> (NO<sub>x</sub> < 250 mg/m<sup>3</sup> available)

1) Rated power at nominal voltage, power factor = 1 and nominal frequency

2) from jacket water, tolerance 8%

3) from jacket water and exhaust gas (120°C), tolerance 8%

4) performance data in accordance with ISO 3046, tolerance 5%

5) referenced methane number

6) dimensions without exhaust gas heat exchanger

All data according to full load, indicated gas mixture cooler water inlet temperature and are subject to technical development.

### Project specific data on request:

- Other gas types
- Individual data (e.g. flow-/return-temperatures, hot cooling, methane number, assembly space, etc.)
- Container
- Gas Processing

# GAS SYSTEM SERIES 4000 NATURAL GAS

400V / 50 Hz\*



## SYSTEM RATINGS

Natural gas genset with heat extraction from jacket water (heat recovery unit included in delivery) and exhaust gas (exhaust gas heat exchanger loose supply)

MTU Onsite Energy Type	Former KWK Type AE	Output			Energy input <sup>4)</sup> kW	Efficiency		Methane Number <sup>5)</sup>	Dimensions <sup>6)</sup> (L x W x H) mm
		Elect. <sup>1)</sup>	Therm. <sup>3)</sup>	Low Temp.		Elect.	Total		
		kW <sub>el.</sub>	kW <sub>th.</sub>	kW <sub>th.</sub> (°C)		η <sub>el.</sub> (%)	η <sub>tot.</sub> (%)		
<b>L33 (Methane number 70)</b>									
GC 776 N5	8V4000L33	776	823	47 (40)	1832	42.4	87.3	≥ 70	5750x1990x2400
GC 1169 N5	12V4000L33	1169	1228	80 (40)	2731	42.8	87.8	≥ 70	6300x1850x2400
GC 1560 N5	16V4000L33	1560	1662	99 (40)	3649	42.8	88.3	≥ 70	7100x1850x2400
GC 1948 N5	20V4000L33	1948	2098	125 (40)	4560	42.7	88.7	≥ 70	7600x1850x2400
<b>L32 (High ambient temperatures)</b>									
GC 776 N5	8V4000L32	776	866	32 (53)	1853	41.9	88.6	≥ 80	5750x1990x2400
GC 1169 N5	12V4000L32	1169	1270	43 (53)	2747	42.5	88.8	≥ 80	6300x1850x2400
GC 1560 N5	16V4000L32	1560	1668	76 (53)	3651	42.7	88.4	≥ 80	7100x1850x2400
GC 1948 N5	20V4000L32	1948	2170	78 (53)	4577	42.6	90.0	≥ 80	7600x1850x2400
<b>L33 (Highest output)</b>									
GC 854 N5	8V4000L33	854	891	49 (40)	1993	42.8	87.6	≥ 80	5750x1990x2400
GC 1286 N5	12V4000L33	1286	1323	88 (40)	2974	43.2	87.7	≥ 80	6300x1850x2400
GC 1718 N5	16V4000L33	1718	1795	113 (40)	3991	43.0	88.0	≥ 80	7100x1850x2400
GC 2145 N5	20V4000L33	2145	2268	142 (40)	4985	43.0	88.5	≥ 80	7600x1850x2400

\* NOx < 500 mg/m<sup>3</sup> (NOx < 250 mg/m<sup>3</sup> available)

1) Rated power at nominal voltage, power factor = 1 and nominal frequency

2) from jacket water, tolerance 8%

3) from jacket water and exhaust gas (120°C), tolerance 8%

4) performance data in accordance with ISO 3046, tolerance 5%

5) referenced methane number

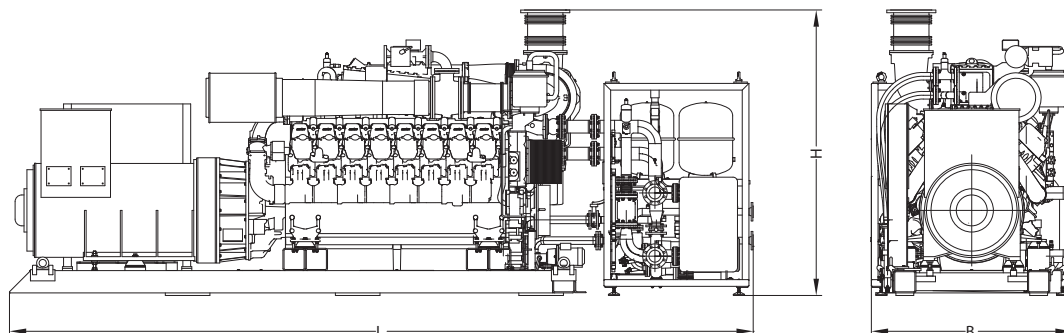
6) dimensions without exhaust gas heat exchanger

All data according to full load, indicated gas mixture cooler water inlet temperature and are subject to technical development.

### Project specific data on request:

- Other gas types
- Individual data (e.g. flow-/return-temperatures, hot cooling, methane number, assembly space, etc.)
- Container
- Gas Processing

## DRAWINGS AND DIMENSIONS



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

## ENGINE DATA

### 4000

Configuration	90° V
No. of cylinders	8/12/16/20
Bore/Stroke	170/210 mm
Cyl. displacement	4.77 lit.
Rated speed	1500 rpm

## DESIGN AND EQUIPMENT (EXTRACT)

- // Sliding gear starter 24V, 2 x 9 kW
- // Gas supply through venturi air-gas mixer 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
- // Oil sump, removable without lifting the engine

Version: 11.04.2013, materials and specifications subject to change without notice due to technical advances.