







All CHP-types suitable for hydrogen admixture!

## Compact CHP units driven by natural gas

CHP unit type	Specification engine producer MAN, engine type	Power data			Efficiency rates			power to heat ratio <sup>2)</sup>	primary energy factor (acc. to DIN V 18599-1)	Servicing		Dimensions			operating weight [kg]	noise level [dB(A) in 1m]
		electrical [kW] <sup>1)</sup>	thermal [kW]	gas input [kW H]	electrical [%]	thermal [%]	total [%]			servicing interval [hours of operation]	general overhaul after ca. [h]	length [mm] (base pan)	width [mm]	height [mm]		
 <b>50 kW class</b>																
GG 50 VR <sup>3)</sup>	E0834 E302	50	84	145	34,5	57,9	92,4	0,58	0,265	1.500	60.000	2.200	900	1.830	1.950	62
		50	101	145	34,5	69,7	104,2	0,49	0,221							
GG 50 <sup>6</sup> VRS <sup>4)</sup>	E0836 E302	51	89	152	33,6	58,6	92,2	0,56	0,306	2.000	60.000	2.500	900	1.830	2.330	61
		51	107	152	33,6	70,4	104,0	0,47	0,254							
GG 70 VRS <sup>4)</sup>	E0836 E302	71	116	201	35,3	57,7	93,0	0,59	0,241	1.500	60.000	2.500	900	1.830	2.460	63
		71	139	201	35,3	69,2	104,5	0,50	0,201							
 <b>100 kW class</b>																
GG 140 red.	E2876 E312	100	171	293	34,1	58,4	92,5	0,57	0,296	1.500	50.000	2.900	900	2.000	3.280	69
GG 140	E2876 E312	142	216	392	36,2	55,1	91,3	0,64	0,194	1.500	50.000	2.900	900	2.000	3.280	69
 <b>200 kW class</b>																
GG 202	E3262 E302	206	323	574	35,9	56,3	92,2	0,62	0,230	1.500	50.000	3.600	1.500	2.340	6.750	74
GG 260	E3262 E302	263	394	710	37,0	55,5	92,5	0,65	0,163	1.500	50.000	3.600	1.500	2.340	6.750	74
 <b>400 kW class</b>																
GG 305 <sup>5)</sup>	E3268 LE242	308	384	767	40,2	50,1	90,3	0,78	0,024	1.000	50.000	3.700	1.500	2.550	6.870	73
GG 355 <sup>5)</sup>	E3268 LE212	357	445	889	40,2	50,1	90,3	0,78	0,014	1.000	50.000	3.700	1.500	2.550	6.870	73
GG 395 <sup>5)</sup>	E3262 LE232	397	505	999	39,7	50,6	90,3	0,76	0,036	1.000	50.000	4.000	1.500	2.550	7.240	74
GG 430 <sup>5)</sup>	E3262 LE232	435	548	1.090	39,9	50,3	90,2	0,77	0,022	1.000	50.000	4.000	1.500	2.550	7.240	74
 <b>500 kW class</b>																
GG 530 red. <sup>5)</sup>	E3262 LE202	499,5	617	1.235	40,4	50,0	90,4	0,79	0,000	1.000	50.000	4.000	1.500	2.600	8.120	74
GG 530 <sup>5)</sup>	E3262 LE202	532	652	1.310	40,6	49,8	90,4	0,80	0,000	1.000	50.000	4.000	1.500	2.600	8.120	74
GG 710 <sup>5, 6)</sup>	E3872 LE201	710	755	1.671	42,5	45,2	87,7	0,92	0,000	1.000	50.000	4.200	1.700	2.600	9.260	75
 <b>1 MW class</b>																
GG 1000 <sup>5, 7)</sup>	LMB G9620	999	1.113	2.352	42,5	47,3	89,8	0,88	0,000	2.000	64.000	4.450	1.400	2.480	10.790	98

1) Value given as electric gross power at the connector block of the alternator.

2) Calculated with net electrical power.

3) Variable heating water pump and return increase integrated ready for operation. 2nd row: incl. external condensing heat recovery, values for 30 °C return temperature.

4) Variable heating water pump and return increase integrated ready for operation, system separation heating water. 2nd row: internal condensing heat recovery, values for 30 °C return temperature.

5) Power values apply to 40 °C mixture cooler return temperature. Heating power values include the mixture intercooler heat.

6) Pre-series unit, available in 2023 in limited numbers for field tests as part of the MAN series release.

7) Basic unit without heat recovery, oil supply, sound-absorbing canopy, further details shown below. External switchgear (w x d x h =) 2400 x 600 x 2200 mm, without cross-wiring.

Scope of delivery: CHP unit consisting of gas engine and alternator, connected by an elastic coupling and a rigid flange, cooling water and exhaust heat exchanger, cooling water pump, safety gas regulation unit, oil supply tank, oil refilling unit with level monitoring etc. with complete internal pipework, for operation in heating water systems at 90/70 °C flow/return temperatures (special equipment at 95/80 °C e.g. for operation with absorption chiller on request), mounted ready for installation in a sound-absorbing canopy. Integrated switchgear cabinet with control and power section for fully automatic operation including mains monitoring with protection devices according to German guideline VDE AR-N 4105:2018 (< 100 kWel.) resp. AR-N 4110:2018 (>= 100 kWel.), fully wired. Pollutant reduction by catalyst and lambda-regulation according to the German BImSchG § 22, optional version for 44. BImSchV. Filled with lubricating oil and anticorrosive. Test run followed by first servicing is performed in factory prior to delivery. For further details see technical descriptions.

All specifications are standard values and subject to change.

Special versions for propane application (also bivalent) on demand. Also see separate delivery chart for CHP units driven by sewage gas or biogas.

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Cogeneration