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## NATURAL GAS COGENERATING UNIT WITH SPARK IGNITION ENGINE

## MARTIN POWER LIEBHERR

### Cogenerating unit model

Electric power @ cos phi 0.8
<b>Electric power @ cos phi 1.0</b>
<b>Power from fuel</b>
Thermal power from engine cooling
HT-stage intercooler thermal power
LT-stage intercooler thermal power <sup>1)</sup>
Thermal power from suction air cooling
Thermal power from exhaust <sup>2)</sup>
<b>Thermal power on the output</b>
<b>Electric power efficiency</b>
Thermal power efficiency
<b>Total efficiency</b>
Current
Control panel current
Speed

### MP 200 L - CU

192 kVA / 154 kW
<b>157 kW</b>
<b>394 kW</b>
59 kW
20 kW
13 kW
33 kW
95 kW
<b>187 kW</b>
<b>39,8%</b>
47,5%
<b>87,3%</b>
277 A
300 A
1500 min <sup>-1</sup>

### Engine model

Nominal power
Intake
Speed governor
Cylinders
Bore
Stroke
Displacement
Compression ratio
Ignition sequence
Ignition timing
Lambda
Max. mixture temperature
Max. intake temperature
Air mass flow
Exhaust gas flow
Max. back pressure at exhaust
Max. exhaust temperature (@ rated power)
Radiated heat (incl. exhaust under 120°C)
Specific gas consumption
Gas consumption @ 100% load
Gas consumption @ 80% load
Gas consumption @ 60% load
Engine oil volume (min/max)
Engine oil consumption
Coolant volume (engine only)
Coolant pressure (min/max)
Minimal coolant flow through engine
Coolant temperature (@ engine outlet) (min/max)
Max. temperature difference over engine
HT stage intercooler inlet temperature
HT stage intercooler coolant flow
LT stage intercooler inlet temperature
LT stage intercooler coolant flow
Battery voltage
Starter
Battery

### G 944

164 kW
turbocharged with intercooler
electronic
4R
130 mm
150 mm
8 dm <sup>3</sup>
13:1
1-3-4-2
23 °BTDC
1,74
45 °C
35 °C
846 kg/h
875 kg/h
10 kPa (6 kPa)
452 °C
53 kW
188,3 g/kWh
29 kg/h
24 kg/h
19 kg/h
16/24 l
0,03 kg/h
20 l
1/2,5 bar
220 l/min
80/88 °C
5 °C
80 °C
5,12 m <sup>3</sup> /h
35 °C
4 m <sup>3</sup> /h
24 V
7,8 kW
2 x 110 Ah



**NATURAL GAS COGENERATING UNIT WITH SPARK IGNITION ENGINE** **MARTIN POWER LIEBHERR**

Cogenerating unit model	MP 200 L - CU
<b>Generator manufacturer</b>	<b>MECC ALTE</b>
<b>Generator model</b>	<b>ECO 38 - 1LN/4</b>
Nominal power	250 kVA / 200 kW
F class power	230 kVA
Engine - generator connection	SAE 1
Voltage regulation	electronic
Voltage precision	1,5 %
<b>Emissions</b>	<b>@ 5% O<sub>2</sub></b>
NO <sub>x</sub>	500 mg/Nm <sup>3</sup>
CO	650 mg/Nm <sup>3</sup> (with Oxi-Cat)
HC	2000 mg/Nm <sup>3</sup>
<b>Canopy (genset only)</b>	<b>HR 11</b>
Length	4425 mm
Width	1635 mm
Height	2226 mm
Weight	4000 kg
<b>Open CHP version</b>	
Length	4000 mm
Width	1300 mm
Height	2600 mm
Weight	
<b>Canopied CHP version</b>	
Length	4000 mm
Width	1550 mm
Height	2800 mm
Weight	
<b>Container CHP version</b>	
Length	20'
Width	6058 mm
Height	2438 mm
Weight	2591 mm
<b>Installation - connections</b>	
Gas inlet	Rp 6/4"
Heating HT circuit	DN 50
Heating LT circuit (optional)	
Exhaust (pipe up to 6 m)	DN 125

1) The thermal power is available if the cooling water temperature input is below 35°C  
 2) Theoretical usable thermal power only