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BIOGAS COGENERATING UNIT WITH SPARK IGNITION ENGINE

MARTIN POWER LIEBHERR

Cogenerating unit model

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

MP 180 L - BCU

169 kVA / 135 kW
138 kW
351 kW
52 kW
17 kW
11 kW
28 kW
84 kW
164 kW
38,5%
47,5%
86,0%
244 A
250 A
1500 min ⁻¹

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 934

145 kW
turbocharged with intercooler
electronic
4R
122 mm
150 mm
7 dm ³
13:1
1-3-4-2
26 °BTDC
1,55
45 °C
35 °C
670 kg/h
745 kg/h
10 kPa (6 kPa)
495 °C
46 kW
518,5 g/kWh
70 kg/h
60 kg/h
46 kg/h
16/24 l
0,03 kg/h
20 l
1/2,5 bar
198 l/min
80/88 °C
5 °C
80 °C
5,12 m ³ /h
35 °C
4 m ³ /h
24 V
7,8 kW
2 x 110 Ah



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Cogenerating unit model

Generator manufacturer
Generator model
Nominal power
F class power
Engine - generator connection
Voltage regulation
Voltage precision

Emissions

NO _x
CO
HC

Canopy (genset only)

Length
Width
Height
Weight

Open CHP version

Length
Width
Height
Weight

Canopied CHP version

Length
Width
Height
Weight

Container CHP version

Length
Width
Height
Weight

Installation - connections

Gas inlet
Heating HT circuit
Heating LT circuit (optional)
Exhaust (pipe up to 6 m)

MP 180 L - BCU

MECC ALTE
ECO 38 - 3SN/4
225 kVA / 180 kW
207 kVA
SAE 1
electronic
1,5 %

@ 5% O₂

500 mg/Nm ³
650 mg/Nm ³ (with Oxi-Cat)
2000 mg/Nm ³

HR 11

4425 mm
1635 mm
2226 mm
4000 kg

4000 mm
1300 mm
2600 mm

4000 mm
1550 mm
2800 mm

20'
6058 mm
2438 mm
2591 mm

Rp 2"
DN 50
DN 125

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