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## BIOGAS COGENERATING UNIT WITH SPARK IGNITION ENGINE

## MARTIN POWER MAN

### Cogenerating unit model

Electric power @ cos phi 0.8
<b>Electric power @ cos phi 1.0</b>
<b>Energy input in fuel <sup>3)</sup></b>
Gas consumption (min/max) @ 6 kWh/m <sup>3</sup>
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
<b>Thermal power on the output <sup>2)</sup></b>
<b>Electric power efficiency</b>
Thermal power efficiency
<b>Total efficiency</b>
Current
Control panel current
Speed

### MP 150 N - BCU

151 kVA / 121 kW
<b>124 kW</b>
<b>343 kW</b>
31/57,2 m <sup>3</sup> /h
124 kW
- kW
- kW
- kW
57 kW
<b>181 kW</b>
<b>36,1%</b>
52,8%
<b>88,9%</b>
217 A
250 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 (engine)
Specific gas consumption
Gas consumption (CH <sub>4</sub> ) @ 100% load
Gas consumption (CH <sub>4</sub> ) @ 75% load
Gas consumption (CH <sub>4</sub> ) @ 50% load
Engine oil volume (min/max)
Engine oil consumption
Coolant volume (engine only)
Coolant pressure (max)
Minimal coolant flow through engine
Coolant temperature (@ engine outlet) (min/max)
Max. temperature difference over engine
HT stage intercooler inlet temperature (max)
HT stage intercooler coolant flow (min)
LT stage intercooler inlet temperature (max)
LT stage intercooler coolant flow (min)
Battery voltage
Starter
Battery

### E 2876 TE 302

130 kW
turbocharged
electronic
6R
128 mm
166 mm
12,8 dm <sup>3</sup>
12:1
1-5-3-6-2-4
12° BTDC
1,4
-
40 °C
576 kg/h
645 kg/h
4 kPa
390 °C
15 kW
209,7 g/kWh
26 kg/h
20 kg/h
14 kg/h
30/41 l
0,15 kg/h
16 l
2 bar
385 l/min
80/88 °C
6 °C
-
-
-
-
24 V
6,5 kW
143 Ah



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### Cogenerating unit model

<b>Generator manufacturer</b>
<b>Generator model</b>
Nominal power
F class power
Engine - generator connection
Voltage regulation
Voltage precision

### Emissions <sup>4)</sup>

NO <sub>x</sub>
CO
NMHC
Formaldehyd

### 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 150 N - BCU

<b>MECC ALTE</b>
<b>ECO 38 - 2SN/4</b>
200 kVA / 160 kW
185 kVA
SAE 1 / B3-B14
electronic
1,5 %

### @ 5% O<sub>2</sub>

500 mg/Nm <sup>3</sup>
600 mg/Nm <sup>3</sup>
150 mg/Nm <sup>3</sup>

3300 mm
1300 mm
2600 mm

3300 mm
1400 mm
2800 mm

20'
6058 mm
2438 mm
2591 mm

Rp 6/4"
DN 50
DN 125

1) The thermal power is available if the cooling water temperature input is below 40°C

2) Theoretical usable thermal power; tolerance +/- 8 %

3) According to ISO 3046 (+ 5 % tolerance), using reference fuel used at 400 V, p.f. 1.0, 50 Hz

4) Emission values during grid parallel operation