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BIOGAS COGENERATING UNIT WITH SPARK IGNITION ENGINE

MARTIN POWER MAN

Cogenerating unit model

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

MP 250 N - BCU

260 kVA / 207 kW
211 kW
545 kW
51/90,8 m ³ /h
103 kW
13 kW
15 kW
28 kW
139 kW
270 kW
38,7%
49,5%
88,2%
375 A
400 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 (engine)
Specific gas consumption
Gas consumption (CH ₄) @ 100% load
Gas consumption (CH ₄) @ 75% load
Gas consumption (CH ₄) @ 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 LE 202

220 kW
turbocharged with intercooler
electronic
6R
128 mm
166 mm
12,8 dm ³
14:1
1-5-3-6-2-4
14° BTDC
1,4
50 °C
40 °C
977 kg/h
1121 kg/h
4 kPa
478 °C
17 kW
194,3 g/kWh
42 kg/h
32 kg/h
23 kg/h
35/65 l
0,15 kg/h
16 l
2 bar
335 l/min
80/88 °C
6 °C
85 °C
75 l/min
45 °C
80 l/min
24 V
6,5 kW
143 Ah



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BIOGAS COGENERATING UNIT WITH SPARK IGNITION ENGINE

MARTIN POWER MAN

Cogenerating unit model

Generator manufacturer

Generator model

Nominal power

F class power

Engine - generator connection

Voltage regulation

Voltage precision

MP 250 N - BCU

MARELLI

MJB 315 SA4

300 kVA / 240 kW

275 kVA

SAE 1 / B3-B14

electronic

1,5 %

Emissions ⁴⁾

NO_x

CO

NMHC

Formaldehyd

@ 5% O₂

500 mg/Nm³

650 mg/Nm³ (with Oxi-Cat)

150 mg/Nm³

60 mg/Nm³

Open CHP version

Length

Width

Height

Weight

4000 mm

1300 mm

2600 mm

Canopied CHP version

Length

Width

Height

Weight

4000 mm

1550 mm

2800 mm

Container CHP version

Length

Width

Height

Weight

20'

6058 mm

2438 mm

2591 mm

Installation - connections

Gas inlet

Heating HT circuit

Heating LT circuit (optional)

Exhaust (pipe up to 6 m)

Rp 2"

DN 50

DN 150

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