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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 fuel³⁾
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 output²⁾
Electric power efficiency
Thermal power efficiency
Total efficiency
Current
Control panel current
Speed

MP 325 N - BCU

311 kVA / 249 kW
254 kW
657 kW
58/109,5 m ³ /h
151 kW
22 kW
17 kW
39 kW
153 kW
343 kW
38,7%
52,2 %
90,9 %
447 A
630 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 2848 LE 322

265 kW
turbocharged with intercooler
electronic
8V
128 mm
142 mm
14,6 dm ³
12:1
1-5-7-2-6-3-4-8
18° BTDC
1,45
50 °C
40 °C
1177 kg/h
1311 kg/h
4 kPa
470 °C
19 kW
200,8 g/kWh
51 kg/h
40 kg/h
27 kg/h
70 l
0,175 kg/h
16 l
3 bar
401 l/min
80/88 °C
6 °C
85 °C
117 l/min
45 °C
82 l/min
24 V
6,5 kW
143 Ah

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Cogenerating unit model

	Manufacturer
	Model
	Rated power
	F class power
	Engine - generator connection
	Voltage regulation
Voltage precision	

Emissions ⁴⁾

NO _x
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 325 N - BCU

MARELLI
MJB 315 MA4
410 kVA / 328 kW
375 kVA
SAE 1 / B3-B14
electronic
1,5 %

@ 5% O₂

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

4700 mm
1400 mm
2725 mm

5000 mm
1800 mm
3000 mm

20'
6058 mm
2438 mm
2591 mm
8620 kg

DN 65
DN 65
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