

Engine specification

Manufacturer		MTU
Type		12V 2000 G65
Speed	min ⁻¹	1.500
Displacement	dm ³	23,88
Number of cylinder and configuration		12 V
Charge		Turbocharger
Intercooling		one stage
Exhaust mass flow (wet)	approx kg/h	2.581
Combustion air mass flow ⁴⁾	approx kg/h	2.463
Combustion air temperature	°C	25
Ventilation air flow ⁵⁾	Nm ³	9.024

Generator

Manufacturer		Stamford ⁵⁾
Type		HCL 634G
Efficiency ⁶⁾	%	96,3
Operation mode		synchron

Energy balance

		100%
Electrical power ⁷⁾	kW	480
Jacket water heat	+/-8% kW	198
Exhaust heat cooled to 180°C ⁸⁾	+/-8% kW	257
Total heat quantity ⁹⁾	+/-8% kW	455
Intercooler heat at 50°C	+/-8% kW	92
Radiant heat	kW	43
Fuel consumption	+5% kW	1.156
Consumption Vegetable oil ³⁾	+5% l/h	125,6
Electrical efficiency	%	41,5
Thermal efficiency ⁹⁾	%	39,4
Total efficiency	%	80,9

System parameters

Heating-system water flow rate	min. m ³ /h	22
Heating temperature output ⁸⁾	max. °C	90
Heating temperature input ⁸⁾	max. °C	70
Heating-system connection	DN	65 PN 16
Fuel connection	DN	15 PN 16
Exhaust connection	DN	250 PN 10
Exhaust backpressure after silencer	max. mbar	15

 1) at 5% O₂

2) Exhaust emissions with SCR catalyst:

 NO_x < 450mg/Nm³

 CO < 300mg/Nm³

3) Fuel at DIN 51605 (9,2 kWh/l) (other fuels on request)

4) according ISO 3046/1

5) Ventilation air flow at ΔT = 15 K including combustion air

6) or equal

7) at 50 Hz, U = 0,4 kV, power factor = 1

8) other temperatures on request

9) on heating level

