TEDOM
Combined Heat & Power

Flexi 260

NG | 50Hz

OPEN MODULE | SOUND ENCLOSURE | CONTAINER

Basic technical data

Electrical output	260	kW
Heat output nominal/max. [1]	370/392	kW
electrical efficiency	38,0	%
heat efficiency nominal/max. [1]	54,0/57,2	%
total efficiency nominal/max. [1]	92,0/95,2	%
fuel input	685	kW
secondary circuit temperature inlet/outlet	70/90	°C

Voltage	400	V
Frequency	50	Hz
Service weight		
- open module (OM)	7	t
- sound enclosure (SE)	8	t
- container (C)	11,5	t

1) Heat output is formed of secondary circuit heat output. Max. heat output (max. efficiency) of CHPU using NG or LPG is valid if the economiser is used and return water temperature is 35°C. For biogas fuels the usage of an economiser is not permitted.

Emission	stoichiometric mixture	
NOx emission at 5% O2 in exhaust gas standard/option	95/50	mg/Nm^3
CO emission at 5% O2 in exhaust gas standard/option	250/-	mg/Nm^3
HCHO emission at 5% O2 in exhaust gas standard/option	60/20	mg/Nm^3

Noise parameters		standard	silent [1]	
OM	- CHPU at 1m	92		dB(A)
	- exhaust gas outlet at 1m from silencer flange [2]	65		dB(A)
SE	- CHPU at 1m	76	65	dB(A)
	- ventilation inlet/outlet at 1m	92	65	dB(A)
	- exhaust gas outlet at 1m from silencer flange [2]	65	65	dB(A)
C	- CHPU at 10m	58		dB(A)

1) Option.
2) Noise parameters can be further optimized according to the specific requests (option).

Notes

The Basic Technical Data are applicable for the standard conditions pursuant to the "Technical instructions" document. The minimum permanent electrical output must not drop below 50 % of the nominal output. Gas consumption is expressed under the invoicing conditions (15°C, 101.325 kPa) and gas LHV 34 MJ/m3. Gas consumption tolerance, or fuel input tolerance, at 100% load is +5%. Tolerances of other parameters are mentioned in "Technical Instructions-Validity of Technical Data" document.

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Extended technical data

Standard design	100%	75%	50%	
electrical output	260	195	130	kW
heat output [1]	370	299	238	kW
gas consumption	73	57	42	m^3/h
fuel input	685	536	401	kW
electrical efficiency	38,0	36,4	32,4	%
heat efficiency	54,0	55,8	59,4	%
total efficiency	92,0	92,2	91,8	%

Optional designs	ECO [2]	ECO-C [3]	
electrical output	260	260	kW
max. heat output	380	392	kW
fuel input	685	685	kW
electrical efficiency	38,0	38,0	%
heat efficiency	55,5	57,2	%
total efficiency	93,5	95,2	%

1) Heat output is formed of a secondary circuit heat output with exhaust gas cooled to 120°C.
2) Design with economiser (ECO) with return water temperature 70°C.
3) Design with economiser (ECO-C) with return water temperature 35°C.

Electrical parameters

voltage	400	V
frequency	50	Hz
nominal current	469	A
nominal power factor (GCB settings)		0,8

operational current at cos φ=0,9	417	A
short circuit resistance of the switchboard	25	kA
contribution of the actual source to the short-circuit current	< 5	kA
cos φ regulation range (underexcited/overexcited) [1]		0,9÷1÷0,9

1) Operation of generator with power factor lower than 0,98 decreaes generator efficiency, what can cause reduction of the CHPU active power.

Engine / Generator

Engine	E3262 E302	
producer	MAN	
oil consumption normal/max.	0,26/0,33	g/kWh
quantity of oil in the engine	90	dm^3
volume of oil tank for refilling	220	dm^3

Generator	LSA 46.3 L11
producer	LEROY SOMER

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Heat system

Secondary circuit		
heat carrier: water		
heat output	370	kW
inlet/outlet temperature	70/90	°C
min./max. inlet temperature	50/70	°C
nominal flow	4,4	kg/s
max. allowed pressure in circuit	1600	kPa
volume	56	dm^3
pressure drop at nominal flow	15	kPa

Primary circuit		
heat carrier: antifreeze		
ethylene glycol concentration	40	%
heat output	370	kW
max. allowed pressure in circuit	350	kPa
volume	315	dm^3

Exhaust gas

amount	892	kg/h
temperature at the engine outet	570	°C
temperature at the CHPU outlet nominal/max.	120/150	°C
max. allowed back-pressure	1	kPa

Fuel

natural gas		
low heat value	34	MJ/m^3
min. methane number	80	
pressure (OM, SE)	3-10	kPa
pressure (C)	5-10	kPa
max. temperature	35	°C

Combustion and ventilation air

Combustion air		
ambient temperature min./max. (OM, SE)	10/35	°C
ambient temperature min./max. (C)	-20/35	°C
amount	839	kg/h

Ventilation	OM	SE	C	
unused heat removed by the ventilation	25	25	25	kW
max. amount of ventilation air at the outlet flange		6500		m^3/h
max. air temperature at the outlet flange		50		°C
max. back-pressure at the ventilation air inlet flange		50		Pa
max. back-pressure at the ventilation air outlet flange		50		Pa

Related documents

dimensional drawing OM	R2266
dimensional drawing SE	R2310
dimensional drawing C	R2270