



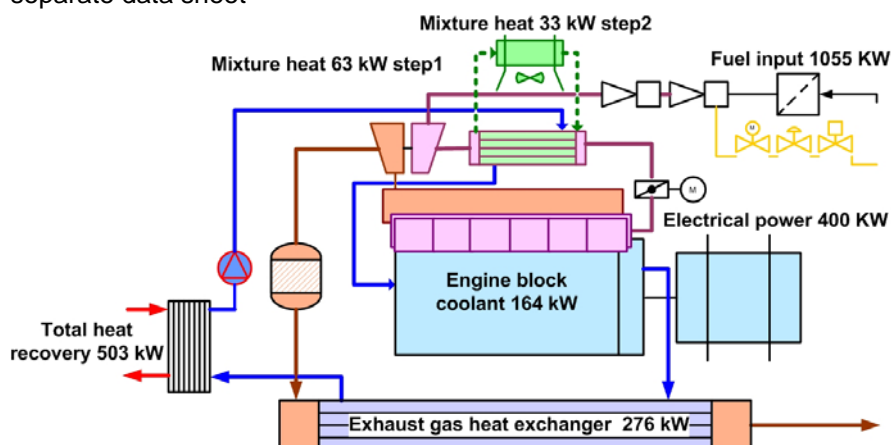
Specifications	Natural gas CHP	FMB-500-GSMK
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Issue: 06.2010\_001 data sheet

Engine specification		
Manufacturer		SCHMITT ENERTEC
Type		SE-MB-2312-GTA45
Speed	min <sup>-1</sup>	1500
Displacement	Liter	22,6
Number of cylinders		12 / V
Aspiration	Lean burn engine turbo charged and 2-Stage mixture cooling	
Generator		400V ~ / 50Hz / synchronous

Performance data		100 %	75 %	50 %
Electrical power ) <sup>1</sup>	kW	400	300	200
Total heat recovery ) <sup>2</sup>	+/- 8% kW	503	402	295
-Exhaust gas heat	+/- 8% kW	276	212	149
-Coolant heat	+/- 8% kW	164	156	143
-Mixture heat step 1	+/- 8% kW	63	33	3
-Mixture heat step 2	+/- 8% kW	33	25	12
Fuel input	+/- 5% kW	1.055	822	581
Consumption natural gas (Hu 10,02 kWh / Nm <sup>3</sup> )	+/- 5% Nm <sup>3</sup> / h	105,3	82,0	58,0
Electrical efficiency	%	37,9	36,5	34,4
Thermal efficiency	%	47,6	48,9	50,7
Total efficiency	%	85,5	85,4	85,1
CHP coefficient		0,79	0,75	0,68

System parameters		
Flow temperature	max. °C	90
Return temperature	max. °C	70
Gas connection	DN / PN	80 / 16
Heating water connection	DN / PN	2 x 60 / 16
Exhaust gas connection	DN / PN	200 / 6
Mixture cooling connection	DN / PN	200 / 6
Air requirement combustion + ventilation	Nm <sup>3</sup> / h	9.300
Noise level with housing	1m distance	70 dB(A)
Main dimensions	L x W x H [m]	4,0 x 1,45 x 2,45
Weight (approx.)	kg	5.500
Gas composition	separate data sheet	



)<sup>1</sup> at 50 Hz, U=0,4 KV, pf = 1      )<sup>2</sup> at exhaust gas temperature 120°  
 NOx < 500 mg/Nm<sup>3</sup> (Engine adjustment for 250 mg/Nm<sup>3</sup> possible with deviating efficiency), CO < 300 mg/Nm<sup>3</sup>  
 Reference conditions: Combustion air / ambient temperature >+5°C / <+27 °C; Altitude at site <300 m