



**Specifications Biogas / Sewage gas CHP FMB-320-BSM / KSM**

Issue: 12.2010\_002 data sheet

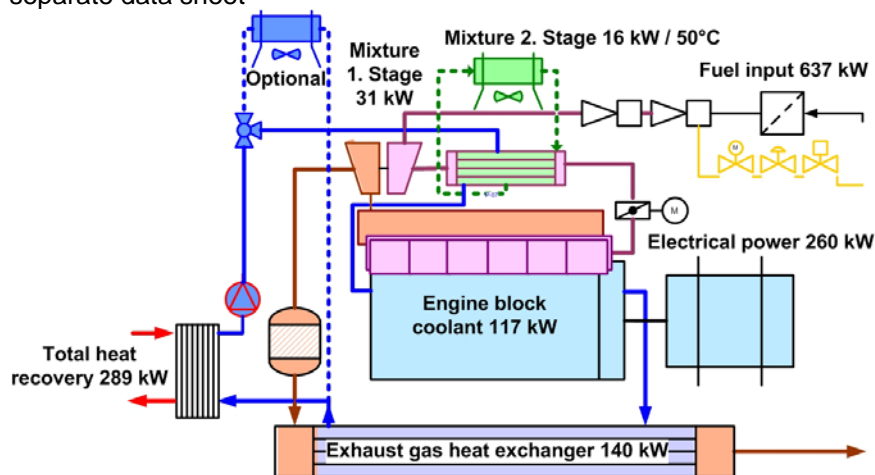
**Engine specifications**

Manufacturer	SCHMITT ENERTEC		
Type	<b>ENERGIN-1508-KTA50</b>		
Speed	min <sup>-1</sup>	1500	
Displacement	Liter	15,08	
Number of cylinders	8 / V		
Aspiration	Lean burn engine turbo charged and external mixture cooling		
<b>Generator:</b> 400V~ / 50Hz / synchron / 315MA4	Zeitkonstanten: [s] T`do=1,6 / T`d=0,145		
Reaktanzen: [%] x`d=330 / x`q=175 / x`d=29,5 / x`q=13,2 / x`q=15,6 / x`2= 14,4 / x`0= 3,3			

Performance data		100 %	75 %	50 %
Electrical power ) <sup>1</sup>	kW	260	195	130
Total heat recovery	+/- 8% kW	289	231	165
-Exhaust gas heat ) <sup>2</sup>	+/- 8% kW	140	111	80
-Coolant heat	+/- 8% kW	117	102	85
-Mixture heat	+/- 8% kW	31	18	0
Fuel input	+/- 5% kW	637	496	350
Consumption biogas (Hu 5,48)	+/- 5% Nm <sup>3</sup> / h	116,2	90,7	63,9
Electrical efficiency	%	40,8	39,3	37,1
Thermal efficiency	%	45,3	46,6	47,1
Total efficiency	%	86,2	85,9	84,3
CHP coefficient		0,90		

**System parameters**

Flow temperature	max. °C	90
Return temperature	max. °C	70
Gas connection	DN / PN	50 / 16
Heating water connection	DN / PN	2x 65 / 16
Exhaust gas connection	DN / PN	150 / 6
Mixture cooling connection	DN / PN	2x 40 / 16
Air requirement combustion + ventilation	Nm <sup>3</sup> / h	8.835
Noise level with housing	1m distance	70 dB(A)
Main dimensions	L x W x H [m]	3,6 x 1,45 x 2,45
Weight, dry (approx.)	kg	
Gas composition	separate data sheet	



)<sup>1</sup> at 50 Hz, U=0,4 KV, cos phi = 1 )<sup>2</sup> at exhaust gas temperature 120 °C (only in conjunction with gas cleaning and 20 ppm H<sub>2</sub>S) / NO<sub>x</sub> < 500 mg/Nm<sup>3</sup> / CO < 650 mg/Nm<sup>3</sup>  
 Reference conditions: Combustion air / ambient temperature >+5°C / <+27 °C; Altitude at site <300 m