



**Specifications Biogas / Sewage gas CHP FMB-65-BSM / KSM**

Issue: 02.2009 data sheet

**Engine specifications**

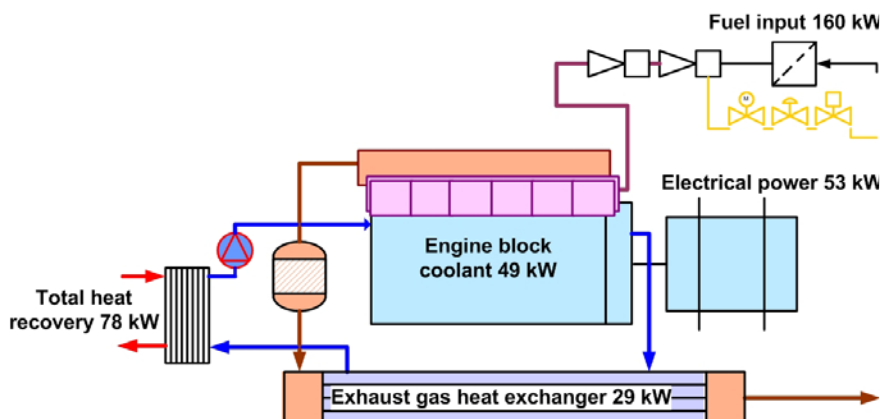
Manufacturer			MAN
Type			E0836-LE302
Speed	min <sup>-1</sup>		1500
Displacement	Liter		6,9
Number of cylinders			6 / in line
Intake	Naturally aspirated, lean burn gas engine		
Generator	400V~ / 50Hz / synchronous		

**Performance data**

		100 %	75 %	50 %
Electrical power ) <sup>1</sup>	kW	53	40	27
Total heat recovery	+/- 8% kW	78	62	46
-Exhaust gas heat ) <sup>2</sup>	+/- 8% kW	29	21	15
-Coolant heat	+/- 8% kW	49	41	31
-Mixture heat	+/- 8% kW	-		
Fuel input	+/- 5% kW	160	125	90
Consumption biogas (Hu 5,48)	+/- 5% Nm <sup>3</sup> / h	29,1	22,8	16,5
Electrical efficiency	%	33,2	31,9	29,3
Thermal efficiency	%	49,1	50,0	50,9
Total efficiency	%	82,3	81,9	80,2

**System parameters**

Flow temperature	max. °C		90
Return temperature	max. °C		70
Gas connection	DN / PN		50 / 6
Heating water connection	DN / PN	2x	50 / 6
Exhaust gas connection	DN / PN		125 / 6
Air requirement combustion + ventilation	Nm <sup>3</sup> / h		3.343
Noise level with housing	1m distance		70 dB(A)
Main dimensions	L x W x H [m]	2,8 x 0,85 x 2,05	
Weight, dry (approx.)	kg		2.300
Gas composition	separate data sheet		



)<sup>1</sup> at 50 Hz, U=0,4 KV, pf =1 )<sup>2</sup> at exhaust gas temperature 180 °C

NOx < 500 mg/Nm<sup>3</sup> / CO < 650 mg/Nm<sup>3</sup>

Reference conditions: Combustion air / ambient temperature <27 °C; Altitude at site <300 m