



# ALFAGY

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CHP · Cogeneration · Combined Heat & Power · Power Generation · Onsite Electricity Production · Gas  
Generators · Gensets · Energy Efficiency · Distributed Energy Generation · Renewable Energy · Power Plant

Specification Date	Fuel Type	Model
01 November 2011	Biogas	Alfagy B1000

Engine Specifications	Metric	Type
Manufacturer		SCHMITT ENERTEC
Type		SEMC-2312-KTAS
Speed	min <sup>-1</sup>	1,500
Displacement	litres	45.2
Cylinders		V24
Air intake		Lean burn, turbo & external cooling
Generator		400V~/50Hz/Synchronous

Performance Data	Metric	100% Load	75% Load	50% Load
Electrical power <sup>1</sup>	kWe	1,000	750	500
Total heat recovery <sup>2</sup>	+/- 8% kWt	854	708	554
Exhaust heat	+/- 8% kWt	326	262	192
Coolant heat	+/- 8% kWt	146	92	50
Mixture heat	+/- 8% kWt	146	92	50
Fuel input	+/- 5% kW	2,430	1,898	1,360
Gas use	+/- 5% Nm <sup>3</sup>	376	294	210
Electrical efficiency	%	41.2	39.5	36.5
Thermal efficiency	%	35.1	37.3	40.7
Total efficiency	%	76.3	76.8	77.4

System Parameters	Metric	Number	Dimensions
Flow temperature	max °C		90
Return temperature	max °C		70
Gas connection	RP		80/16
Heating water connection	DN/PN	x 2	65/16
Exhaust gas connection	DN/PN		250/6
Air requirement	Nm <sup>3</sup> / hour		24,400
Noise level with housing	dB(A) at 1 meter		70
Main	L x W x H in meters		7.00 x 1.65 x 2.45
Weight	kg		9,000
Gas composition	Separate data sheet		

<sup>1</sup> At 50Hz; U=0.4 KV; pf = 1; NOx < 500 mg/Nm<sup>3</sup> & CO < 1000 mg/Nm<sup>3</sup>

<sup>2</sup> Exhaust temperature at 250°C

Note: Reference conditions are combustion air / ambient temperature < 27°C & site altitude < 300 meters above sea level



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Air requirement	Nm <sup>3</sup> / hour		24,400
Noise level with housing	dB(A) at 1 meter		70
Main	L x W x H in meters		6.00 x 1.45 x 2.30
Weight	kg		9,000
Gas composition	Separate data sheet		

<sup>1</sup> At 50Hz; U=0.4 KV; pf = 1; NOx < 500 mg/Nm<sup>3</sup> & CO < 1000 mg/Nm<sup>3</sup>

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