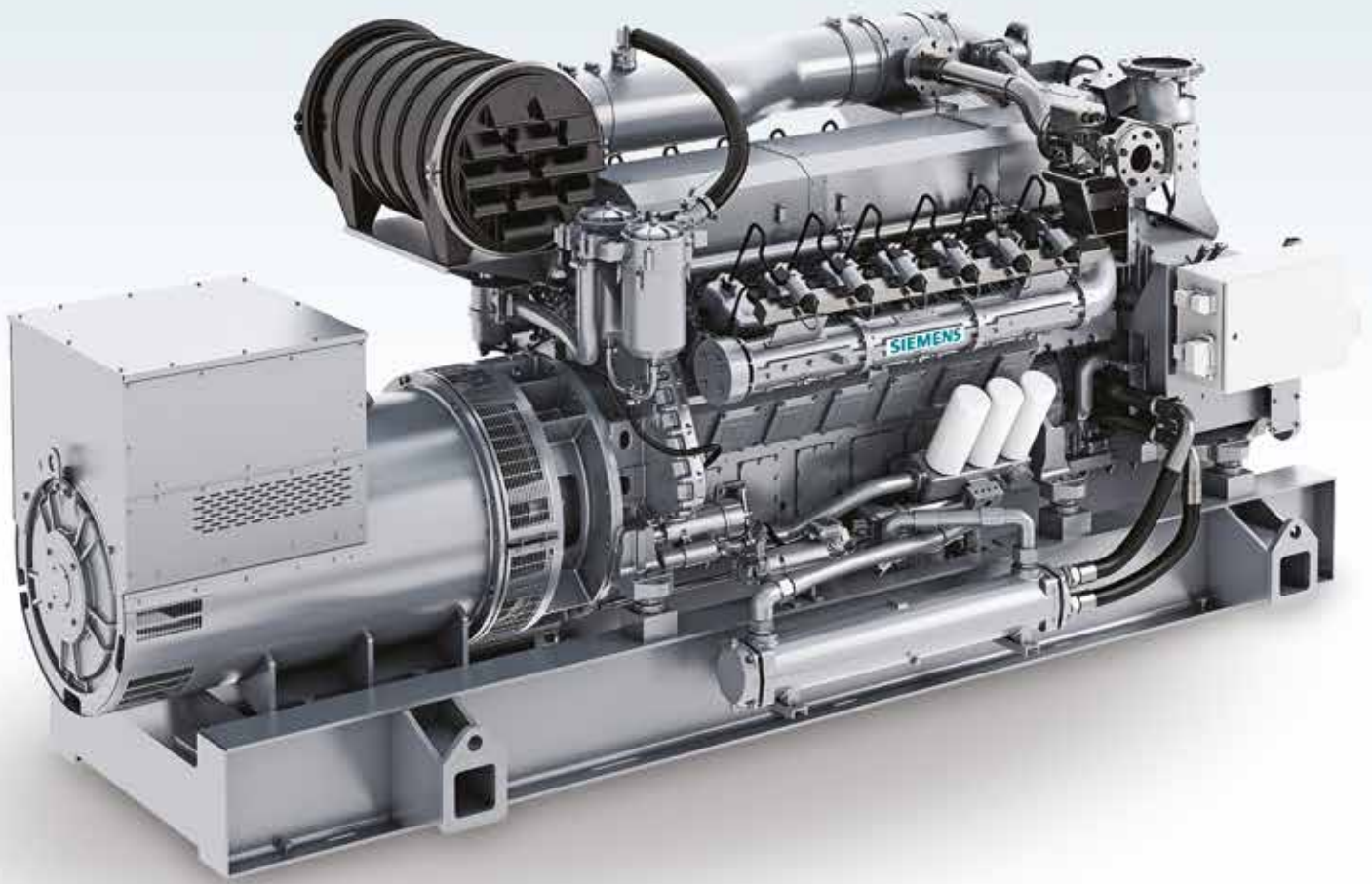


SIEMENS

Ingenuity for life



Power Generation

Siemens gas engines fuel flexibility

Power ratings

[siemens.com](https://www.siemens.com)

Siemens engines fuel flexibility

Syngas	Landfill	Digester	Natural Gas	Well Gas	Propane
120 – 375 Btu/ft ³	375 – 620	670 – 805	805 – 1,130	1,085 – 2,500	2,500 – 2,690
4.5 MJ/NM ³	18 – 21	22 – 26	30 – 40	38 – 87	87 – 100

Natural gas ²⁾ fueled engines & gen-sets - MN=75 ¹⁾

Model SGE-FR ³⁾	Cylinders	Disp. (l)	(kWb)		(kWe)	
			1,500 rpm	1,800 rpm	1,500 rpm	1,800 rpm
SGE-18FR	6L	18	150	180	142	171
SGE-24FR	8L	24	200	238	191	226

Model SGE-FL ³⁾	Cylinders	Disp. (l)	(kWb)		(kWe)		
			1,500 rpm	1,800 rpm	1,500 rpm	1,800 rpm	
SGE-18FL	55	6L	18	275	300	264	287
SGE-24FL	55	8L	24	360	400	347	385
SGE-36FL	55	12V	36	550	600	529	577
SGE-48FL	55	16V	48	725	792	703	761

Model SGE-SL-SM	Cylinders	Disp. (l)	(kWb)			(kWe)		
			1,200 rpm	1,500 rpm	1,800 rpm	1,200 rpm	1,500 rpm	1,800 rpm
SGE-18SL	6L	18	251	314	350	240	304	336
SGE-24SL	8L	24	335	419	453	320	405	436
SGE-36SL	12V	36	502	630	700	482	609	678
SGE-48SL	16V	48	670	838	906	642	812	880
SGE-56SL	16V	56	788	985	1,067	759	957	1,028
SGE-56SM	16V	56	-	1,055	1,100	-	1,025	1,065

Model SGE-HM	Cylinders	Disp. (l)	(kWb)			(kWe)		
			1,200 rpm	1,500 rpm	1,800 rpm	1,200 rpm	1,500 rpm	1,800 rpm
SGE-24HM	8L	24	-	520	520	-	500	500
SGE-42HM	12V	42	-	1,040	1,040	-	1,011	1,011
SGE-56HM	16V	56	1,040	1,240	1,350	1,007	1,200	1,308

Model SGE-EM	Cylinders	Disp. (l)	(kWb)			(kWe)		
			1,200 rpm	1,500 rpm	1,800 rpm	1,200 rpm	1,500 rpm	1,800 rpm
SGE-86EM	12V	86	-	2,065	-	-	2,012	-

1) For other MN (methane number) contact the Sales team

2) According to fuel specification IC-G-D-30-002

3) FR and FL series not available in USA market

BioGas, landfill, WWTP, biodigestion, fueled engines & gen-sets ⁴⁾

Model SGE-SL-SM	Cylinders	Disp. (l)	(kWb)			(kWe)		
			1,200 rpm	1,500 rpm	1,800 rpm	1,200 rpm	1,500 rpm	1,800 rpm
SGE-18SL	6L	18	251	314	350	240	304	336
SGE-24SL	8L	24	335	419	453	320	405	436
SGE-36SL	12V	36	502	630	700	482	609	678
SGE-48SL	16V	48	670	838	906	642	812	880
SGE-56SL	16V	56	788	985	1,067	759	957	1,028
SGE-56SM	16V	56	-	1,055	1,100	-	1,025	1,065

Model SGE-HM	Cylinders	Disp. (l)	(kWb)			(kWe)		
			1,200 rpm	1,500 rpm	1,800 rpm	1,200 rpm	1,500 rpm	1,800 rpm
SGE-24HM	8L	24	-	520	520	-	500	500
SGE-42HM	12V	42	-	1,040	1,040	-	1,011	1,011
SGE-56HM	16V	56	1,040	1,240	1,350	1,007	1,200	1,308

4) According to fuel specification IC-G-D-30-003

Siemens fuel blending system for biogas engines

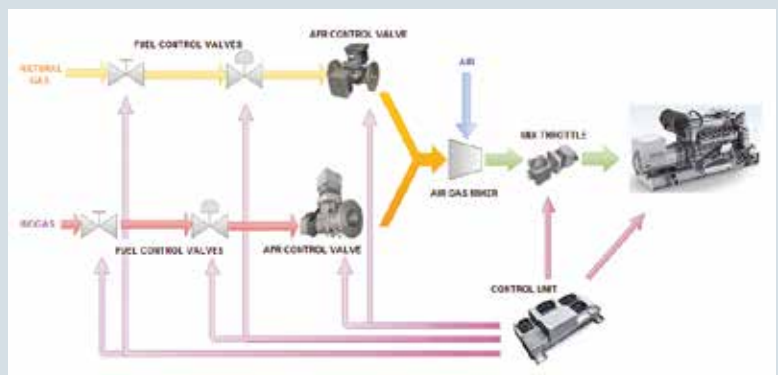
What is a fuel blending system?

Ability of an engine to run on two fuels, fuel A, fuel B, or a mixture of both, being biogas the primary fuel and natural gas the secondary fuel, being the blending done on the engine and not outside.

What are Siemens system's advantages & benefits?

Change on the fly: Our fuel blending system allows the change between modes at full power from a real 100% biogas consumption (0% natural gas – closed natural gas valve train) to any fuel blending ratio (>10%), including the possibility to run with 100% natural gas consumption (0% biogas – closed biogas valve train).

Easy start capability: The customer can select 100% Biogas but start the engine with natural gas. The control automatically changes to 100% Biogas once the engine has reached the rated speed. This helps to start a biogas facility when the biogas composition is very variable or unknown (for example after a long stop of the engine/facility).



Synthesis gas engines & gen-sets ⁵⁾

Model SGE-SL	Cylinders	Disp. (l)	(kWb)			(kWe)		
			1,200 rpm	1,500 rpm	1,800 rpm	1,200 rpm	1,500 rpm	1,800 rpm
SGE-18SL	6L	18	209	263	283	199	253	271
SGE-24SL	8L	24	281	350	377	269	338	362
SGE-36SL	12V	36	418	526	565	401	508	544
SGE-48SL	16V	48	561	700	754	541	678	729
SGE-56SL	16V	56	663	827	882	639	801	849

5) According to fuel specification IC-G-D-30-004

Propane fueled engines & gen-sets ⁶⁾

Model SGE-SM	Cylinders	Disp. (l)	(kWb)				(kWe)			
			1,500 rpm C ₃ H ₈ >95%	1,500 rpm C ₃ H ₈ >80%	1,800 rpm C ₃ H ₈ >95%	1,800 rpm C ₃ H ₈ >80%	1,500 rpm 95%	1,500 rpm 80%	1,800 rpm 95%	1,800 rpm 80%
SGE-18SM	6L	18	315	275	350	300	303	264	335	287
SGE-24SM	8L	24	419	360	453	400	404	347	436	385
SGE-36SM	12V	36	630	550	700	600	610	530	676	577
SGE-48SM	16V	48	838	725	906	800	811	702	873	770

6) According to fuel specification IC-G-D-30-018

Oil & gas well gas, flare gas and APG, mining gas, engines & gen-sets ⁷⁾

Model SGE-SL	MN35 (kWb/kWe)		MN45 (kWb/kWe)			MN55 (kWb/kWe)		
	1,500 rpm	1,800 rpm	1,200 rpm	1,500 rpm	1,800 rpm	1,200 rpm	1,500 rpm	1,800 rpm
SGE-18SL	290/279	240/325	220 /210	275/264	300/287	252/242	315/303	350/335
SGE-24SL	390/376	450/433	290/278	360/347	400/385	335/322	419/404	453/436
SGE-36SL	580/562	675/652	440/422	550/530	600/577	503/485	630/610	700/676
SGE-48SL	775/750	900/867	580/559	725/702	800/770	670/645	838/811	906/873
SGE-56SL	900/872	1,050/1,012	671/646	900/872	905/872	788/760	1,055/1,025	1,067/1,028

7) According to fuel specification IC-G-D-30-038

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