



ALL MODELS AVAILABLE WITH GUASCOR ENERGY DYNAMIC FUEL BLENDING SYSTEM
FACTORY INSTALLED PROVEN TECHNOLOGY

SL Range - 60 Hz

Biogas CHP Gensets Models: 18SL - G-24SL

Energy Balance	English Units	Metric Units	MODEL G-18SL		MODEL G-24SL	
			<u>1200 RPM</u>	<u>1800 RPM</u>	<u>1200 RPM</u>	<u>1800 RPM</u>
Generator efficiency ^{5) 6)}	%	%	95.5	96.1	95.9	96.1
Electrical power ^{5) 6)}		kWe	241	336	321	435
Jacket (HT) water heat	Btu x 1,000/hr	kW	607.8 (178)	816.0 (239)	959.5 (281)	1,188.2 (348)
Intercooler (LT) water heat	Btu x 1,000/hr	kW	150.2 (44)	239.0 (70)	174.1 (51)	269.7 (79)
Exhaust heat - cooled to 120°C	Btu x 1,000/hr	kW	341.4 (100)	583.9 (171)	525.8 (154)	805.8 (236)
Engine radiation heat	Btu x 1,000/hr	kW	37.6 (11)	54.6 (16)	58.0 (17)	68.3 (20)
Generator radiation heat	Btu x 1,000/hr	kW	38.7 (11)	46.6 (14)	46.9 (14)	60.3 (18)
Fuel consumption ⁷⁾	Btu x 1,000/hr	kW	2,140.8 (627)	3,086.6 (780)	3,045.7 (892)	4,134.9 (1,211)
Mechanical efficiency	%		40.2	38.7	37.6	37.4
Electrical efficiency	%		38.4	37.2	36.0	35.9
Thermal efficiency	%		51.4	53.1	54.5	54.7
Total efficiency	%		89.7	90.3	90.5	90.7

Biogas CHP Gensets Models: G-36SL & G-48SL

Energy Balance	English Units	Metric Units	MODEL G-36SL		MODEL G-48SL	
			<u>1200 RPM</u>	<u>1800 RPM</u>	<u>1200 RPM</u>	<u>1800 RPM</u>
Generator efficiency ^{5) 6)}	%	%	96.3	96.7	96.6	96.3
Electrical power ^{5) 6)}	Btu x 1,000/hr	kWe	485	677	647	873
Jacket (HT) water heat	Btu x 1,000/hr	kW	1,498.9 (439)	1,956.5 (573)	2,161.3 (633)	2,765.7 (810)
Intercooler (LT) water heat	Btu x 1,000/hr	kW	99 (29)	143.4 (42)	119.5 (35)	187.8 (55)
Exhaust heat - cooled to 120°C	Btu x 1,000/hr	kW	665.8 (195)	1,160.9 (340)	1,072.1 (314)	1,638.9 (480)
Engine radiation heat	Btu x 1,000/hr	kW	61.5 (18)	102.4 (30)	75.1 (22)	112.7 (33)
Generator radiation heat	Btu x 1,000/hr	kW	62.3 (18)	78.9 (30)	77.8 (23)	112.9 (33)
Fuel consumption ⁷⁾	Btu x 1,000/hr	kW	4,322.7 (1,266)	6,142.5 (1,799)	6,074.3 (1,785)	8,299.2 (2,428)
Mechanical efficiency	%		39.7	38.9	37.5	37.3
Electrical efficiency	%		38.7	37.6	36.3	36.0
Thermal efficiency	%		52.4	53.1	55	55.4
Total efficiency	%		90.7	90.7	91.3	91.3

Biogas CHP Gensets Models: G-56SL & G-56SM

Energy Balance	English Units	Metric Units	MODEL G-56SL		MODEL G-56SM	
			<u>1200 RPM</u>	<u>1800 RPM</u>	<u>1200 RPM</u>	<u>1800 RPM</u>
Generator efficiency ^{5) 6)}	%	%	96.8	96.3	97.2	96.9
Electrical power ^{5) 6)}	Btu x 1,000/hr	kWe	763	1,028	1025	1066
Jacket (HT) water heat	Btu x 1,000/hr	kW	2287.7 (670)	3,062.7 (897)	2,093.0 (613)	2284.2 (669)
Intercooler (LT) water heat	Btu x 1,000/hr	kW	143.4 (42)	187.8 (55)	225.4 (66)	266.3 (78)
Exhaust heat - cooled to 120°C	Btu x 1,000/hr	kW	1072.1 (314)	2,007.7 (588)	2,222.8 (651)	2,550.6 (747)
Engine radiation heat	Btu x 1,000/hr	kW	112.7 (33)	129.7 (38)	177.5 (52)	187.8 (55)
Generator radiation heat	Btu x 1,000/hr	kW	86.1 (25)	134.8 (39)	100.9 (30)	116.4 (34)
Fuel consumption ⁷⁾	Btu x 1,000/hr	kW	6,740.1 (1,974)	9,638.9 (2,823)	8,880.9 (2,601)	9,635.5 (2,822)
Mechanical efficiency	%		39.9	40.0	40.6	39.0
Electrical efficiency	%		38.6	38.9	39.4	37.8
Thermal efficiency	%		52.0	52.2	51.1	52.9
Total efficiency	%		90.6	91.1	90.6	90.7

5) At 60 Hz, U = 0.48 kV, power factor = 1
6) At 50 Hz, U = 0.4 kV, power factor = 1
7) With a tolerance of + 5%



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FACTORY INSTALLED PROVEN TECHNOLOGY

HM Range - 60 Hz

Biogas CHP Gensets Models: G-24HM & G-42HM

Energy Balance	English Units	Metric Units	MODEL G-24HM		MODEL G-42HM	
			1800 RPM		1800 RPM	
Generator efficiency ^{6) 7)}	%	%	96.2		96.7	
Electrical power ^{6) 7)}	kWe	kW	500		1,006	
Jacket (HT) water heat (oil cooler included)*	Btu x 1,000/hr	kW	679.5	(199)	1,959.9	(574)
Intercooler (LT) water heat	Btu x 1,000/hr	kW	327.8	(199)	194.6	(57)
Exhaust heat - cooled to 120°C	Btu x 1,000/hr	kW	1055.1	(309)	1,908.7	(559)
Engine radiation heat	Btu x 1,000/hr	kW	136.6	(40)	239.0	(70)
Generator radiation heat	Btu x 1,000/hr	kW	67.5	(20)	117.2	(32)
Fuel consumption ⁸⁾	Btu x 1,000/hr	kW	4,244.1	(1,243)	8,382.4	(2,455)
Mechanical efficiency	%		41.8		42.4	
Electrical efficiency	%		40.2		41.0	
Thermal efficiency	%		48.6		48.5	
Total efficiency	%		88.8		89.4	

Biogas CHP Gensets Models: G-56HM

Energy Balance	English Units	Metric Units	MODEL G-56HM	
			1800 RPM	
Generator efficiency ^{6) 7)}	%	%	96.9	
Electrical power ^{6) 7)}	kWe	kW	1,308	
Jacket (HT) water heat	Btu x 1,000/hr	kW	2,475.5	(725)
Intercooler (LT) water heat	Btu x 1,000/hr	kW	290.2	(85)
Exhaust heat - cooled to 120°C	Btu x 1,000/hr	kW	2,516.4	(737)
Engine radiation heat	Btu x 1,000/hr	kW	286.8	(84)
Generator radiation heat	Btu x 1,000/hr	kW	147.5	(43)
Fuel consumption ⁸⁾	Btu x 1,000/hr	kW	10,868.1	(3,183)
Mechanical efficiency	%		42.4	
Electrical efficiency	%		41.1	
Thermal efficiency	%		48.6	
Total efficiency	%		89.7	

6) At 50 Hz, U = 0.4 kV, power factor = 1
7) At 60 Hz, U = 0.48 kV, power factor = 1
8) With a tolerance of + 5%

