Model: GGMB
KW rating: 25.0 natural gas standby
20.0 propane standby
Frequency: 60
Fuel type: Natural gas/propane

Generator set data sheet

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Exhaust emission data sheet:	**EDS-1068**
Exhaust emission compliance sheet:	
Sound performance data sheet:	**MSP-1044**
Cooling performance data sheet:	**MCP-161**
Prototype test summary data sheet:	**PTS-270**
Standard set-mounted radiator cooling outline:	**0500-4510**
Optional set-mounted radiator cooling outline:	
Optional heat exchanger cooling outline:	
Optional remote radiator cooling outline:	

Fuel consumption

	Natural gas Standby				Prime				Propane Standby				Prime			
	kW (kVA)				kW (kVA)				kW (kVA)				kW (kVA)			
Ratings	25.0 (31.0)				22.0 (28.0)				25.0 (31.0)				22.0 (28.0)			
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**
scfh	166.1	236.9	313.7	396.3	157.4	220.7	285.7	356.8	57.8	82.1	108.4	136.7	54.8	76.5	98.8	123.1
m^3/hr	4.7	6.7	8.9	11.2	4.5	6.2	8.1	10.1	1.6	2.3	3.1	3.9	1.6	2.2	2.8	3.5

Engine

	Natural gas Standby rating	Prime rating	Propane Standby rating	Prime rating
Engine model	GM3.0 L			
Configuration	Cast iron, in-line 4 cylinder			
Aspiration	Naturally aspirated			
Gross engine power output, kWm (bhp)	36.9 (49.5)	33.5 (45)	41 (55)	37.3 (50)
BMEP at rated load, kPa (psi)	714 (103.5)	625 (90.6)	714 (103.5)	625 (90.6)
Bore, mm (in)	101.6 (4.0)			
Stroke, mm (in)	91.4 (3.6)			
Rated speed, rpm	1800			
Piston speed, m/s (ft/min)	11.4 (2243)			
Compression ratio	10.5:1			
Lube oil capacity, L (qt)	4.3 (4.5)			
Overspeed limit, rpm	2250 ± 50			
Regenerative power, kW				

Fuel flow

Minimum operating pressure, kPa (in H_2O)	1.7 (7.0)
Maximum operating pressure, kPa (in H_2O)	3.4 (13.6)

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Air	Natural gas Standby rating	Prime rating	Propane Standby rating	Prime rating
Combustion air, m^3/min (scfm)	2.0 (72)	1.8 (62)	1.8 (63)	1.6 (55)
Maximum air cleaner restriction, kPa (in H_2O)	2.5 (10.0)			
Alternator cooling air, m^3/min (scfm)	7.8 (275)			

Exhaust

Exhaust flow at rated load, m^3/min (cfm)	6.0 (209)	5.2 (183)	5.3 (188)	4.7 (165)
Exhaust temperature, °C (°F)	569 (1056)	552 (1026)	584 (1083)	566 (1051)
Maximum back pressure, kPa (in H_2O)	7.5 (30.0)			

Standard set-mounted radiator cooling

Ambient design, °C (°F)				
Fan load, kW (HP)	1.1 (1.5)			
Coolant capacity (with radiator), L (US gal)	11.4 (3.0)			
Coolant system air flow, m^3/min (cfm)				
Total heat rejection, MJ/min (Btu/min)				
Maximum cooling air flow static restriction, kPa (in H_2O)				

Optional set-mounted radiator cooling

Ambient design, °C (°F)				
Fan load, kW_m (HP)				
Coolant capacity with radiator, L (US gal)				
Cooling system air flow, m^3/min (scfm)				
Total heat rejection, MJ/min (Btu/min)				
Maximum cooling air flow static restriction, kPa (in H_2O)				

Optional remote radiator cooling[1]

Set coolant capacity, L (US gal)				
Max flow rate @ max friction head, jacket water circuit, L/min (US gal/min)				
Heat rejected, jacket water circuit, MJ/min (Btu/min)				
Total heat radiated to room, MJ/min (Btu/min)				
Maximum friction head, jacket water circuit, kPa (psi)				
Maximum static head, jacket water circuit, m (ft)				
Maximum jacket water outlet temp, °C (°F)				

Weights[2]

Unit dry weight kgs (lbs)	440 (970)
Unit wet weight kgs (lbs)	455 (1004)

Notes:

[1] For non-standard remote installations contact your local Cummins Power Generation representative.

[2] Weights represent a set with standard features. See outline drawing for weights of other configurations.

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Alternator data

Natural gas three phase table[1]		105 °C	105 °C	105 °C	125 °C	125 °C	125 °C					
Feature code		B415	B268	B304	B414	B267	B303					
Alternator data sheet		536	536	536	536	536	536					
Voltage ranges		120/208 thru 139/240 240/416 thru 277/480	120/208 thru 139/240 240/416 thru 277/480	347/600	120/208 thru 139/240 240/416 thru 277/480	120/208 thru 139/240 240/416 thru 277/480	347/600					
Surge kW		26	26	26	26	26	26					
Motor starting kVA (at 90% sustained voltage)	Shunt	92	92	92	92	92	92					
	PMG											

Full load current amps at standby rating	120/208	127/220	120/240	139/240	240/416	255/440	277/480	347/600
	87	82	75	75	43	41	38	30

Propane three phase table[1]		105 °C	105 °C	105 °C	125 °C	125 °C	125 °C					
Feature code		B415	B268	B304	B414	B267	B303					
Alternator data sheet		536	536	536	536	536	536					
Voltage ranges		120/208 thru 139/240 240/416 thru 277/480	120/208 thru 139/240 240/416 thru 277/480	347/600	120/208 thru 139/240 240/416 thru 277/480	120/208 thru 139/240 240/416 thru 277/480	347/600					
Surge kW		26	26	26	26	26	26					
Motor starting kVA (at 90% sustained voltage)	Shunt	92	92	92	92	92	92					
	PMG											

Full load current amps at standby rating	120/208	127/220	120/240	139/240	240/416	255/440	277/480	347/600
	87	82	75	75	43	41	38	30

Natural gas single phase table		105 °C	105 °C	105 °C	125 °C	125 °C	125 °C					
Feature code		B274	B415	B268	B273	B414	B267					
Alternator data sheet number		536	536	536	536	536	536					
Voltage ranges		120/240[3]	120/240[2]	120/240[3]	120/240[3]	120/240[2]	120/240[3]					
Surge kW		26	26	26	26	26	26					
Motor starting kVA (at 90% sustained voltage)	Shunt	72	72	72	72	72	72					
	PMG											

Full load current amps at standby rating	120/240[2]	120/240[3]
	69	104

Propane single phase table		105 °C	105 °C	105 °C	125 °C	125 °C	125 °C					
Feature code		B274	B415	B268	B273	B414	B267					
Alternator data sheet number		536	536	536	536	536	536					
Voltage ranges		120/240[3]	120/240[2]	120/240[3]	120/240[3]	120/240[2]	120/240[3]					
Surge kW		26	26	26	26	26	26					
Motor starting kVA (at 90% sustained voltage)	Shunt	72	72	72	72	72	72					
	PMG											

Full load current amps at standby rating	120/240[2]	120/240[3]
	69	104

Notes:

1. Single phase power can be taken from a three phase generator set at up to 2/3 set rated 3-phase kW at 1.0 power factor. Also see Note 3 below.
2. The broad range alternators can supply single phase output up to 2/3 set rated 3-phase kW at 1.0 power factor.
3. The extended stack (full single phase output) and 4 lead alternators can supply single phase output up to full set rated 3-phase kW at 1.0 power factor.

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Derating factors

Natural gas	
Standby/prime	Engine power available up to 457 m (1500 ft) at ambient temperatures up to 40 °C (104 °F). Above 457 m (1500 ft) derate at 4% per 305 m (1000 ft), and 2% per 10 °C (1.1% per 10 °F) above 40 °C (104 °F).

Propane	
Standby/prime	Engine power available up to 457 m (1500 ft) at ambient temperatures up to 40 °C (104 °F). Above 457 m (1500 ft) derate at 4% per 305 m (1000 ft), and 2% per 10 °C (1.1% per 10 °F) above 40 °C (104 °F).

Ratings definitions

Emergency standby power (ESP):	**Limited-time running power (LTP)**:	**Prime power (PRP)**:	**Base load (continuous) power (COP)**:
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

Formulas for calculating full load currents:

Three phase output

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

Single phase output

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

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Warning: Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open.

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