

Model: GGHH
KW rating: 75 natural gas standby
75 propane standby
Frequency: 50
Fuel type: Natural gas/propane

➤ **Generator set data sheet**



**Power
Generation**

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Exhaust emission data sheet:	EDS-427
Exhaust emission compliance sheet:	
Sound performance data sheet:	MSP-285
Cooling performance data sheet:	
Prototype test summary data sheet:	PTS-247
Standard set-mounted radiator cooling outline:	0500-3485
Optional set-mounted radiator cooling outline:	
Optional heat exchanger cooling outline:	
Optional remote radiator cooling outline:	

Fuel consumption	Natural gas				Propane				Propane							
	Standby kW (kVA)				Prime kW (kVA)				Standby kW (kVA)				Prime kW (kVA)			
Ratings	75 (94)								75 (94)							
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	383.0	558.0	742.0	951.0					131.0	214.0	261.0	357.0				
m³/hr	10.8	15.8	21.0	26.9					3.7	6.1	7.4	10.1				

Engine	Natural gas Standby rating				Prime rating				Propane Standby rating				Prime rating			
Engine model	WSG-1068															
Configuration	Cast iron, V 10 cylinder															
Aspiration	Turbocharged															
Gross engine power output, kWm (bhp)	91.8 (123.0)								94.7 (127.0)							
BMEP at rated load, kPa (psi)	1041.1 (151.0)								1041.1 (151.0)							
Bore, mm (in)	90.2 (3.55)								90.2 (3.55)							
Stroke, mm (in)	105.9 (4.17)								105.9 (4.17)							
Rated speed, rpm	1500								1500							
Piston speed, m/s (ft/min)	5.3 (1041.0)								5.3 (1041.0)							
Compression ratio	9.0:1								9.0:1							
Lube oil capacity, L (qt)	5.7 (6.0)								5.7 (6.0)							
Overspeed limit, rpm	2400 ± 50								2400 ± 50							
Regenerative power, kW	13.00								13.00							

Fuel flow	Natural gas				Propane			
Minimum operating pressure, kPa (in H ₂ O)	1.7 (7.0)				1.7 (7.0)			
Maximum operating pressure, kPa (in H ₂ O)	3.4 (13.6)				3.4 (13.6)			

Air	Natural gas Standby rating	Prime rating	Propane Standby rating	Prime rating
Combustion air, m ³ /min (scfm)	4.8 (171.0)		4.2 (149.0)	
Maximum air cleaner restriction, kPa (in H ₂ O)	3.7 (15.0)		3.7 (15.0)	
Alternator cooling air, m ³ /min (scfm)	30.8 (1090.0)		30.8 (1090.0)	

Exhaust

Exhaust flow at rated load, m ³ /min (cfm)	14.9 (527.0)		13.1 (462.0)	
Exhaust temperature, °C (°F)	580.0 (1076.0)		577 (1070)	
Maximum back pressure, kPa (in H ₂ O)	5.0 (20.0)		5.0 (20.0)	

Standard set-mounted radiator cooling

Ambient design, °C (°F)				
Fan load, kW (HP)	3.9 (5.2)		3.9 (5.2)	
Coolant capacity (with radiator), L (US gal)	33.1 (8.8)		33.0 (8.8)	
Coolant system air flow, m ³ /min (scfm)				
Total heat rejection, MJ/min (Btu/min)				
Maximum cooling air flow static restriction, kPa (in H ₂ O)				

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 ₂ O)				

Optional remote radiator cooling¹

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)				

Weights²

Unit dry weight kgs (lbs)	1093 (2410)
Unit wet weight kgs (lbs)	1133 (2498)

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 table¹		105 °C	105 °C	125 °C	125 °C	150 °C						
Feature code		B328	B340	B327	B339	B420						
Alternator data sheet		208	208	207	208	206						
Voltage ranges		110/190 thru 127/220 220/380 thru 254/440	110/190 thru 127/220 220/380 thru 254/440	110/190 thru 127/220 220/380 thru 254/440	110/190 thru 127/220 220/380 thru 254/440	110/190 thru 127/220 220/380 thru 254/440						
Surge kW		79	79	78	79	77						
Motor starting kVA (at 90% sustained voltage)	Shunt	311	311	244	311	211						
	PMG	389	389	306	389	264						
Full load current amps at standby rating		110/190 285	110/220 246	115/200 271	115/230 235	120/208 260	127/220 246	120/240 226	220/380 142	230/400 135	240/415 130	254/440 123

Propane three phase table¹		105 °C	105 °C	125 °C	125 °C	150 °C						
Feature code		B340	B328	B327	B339	B420						
Alternator data sheet		208	208	207	208	206						
Voltage ranges		110/190 thru 127/220 220/380 thru 254/440	110/190 thru 127/220 220/380 thru 254/440	110/190 thru 127/220 220/380 thru 254/440	110/190 thru 127/220 220/380 thru 254/440	110/190 thru 127/220 220/380 thru 254/440						
Surge kW		81	81	80	81	79						
Motor starting kVA (at 90% sustained voltage)	Shunt	311	311	244	311	211						
	PMG	389	389	306	389	264						
Full load current amps at standby rating		110/190 285	110/220 246	115/200 271	115/230 235	120/208 260	127/220 246	120/240 226	220/380 142	230/400 135	240/415 130	254/440 123

Natural gas single phase table		105 °C	105 °C	125 °C	125 °C							
Feature code		B328	B340	B327	B339							
Alternator data sheet number		208	208	207	208							
Voltage ranges		110/220 thru 120/240 ²	110/220 thru 120/240 ³	110/220 thru 120/240 ²	110/220 thru 120/240 ³							
Surge kW		77	77	77	77							
Motor starting kVA (at 90% sustained voltage)	Shunt	185	185	145	185							
	PMG	230	230	180	230							
Full load current amps at standby rating		120/240 ² 209	120/240 ³ 313	110/220 ² 228	110/220 ³ 341							

Propane Single phase table		105 °C	105 °C	125 °C	125 °C							
Feature code		B328	B340	B327	B339							
Alternator data sheet number		208	208	207	208							
Voltage ranges		110/220 thru 120/240 ²	110/220 thru 120/240 ³	110/220 thru 120/240 ²	110/220 thru 120/240 ³							
Surge kW		79	79	79	79							
Motor starting kVA (at 90% sustained voltage)	Shunt	185	185	145	185							
	PMG	230	230	180	230							
Full load current amps at standby rating		120/240 ² 209	120/240 ³ 313	110/220 ² 228	110/220 ³ 341							

Notes:

- 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.
- The broad range alternators can supply single phase output up to 2/3 set rated 3-phase kW at 1.0 power factor.
- 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 396 m (1300 ft) at ambient temperatures up to 29 °C (85 °F). Above 396 m (1300 ft) derate at 4% per 305 m (1000 ft), and 2% per 11 °C (1% per 10 °F) above 29 °C (85 °F).
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Propane

Standby/prime	Engine power available up to 640 m (2100 ft) at ambient temperatures up to 29 °C (85 °F). Above 640 m (2100 ft) derate at 4% per 305 m (1000 ft), and 2% per 11 °C (1% per 10 °F) above 29 °C (85 °F).
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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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