Model: GGLA
KW rating: 125 natural gas standby
115 propane standby
Frequency: 60
Fuel type: Natural gas
Propane

Generator set data sheet

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Exhaust emission data sheet:	**EDS-1027**
Exhaust emission compliance sheet:	
Sound performance data sheet:	**MSP-1005**
Cooling performance data sheet:	**MCP-134**
Prototype test summary data sheet:	**PTS-157**
Standard set-mounted radiator cooling outline:	**0500-4207**
Optional set-mounted radiator cooling outline:	
Optional heat exchanger cooling outline:	
Optional remote radiator cooling outline:	

Fuel consumption

	Natural gas								Propane							
	Standby kW (kVA)				Prime kW (kVA)				Standby kW (kVA)				Prime kW (kVA)			
Ratings	125 (156)								115 (144)							
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	650	985	1370	1550					245	365	535	605				
m^3/hr	18.4	27.9	38.3	43.9					6.9	9.8	15.1	17.1				

Engine

	Natural gas Standby rating	Prime rating	Propane Standby rating	Prime rating
Engine model	GM8.1L			
Configuration	Cast iron, V 8 cylinder			
Aspiration	Turbocharged			
Gross engine power output, kWm (bhp)	147.6 (198.0)		147.6 (198.0)	
BMEP at rated load, kPa (psi)	1137.6 (165.0)		1137.6 (165.0)	
Bore, mm (in)	108.0 (4.25)		108.0 (4.25)	
Stroke, mm (in)	111.0 (4.37)		111.0 (4.37)	
Rated speed, rpm	1800		1800	
Piston speed, m/s (ft/min)	6.7 (1310.0)		6.7 (1310.0)	
Compression ratio	9.1:1		9.1:1	
Lube oil capacity, L (qt)	7.6 (8.0)		7.6 (8.0)	
Overspeed limit, rpm	2400 ± 50		2400 ± 50	
Regenerative power, kW	15.00		15.00	

Fuel flow

Minimum operating pressure, kPa (in H_2O)	1.7 (7.0)		1.7 (7.0)	
Maximum operating pressure, kPa (in H_2O)	3.4 (13.6)		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)	8.3 (295.0)		8.3 (295.0)	
Maximum air cleaner restriction, kPa (in H_2O)	1.5 (6.0)		1.5 (6.0)	
Alternator cooling air, m^3/min (scfm)	37.0 (1308.0)		37.0 (1308.0)	

Exhaust

Exhaust flow at rated load, m^3/min (cfm)	26.0 (920.0)		26.0 (920.0)	
Exhaust temperature, °C (°F)	648.9 (1200.0)		648.9 (1200.0)	
Maximum back pressure, kPa (in H_2O)	5.0 (20.0)		5.0 (20.0)	

Standard set-mounted radiator cooling

Ambient design, °C (°F)	51 (124)		51 (124)	
Fan load, kW (HP)	6.3 (8.5)		6.3 (8.5)	
Coolant capacity (with radiator), L (US gal)	22.3 (5.9)		22.3 (5.9)	
Coolant system air flow, m^3/min (scfm)	283 (10000)		283 (10000)	
Total heat rejection, MJ/min (Btu/min)	10.8 (10200)		10.8 (10200)	
Maximum cooling air flow static restriction, kPa (in H_2O)	0.12 (0.5)		0.12 (0.5)	

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)	1157 (2550)
Unit wet weight kgs (lbs)	1213 (2675)

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 and propane three phase table[1]		**105 °C**	**105 °C**	**105 °C**	**105 °C**	**125 °C**	**125 °C**	**125 °C**	**125 °C**	**150 °C**	**150 °C**	**150 °C**
Feature code		B418	B415	B268	B304	B417	B414	B267	B303	B416	B413	B419
Alternator data sheet		209	209	211	208	208	208	211	208	208	208	208
Voltage ranges		110/190 thru 120/208 220/380 thru 240/416	120/208 thru 139/240 240/416 thru 277/480	120/208 thru 139/240 240/416 thru 277/480	347/600	110/190 thru 120/208 220/380 thru 240/416	120/208 thru 139/240 240/416 thru 277/480	120/208 thru 139/240 240/416 thru 277/480	347/600	110/190 thru 120/208 220/380 thru 240/416	120/208 thru 139/240 240/416 thru 277/480	347/600
Surge kW		137	137	139	137	135	135	139	137	135	135	137
Motor starting kVA (at 90% sustained voltage)	Shunt	516	516	672	422	422	422	672	422	422	422	422
	PMG	607	607	791	497	497	497	791	497	497	497	497

Full load current amps at standby rating	120/208	127/220	139/240	220/380	240/416	277/480	347/600
	434	410	376	237	217	188	150

Natural gas and propane single phase table		**105 °C**	**105 °C**	**105 °C**	**105 °C**	**125 °C**	**125 °C**	**125 °C**	**125 °C**			
Feature code		B418	B415	B274	B268	B417	B414	B273	B267			
Alternator data sheet		209	209	210	211	208	208	209	211			
Voltage ranges		120/240[2]	120/240[2]	120/240[3]	120/240[3]	120/240[2]	120/240[2]	120/240[3]	120/240[3]			
Surge kW		137	136	137	136	137	137	135	135			
Motor starting kVA (at 90% sustained voltage)	Shunt	305	305	330	395	250	250	305	395			
	PMG	360	360	385	465	290	290	360	465			

Full load current amps at standby rating	120/240[2]	120/240[3]
	347	521

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	Engine power available up to 594 m (1950 ft) at ambient temperatures up to 40 °C (104 °F). Above 594 m (1950 ft) derate at 4% per 305 m (1000 ft), and 2% per 11 °C (1% per 10 °F) above 40 °C (104 °F).

Propane	
Standby	Engine power available up to 305 m (1000 ft) at ambient temperatures up to 25 °C (77 °F). Above 305 m (1000 ft) derate at 4% per 305 m (1000 ft), and 2% per 11 °C (1% per 10 °F) above 25 °C (77 °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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