

Olympian OG80 Gas Generator Set

Engine Model	3.6L TCAC Inline
No. of Cylinders	4
Bore x Stroke	105.54 mm x 102.9 mm
Displacement	3.6 Liter
Compression Ratio	9.7:1
Aspiration	Turbocharged & Aftercooled
Fuel / Ignition System	Electronic Regulator / Spark Ignition
Governor	Electronic – G2 Class ¹ capable

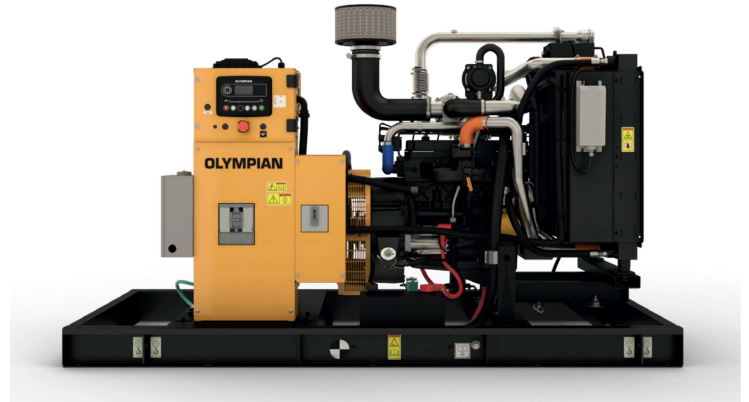


Image shown may not reflect actual configuration

Model	Emergency Standby		Emission Strategy
	Natural Gas	Propane	
OG80	80 kW	61 kW	U.S. EPA Certified for Stationary Emergency Application

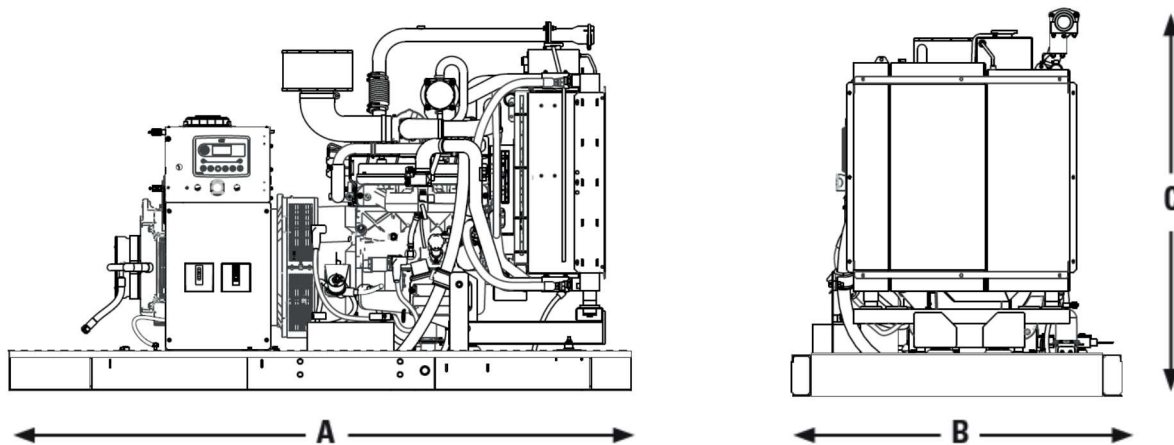
Package Performance

Performance	Emergency Standby	
	Natural Gas	Propane
Frequency, Hz	60	
Genset power rating, kW (3-Phase / 1-Phase)	80 / 80	61 / 61
Performance number (3-Phase / 1-Phase)	EM7303 / EM7307	EM7305 / EM7309
Fuel System / Fuel Consumption		
Minimum required fuel delivery pressure at rail connector, psi (in. water)	0.32 (9)	
Maximum required fuel delivery pressure at rail connector, psi (in. water)	0.43 (12)	
100% load with fan, kg/hr (CFH)	22.9 (1037)	18.0 (336)
75% load with fan, kg/hr (CFH)	17.8 (806)	14.2 (264)
50% load with fan, kg/hr (CFH)	12.9 (584)	10.3 (192)
Cooling System²		
Radiator air flow, m³/min (CFM)	162 (5721)	
Radiator air flow restriction (system), kPa (in. water)	0.12	
Engine coolant capacity, L (gal)	2.5 (0.625)	
Radiator coolant capacity, L (gal)	4.7 (1.25)	
Total coolant capacity, L (gal)	15.1 (4)	
Inlet Air		
Combustion air inlet flow rate, m³/min (CFM) (kg/hr)	5.5 (194) (360)	3.9 (137) (266)
Maximum allowable intake air restriction, kPa (in. water)	3.48 (13.9)	
Exhaust System		
Exhaust gas temperature after turbo, °C (°F)	672 (1241)	705 (1301)
Exhaust gas flow rate, m³/min (CFM) (kg/hr)	19.2 (678) (382.7)	14.4 (508) (284)
Exhaust system backpressure (maximum allowable), kPa (in. water)	7.0 (28)	

Heat Rejection	Emergency Standby	
	Natural Gas	Propane
Heat rejection to jacket water, kW (BTU/min)	55.7 (3167)	49.6 (2820)
Heat rejection to after cooler, kW (BTU/min)	10.7 (608)	4.6 (261)
Heat rejection to oil cooler, kW (BTU/min)	13.9 (790)	8.7 (495)
Heat rejection to atmosphere from engine, kW (BTU/min)	31.8 (1808)	25.6 (1456)
Heat rejection to exhaust (total), kW (BTU/min)	97.2 (5527)	71.4 (4060)
Lube System		
Sump refill with filter, L (gal)	8.3 (2.2)	
Maximum oil temperature, °C (°F)	122 (250)	
Maximum oil capacity, L (gal) (with cooling package)	12.1 (3.19)	
Minimum oil capacity, L (gal) (with cooling package)	9.7 (2.6)	
Emissions Meets (EPA Stationary Emergency Limits)		
NOx + HC, g/kW-hr	13.4	
CO, g/kW-hr	519	

Alternator ³	60 Hz	60 Hz				
	1-Phase	3-Phase				
Voltages, V	240 / 120	480 / 277	240 / 120	240 / 139	208 / 120	600 / 346
Motor starting capability @ 30% Voltage Dip, skVA	182	240				
Current, Amps – Natural Gas / Propane	333 / 254	120 / 92	241 / 184	241 / 184	278 / 212	96 / 74
Temperature rise ⁴ , °C	105					
Frame Size	M2238L4	M2236L4				
Excitation	SE	PMG				

Weights & Dimensions



Length "A"	Width "B"	Height "C"	Dry Weight
mm (in)	mm (in)	mm (in)	kg (lb)
2365 (93)	1193 (47)	1400 (55)	1096 (2416)

Note: General configuration not to be used for installation. See general dimension drawings for detail.

Applicable Codes and Standards

CSA C22.2 No 100-04, UL 489, UL 869, UL 2200, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-22, NEMA MG 1-33 and facilitates the compliance to NFPA 37, NFPA 70, NFPA 99, NFPA 110.

Codes may not be available for all model configurations. Site level review needed for NFPA70. Please consult your local Olympian representative for availability.

EMERGENCY STANDBY POWER (ESP): Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby rated kW. Typical operation is 50 hours per year, with maximum expected usage of 200 hours per year.

RATINGS: Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO 3046 standard conditions.

1 CFH = 1000 BTU/HR

Fuel Rates are based on LHV of 35.83 MJ/Nm³ for Natural Gas and 92.1 MJ/Nm³ for Propane Vapor @77°F (25°C) and 328 ft (100 m) above sea level and a relative humidity of 30%. Temperatures and elevations greater than this standard must be accounted for as follows:

A derate of 1.5% for every 5°C above 25°C air inlet temperature. A derate of 2.2% for every 200 m above 100 m.

Definitions and Conditions

- ¹ Governing Class capability as per ISO-8528-5. Consult your local Olympian representative for configuration and site specific transient performance classification.
- ² For ambient and altitude capabilities, consult your Olympian representative. Air flow restriction (system) is added to the existing restriction from the factory.
- ³ Motor starting capability is based on the assumption of 0.6 pf. Temperature rise is based on the rating type and the respective site conditions.
- ⁴ Generator temperature rise is based on 40°C (104°F) ambient per NEMA MG1-32.