

# Olympian OG200 Gas Generator Set

|                        |                                            |
|------------------------|--------------------------------------------|
| Engine Model           | 10.3L V8 TCAC                              |
| No. of Cylinders       | 8                                          |
| Bore x Stroke          | 116.8 mm x 120.6 mm                        |
| Displacement           | 10.3 Liter                                 |
| Compression Ratio      | 9.6:1                                      |
| Aspiration             | Turbocharged & Aftercooled                 |
| Fuel / Ignition System | Electronic Regulator / Spark Ignition      |
| Governor               | Electronic – G2 Class <sup>1</sup> capable |

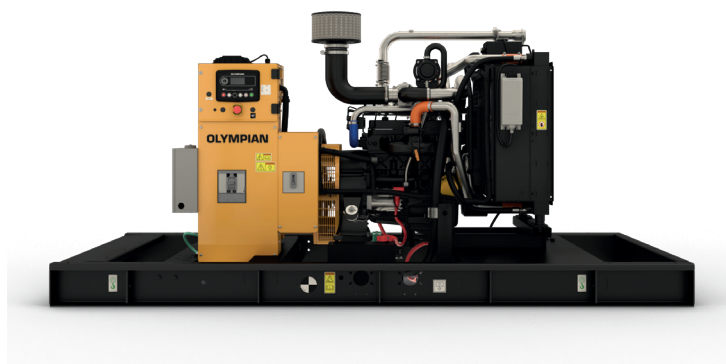


Image shown may not reflect actual configuration

| Model        | Emergency Standby |         | Demand Response |         | Prime       |         | Emission Strategy                                |
|--------------|-------------------|---------|-----------------|---------|-------------|---------|--------------------------------------------------|
|              | Natural Gas       | Propane | Natural Gas     | Propane | Natural Gas | Propane |                                                  |
| <b>OG200</b> | 200 kW            | 144 kW  | 200 kW          | 144 kW  | 157 kW      | 117 kW  | U.S. EPA Certified for Non-Emergency Application |

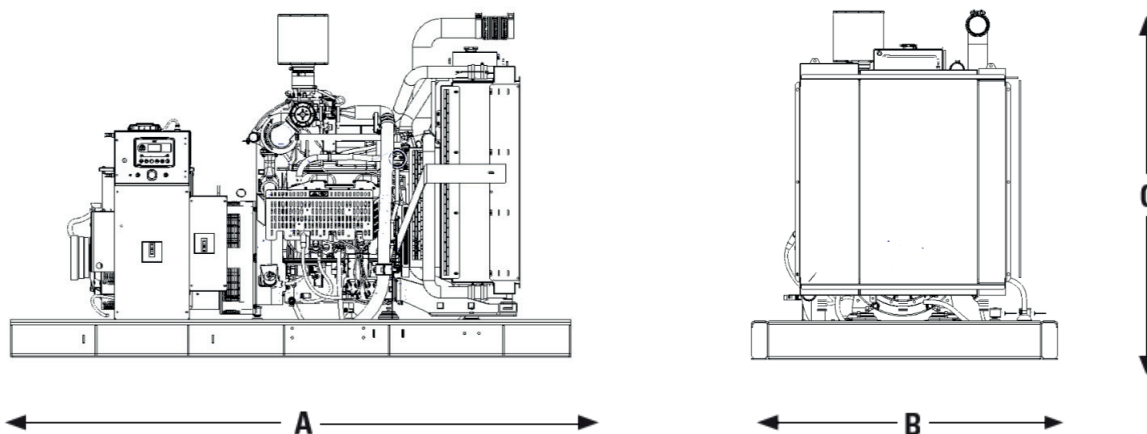
## Package Performance

| Performance                                                                | Emergency Standby  |                    | Demand Response    |                    | Prime              |                    |
|----------------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                                                                            | Natural Gas        | Propane            | Natural Gas        | Propane            | Natural Gas        | Propane            |
| Frequency, Hz                                                              | 60                 |                    |                    |                    |                    |                    |
| Genset power rating with fan, kW (3-Phase)                                 | 200                | 144                | 200                | 144                | 157                | 117                |
| Performance number                                                         | EM7523             | EM7525             | EM7527             | EM7529             | EM7531             | EM7533             |
| Fuel System / Fuel Consumption                                             |                    |                    |                    |                    |                    |                    |
| Minimum required fuel delivery pressure at rail connector, psi (in. water) | 0.36 (11)          |                    |                    |                    |                    |                    |
| Maximum required fuel delivery pressure at rail connector, psi (in. water) | 0.46 (13)          |                    |                    |                    |                    |                    |
| 100% load with fan, kg/hr (CFH)                                            | 53.3 (2397)        | 46.9 (886)         | 53.3 (2397)        | 46.9 (886)         | 40.8 (1835)        | 40.8 (771)         |
| 75% load with fan, kg/hr (CFH)                                             | 42.7 (1920)        | 36.8 (695)         | 42.7 (1920)        | 36.8 (695)         | 32 (1444)          | 32 (605)           |
| 50% load with fan, kg/hr (CFH)                                             | 28.4 (1277)        | 25 (472)           | 28.4 (1277)        | 25 (472)           | 23.2 (1052)        | 23.2 (438)         |
| Cooling System <sup>2</sup>                                                |                    |                    |                    |                    |                    |                    |
| Radiator air flow, m³/min (CFM)                                            | 498 (17588)        |                    |                    |                    |                    |                    |
| Radiator air flow restriction (system), kPa (in. water)                    | 0.12 (0.48)        |                    |                    |                    |                    |                    |
| Engine coolant capacity, L (gal)                                           | 10.9 (2.8)         |                    |                    |                    |                    |                    |
| Radiator coolant capacity, L (gal)                                         | 32.2 (8.5)         |                    |                    |                    |                    |                    |
| Total coolant capacity, L (gal)                                            | 43.1 (11.3)        |                    |                    |                    |                    |                    |
| Inlet Air                                                                  |                    |                    |                    |                    |                    |                    |
| Combustion air inlet flow rate, m³/min (CFM) (kg/hr)                       | 13.7 (484) (880.3) | 12.1 (429) (780.3) | 13.7 (484) (880.3) | 12.1 (429) (780.3) | 10.2 (361) (675.2) | 10.4 (368) (669.7) |
| Maximum allowable intake air restriction, kPa (in. water)                  | 3.54 (14.2)        |                    |                    |                    |                    |                    |
| Exhaust System                                                             |                    |                    |                    |                    |                    |                    |
| Exhaust gas temperature after turbo, °C (°F)                               | 792 (1457)         | 820 (1508)         | 792 (1457)         | 820 (1508)         | 775 (1427)         | 793 (1459)         |
| Exhaust gas flow rate, m³/min (CFM) (kg/hr)                                | 53 (1872) (934)    | 47 (1660) (827)    | 53 (1872) (934)    | 47 (1660) (827)    | 39 (1377) (716)    | 38 (1342) (710)    |
| Exhaust system backpressure (maximum allowable), kPa (in. water)           | 20 (80.4)          |                    |                    |                    |                    |                    |

| Heat Rejection                                         | Emergency Standby |             | Demand Response |             | Prime       |            |
|--------------------------------------------------------|-------------------|-------------|-----------------|-------------|-------------|------------|
|                                                        | Natural Gas       | Propane     | Natural Gas     | Propane     | Natural Gas | Propane    |
| Heat rejection to jacket water, kW (BTU/min)           | 112 (6368)        | 105 (5971)  | 112 (6368)      | 105 (5971)  | 102 (5800)  | 97 (5516)  |
| Heat rejection to after cooler, kW (BTU/min)           | 39 (2218)         | 20 (1137)   | 39 (2218)       | 20 (1137)   | 20 (1137)   | 17 (967)   |
| Heat rejection to oil cooler, kW (BTU/min)             | 37 (2104)         | 33 (1877)   | 37 (2104)       | 33 (1877)   | 33 (1877)   | 32 (1819)  |
| Heat rejection to atmosphere from engine, kW (BTU/min) | 49 (2786)         | 46 (2616)   | 49 (2786)       | 46 (2616)   | 38 (2161)   | 43 (2445)  |
| Heat rejection to exhaust (total), kW (BTU/min)        | 223 (12681)       | 200 (11374) | 223 (12681)     | 200 (11374) | 167 (9497)  | 166 (9440) |
| Lube System                                            |                   |             |                 |             |             |            |
| Oil dry fill capacity, L (gal)                         | 13.7 (3.6)        |             |                 |             |             |            |
| Maximum oil temperature, °C (°F)                       | 121 (250)         |             |                 |             |             |            |
| Maximum oil capacity, L (gal)                          | 13.8 (3.6)        |             |                 |             |             |            |
| Minimum oil capacity, L (gal)                          | 10.4 (2.7)        |             |                 |             |             |            |
| Emissions Meets (EPA Stationary Non-Emergency Limits)  |                   |             |                 |             |             |            |
| NOx + HC, g/kW-hr                                      | 0.8               |             |                 |             |             |            |
| CO, g/kW-hr                                            | 20.6              |             |                 |             |             |            |

| Alternator <sup>3</sup>                           | 60 Hz     |           |           |           |           |
|---------------------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                                                   | 3-Phase   |           |           |           |           |
| Voltages, V                                       | 480 / 277 | 240 / 120 | 240 / 139 | 208 / 120 | 600 / 346 |
| Temperature rise <sup>4</sup> , °C                | 105       |           |           |           |           |
| Motor starting capability @ 30% Voltage Dip, skVA | 629       | 490       | 629       | 490       | 599       |
| Frame Size                                        | M2736L4   |           |           |           |           |
| Excitation                                        | PMG       |           |           |           | AREP      |
| Rated Current, Amps – Natural Gas / Propane       |           |           |           |           |           |
| Emergency Standby                                 | 263 / 216 | 601 / 433 | 601 / 433 | 694 / 499 | 241 / 173 |
| Demand Response                                   | 263 / 216 | 601 / 433 | 601 / 433 | 694 / 499 | 241 / 173 |
| Prime                                             | 210 / 175 | 472 / 352 | 472 / 352 | 669 / 406 | 189 / 141 |

## Weights & Dimensions



| Length "A"   | Width "B" | Height "C" | Dry Weight  |
|--------------|-----------|------------|-------------|
| mm (in)      | mm (in)   | mm (in)    | kg (lb)     |
| 2985 (117.5) | 1600 (63) | 1820 (72)  | 1780 (3924) |

## 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.

**DEMAND RESPONSE POWER:** Output available with varying load when participating in a demand response or economic dispatch program. Average power output is 70% of the standby rated kW. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

**PRIME POWER:** Output available with varying load for an unlimited time. Average power output is 70% of the prime rated kW. Typical peak demand is 100% of prime rated kW.

**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/Nm<sup>3</sup> for Natural Gas and 92.1 MJ/Nm<sup>3</sup> 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

- <sup>1</sup> Governing Class capability as per ISO-8528-5. Consult your local Olympian representative for configuration and site specific transient performance classification.
- <sup>2</sup> For ambient and altitude capabilities, consult your Olympian representative. Air flow restriction (system) is added to the existing restriction from the factory.
- <sup>3</sup> 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.
- <sup>4</sup> Generator temperature rise is based on 40°C (104°F) ambient per NEMA MG1-32.