

G200LG

OLYMPIAN™

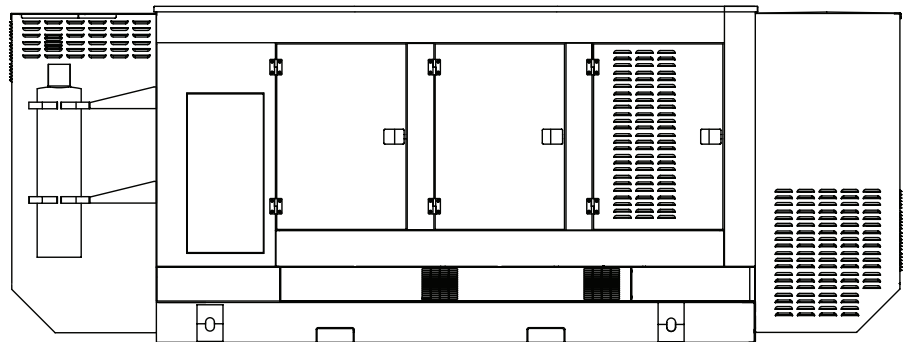
Industrial Gaseous Generator Set

EPA Certified Stationary Emergency

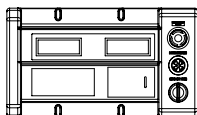
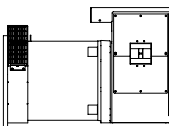
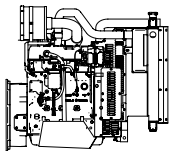
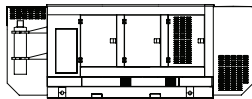
G200LG 200kW

1 of 5

Standby Power Rating
250kVA 200kW 60 Hz



Generator image used for illustration purposes only



features

Generator Set

- PROTOTYPE & TORSIONALLY TESTED
- UL2200 TESTED
- RHINOCOAT PAINT SYSTEM
- WIDE RANGE OF ENCLOSURES

Engine

- EPA COMPLIANT
- INDUSTRIAL TESTED
- POWER-MATCHED OUTPUT
- INDUSTRIAL GRADE

Alternator

- TWO-THIRDS PITCH
- LAYER WOUND ROTOR & STATOR
- CLASS H MATERIALS
- DIGITAL 3-PHASE VOLTAGE CONTROL

Controls

- ENCAPSULATED BOARD W/ SEALED HARNESS
- 4-20mA VOLTAGE-TO-CURRENT SENSORS
- SURFACE-MOUNT TECHNOLOGY
- ADVANCED DIAGNOSTICS & COMMUNICATIONS

benefits

- ▶ PROVIDES A PROVEN UNIT
- ▶ ENSURES A QUALITY PRODUCT
- ▶ IMPROVES RESISTANCE TO ELEMENTS
- ▶ PROVIDES A SINGLE SOURCE SOLUTION

- ▶ ENVIRONMENTALLY FRIENDLY
- ▶ ENSURES INDUSTRIAL STANDARDS
- ▶ ENGINEERED FOR PERFORMANCE
- ▶ IMPROVES LONGEVITY AND RELIABILITY

- ▶ ELIMINATES HARMFUL 3RD HARMONIC
- ▶ IMPROVES COOLING
- ▶ HEAT TOLERANT DESIGN
- ▶ FAST AND ACCURATE RESPONSE

- ▶ EASY, AFFORDABLE REPLACEMENT
- ▶ NOISE RESISTANT 24/7 MONITORING
- ▶ PROVIDES VIBRATION RESISTANCE
- ▶ HARDENED RELIABILITY

primary codes and standards



G200LG

application and engineering data

ENGINE SPECIFICATIONS

General

| | |
|--------------------------|--------------------------------|
| EPA Emissions Compliance | Stationary Emergency |
| EPA Emissions Reference | See Emissions Data Sheet |
| Cylinder # | 6 |
| Type | Inline |
| Displacement - L | 13.3 |
| Bore - mm (in.) | 136.91 (5.39) |
| Stroke - mm (in.) | 150.11 (5.91) |
| Compression Ratio | 10.5:1 |
| Intake Air Method | Turbocharged/Aftercooled |
| Number of Main Bearings | 7 |
| Connecting Rods | Carbon Steel |
| Cylinder Head | Cast Iron, Overhead Valve |
| Cylinder Liners | Wet, Replaceable |
| Ignition | Altronic CD1 |
| Pistons | Heat Resistant Alloy |
| Crankshaft | Die-Forged Carbon Steel |
| Lifter Type | Solid |
| Intake Valve Material | Special Heat-Resistant Steel |
| Exhaust Valve Material | Iconel Alloy, High Temp |
| Hardened Valve Seats | High Temp Alloy Stellite Faced |

Lubrication System

| | |
|------------------------------|----------------------|
| Oil Pump Type | Gear |
| Oil Filter Type | Full-Flow, Cartridge |
| Crankcase Capacity - L (qts) | 27 (28.5) |

Cooling System

| | |
|---------------------------------|------------------------------|
| Cooling System Type | Pressurized, Closed Recovery |
| Water Pump Flow | 45 gal/min |
| Fan Type | Pusher |
| Fan Speed (rpm) | 2439 |
| Fan Diameter mm (in.) | 762 (30.0) |
| Coolant Heater Wattage | 2000 |
| Coolant Heater Standard Voltage | 240VAC |

Fuel System

| | |
|--------------------------|----------------------------|
| Fuel Type | Natural Gas |
| Carburetor | Down Draft |
| Secondary Fuel Regulator | Standard |
| Fuel Shut Off Solenoid | Standard |
| Operating Fuel Pressure | 11" - 15" H ₂ O |

Engine Electrical System

| | |
|-----------------------------|-----------|
| System Voltage | 24VDC |
| Battery Charging Alternator | Std |
| Battery Size (at 0°C) | 1155 CCA |
| Battery Group | 8D |
| Battery Voltage | (2) 12VDC |
| Ground Polarity | Negative |

ALTERNATOR SPECIFICATIONS

| | |
|-------------------------------------|-----------------------|
| Standard Model | 520 mm |
| Poles | 4 |
| Field Type | Revolving |
| Insulation Class - Rotor | H |
| Insulation Class - Stator | H |
| Total Harmonic Distortion | < 5% |
| Telephone Interference Factor (TIF) | < 50 |
| Standard Excitation | Permanent Magnent |
| Bearings | Sealed Ball |
| Coupling | Direct, Flexible Disc |
| Load Capacity - Standby | 100% |
| Prototype Short Circuit Test | Yes |

| | |
|------------------------------------|---------|
| Voltage Regulator Type | Digital |
| Number of Sensed Phases | All |
| Regulation Accuracy (Steady State) | ± 0.25% |

Engine Governing

| | |
|-------------------------------------|------------|
| Governor | Electronic |
| Frequency Regulation (Steady State) | ± 0.25% |

CODES AND STANDARDS COMPLIANCE (WHERE APPLICABLE)

| | |
|-------------|---------------------|
| NFPA 99 | BS5514 |
| NFPA 110 | SAE J1349 |
| ISO 8528-5 | DIN6271 |
| ISO 1708A.5 | IEEE C62.41 TESTING |
| ISO 3046 | NEMA ICS 1 |

Rating Definitions:

Standby – Applicable for a varying emergency load for the duration of a utility power outage with no overload capability. (Max. load factor = 70%)

G200LG

operating data (60Hz)

POWER RATINGS (kW)

| | Natural Gas | |
|--------------------------------|-------------|-----------|
| Single-Phase 120/240VAC @1.0pf | 200 kW | Amps: 833 |
| Three-Phase 120/208VAC @0.8pf | 200 kW | Amps: 695 |
| Three-Phase 120/240VAC @0.8pf | 200 kW | Amps: 602 |
| Three-Phase 277/480VAC @0.8pf | 200 kW | Amps: 301 |
| Three-Phase 346/600VAC @0.8pf | 200 kW | Amps: 241 |

STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip

| Alternator | kW | 480VAC | | | | | | 208/240VAC | | | | | |
|------------|-----|--------|-----|-----|-----|-----|------|------------|-----|-----|-----|-----|-----|
| | | 10% | 15% | 20% | 25% | 30% | 35% | 10% | 15% | 20% | 25% | 30% | 35% |
| Standard | 200 | 187 | 280 | 373 | 467 | 560 | 653 | 140 | 210 | 280 | 350 | 420 | 490 |
| Upsize 1 | 250 | 263 | 395 | 527 | 658 | 790 | 922 | 197 | 296 | 395 | 494 | 593 | 692 |
| Upsize 2 | 300 | 303 | 454 | 605 | 757 | 908 | 1059 | 227 | 341 | 454 | 568 | 681 | 794 |

FUEL

Fuel Consumption Rates*

| Natural Gas | | |
|--------------|---------------------|--------------------|
| Percent Load | ft ³ /hr | m ³ /hr |
| 25% | 870 | 24.6 |
| 50% | 1430 | 40.5 |
| 75% | 1880 | 53.2 |
| 100% | 2550 | 72.2 |

* Refer to "Emissions Data Sheet" for maximum fuel flow for EPA and SCAQMD permitting purposes.

COOLING

| | | |
|--|--|-------------|
| Air Flow (inlet air combustion and radiator) | ft ³ /min (m ³ /min) | 18118 (513) |
| System Coolant Capacity | Gal (Liters) | 7.7 (29.2) |
| Heat Rejection to Coolant | BTU/hr | 663,000 |
| Max. Operating Air Temp on Radiator | °F (°C) | 122 (50) |
| Max. Ambient Temperature | °F (°C) | 104 (40) |
| Maximum Radiator Backpressure | "H ₂ O | 1.50 |

COMBUSTION AIR REQUIREMENTS

Flow at Rated Power cfm 718

ENGINE

| | | |
|--------------------------|--------|------|
| Rated Engine Speed | rpm | 1800 |
| Horsepower at Rated kW** | hp | 309 |
| Piston Speed | ft/min | 1770 |
| BMEP | psi | 173 |

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

EXHAUST

| | | |
|-----------------------------------|---------------------------|--------------|
| Exhaust Flow (Rated Output) | cfm (m ³ /min) | 2710 (76.7) |
| Max. Backpressure (Post Silencer) | inHg | 1.5 |
| Exhaust Temp (Rated Output) | °F (°C) | 1565 (851.7) |
| Exhaust Outlet Size (Open Set) | in | 5.0" |

G200LG

standard features and options

GENERATOR SET

| | |
|---|-----|
| ● Genset Vibration Isolation | Std |
| ○ IBC Seismic Certified/Seismic Rated Vibration Isolators | Opt |
| ○ Steel Enclosure | Opt |
| ○ Aluminum Enclosure | Opt |
| ○ Enclosure Lighting Kits | Opt |

ENGINE SYSTEM

General

| | |
|---|-----|
| ● Oil Drain Extension | Std |
| ○ Oil Heater | Opt |
| ○ Critical Exhaust Silencer (Enclosed Sets) | Opt |
| ● Stainless steel flexible exhaust connection | Std |
| ● Air cleaner | Std |
| ● Fan guard | Std |
| ● Radiator duct adapter | Std |

Fuel System

| | |
|----------------------------|-----|
| ● Fuel lockoff solenoid | Std |
| ● Secondary Fuel Regulator | Std |
| ○ Flexible fuel lines | Opt |

Cooling System

| | |
|----------------------------------|-----|
| ○ 120VAC Coolant Heater | Opt |
| ○ 208VAC Coolant Heater | Opt |
| ● 240VAC Coolant Heater | Std |
| ○ Other Coolant Heater | Opt |
| ● Closed Coolant Recovery System | Std |
| ● UV/Ozone resistant hoses | Std |
| ● Factory-Installed Radiator | Std |
| ● Radiator Drain Extension | Std |

Engine Electrical System

| | |
|---|-----|
| ● Battery charging alternator | Std |
| ● Battery cables | Std |
| ● Battery tray | Std |
| ○ Battery heater | Opt |
| ● Solenoid activated starter motor | Std |
| ○ 10A UL float/equalize battery charger | Opt |
| ● Rubber-booted engine electrical connections | Std |

ALTERNATOR SYSTEM

| | |
|------------------------------|-----|
| ● UL2200 GENprotect | Std |
| ○ Main Line Circuit Breaker | Opt |
| ○ 2nd Circuit Breaker | Opt |
| ○ 3rd Circuit Breaker | Opt |
| ○ Alternator Upsizing | Opt |
| ○ Anti-Condensation Heater | Opt |
| ○ Tropical coating | Opt |
| ● Permanent Magnet Generator | Std |

CONTROL SYSTEM

Control Panel

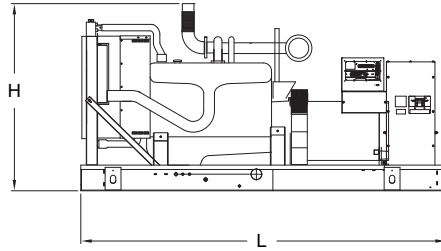
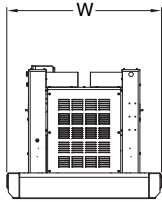
| | |
|--|-----|
| ● Digital H-Panel Controller | Std |
| ● Programmable Crank Limiter | Std |
| ● Programmable Crank Limiter | Std |
| ○ 21-Light Remote Annunciator | Opt |
| ○ Remote Relay Panel (8 or 16) | Opt |
| ● 7-Day Programmable Exerciser | Std |
| ● Special Applications Programmable PLC | Std |
| ● RS-485 Communications | Std |
| ● All-Phase Sensing DVR | Std |
| ● Full System Status | Std |
| ● 2-Wire Start Compatible | Std |
| ● Power Output (kW) | Std |
| ● Power Factor | Std |
| ● Reactive Power | Std |
| ● All phase AC Voltage | Std |
| ● All phase Currents | Std |
| ● Oil Pressure | Std |
| ● Coolant Temperature | Std |
| ● Coolant Level | Std |
| ○ Oil Temperature | Opt |
| ● Low Fuel Pressure | Std |
| ● Engine Speed | Std |
| ● Battery Voltage | Std |
| ● Frequency | Std |
| ● Date/Time Fault History (Event Log) | Std |
| ○ Low-Speed Exercise | Opt |
| ● Isochronous Governor Control | Std |
| ● -40deg C - 70deg C Operation | Std |
| ● Waterproof Plug-In Connectors | Std |
| ● Audible Alarms and Shutdowns | Std |
| ● Not in Auto (Flashing Light) | Std |
| ● Auto/Off/Manual Switch | Std |
| ● E-Stop (Red Mushroom-Type) | Std |
| ○ Remote E-Stop (Break Glass-Type, Surface Mount) | Opt |
| ○ Remote E-Stop (Red Mushroom-Type, Surface Mount) | Opt |
| ○ Remote E-Stop (Red Mushroom-Type, Flush Mount) | Opt |
| ● NFPA 110 Level I and II (Programmable) | Std |
| ● Remote Communication - RS232 | Std |
| ○ Remote Communication - Modem | Opt |
| ○ Remote Communication - Ethernet | Opt |
| ○ 10A Run Relay | Opt |

Alarms (Programmable Tolerances, Pre-Alarms and Shutdowns)

| | |
|---|-----|
| ● Oil Pressure (Pre-programmed Low Pressure Shutdown) | Std |
| ● Coolant Temperature (Pre-programmed High Temp Shutdown) | Std |
| ● Coolant Level (Pre-programmed Low Level Shutdown) | Std |
| ○ Oil Temperature | Opt |
| ● Engine Speed (Pre-programmed Overspeed Shutdown) | Std |
| ● Voltage (Pre-programmed Overvoltage Shutdown) | Std |
| ● Battery Voltage | Std |

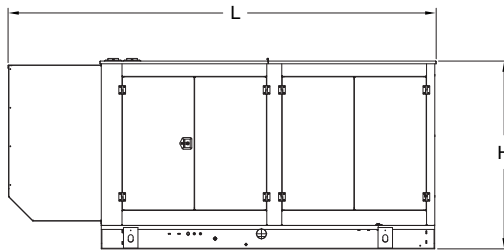
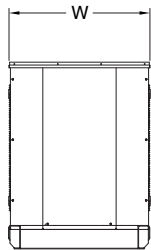
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dimensions, weights and sound levels



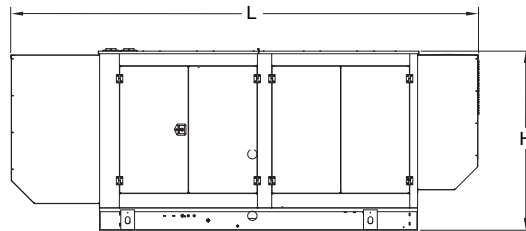
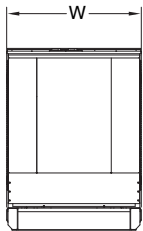
OPEN SET

| L | W | H | WT | dBA* |
|-----|----|----|------|------|
| 136 | 58 | 70 | 5213 | 92 |



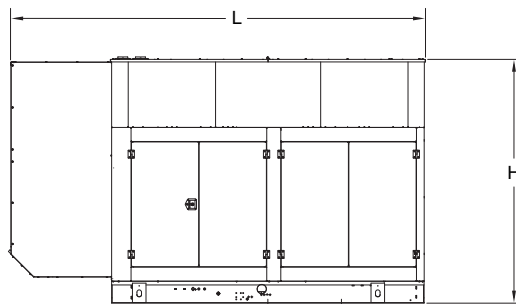
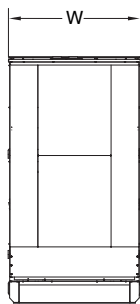
STANDARD ENCLOSURE

| L | W | H | WT | dBA* |
|-----|----|----|------|------|
| 175 | 58 | 77 | 6403 | 90 |



LEVEL 1 ACOUSTIC ENCLOSURE

| L | W | H | WT | dBA* |
|-----|----|----|------|------|
| 200 | 58 | 77 | 6583 | 76 |



LEVEL 2 ACOUSTIC ENCLOSURE

| L | W | H | WT | dBA* |
|-----|----|-----|------|------|
| 181 | 58 | 106 | 7663 | 74 |

*All measurements are approximate and for estimation purposes only. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Cat® Dealer for detailed installation drawings.

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