

MG150

6.8L

Industrial Spark-Ignited Generator Set

EPA Certified Stationary Emergency

Standby Power Rating
150 kW 188 kVA 60 Hz

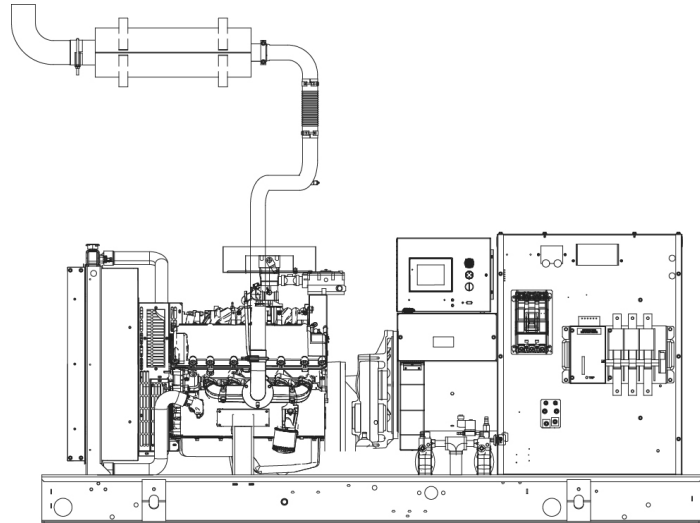


Image used for illustration purposes only

Codes and Standards

Generac products are designed to the following standards:



UL2200, UL508, UL142, UL498, ETL



NFPA70, 99, 110, 37



NEC700, 701, 702, 708



ISO9001, 8528, 3046, 7637, Pluses #2b, 4



NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41

American National Standards Institute



IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE7-10, ICC-ES AC-156 (2012)

Powering Ahead

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

MG150

Standard Features

ENGINE SYSTEM

General

- Oil Drain
- Air Cleaner
- Fan Guard
- Stainless Steel flexible exhaust connection
- Critical Exhaust Silencer
- Factory Filled Oil

Fuel System

- Primary and Secondary Fuel Shutoff
- Flexible Fuel Line - NPT Connection

Cooling System

- Closed Coolant Recovery System
- UV/Ozone resistant hoses
- Factory-installed Radiator
- 50/50 Ethylene glycol antifreeze

Engine Electrical System

- Battery charging alternator
- Battery Cables
- Battery Tray
- Solenoid activated starter motor
- Rubber-booted engine electrical connections

ALTERNATOR SYSTEM

- Class H insulation material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearings
- Amortisseur winding
- Full load capacity alternator

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of circuits - high/low voltage
- Separation of circuits - multiple breakers
- Wrapped Exhaust Piping (enclosed only)
- Standard Factory Testing
- 2 Year Warranty (Standby rated units)
- 1 Year Warranty (Prime rated units)
- Silencer mounted in the discharge hood (enclosed only)

ENCLOSURE

- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material
- Gasketed doors
- Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- Stainless steel lift off door hinges
- Stainless steel lockable handles
- Rhino Coat™ - Textured polyester powder coat

CONTROL SYSTEM

Control Panel

- Digital G-200 Paralleling Control Panel - Touchscreen
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232/485
- All-Phase Sensing DVR
- Full System Status
- Low Fuel Pressure Indication
- 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level

- Engine Speed
- Battery Voltage
- Frequency
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- Customizable Alarms, Warnings, and Events
- Modbus protocol
- Predictive Maintenance algorithm
- Sealed Boards
- Password parameter adjustment protection
- Single point ground
- 15 channel data logging
- 0.2 msec high speed data logging
- Alarm information automatically comes up on the display

Alarms

- Oil Pressure (Pre-programmable Low Pressure Shutdown)
- Coolant Temperature (Pre-programmed High Temp Shutdown)
- Coolant Level (Pre-programmed Low Level Shutdown)
- Low Fuel Pressure Alarm
- Engine Speed (Pre-programmed Over speed Shutdown)
- Battery Voltage Warning
- Alarms & warnings time and date stamped
- Alarms & warnings for transient and steady state conditions
- Snap shots of key operation parameters during alarms & warnings
- Alarms and warnings spelled out (no alarm codes)

PARALLELING CONTROLS

- Auto-synchronization process
- Isochronous load sharing
- Reverse power protection
- Maximum power protection
- Electrically operated, mechanically held paralleling switch
- Sync check system
- Independent on-board paralleling
- Optional programmable logic full auto back-up control (pls)

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Configurable Options

ENGINE SYSTEM

- General
- Engine Block Heater
- Air Filter Restriction Indicator
- Stone Guard (Open Set Only)
- Engine Electrical System
- 10A battery charger

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical coating

GENERATOR SET

- Gen-Link Communications Software (English Only)
- Extended Factory Testing
- Pad Vibration Isolators
- 150 MPH Wind Kit

CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

ENCLOSURE

- Weather Protected
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Steel Enclosure
- Aluminum Enclosure
- 12 VDC Enclosure Lighting Kits
- Door Alarm Switch

CONTROL SYSTEM

- 21-Light Remote Annunciator
- Remote Relay Panel (8 or 16)
- Oil Temperature Sender with Indication / Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- Remote Communication - Modem
- 10A Run Relay
- Ground fault indication and protection functions
- PLS Full Auto Back-Up for PM-SC
- MODBUS Protocol

Engineered Options

ENGINE SYSTEM

- Coolant heater ball valves
- Fluid containment pans

ALTERNATOR SYSTEM

- 3rd Breaker Systems

GENERATOR SET

- Special Testing
- Battery Box

ENCLOSURE

- Motorized Dampers

CONTROL SYSTEM

- Spare inputs (x4) / outputs (x4) - H Panel Only
- Battery Disconnect Switch

Rating Definition

Standby – Applicable for a varying emergency load for the duration of a utility power outage with no overload capability. (Max. load factor = 70%)
 Power ratings in accordance with ISO 8528-1, Second Edition dated 2005-06-01, definitions for Prime Power (PRP) and Emergency Standby Power (ESP).

MG150

application and engineering data

ENGINE SPECIFICATIONS

General

| | |
|--------------------------|---------------------|
| Make | Generac |
| Cylinder # | 10 |
| Type | V |
| Displacement - L (Cu In) | 6.8 (414.96) |
| Bore - mm (in) | 90.17 (3.55) |
| Stroke - mm (in) | 105.992 (4.17) |
| Compression Ratio | 9:01 |
| Intake Air Method | Naturally Aspirated |
| Number of Main Bearings | 7 |
| Connecting Rods | Forged |
| Cylinder Head | Aluminum |
| Cylinder Liners | No |
| Ignition | High Energy |
| Pistons | Aluminum Alloy |
| Crankshaft | Steel |
| Lifter Type | Overhead Cam |
| Intake Valve Material | Steel Alloy |
| Exhaust Valve Material | Steel Alloy |
| Hardened Valve Seats | Yes |

Lubrication System

| | |
|------------------------------|-----------------------------|
| Oil Pump Type | Gear |
| Oil Filter Type | Full-flow spin-on cartridge |
| Crankcase Capacity - L (qts) | 5.7 (6) |

Cooling System

| | |
|---------------------------------|-----------------------------|
| Cooling System Type | Pressurized Closed Recovery |
| Water Pump Flow - gpm (lpm) | 38 (144) |
| Fan Type | Pusher |
| Fan Speed (rpm) | 2300 |
| Fan Diameter mm (in) | 558 (22) |
| Coolant Heater Wattage | 1500 |
| Coolant Heater Standard Voltage | 120 V |

Fuel System

| | |
|--------------------------|----------------------------|
| Fuel Type | Natural Gas, Propane Vapor |
| Carburetor | Down Draft |
| Secondary Fuel Regulator | Standard |
| Fuel Shut Off Solenoid | Standard |
| Operating Fuel Pressure | 11" - 14" H2O |

Engine Electrical System

| | |
|-----------------------------|------------------------------|
| System Voltage | 12 VDC |
| Battery Charging Alternator | Standard |
| Battery Size | See Battery Index 0161970SBY |
| Battery Voltage | 12 VDC |
| Ground Polarity | Negative |

ALTERNATOR SPECIFICATIONS

| | |
|-------------------------------------|----------------|
| Standard Model | 390 |
| Poles | 4 |
| Field Type | Revolving |
| Insulation Class - Rotor | H |
| Insulation Class - Stator | H |
| Total Harmonic Distortion | <5% |
| Telephone Interference Factor (TIF) | <50 |
| Standard Excitation | Brushless |
| Bearings | Sealed Ball |
| Coupling | Flexibile Disc |
| Prototype Short Circuit Test | Yes |

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

Engine Governing

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

MG150

operating data

POWER RATINGS

| | Natural Gas | | Propane Vapor | |
|---------------------------------|-------------|------|---------------|------|
| | kW | Amps | kW | Amps |
| Single-Phase 120/240 VAC @1.0pf | 136 kW | 567 | 144 kW | 600 |
| Three-Phase 120/208 VAC @0.8pf | 142 kW | 493 | 150 kW | 520 |
| Three-Phase 120/240 VAC @0.8pf | 142 kW | 427 | 150 kW | 451 |
| Three-Phase 277/480 VAC @0.8pf | 142 kW | 214 | 150 kW | 226 |
| Three-Phase 346/600 VAC @0.8pf | 142 kW | 171 | 150 kW | 180 |

STARTING CAPABILITIES (sKVA)

| | | sKVA vs. Voltage Dip | | | | | | | | | | | |
|------------|-----|----------------------|-----|-----|-----|-----|-----|-------------|-----|-----|-----|-----|-----|
| | | 480 VAC | | | | | | 208/240 VAC | | | | | |
| Alternator | kW | 10% | 15% | 20% | 25% | 30% | 35% | 10% | 15% | 20% | 25% | 30% | 35% |
| Standard | 150 | 133 | 199 | 265 | 332 | 398 | 464 | 100 | 149 | 199 | 249 | 299 | 348 |
| Upsize 1 | 200 | 187 | 280 | 373 | 467 | 560 | 653 | 140 | 210 | 280 | 350 | 420 | 490 |

FUEL CONSUMPTION RATES*

| Natural Gas – ft ³ /hr (m ³ /hr) | | Propane Vapor – ft ³ /hr (m ³ /hr) | |
|--|-------------|--|------------|
| Percent Load | Standby | Percent Load | Standby |
| 25% | 700 (19.8) | 25% | 290 (8.2) |
| 50% | 1154 (32.7) | 50% | 478 (13.5) |
| 75% | 1525 (43.2) | 75% | 631 (17.9) |
| 100% | 2061 (58.4) | 100% | 853 (24.2) |

*Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

| | | Standby |
|--|--|--------------|
| Air Flow (inlet air combustion and radiator) | ft ³ /min (m ³ /min) | 6447 (182.6) |
| Coolant Flow per Minute | gpm (lpm) | 57 (215.8) |
| Coolant System Capacity | gal (L) | 6.3 (23.9) |
| Heat Rejection to Coolant | BTU/hr | 577,080 |
| Max. Operating Air Temp on Radiator | °F (°C) | 122 (50) |
| Max. Ambient Temperature | °F (°C) | 104 (40) |
| Maximum Radiator Backpressure | in H ₂ O | 0.5 |

COMBUSTION AIR REQUIREMENTS

| | Standby |
|---|------------|
| Flow at Rated Power cfm (m ³ /min) | 447 (12.7) |

ENGINE

| | | Standby |
|--------------------------|----------------|------------|
| Rated Engine Speed | rpm | 3600 |
| Horsepower at Rated kW** | hp | 224 |
| Piston Speed | ft/min (m/min) | 2502 (762) |
| BMEP | psi | 127 |

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

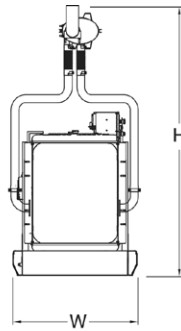
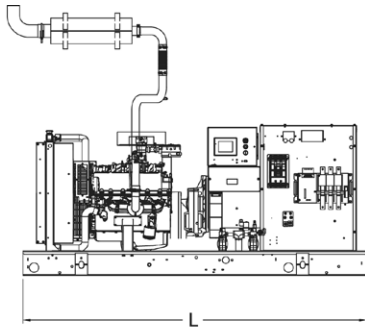
EXHAUST

| | | Standby |
|-----------------------------------|---------------------------|-----------------------------|
| Exhaust Flow (Rated Output) | cfm (m ³ /min) | 1507 (42.7) |
| Maximum Recommended Back Pressure | inHg | 1.5 |
| Exhaust Temp (Rated Output) | °F (°C) | 1550 (843) |
| Exhaust Outlet Size (Open Set) | in | 2.5" I.D. Flex (No muffler) |

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards. All power ratings are +/- 5%.

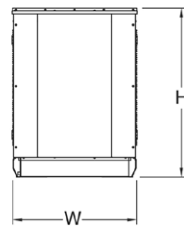
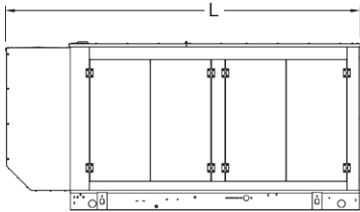
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dimensions and weights



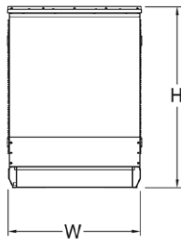
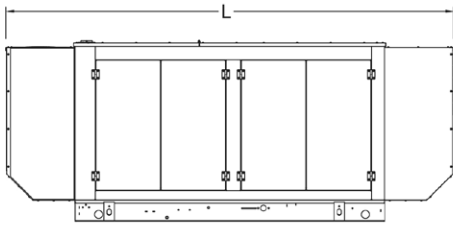
OPEN SET (Includes Exhaust Flex)

| | |
|-------------------|--|
| L x W x H in (mm) | 128.1 (3252.8) x 49.2 (1248.6) x 84.3 (2141.6) |
| Weight lbs (kg) | 2940 (1333) |



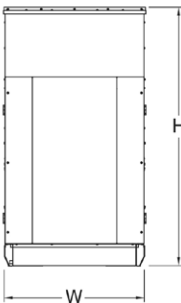
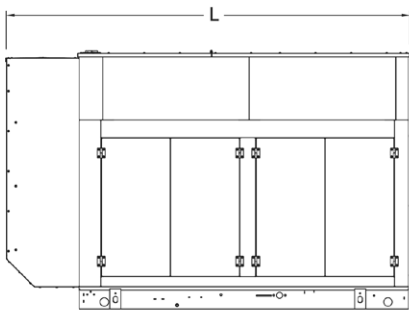
STANDARD ENCLOSURE

| | |
|-------------------|--|
| L x W x H in (mm) | 143 (3632.9) x 50.4 (1280.1) x 68.2 (1731.5) |
| Weight lbs (kg) | Steel: 3970 (1719) Aluminum: 3220 (1460) |



LEVEL 1 ACOUSTIC ENCLOSURE

| | |
|-------------------|--|
| L x W x H in (mm) | 168.5 (4279.3) x 50.4 (1280.1) x 68.2 (1731.5) |
| Weight lbs (kg) | Steel: 3990 (1809) Aluminum: 3287 (1490) |



LEVEL 2 ACOUSTIC ENCLOSURE

| | |
|-------------------|--|
| L x W x H in (mm) | 143 (3632.9) x 50.4 (1280.1) x 91.7 (2329.8) |
| Weight lbs (kg) | Steel: 4190 (1900) Aluminum: 3353 (1520) |

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.