

SG060 | 6.8L | 60 kW
INDUSTRIAL SPARK-IGNITED GENERATOR SET
EPA Certified Stationary Emergency

GENERAC® | **INDUSTRIAL POWER**

DEMAND RESPONSE READY

Standby Power Rating

60 kW, 75 kVA, 60 Hz

Demand Response Power Rating

60 kW, 75 kVA, 60 Hz

Prime Power Rating

54 kW, 68 kVA, 60 Hz

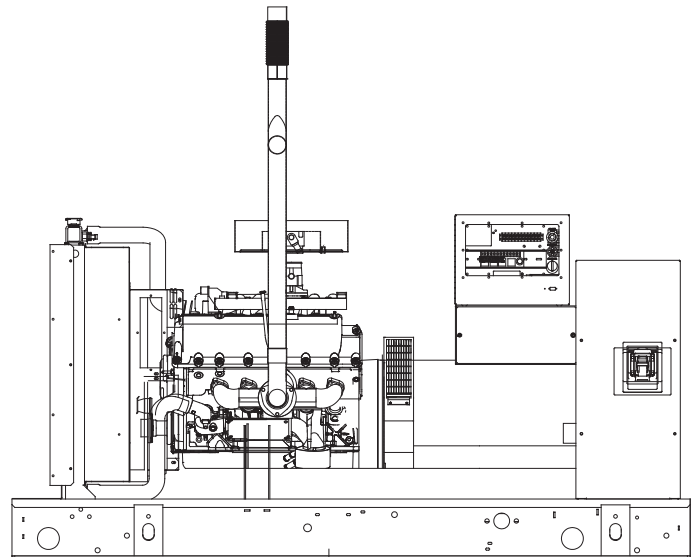


Image used for illustration purposes only

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.



UL2200, UL6200, UL1236, UL489



CSA C22.2



BS5514 and DIN 6271



SAE J1349



NFPA 37, 70, 99, 110



NEC700, 701, 702, 708



ISO 3046, 7637, 8528, 9001



NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41



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

Powering Ahead

Generac ensures superior quality by designing and manufacturing most of its generator components, such as alternators, enclosures, control systems and communications software. Generac also makes its own spark-ignited engines, and you'll find them on every Generac gaseous-fueled generator. We engineer and manufacture them from the block up — all at our facilities throughout Wisconsin. Applying natural gas and LP-fueled engines to generators requires advanced engineering expertise to ensure reliability, durability and necessary performance. By designing specifically for these dry, hotter-burning fuels, the engines last longer and require less maintenance. Building our own engines also means we control every step of the supply chain and delivery process, so you benefit from single-source responsibility.

Plus, Generac Industrial Power's distribution network provides all parts and service so you don't have to deal with third-party suppliers. It all leads to a positive owner experience and higher confidence level. Generac spark-ignited engines give you more options in commercial and industrial generator applications as well as extended run time from utility-supplied natural gas.

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STANDARD FEATURES

DEMAND RESPONSE READY

ENGINE SYSTEM

- Oil Drain Extension
- Heavy Duty Air Cleaner
- Fan Guard (Open Set Only)
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Critical Exhaust Silencer (Enclosed Units Only)

Fuel System

- NPT Fuel Connection on Frame
- Primary and Secondary Fuel Shutoff

Cooling System

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene Glycol Antifreeze

Electrical System

- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor

ALTERNATOR SYSTEM

- UL2200 GENprotect™
- Fault Protection
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Brushless 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 Units Only)
- Standard Factory Testing
- 2 Year Limited Warranty (Standby and Demand Response Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Units Only)

ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuated Enclosures)
- Gasketed Doors
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ - Textured Polyester Powder Coat Paint

CONTROL SYSTEM



Digital H Control Panel—Dual 4x20 Display

Program Functions

- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- All Phase Sensing Digital Voltage Regulator
- 2-Wire Start Capability
- 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)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus® Protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

Full System Status Display

- Power Output (kW)
- Power Factor
- kW Hours, Total, and Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level

- Engine Speed
- Battery Voltage
- Frequency

Alarms and Warnings

- Oil Pressure
- Coolant Temperature
- Coolant Level
- Low Fuel Pressure
- Engine Overspeed
- Battery Voltage
- Alarms and Warnings Time and Date Stamped
- Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

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CONFIGURABLE OPTIONS

DEMAND RESPONSE READY

ENGINE SYSTEM

- Engine Coolant Heater
- Oil Heater
- Air Filter Restriction Indicator
- Radiator Stone Guard (Open Set Only)
- Critical Exhaust Silencer (Open Set Only)
- Baseframe Cover/Rodent Guard
- Level 1 Fan and Belt Guards (Enclosed Units Only)

FUEL SYSTEM

- NPT Flexible Fuel Line

ELECTRICAL SYSTEM

- 10A UL Listed Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating
- Permanent Magnet Excitation

CIRCUIT BREAKER OPTIONS

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

GENERATOR SET

- Extended Factory Testing (3-Phase)
- 8 Position Load Center
- IBC Seismic Certification
- Spring Vibration Isolators
- Pad Vibration Isolators

ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuated
- Level 2 Sound Attenuated
- Level 2 Sound Attenuated (with Motorized Dampers)
- Steel Enclosure
- Aluminum Enclosure
- Up to 200 MPH Wind Kit (Contact Factory for Availability)
- AC/DC Enclosure Lighting Kit
- Enclosure Heater (with Motorized Dampers Only)
- Door Open Alarm Switch

CONTROL SYSTEM

- NFPA 110 Compliant 21-Light Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Oil Temperature Indicator with 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 Engine Run Relay
- Ground Fault Annunciator
- 100 dB Alarm Horn
- Damper Alarm Contacts (with Motorized Dampers Only)
- 120V GFCI and 240V Outlet

WARRANTY (Standby Gensets Only)

- 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

ENGINEERED OPTIONS

ENGINE SYSTEM

- Coolant Heater Ball Valves
- Fluid Containment Pan

ALTERNATOR SYSTEM

- 3rd Breaker System

CONTROL SYSTEM

- Spare Inputs (x4) / Outputs (x4)
- Battery Disconnect Switch

GENERATOR SET

- Special Testing
- Battery Box

APPLICATION AND ENGINEERING DATA

DEMAND RESPONSE READY

ENGINE SPECIFICATIONS

General

| | |
|------------------------------------|---------------------|
| Make | Generac |
| Cylinder # | 10 |
| Type | V |
| Displacement - in ³ (L) | 414.96 (6.8) |
| Bore - in (mm) | 3.55 (90.17) |
| Stroke - in (mm) | 4.17 (105.992) |
| Compression Ratio | 9.0:1 |
| Intake Air Method | Naturally Aspirated |
| Number of Main Bearings | 7 |
| Connecting Rods | Forged Steel |
| Cylinder Head Type | Aluminum Alloy |
| Cylinder Liners | No |
| Ignition | Electronic |
| Piston Type | Aluminum Alloy |
| Crankshaft Type | Steel |
| Lifter Type | Overhead Cam |
| Intake Valve Material | Steel Alloy |
| Exhaust Valve Material | Steel Alloy |
| Hardened Valve Seats | Yes |

Engine Governing

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

Lubrication System

| | |
|-----------------------------|-----------------------------|
| Oil Pump Type | Gear |
| Oil Filter Type | Full-Flow Spin-On Cartridge |
| Crankcase Capacity - qt (L) | 6 (5.7) |

Cooling System

| | |
|------------------------|-----------------------------|
| Cooling System Type | Pressurized Closed Recovery |
| Fan Type | Pusher |
| Fan Speed - RPM | 2,300 |
| Fan Diameter - in (mm) | 22 (558) |

Fuel System

| | |
|---|--|
| Fuel Type | Natural Gas, Propane Vapor, Propane Liquid |
| Carburetor | Down Draft |
| Secondary Fuel Regulator | Standard |
| Fuel Shut Off Solenoid | Standard |
| Operating Fuel Pressure - in H ₂ O (kPa) | 11 - 14 (2.7 - 3.5) |

Engine Electrical System

| | |
|----------------------------|------------------------------|
| System Voltage | 12 VDC |
| Battery Charger Alternator | 30 A |
| Battery Size | See Battery Index 0161970SBY |
| Battery Voltage | 12 VDC |
| Ground Polarity | Negative |

ALTERNATOR SPECIFICATIONS

| | |
|-------------------------------------|---------------|
| Standard Model | K0060124Y21 |
| Poles | 4 |
| Field Type | Revolving |
| Insulation Class - Rotor | H |
| Insulation Class - Stator | H |
| Total Harmonic Distortion | <5% (3-Phase) |
| Telephone Interference Factor (TIF) | <50 |

| | |
|------------------------------------|--------------------------|
| Standard Excitation | Synchronous Brushless |
| Bearings | Sealed Ball |
| Coupling | Direct via Flexible Disc |
| Prototype Short Circuit Test | Yes |
| Voltage Regulator Type | Full Digital |
| Number of Sensed Phases | All |
| Regulation Accuracy (Steady State) | ±0.25% |

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OPERATING DATA

DEMAND RESPONSE READY

POWER RATINGS - NATURAL GAS/PROPANE VAPOR/PROPANE LIQUID

| | Standby/Demand Response | | | Prime | |
|---------------------------------|-------------------------|-----------|--------------|-----------|--|
| Single-Phase 120/240 VAC @1.0pf | 60 kW/60 kVA | Amps: 250 | 54 kW/54 kVA | Amps: 200 | |
| Three-Phase 120/208 VAC @0.8pf | 60 kW/75 kVA | Amps: 208 | 54 kW/68 kVA | Amps: 167 | |
| Three-Phase 120/240 VAC @0.8pf | 60 kW/75 kVA | Amps: 180 | 54 kW/68 kVA | Amps: 144 | |
| Three-Phase 277/480 VAC @0.8pf | 60 kW/75 kVA | Amps: 90 | 54 kW/68 kVA | Amps: 72 | |
| Three-Phase 346/600 VAC @0.8pf | 60 kW/75 kVA | Amps: 72 | 54 kW/68 kVA | Amps: 58 | |

MOTOR STARTING CAPABILITIES (skVA)

| skVA vs. Voltage Dip | | | |
|----------------------|-----|-------------|-----|
| 277/480 VAC | 30% | 208/240 VAC | 30% |
| K0060124Y21 | 150 | K0060124Y21 | 114 |
| K0070124Y21 | 210 | K0070124Y21 | 161 |
| K0100124Y21 | 279 | K0100124Y21 | 208 |
| K0130124Y21 | 403 | K0130124Y21 | 404 |

FUEL CONSUMPTION RATES*

| Natural Gas – scfh (m³/hr) | | | Propane Vapor - scfh (m³/hr) | | | Propane Liquid - gph (Lph) | | |
|----------------------------|------------|------------|------------------------------|-----------|-----------|----------------------------|------------|------------|
| Percent Load | Standby | Prime | Percent Load | Standby | Prime | Percent Load | Standby | Prime |
| 25% | 323 (9.1) | 283 (8.0) | 25% | 122 (3.5) | 107 (3.0) | 25% | 3.4 (12.9) | 3.0 (11.4) |
| 50% | 554 (15.7) | 485 (13.7) | 50% | 210 (5.9) | 184 (5.2) | 50% | 5.9 (22.3) | 5.1 (19.4) |
| 75% | 748 (21.2) | 655 (18.5) | 75% | 283 (8.0) | 248 (7.0) | 75% | 7.9 (29.9) | 6.9 (26.2) |
| 100% | 923 (26.1) | 808 (22.9) | 100% | 349 (9.9) | 306 (8.7) | 100% | 9.8 (37.1) | 8.5 (32.3) |

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

COOLING

| | Standby/Demand Response | | Prime |
|---|-----------------------------|--|-----------------------------|
| Air Flow (Fan Air Flow Across Radiator) | scfm (m³/min) | | 5,785 (163.8) |
| Coolant Flow | gpm (Lpm) | | 38 (144) |
| Coolant System Capacity | gal (L) | | 6.3 (23.9) |
| Maximum Operating Ambient Temperature | °F (°C) | | 122 (50) |
| Maximum Operating Ambient Temperature (Before Derate) | See Bulletin No. 0199270SSD | | See Bulletin No. 0199270SSD |
| Maximum Radiator Backpressure | in H ₂ O (kPa) | | 0.5 (0.12) |

COMBUSTION AIR REQUIREMENTS

| | Standby/Demand Response | Prime |
|-------------------------------------|-------------------------|-----------|
| Flow at Rated Power - scfm (m³/min) | 185 (5.2) | 174 (4.9) |

ENGINE

| | | Standby/Demand Response | Prime |
|--------------------------|----------------|-------------------------|-------------|
| Rated Engine Speed | RPM | 1,800 | 1,800 |
| Horsepower at Rated kW** | hp | 96 | 77 |
| Piston Speed | ft/min (m/min) | 1,251 (381) | 1,251 (381) |
| BMEP | psi (kPa) | 102 (703) | 98 (676) |

EXHAUST

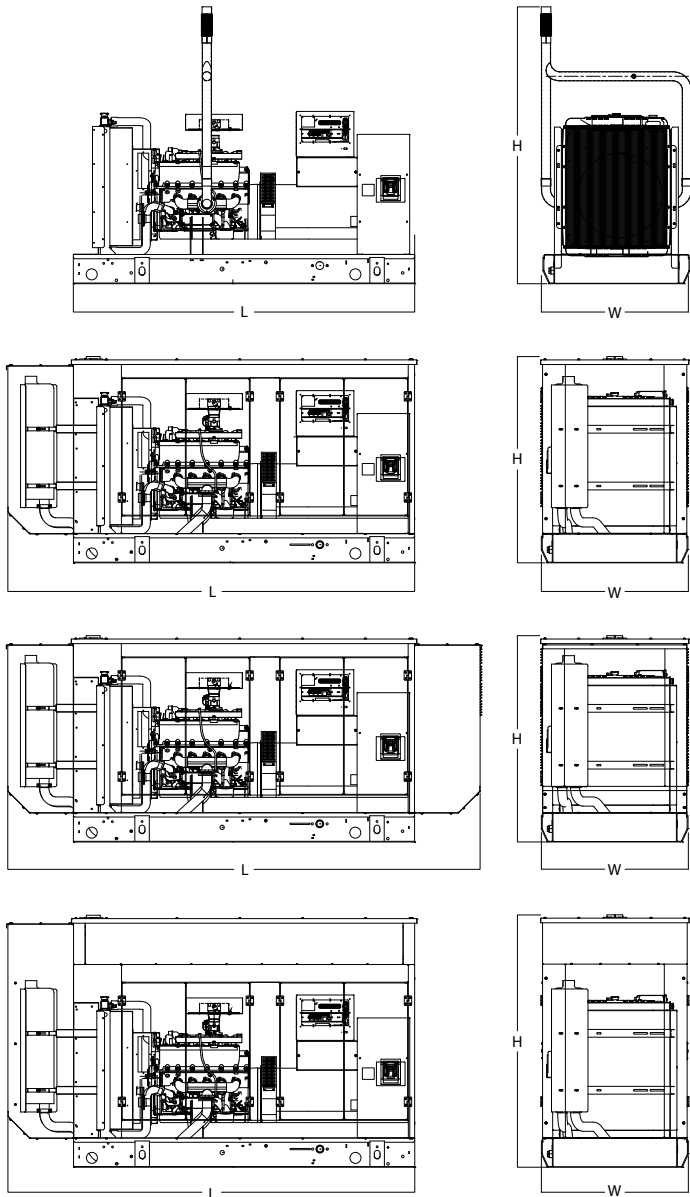
| | | Standby/Demand Response | Prime |
|---|---------------|-------------------------|-------------|
| Exhaust Flow (Rated Output) | scfm (m³/min) | 520 (14.7) | 489 (13.8) |
| Maximum Exhaust Backpressure | inHg (kPa) | 1.5 (5.1) | 1.5 (5.1) |
| Exhaust Temp (Rated Output - Post Silencer) | °F (°C) | 1,050 (565.6) | 966 (519.0) |

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

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.
Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards.
Standby - See Bulletin 0187500SSB
Prime - See Bulletin 0187510SSB

DIMENSIONS AND WEIGHTS*

DEMAND RESPONSE READY



OPEN SET

| | |
|---------------------|--|
| L x W x H - in (mm) | 92.9 (2,360) x 40.0 (1,016) x 75.4 (1,914) |
| Weight - lbs (kg) | 1,929 (875) |

WEATHER PROTECTED ENCLOSURE

| | |
|---------------------|---|
| L x W x H - in (mm) | 111.8 (2,840) x 40.5 (1,028) x 55.3 (1,405) |
| Weight - lbs (kg) | Steel: 2,370 (1,075) Aluminum: 2,075 (941) |

LEVEL 1 SOUND ATTENUATED ENCLOSURE

| | |
|---------------------|---|
| L x W x H - in (mm) | 129.4 (3,287) x 40.5 (1,028) x 55.3 (1,405) |
| Weight - lbs (kg) | Steel: 2,590 (1,175) Aluminum: 2,147 (974) |

LEVEL 2 SOUND ATTENUATED ENCLOSURE

| | |
|---------------------|---|
| L x W x H - in (mm) | 111.8 (2,840) x 40.5 (1,028) x 67.8 (1,722) |
| Weight - lbs (kg) | Steel: 2,811 (1,275) Aluminum: 2,220 (1,007) |

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

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