

**Standby Power Rating**

80 kW, 100 kVA, 60 Hz



\*Assembled in the USA using domestic and foreign parts



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



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 provides 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 for 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.

**STANDARD FEATURES**

**ENGINE SYSTEM**

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical 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
- 50/50 Ethylene Glycol Antifreeze
- Radiator Drain Extension

**ELECTRICAL SYSTEM**

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

**ALTERNATOR SYSTEM**

- UL2200 GENprotect™
- 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
- Standard Factory Testing
- 2 Year Limited Warranty (Emergency Standby 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
- Stamped Air-Intake Louvers
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ - Textured Polyester Powder

**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
- 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

### ENGINE SYSTEM

- Engine Block Heater
- Oil Heater
- Air Filter Restriction Indicator
- Radiator Stone Guard (Open Set Only)
- Baseframe Cover/Rodent Guard
- Fan and Belt Guards
- Shipped Loose Critical Silencer (Open Set Only)

### FUEL SYSTEM

- Dual Fuel NG/LPV
- Dual Fuel NG/LPL

### 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 Breakers

### GENERATOR SET

- Demand Response Rating
- GenLink® Communications Software (English Only)
- Extended Factory Testing (3-Phase Only)
- IBC Seismic Certification
- 8 Position Load Center

### ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Level 2 Sound Attenuation with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- AC/DC Enclosure Lighting Kit
- Enclosure Heater
- Pad Vibration Isolation
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- Door Alarm Switch

### CONTROL SYSTEM

- NFPA 110 Compliant Level 1 21-Light Annunciator
- Remote Relay Assembly (8 or 16)
- Oil Temperature Indication and 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
- 120 V GFCI and 240 V Outlets
- Damper Alarm Contacts
- Spare Inputs (x4)/Outputs (x4)

### WARRANTY (Standby Gensets Only)

- 2 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

- 3<sup>rd</sup> Breaker System

### CONTROL SYSTEM

- Battery Disconnect Switch

### GENERATOR SET

- Special Testing
- Battery Box

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**APPLICATION AND ENGINEERING DATA**

**ENGINE SPECIFICATIONS**

**General**

|                                    |                     |
|------------------------------------|---------------------|
| Make                               | Generac             |
| Cylinder #                         | 8                   |
| Type                               | V                   |
| Displacement - in <sup>3</sup> (L) | 543 (8.9)           |
| Bore - in (mm)                     | 4.49 (114.3)        |
| Stroke - in (mm)                   | 4.25 (107.95)       |
| Compression Ratio                  | 9.9:1               |
| Intake Air Method                  | Naturally Aspirated |
| Number of Main Bearings            | 5                   |
| Connecting Rods                    | Forged Steel        |
| Cylinder Head                      | Cast Iron           |
| Cylinder Liners                    | No                  |
| Crankshaft Type                    | Forged Steel        |
| Lifter Type                        | Hydraulic Roller    |
| Intake Valve Material              | Steel Alloy         |
| Exhaust Valve Material             | Stainless Steel     |
| 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) | 10 (9.5)                    |

**Cooling System**

|                        |                             |
|------------------------|-----------------------------|
| Cooling System Type    | Pressurized Closed Recovery |
| Fan Type               | Pusher                      |
| Fan Speed (RPM)        | 2,386                       |
| Fan Diameter - in (mm) | 22 (558.8)                  |

**Fuel System**

|  |                            |
|--|----------------------------|
| Fuel Type  | Natural Gas, Propane Vapor |
| Carburetor   | Down Draft                 |
| Secondary Fuel Regulator                                     | Standard                   |
| Fuel Shut Off Solenoid                                       | Standard                   |
| Operating Fuel Pressure - in H <sub>2</sub> O (kPa)          | 11 - 14 (2.7 - 3.5)        |
| Optional Operating Fuel Pressure - in H <sub>2</sub> O (kPa) | 7 - 11 (1.7 - 2.7)         |

\*When designing the external fuel system, assume a 20% safety factor to the upper and lower limit of the specified fuel pressure range to account for site variation and measurement at the generator test port. Refer to Generac 10000046207, latest rev, for proper gas supply guidelines (Contact Factory for Details).

**Engine Electrical System**

|                            |                                 |
|----------------------------|---------------------------------|
| System Voltage             | 12 VDC                          |
| Battery Charger Alternator | Standard                        |
| Battery Size               | See Battery Index<br>0161970SBY |
| Battery Voltage            | 12 VDC                          |
| Ground Polarity            | Negative                        |

**ALTERNATOR SPECIFICATIONS**

|                                     |               |
|-------------------------------------|---------------|
| Standard Model                      | K0080124Y21   |
| 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 Drive          |
| 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**

**POWER RATINGS - NATURAL GAS/PROPANE VAPOR**

|                                 |       | Standby   |
|---------------------------------|-------|-----------|
| Single-Phase 120/240 VAC @1.0pf | 80 kW | Amps: 333 |
| Three-Phase 120/208 VAC @0.8pf  | 80 kW | Amps: 278 |
| Three-Phase 120/240 VAC @0.8pf  | 80 kW | Amps: 241 |
| Three-Phase 277/480 VAC @0.8pf  | 80 kW | Amps: 120 |
| Three-Phase 346/600 VAC @0.8pf  | 80 kW | Amps: 96  |

**MOTOR STARTING CAPABILITIES (skVA)**

| skVA vs. Voltage Dip |     |             |     |
|----------------------|-----|-------------|-----|
| 277/480 VAC          | 30% | 208/240 VAC | 30% |
| K0080124Y21          | 172 | K0080124Y21 | 132 |
| K0100124Y21          | 227 | K0100124Y21 | 171 |
| K0130124Y21          | 327 | K0130124Y21 | 327 |

**FUEL CONSUMPTION RATES\***

| Natural Gas – scfh (m <sup>3</sup> /hr) |                | Propane Vapor – scfh (m <sup>3</sup> /hr) |              | Propane Liquid – gph (Lph) |             |
|---|----------------|---|--------------|----------------------------|-------------|
| Percent Load                            | Standby        | Percent Load                              | Standby      | Percent Load               | Standby     |
| 25%                                     | 415.0 (11.7)   | 25%                                       | 191.0 (5.4)  | 25%                        | 4.0 (15.1)  |
| 50%                                     | 720.0 (20.4)   | 50%                                       | 298.0 (8.4)  | 50%                        | 7.6 (28.8)  |
| 75%                                     | 989.0 (28.0)   | 75%                                       | 409.0 (11.5) | 75%                        | 10.5 (39.7) |
| 100%                                    | 1,247.0 (35.3) | 100%                                      | 519.0 (14.7) | 100%                       | 13.6 (51.5) |

\*1.5X maximum site rated fuel consumption should be used for gas supply design practices. Refer to Generac 10000046207, latest rev., for more information or contact factory for details.

**COMBUSTION AIR REQUIREMENTS**

|  | Standby     |
|--|-------------|
| Flow at Rated Power scfm — (m <sup>3</sup> /min) | 185.0 (5.2) |

**ENGINE**

|                          |                | Standby     |
|--------------------------|----------------|-------------|
| Rated Engine Speed       | RPM            | 1,800       |
| Horsepower at Rated kW** | hp             | 122         |
| Piston Speed             | ft/min (m/min) | 1,275 (389) |
| BMEP                     | psi (kPa)      | 99.9 (689)  |

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

**EXHAUST**

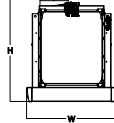
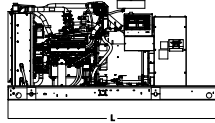
|   |                            | Standby     |
|---|----------------------------|-------------|
| Exhaust Flow (Rated Output)                 | scfm (m <sup>3</sup> /min) | 599 (16.9)  |
| Maximum Exhaust Backpressure                | inHG (kPa)                 | 0.75 (2.54) |
| Exhaust Temp (Rated Output - Post Catalyst) | °F (°C)                    | 1,288 (698) |

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 BS5514 and DIN6271 standards.

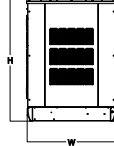
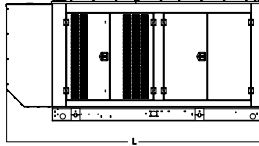
Standby - See Bulletin 0187500SSB

**DIMENSIONS AND WEIGHTS\***



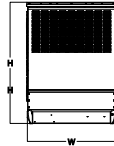
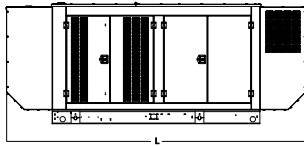
**OPEN SET (Includes Exhaust Flex)**

L x W x H - in (mm) 94.2 (2,394) x 40.0 (1,016) x 47.6 (1,208)  
 Weight - lbs 2,543 (1,153)



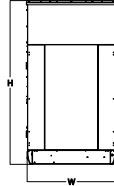
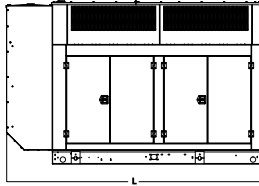
**WEATHER PROTECTED ENCLOSURE**

L x W x H - in (mm) 111.8 (2,840) x 40.5 (1,028) x 56.2 (1,427)  
 Weight - lbs Steel: 3,075 (1,393)  
 Aluminum: 2,802 (1,271)



**LEVEL 1 SOUND ATTENUATED ENCLOSURE**

L x W x H - in (mm) 129.4 (3,287) x 40.5 (1,028) x 56.2 (1,427)  
 Weight - lbs Steel: 3,233 (1,466)  
 Aluminum: 2,873 (1,303)



**LEVEL 2 SOUND ATTENUATED ENCLOSURE**

L x W x H - in (mm) 111.8 (2,840) x 40.5 (1,028) x 68.6 (1,743)  
 Weight - lbs Steel: 3,360 (1,524)  
 Aluminum: 2,928 (1,328)

\*All measurements are approximate and for estimation purposes only.

|  |
|--|
| <b>YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER</b> |
|  |

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.