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.

Standby Power Rating
625 kW, 781 kVA, 60 Hz

Demand Response Power Rating
625 kW, 781 kVA, 60 Hz

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

UL2200, UL6200, UL1236, UL489
CSA C22.2, B149
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

Powering Ahead

ISO 20000
UL
CSA
DIN
SAE
NFPA
NEC
ISO
NEMA
ANSI

Image used for illustration purposes only
INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency and Non-Emergency

STANDARD FEATURES

ENGINE SYSTEM
- Oil Drain System
- Heavy Duty Air Cleaner
- Level 1 Fan and Belt Guards (Open Set Only)
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Silencer/Catalyst
- Coolant Heater Ball Valves
- Oil Temperature Sender with Indication Alarm

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

COOLING SYSTEM
- Closed Coolant Recovery System
- 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
- Permanent Magnet Excitation
- Sealed Bearing
- Amortisseur Winding
- Temperature Rise < (120 °C)
- Motorized Main Line Circuit Breaker

CONTROL SYSTEM

Power Zone® Pro Sync Controller
- NFPA 110 Level 1 Compliant
- Engine Protective Functions
- Alternator Protective Functions
- Digital Engine Governor Control
- Digital Voltage Regulator
- Multiple Programmable Inputs and Outputs
- Remote Display Capability
- Remote Communication via Modbus® RTU, Modbus TCP/IP, and Ethernet 10/100
- Alarm and Event Logging with Real Time Stamping
- Expandable Analog and Digital Inputs and Outputs

- Remote Wireless Software Update Capable
- BMS and Remote Telemetry
- Built-In Programmable Logic Eliminates the Need for External Controllers Under Most Conditions
- Ethernet Based Communications Between Generators
- Programmable I/O Channel Properties
- Built-In Diagnostics
- Arc Flash Maintenance Mode (When Properly Equipped)
- Warning and Alarm Indication
- Diagnostics
- Maintenance Events/Information

7 Inch Color Touch Screen Display
- Resistive Color Touch Screen
- Sunlight Readable (1400 NITS)
- Easily Identifiable Icons
- Multi-Lingual
- On Screen Editable Parameters
- Key Function Monitoring
- Three Phase Voltage, Amperage, kW, kVA, and kVAR
- Selectable Line to Line or Line to Neutral Measurements
- Frequency
- Engine Speed
- Engine Coolant Temperature
- Engine Oil Pressure
- Engine Oil Temperature
- Battery Voltage
- Hourmeter
- Warning and Alarm Indication

GENERATOR SET
- Spring Isolators Under Frame
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby or Demand Response Rated Units)
- Ready to Accept Full Load in <10 Seconds

ENCLOSURE (If Selected)
- Structural Steel Sub-Base
- Sub-Base Lifting Eyes
- Enamel Finish
- Zinc Plated Fasteners
- Zinc Plated Cast Aluminum Keylock Door Handles
- Heavy Duty Stainless Steel Hinges with Removable Brass Pins
- Modular Construction
- Rhino Coat™ - Textured Polyester Powder Coat Paint

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 Controls (PLS)
- Shunt Trip and Auxiliary Contact
**ENGINE SYSTEM**
- Engine Coolant Heater
- Oil Heater
- Level 1 Fan and Belt Guards (Enclosed Units Only)
- Two Stage Air Cleaner
- Air Filter Restriction Indicator
- Radiator Stone Guard (Open Set Only)
- Shipped Loose Catalyst Silencer (Enclosed Units Only)

**ELECTRICAL SYSTEM**
- 20A UL Listed Battery Charger
- Battery Warmer

**ALTERNATOR SYSTEM**
- Alternator Upsizing
- Anti-Condensation Heater

**FUEL SYSTEM**
- NPT Flexible Fuel Line

**CIRCUIT BREAKER OPTIONS**
- Main Line Circuit Breaker
- Electronic Trip Breakers

**GENERATOR SET**
- Spring Vibration Isolator
- Extended Factory Testing
- 24 Position Load Center

**ENCLOSURE**
- Level 0 Sound Attenuated
- Level 1 Sound Attenuated
- Level 2 Sound Attenuated
- Level 1 Sound Attenuated with Motorized Dampers
- Level 2 Sound Attenuated with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- AC Enclosure Lighting Kit
- Enclosure Heater (With Motorized Dampers Only)
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)

**Engineered Options**

**CONTROL SYSTEM**
- NFPA 110 Level 1 Compliant 21-Light Remote Annunciator
- Remote Output Relays (8 or 16)
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- 10A Engine Run Relay
- Ground Fault Annunciator
- 100 dB Alarm Horn
- 120V GFCI and 240V Outlets
- Permissive/Load Shed Module
- Damper Alarm Contacts (With Motorized Dampers Only)

**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

**CONTROL SYSTEM**
- Battery Disconnect Switch
- Additional Spare Inputs/Outputs

**ALTERNATOR SYSTEM**
- Unit Mounted Load Banks
- Medium Voltage Alternators

**GENERATOR SET**
- Special Testing
- Battery Box

**ENCLOSURE**
- Door Open Alarm Horn
### ENGINE SPECIFICATIONS

#### General
- Make: Generac
- Cylinder #: 12
- Type: V
- Displacement - in³ (L): 2,068 (33.9)
- Bore - in (mm): 5.9 (150)
- Stroke - in (mm): 6.3 (160)
- Compression Ratio: 10.0:1
- Intake Air Method: Turbocharged/Aftercooled
- Number of Main Bearings: 7
- Cylinder Head: 4 Valve
- Ignition: Electronic
- Piston Type: Cast Aluminum Alloy
- Crankshaft Type: Chromium Molybdenum Steel
- Lifter Type: Solid
- Intake Valve Material: Proprietary Alloy
- Exhaust Valve Material: Proprietary Alloy
- Hardened Valve Seats: Proprietary Alloy
- Governor: Electronic
- Frequency Regulation (Steady State): ±0.25%

#### Cooling System
- Cooling System Type: Forced Circulation by Centrifugal Pump
- Fan Type: Pusher
- Fan Speed - RPM: 1,080
- Fan Diameter - in (mm): 64 (1.626)

#### Fuel System
- Fuel Type: Natural Gas
- Carburetor: Down Draft
- Secondary Fuel Regulator: Standard
- Fuel Shut Off Solenoid: Standard
- Operating Fuel Pressure - in H₂O (kPa): 14 - 20 (3.5 - 5.0)

#### Engine Governing
- System Voltage: 24 VDC
- Battery Charger Alternator: Standard
- Battery Size: See Battery Index 0161970SBY
- Battery Voltage: (4) - 12 VDC
- Ground Polarity: Negative

#### Lubrication System
- Oil Pump Type: Gear Driven
- Oil Filter Type: Full Flow Spin-On Cartridge
- Crankcase Capacity with Filter - qt (L): 126.8 (120)

### ALTERNATOR SPECIFICATIONS

#### Standard Model
- Standard Model: K0732124Y22
- Poles: 4
- Field Type: Revolving
- Insulation Class - Rotor: H
- Insulation Class - Stator: H
- Total Harmonic Distortion: <5%
- Telephone Interference Factor (TIF): <50

#### Standard Excitation
- Bearings: Single
- 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%
MG625 | 33.9L | 625 kW
INDUSTRIAL SPARK-IGNITED GENERATOR SET
EPA Certified Stationary Emergency and Non-Emergency

OPERATING DATA

POWER RATINGS

<table>
<thead>
<tr>
<th>Standby/Demand Response</th>
<th>Three-Phase 120/208 VAC @0.8pf</th>
<th>625 kW/781 kVA</th>
<th>Amps: 2,171</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Three-Phase 120/240 VAC @0.8pf</td>
<td>625 kW/781 kVA</td>
<td>Amps: 1,882</td>
</tr>
<tr>
<td></td>
<td>Three-Phase 277/480 VAC @0.8pf</td>
<td>625 kW/781 kVA</td>
<td>Amps: 941</td>
</tr>
<tr>
<td></td>
<td>Three-Phase 346/600 VAC @0.8pf</td>
<td>625 kW/781 kVA</td>
<td>Amps: 753</td>
</tr>
</tbody>
</table>

MOTOR STARTING CAPABILITIES (skVA)

<table>
<thead>
<tr>
<th>skVA vs. Voltage Dip</th>
<th>208/240 VAC</th>
<th>30%</th>
<th>277/480 VAC</th>
<th>30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>K0820124Y22</td>
<td>1,900</td>
<td>K0732124Y22</td>
<td>2,450</td>
<td></td>
</tr>
<tr>
<td>K0912124Y22</td>
<td>2,350</td>
<td>K0912124Y22</td>
<td>3,250</td>
<td></td>
</tr>
<tr>
<td>K1000124Y22</td>
<td>2,300</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FUEL CONSUMPTION RATES*

Natural Gas – scfh (m³/hr) at Standard Conditions 68 °F (20 °C), 14.7 psi (101 kPa)

<table>
<thead>
<tr>
<th>Percent Load</th>
<th>Standby/Demand Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>2,725 (77.2)</td>
</tr>
<tr>
<td>50%</td>
<td>3,923 (111.1)</td>
</tr>
<tr>
<td>75%</td>
<td>5,294 (149.9)</td>
</tr>
<tr>
<td>100%</td>
<td>6,847 (193.9)</td>
</tr>
</tbody>
</table>

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

COOLING

<table>
<thead>
<tr>
<th>Air Flow (Fan Air Flow Across Radiator) - Open Set</th>
<th>cfm (m³/min)</th>
<th>Standby/Demand Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coolant Flow</td>
<td>gpm (Lpm)</td>
<td>291 (1,101)</td>
</tr>
<tr>
<td>Coolant System Capacity</td>
<td>gal (L)</td>
<td>55 (208)</td>
</tr>
<tr>
<td>Maximum Operating Ambient Temperature</td>
<td>°F (°C)</td>
<td>122 (50)</td>
</tr>
<tr>
<td>Maximum Operating Ambient Temperature (Before Derate)</td>
<td>See Bulletin No. 0199270SSD</td>
<td></td>
</tr>
<tr>
<td>Maximum Additional Radiator Backpressure</td>
<td>in H₂O (kPa)</td>
<td>0.5 (0.12)</td>
</tr>
</tbody>
</table>

COMBUSTION AIR REQUIREMENTS

<table>
<thead>
<tr>
<th>Flow at Rated Power - cfm (m³/min)</th>
<th>Standby/Demand Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,394 (39.5)</td>
<td></td>
</tr>
</tbody>
</table>

ENGINE

<table>
<thead>
<tr>
<th>Rated Engine Speed</th>
<th>RPM</th>
<th>Standby/Demand Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horsepower at Rated kW**</td>
<td>hp</td>
<td>941</td>
</tr>
<tr>
<td>Piston Speed</td>
<td>ft/min (m/min)</td>
<td>1,890 (576)</td>
</tr>
<tr>
<td>BMEP</td>
<td>psi (kPa)</td>
<td>188 (1,301)</td>
</tr>
</tbody>
</table>

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

DEMAND RESPONSE READY

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
Demand Response - See Bulletin 10000018250
**Dimensions and Weights**

* All measurements are approximate and for estimation purposes only.

**Open Set**

<table>
<thead>
<tr>
<th>L x W x H - in (mm)</th>
<th>178.3 (4,528) x 82.6 (2,098) x 110.3 (2,801)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight - lbs (kg)</td>
<td>14,352 - 14,932 (6,510 - 6,733)</td>
</tr>
</tbody>
</table>

**Level 0 Sound Attenuated Enclosure**

<table>
<thead>
<tr>
<th>L x W x H - in (mm)</th>
<th>201.0 (5,105) x 96.0 (2,438) x 155.2 (3,941)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight - lbs (kg)</td>
<td>Steel: 18,051 - 18,631 (8,188 - 8,451)</td>
</tr>
<tr>
<td></td>
<td>Aluminum: 17,220 - 17,800 (7,811 - 8,074)</td>
</tr>
</tbody>
</table>

**Level 1 Sound Attenuated Enclosure**

<table>
<thead>
<tr>
<th>L x W x H - in (mm)</th>
<th>287.0 (7,290) x 96.0 (2,438) x 153.0 (3,886)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight - lbs (kg)</td>
<td>Steel: 21,876 - 22,456 (9,923 - 10,186)</td>
</tr>
<tr>
<td></td>
<td>Aluminum: 19,193 - 19,773 (8,706 - 8,969)</td>
</tr>
</tbody>
</table>

**Level 2 Sound Attenuated Enclosure**

<table>
<thead>
<tr>
<th>L x W x H - in (mm)</th>
<th>340.0 (8,636) x 151.4 (3,845) x 153.0 (3,886)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight - lbs (kg)</td>
<td>Steel: 22,901 - 23,481 (10,388 - 10,651)</td>
</tr>
<tr>
<td></td>
<td>Aluminum: 19,634 - 20,214 (8,906 - 9,169)</td>
</tr>
</tbody>
</table>

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