MG625 | 33.9L | 625 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

GENERAC | INDUSTRIAL POWER

DEMAND RESPONSE READY

Standby Power Rating
625 kW, 781 kVA, 60 Hz

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

Prime Power Rating*
563 kW, 703 kVA, 60 Hz

ISO 9001:2008

USA ENGINEERED & BUILT*

*Assembled in the USA using domestic and foreign parts

*EPA Certified Prime ratings are not available in the US or its Territories

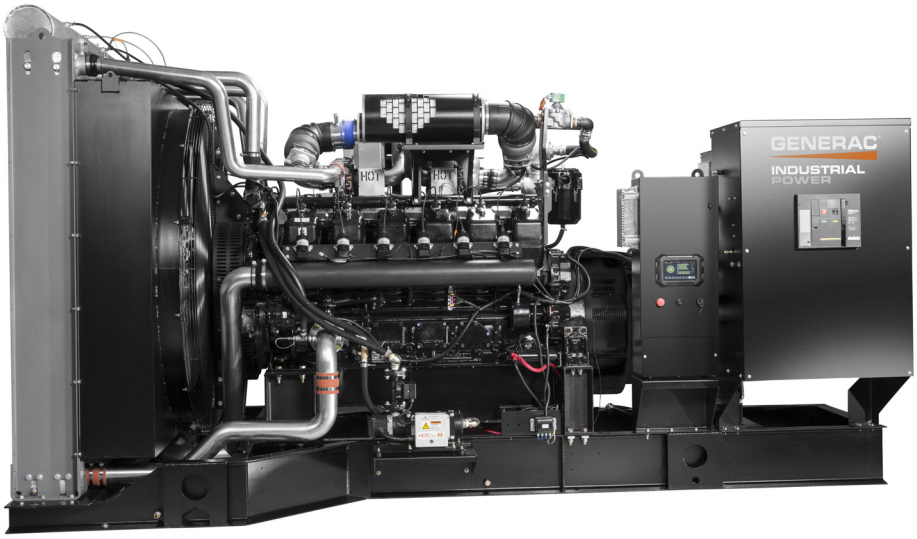

Image used for illustration purposes only

Codes and Standards

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

- UL2200, UL508, UL489, UL142
- 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, 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

- Heavy Duty Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Exhaust
- Silencer/Catalyst
- Coolant Heater Ball Valves

Fuel System

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

Cooling System

- Closed Coolant Recovery System
- Radiator Stone Guard (Open Set Only)
- 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

- GENprotect™ Fault Protection
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearing
- Amortisseur Winding
- Low Temperature Rise < (120 °C)

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)

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

CONTROL SYSTEM

Power Zone® 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
- Wi-Fi, Bluetooth, 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

Alarms and Warnings

- Low Oil Pressure
- Low Coolant Level
- High/Low Coolant Temperature
- Sensor Failure
- Oil Temperature
- Over/Under Speed
- Over/Under Voltage
- Over/Under Frequency
- Over/Under Current
- Over Load
- High/Low Battery Voltage
- Battery Charger Current
- Phase to Phase and Phase to Neutral Short Circuits (I^2T Algorithm)

7 inch Color Touch Screen Display

- Capacitive 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
- Diagnostics
- Maintenance Events/Information

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

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CONFIGURABLE OPTIONS

DEMAND RESPONSE READY

ENGINE SYSTEM

- ○ Engine Block Heater
- ○ Oil Heater
- ○ Fan and Belt Guards
- ○ Two Stage Air Cleaner
- ○ Air Filter Restriction Indicator
- ○ Stone Guard (Open Set Only)

ELECTRICAL SYSTEM

- ○ 20A UL Battery Charger
- ○ Battery Warmer

ALTERNATOR SYSTEM

- ○ Alternator Upsizing
- ○ Anti-Condensation Heater

FUEL SYSTEM

- ○ Flexible Fuel Line

CIRCUIT BREAKER OPTIONS

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

GENERATOR SET

- ○ Spring Vibration Isolator
- ○ Extended Factory Testing (3-Phase Only)
- ○ 12 Position Load Center

ENCLOSURE

- ○ Weather Protected Enclosure
- ○ Level 1 Sound Attenuation
- ○ Level 2 Sound Attenuation
- ○ Steel Enclosure
- ○ Aluminum Enclosure
- ○ AC/DC Enclosure Lighting Kit
- ○ Enclosure Heater
- ○ Cold Weather Kit
- ○ Extreme Cold Weather Kit
- ○ Level 1 Sound Attenuation with Motorized Dampers
- ○ Level 2 Sound Attenuation with Motorized Dampers

CONTROL SYSTEM

- ○ Flush Mount Annunciator Kit
- ○ Ground Fault Annunciator Kit
- ○ 100 dB Alarm
- ○ 120V GFCI and 240V Outlets
- ○ NFPA 110 Level 1 Compliant 21-Light Remote Annunciator
- ○ Remote Output Relays (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)
- ○ 10A Engine Run Relay
- ○ Ground Fault Indication and Protection Functions

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

CONTROL SYSTEM

- ○ Battery Disconnect Switch
- ○ Additional Spare I/O

GENERATOR SET

- ○ Special Testing
- ○ Battery Box

ALTERNATOR SYSTEM

- ○ Unit Mounted Load Banks
- ○ Medium Voltage Alternators

ENCLOSURE

- ○ Door Alarm Switch

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INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

APPLICATION AND ENGINEERING DATA

DEMAND RESPONSE READY

ENGINE SPECIFICATIONS

General

Make	Generac
Cylinder #	12
Type	4 Cycle
Displacement - in^3 (L)	2,071 (33.9)
Bore - in (mm)	5.91 (150)
Stroke - in (mm)	6.30 (160)
Compression Ratio	10.0:1
Intake Air Method	Turbocharged/Aftercooled
Cylinder Head Type	Cast Iron 4 Valve
Ignition	Electronic
Piston Type	Aluminum
Crankshaft Type	Drop Forged Steel
Lifter Type	Solid
Intake Valve Material	SUH3 with Tuftride
Exhaust Valve Material	SUH3 with Tuftride and Stellite
Hardened Valve Seats	Proprietary Alloy

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Cartridge
Crankcase Capacity with Filter - qt (L)	106 (100)

Cooling System

Cooling System Type	Unit Mounted Radiator
Fan Type	Pusher
Fan Speed - RPM	1,080
Fan Diameter - in (mm)	64 (1,625)

Fuel System

Fuel Type	Natural Gas
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard (Dual)
Operating Fuel Pressure - in H_2O (kPa)	11 - 14 (2.7 - 3.5)

Engine Electrical System

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

ALTERNATOR SPECIFICATIONS

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	Permanent Magnet
Bearings	Single Sealed Cartridge
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

		Standby
Three-Phase 120/208 VAC @0.8pf	625 kW	Amps: 2,169
Three-Phase 120/240 VAC @0.8pf	625 kW	Amps: 1,879
Three-Phase 277/480 VAC @0.8pf	625 kW	Amps: 940
Three-Phase 346/600 VAC @0.8pf	625 kW	Amps: 752

MOTOR STARTING CAPABILITIES (skVA)

277/480 VAC	30%	208/480 VAC	30%
K0732124Y22	2,450	G0712124Y22	Contact Factory
K0912124Y22	3,250	G0866124Y22	Contact Factory

FUEL CONSUMPTION RATES*

Natural Gas – ft³/hr (m³/hr) at Standard Conditions 68 °F (20 °C), 14.7 psi (101 kPa)

Percent Load	Standby
25%	2,436 (69.0)
50%	3,714 (105.2)
75%	4,998 (141.5)
100%	6,282 (177.9)

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

COOLING

		Standby
Air Flow (Fan Air Flow Over Radiator)	cfm (m³/min)	34,000 (962.8)
Coolant Flow	gpm (Lpm)	291 (1,101)
Coolant System Capacity	gal (L)	55 (208)
Heat Rejection to Coolant	BTU/hr (kW)	1,543,000 (451.8)
Maximum Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)		See Bulletin No. 0199270SSD
Maximum Radiator Backpressure	in H_2O (kPa)	0.5 (0.12)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power cfm (m³/min)	1,394 (424.7)

ENGINE

		Standby
Rated Engine Speed	RPM	1,800
Horsepower at Rated kW**	hp	941
Piston Speed	ft/min (m/min)	1,890 (576)
BMEP	psi (kPa)	188 (1,301)

EXHAUST

		Standby
Exhaust Flow (Rated Output)	cfm (m³/min)	2,645 (74.8)
Max. Allowable Backpressure (Post Turbocharger)	in h_2O (kPa)	27 (6.72)
Exhaust Temp (Rated Output)	°F (°C)	1,116 (626)

** 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
Demand Response - See Bulletin 10000018250

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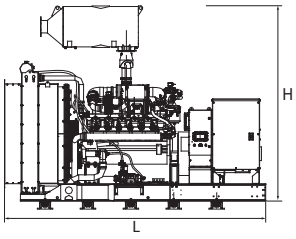
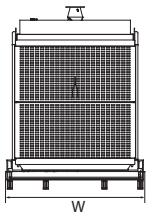
DIMENSIONS AND WEIGHTS*

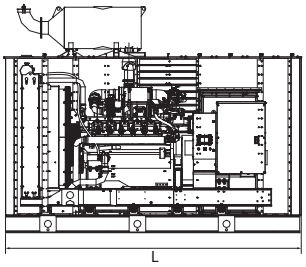
DEMAND RESPONSE READY

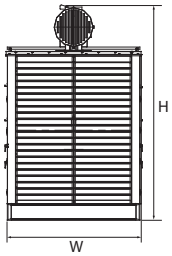




OPEN SET (Includes Exhaust Flex)

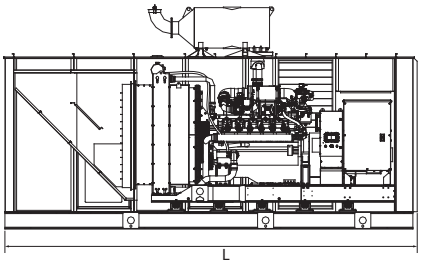
L x W x H - in (mm)	182.5 (4,637) x 84.3 (2,141) x 142.0 (3,606)
Weight - lbs (kg)	14,824 (6,724)

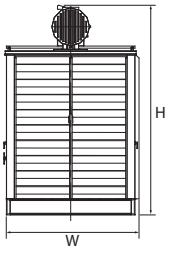




WEATHER PROTECTED ENCLOSURE

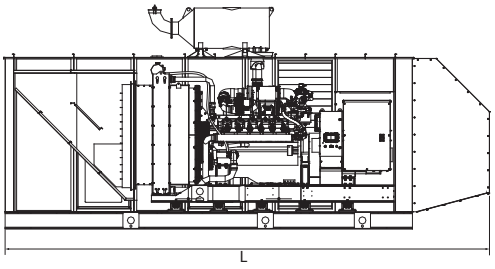
L x W x H - in (mm)	202.0 (5,130) x 98.0 (2,489) x 156.5 (3,975)
Weight - lbs (kg)	Steel: Contact Factory Aluminum: Contact Factory

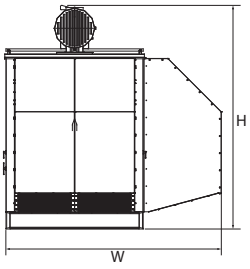




LEVEL 1 ACOUSTIC ENCLOSURE

L x W x H - in (mm)	288.0 (7,315) x 100.0 (2,540) x 156.5 (3,975)
Weight - lbs (kg)	Steel: 22,741 (10,315) Aluminum: 20,549 (9,321)





LEVEL 2 ACOUSTIC ENCLOSURE

L x W x H - in (mm)	339.9 (8,634) x 151.7 (3,852) x 156.5 (3,975)
Weight - lbs (kg)	Steel: Contact Factory Aluminum: Contact Factory

* 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.

SPEC SHEET

Generac Power Systems, Inc. | P.O.Box 8 | Waukesha, WI 53189
P: (262) 544-4811

Part No. 10000022751
Rev. C 05/10/18