

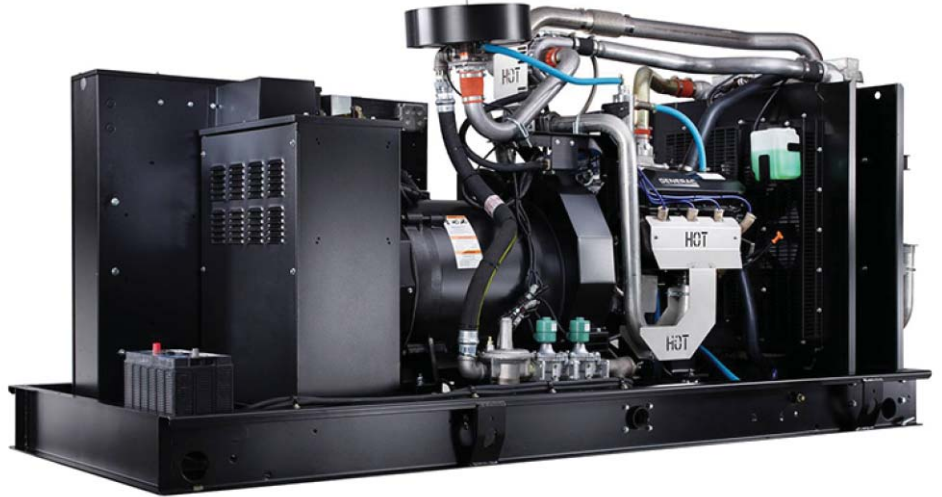
SG150 | 9.0L | 150kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

GENERAC | INDUSTRIAL POWER

Standby Power Rating
150 kW, 188 kVA, 60 Hz



*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
-  CSA C22.2, B149
-  BS5514 and DIN 6271
-  SAE J1349
-  NFPA 37, 70, 99, 110
-  NEC 700, 701, 702, 708
-  ISO 3046, 8528, 9001
-  NEMA ICS1, ICS10, MG1, 250, ICS6, AB1
-  ANSI/IEEE 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. But 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. Because 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.

INDUSTRIAL SPARK-IGNITED GENERATOR SET

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STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil & Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Exhaust Silencer/Catalyst

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
- UV/Ozone Resistant Hoses

Electrical System

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

ALTERNATOR SYSTEM

- UL220 GENprotect™ Fault Protector
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearings
- Amortisseur Winding
- Low Temperature Rise ≤ 120°C

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 Rated Units)
- Capable to Accept Full Load in < 10 Seconds
- 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 Attenuation Enclosures)
- Gasketed Doors
- Stamped Air-Intake Louvers
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- 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
- Utility Monitoring
- 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
- 0.2msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

Full System Status Display

- 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

Alarms and Warnings

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

INDUSTRIAL SPARK-IGNITED GENERATOR SET

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CONFIGURABLE OPTIONS

ENGINE SYSTEM

- Engine Block Heater
- Extreme Cold Weather Kit
- Oil Heater
- Air Filter Restriction Indicator
- Radiator Stone Guard (Open Set Only)

ELECTRICAL SYSTEM

- 10A UL Battery Charger
- Battery Warmer

FUEL SYSTEM

- NPT Flexible Fuel Line

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Topical Alternator Coating

GENERATOR SET

- GenLink Communications Software (English Only)
- Extended Factory Testing (3-Phase Only)
- 8 Position Load Center
- Seismic Certification

MAIN LINE CIRCUIT BREAKER OPTIONS

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

CONTROL SYSTEM

- NFPA 110 Level 1 Compliant 21-Light Remote Annunciator
- Remote Output Relays (8 or 16)
- Oil Temperature Sender and 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 Annunciator
- Damper Alarm Contacts
- 100dB Alarm Horn
- 120V GFCI and 240V Outlets
- Auxiliary Circuit Breaker Contacts to Controller

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
- Door Alarm Switch
- Enclosure Ambient Heaters
- Up to 200 MPH Wind Load Rating (Consult Factory for Availability)

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

ALTERNATOR SYSTEM

- 3rd Main Line Circuit Breaker
- Unit Mounted Load Banks

GENERATOR SET

- Special Testing
- Battery Box

INDUSTRIAL SPARK-IGNITED GENERATOR SET

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APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Generac	
Cylinder #	8	
Type	V	
Displacement - in ³ (L)	540 (8.9)	
Bore - in (mm)	4.49 (114.23)	
Stroke - in (mm)	4.25 (107.15)	
Compression Ratio	10.5:1 - G18	9.1:1 - G26
Intake Air Method	Turbocharged/Aftercooled	
Number of Main Bearings	5	
Cylinder Head	Forged Steel	
Ignition	High Energy	
Piston Type	Aluminum Alloy	
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 with Filters - L (qts)	8.5 (8.0) - G18 9.5 (10.0) - G26

Cooling System

Cooling System Type	Pressurized Closed
Fan Type	Pusher
Fan Speed (rpm)	2,330
Fan Diameter - in (mm)	22 (558)

Fuel System

Fuel Type	Natural Gas
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure NG/LPV- H ₂ O (kPa)	7-11 (1.7- 2.7)
Operating Fuel Pressure LPL- psi (kPa)	30 - 312 (206 - 2,151)

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

NOTE: G18 is all engines manufactured before August 3rd, 2018. G26 is all engines manufactured after August 3rd, 2018.

ALTERNATOR SPECIFICATIONS

Standard Model	K0150124Y21
Poles	4
Field Type	Rotating
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5% (3-Phase Only)
Telephone Interference Factor (TIF)	<50

Standard Excitation	Permanent Magnet
Bearings	Single Sealed
Coupling	Direct via Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Full Digital
Regulation Accuracy (Steady State)	±0.25%

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OPERATING DATA

POWER RATINGS

	G26- Natural Gas, Propane, Dual Fuel		G16- Natural Gas		G16- Propane and Dual Fuel	
Single-Phase 120/240VAC @1.0pf	144 kW	Amps: 600	144 kW	Amps: 600	134 kW	Amps: 559
Three-Phase 120/208 VAC @0.8pf	150 kW	Amps: 521	150 kW	Amps: 521	140 kW	Amps: 486
Three-Phase 120/240 VAC @0.8pf	150 kW	Amps: 452	150 kW	Amps: 452	140 kW	Amps: 421
Three-Phase 277/480 VAC @0.8pf	150 kW	Amps: 226	150 kW	Amps: 226	140 kW	Amps: 211
Three-Phase 346/600 VAC @0.8pf	150 kW	Amps: 181	150 kW	Amps: 181	140 kW	Amps: 169

MOTOR STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip

277/480 VAC	30%	208/480 VAC	30%
K0150124Y21	326	K0150124Y21	244
K0200124Y21	478	K0200124Y21	361

FUEL CONSUMPTION RATES

Natural Gas – cfh (m³/hr)		Propane Vapor - cfh (m³/hr)		Propane Liquid- gal/hr (l/hr)	
Percent Load	Standby	Percent Load	Standby	Percent Load	Standby
25%	668 (18.9)	25%	280 (7.9)	25%	6.7 (25.4)
50%	1,127 (31.9)	50%	430 (12.2)	50%	11.4 (43.2)
75%	1,583 (44.8)	75%	573 (16.2)	75%	15.7 (59.4)
100%	2,042 (57.8)	100%	720 (20.4)	100%	20.0 (75.7)

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

COOLING

		Standby
Air Flow (Fan Air Flow Across Radiator)	cfm (m³/min)	5,415 (153.3)
Coolant Flow	gpm (Lpm)	27.5 (104)
Coolant System Capacity	gal (L)	6.34 (24.0)
Max. Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin No. 0199270SSD	
Maximum Radiator Backpressure	in H ₂ O (kPa)	0.50 (0.12)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power scfm (m³/min)	428 (12.1)

ENGINE

		Standby
Rated Engine Speed	rpm	1,800
Horsepower at Rated kW**	hp	240
Piston Speed	ft/min (/min)	1,275 (389)
BMEP	psi (kPa)	194 (1,338)

EXHAUST

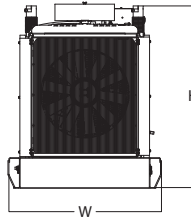
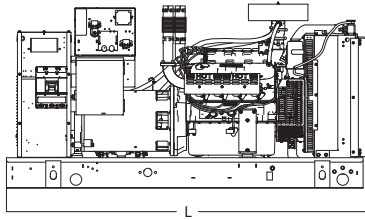
		Standby
Exhaust Flow (Rated Output)	scfm (m³/min)	1,435 (40.6)
Max. Backpressure (Post Silencer)	inHg (kPa)	0.75 (2.54)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	1,350 (732)

** 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 consult a Generac Power Systems Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.
 Standby - See Bulletin - 1000001893

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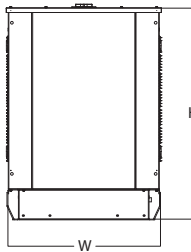
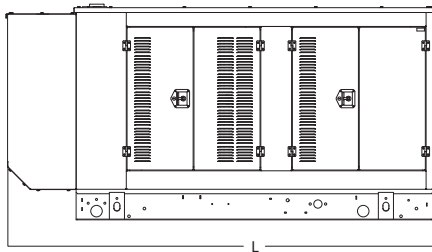
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DIMENSIONS AND WEIGHTS*



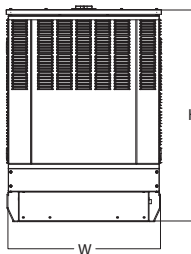
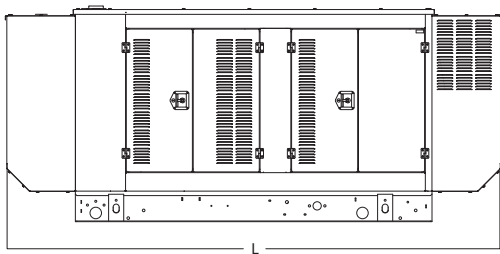
OPEN SET (Includes Exhaust Flex)

L x W x H - in (mm)	116.5 (2,960) x 49.7 (1,262) x 55.6 (1,413)
Weight - lbs (kg)	2,948 (1,337)



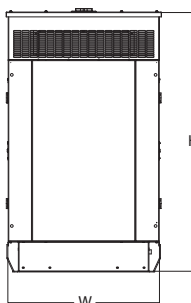
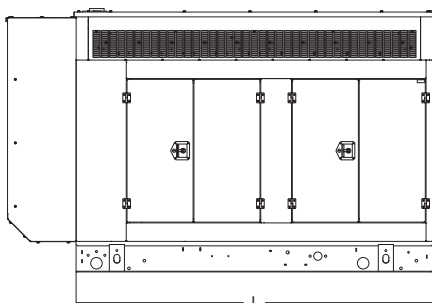
WEATHER PROTECTED ENCLOSURE

L x W x H - in (mm)	143.0 (3,633) x 50.4 (1,280) x 68.2 (1,731)
Weight - lbs (kg)	Steel: 3,845 (1,744) Aluminum: 3,386 (1,536)



LEVEL 1 ACOUSTIC ENCLOSURE

L x W x H - in (mm)	168.5 (4,279) x 50.4 (1,280) x 68.2 (1,731)
Weight - lbs (kg)	Steel: 4,131 (1,874) Aluminum: 3,157 (1,432)



LEVEL 2 ACOUSTIC ENCLOSURE

L x W x H - in (mm)	142.9 (3,629) x 50.4 (1,280) x 91.7 (2,330)
Weight - lbs (kg)	Steel: 4,323 (1,961) Aluminum: 3,594 (1,630)

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

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