SG150 | 8.8L | 150 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

Standby Power Rating

150 kW, 188 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.

ANSI/CAN/UL/ULC 2200:2022, UL1236, UL489

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 7-16, ICC-ES

Powering a Smarter World

For over 65 years, Generac has been at the forefront of power generation, pioneering innovative solutions and unparalleled manufacturing excellence. At the heart of our reputation for superior quality lies our commitment to meticulously designing and manufacturing key components of our generators—ranging from alternators and enclosures to base tanks, control systems, and cutting-edge communications software.

Generac's gensets stand out for their unparalleled versatility and reliability. Engineered to offer a wide range of options and configurations, they are tailored to meet the unique demands of virtually any application, seamlessly adapting to its complexity. Our commitment to reliability drives us to globally source only the most dependable engines, selected through stringent criteria for optimal performance under the toughest industrial conditions.

Beyond the sale, Generac's dedication to our customers extends to comprehensive service support, for peace of mind and reliability long after your purchase. Our commitment is to not only provide state-of-the-art power solutions but also enduring success and satisfaction of our customers through ongoing support and service excellence.

SG150 | 8.8L | 150 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

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STANDARD FEATURES

ENGINE SYSTEM
- Oil Drain Extension
- Air Cleaner
- Fan and Belt Guards
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Exhaust Silencer
- Air Filter Restriction Indicator

FUEL SYSTEM
- Fuel Line - NPT Connection
- Primary and Secondary Fuel Shutoff
- Generac Fuel System Conversion - NG or LPV

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
- GENprotect™
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Amortisseur Winding
- Sealed Bearings
- 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
- E-Stop
- 2 Year Limited Warranty
- 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

DSE G8601 CONTROLLER

KEY FEATURES
- Advanced PLC Functionality
- Multi-Purpose PIDs
- Virtual Inputs
- On-Screen Mimic (SLDs)
- Multiple Application Support
- Multi-Level Pin Protected Front Panel Editor
- Integral LCD Display Heater
- Enhanced High-Resolution 240 x 128 Pixel Display
- Single Generator Control
- Latest ECU/ECM Support
- Touch Screen Panel PC Support
- Temperature Rating -22 ºF to + 122 ºF (-30 ºC to +50 ºC)
- Zero Sequence Voltage Protection
- Integral Gasket (IP65 protection)

GOVERNOR FUNCTIONALITY
- Speed Control through ECM Integration
- Soft Start Ramping (Multiple Steps)

STANDARD PROTECTIONS
- Low Coolant Level
- High/Low Coolant Temperature
- Over/Under Speed
- Over/Under Voltage
- Over/Under Frequency
- Over/Under Current
- Over Load
- Battery Voltage
- Battery Charger Current
- Phase to Phase and Phase to Neutral Short Circuits (I^2T Algorithm)
- Ground Fault

CONTROL PANEL
- Auto/Off/Manual
- Indication Through Display Screen
- Audible Alarm and Silence
- Not in Auto Indication

VOLTAGE REGULATION
- Digital Control
- Three-Phase Sensing
- Negative Power Limit
- Loss of Sensing Protection
- Fault Protection (I^2T Function)
- High Voltage Limit
- Low Voltage Limit
- Maximum Power Limit
- ±0.5% Voltage Regulation

CONNECTIONS (ACTUAL I/O MAY VARY DUE TO CONFIGURATION)
- 4 Analog Inputs
- 12 Digital Inputs
- 9 Active Low Digital Outputs

CUSTOMER PORTS
- Ethernet
- 2 RS-485
- 2 USB
- CANBus

CODES AND STANDARDS
- CE
- NFPA 110 Capable

MORE FEATURES
- Built-in Governor
- Digital AVR Support
- Multiple Language Support
- Three-Phase Generator Sensing and Protection
- Three-Phase Bus Sensing
- Generator Current, Protection and Power Monitoring
- Configurable Timers
- Integrated SNMP
- Data Logging
- PC Configuration
- DSENet® (Expansion Support)
- Flexible I/O (Inputs/Outputs)
- Automatic and Front Panel Breaker Control
- Power-Save Mode

SG150 | 8.8L | 150 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

CONFIGURABLE OPTIONS

ENGINE SYSTEM
- Engine Block Heater
- Oil Heater
- Stone Guard (Open Set Only)
- Baseframe Cover/Rodent Guard
- Shipped Loose Critical Silencer (Open Set Only)

FUEL SYSTEM
- NPT Flexible Fuel Line
- Natural Gas

ELECTRICAL SYSTEM
- 10A UL Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM
- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating

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

GENERATOR SET
- Extended Factory Testing (3 Phase Only)
- 8 Position Load Center
- Battery Box

ENCLOSURE
- Weather Protected Enclosure
- Level 2 Sound Attenuated
- Level 2 Sound Attenuated with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Up to 180 MPH Wind Load Rating High Velocity Hurricane Zone (HVHZ) (Contact Factory for Availability)
- Enclosure LED Lighting Kit
- Enclosure Heaters (with Motorized Dampers Only)
- Door Open Alarm Horn

REMOTE MONITORING AND CONTROL
- Generac Link Manager

- Generac Link Gateway
- Historical trending, alarming and alerts
- Cellular communications to software cloud
- 2 Serial Ports: CAN, RS 485
- 2 TCP Ports: Ethernet 1, Ethernet 2
- GPS
- Antenna Connectors: LTE, GPS
- SIM Card: Rugged 2FF
- Flexible subscription options for Generac Link Manager

CONTROL SYSTEM
- NFPA 110 Compliant Level 1 21-Light Remote Annunciator
- Remote Relay Assembly (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 Run Relay
- Ground Fault Annunciator
- 100 dB Alarm Horn
- Damper Alarm Contacts (Motorized Dampers Only)
- 120 V GFCI Outlets
- Auxiliary Circuit Breaker Contacts to Controller

WARRANTY (STANDBY GENSETS ONLY)
- 2 Year Extended Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

ENGINEERED OPTIONS

ENGINE SYSTEM
- Fluid Containment Pan

CONTROL SYSTEM
- Battery Disconnect Switch

GENERATOR SET
- Special Testing
- Seismic certification through calculations and analysis

CIRCUIT BREAKER OPTIONS
- 3rd Main Line Circuit Breaker

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GENERAC INDUSTRIAL ENERGY

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	PSI
Cylinder #	8
Type	V
Displacement - in^3(L)	535 (8.8)
Bore: in (mm)	4.35 (110.5)
Stroke: in (mm)	4.5 (114.3)
Compression Ratio	10.1:1
Intake Air Method	Turbocharged / Aftercooled
Number of Main Bearings	5
Connecting Rods	Forged Steel
Cylinder Head	Cast Iron
Cylinder Liners	No
Ignition	Spark, Individual Coils
Piston Type	Cast Alum
Crankshaft Type	Forged Steel
Lifter Type	Hydraulic Roller
Intake Valve Material	SilChrome1
Exhaust Valve Material	Stellite
Hardened Valve Seats	Yes

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	0.25%

Lubrication System

Oil Pump	Gear Driven
Oil Filter Type	Full Flow Spin-On Cartridge
Engine Oil Capacity: qt (L)	8 (7.57)

Cooling System

Cooling System Type	Pressurized Closed
Fan Type	Pusher
Fan Speed (rpm)	2,500
Fan Diameter - in (mm)	28 (711.2)

Fuel System

Fuel Type	Natural Gas
Carburetor	Electronic Throttle and Mixer
Secondary Fuel Regulator	Standard
Fuel Shutoff Solenoid	Standard
Operating Fuel Pressure NG/LPV - in H_2O (kPa)	7 - 11 (1.74 - 2.74)

NOTE: 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 document 10000046207, Latest rev., for proper gas supply design guidelines. (Contact Factory for Details)

NOTE: Generac Fuel System Conversion is a DSE controller configuration file–based change that switches the fuel system from NG to LPV or vice-versa.

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	70 Amps
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative (-)

ALTERNATOR SPECIFICATIONS

Standard Model	K0100124Y21
Poles	4
Field Type	Revolving
Insulation Class — Rotor	H
Insulation Class — Stator	H
Total Harmonic Distortion (THD)	<5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Synchronous Brushless
Bearings	Single Sealed
Coupling	Direct via Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Full Digital
Number of Sensed Phases	3
Regulation Accuracy (Steady State)	±0.25%

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GENERAC INDUSTRIAL ENERGY

OPERATING DATA

POWER RATINGS

	Natural Gas - Standby	
Single-Phase 120/240 VAC @1.0pf	150 kW/150 kVA	Amps: 625
Three-Phase 120/208 VAC @0.8pf	150 kW/188 kVA	Amps: 521
Three-Phase 120/240 VAC @0.8pf	150 kW/188 kVA	Amps: 452
Three-Phase 277/480 VAC @0.8pf	150 kW/188 kVA	Amps: 226
Three-Phase 346/600 VAC @0.8pf	150 kW/188 kVA	Amps: 181

STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip

277/480 VAC	30%	208/240 VAC	30%	346/600 VAC	30%
K0150124Y26	327	K0150124Y26	250	L0150064N21	326
K0200124Y21	478	K0200124Y21	361	L0200064N21	286
K0250124Y21	630	K0250124Y21	506	L0250064N21	629

FUEL CONSUMPTION RATES*

	Natural Gas – scfh (m^3/hr)
Percent Load	Standby
25%	713.3 (20.2)
50%	1140.5 (32.3)
75%	1592.5 (45.4)
100%	2093.9 (59.3)

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

COOLING

		Standby
Air Flow (inlet air combustion and radiator)	cfm/min (m^3/min)	22300 (631.5)
Coolant Flow per Minute	gal/min (l/min)	33 (125)
Coolant System Capacity	gal (l)	9.3 (35.2)
Heat Rejection to Coolant	BTU/hr	302,400
Maximum Radiator Back Pressure	in H_2O (kPa)	0.5 (0.12)
Maximum Operating Ambient Temperature	°F (°C)	127 (52.77)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin No. 0199270SSD	

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power - cfm (m^3/min)	314 (8.9)

ENGINE

		Standby
Rated Engine Speed: RPM	rpm	1,800
Horsepower at Rated kW**	hp	261
Piston Speed	ft/min (m/min)	1350 (411.5)
BMEP	psi (kPa)	215 (1482.4)

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

EXHAUST

		Standby
Exhaust Flow (Rated Output)	cfm (m^3/min)	1177.5 (33.3)
Maximum Exhaust Back Pressure (Rated Output) **	in Hg (Kpa)	0.75 (2.5)
Exhaust Temperature (Rated Output - Post Catalyst)	°F (°C)	1200 (648.9)

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

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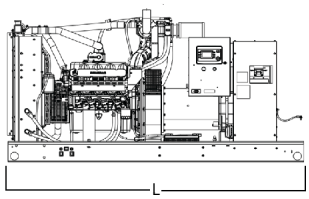
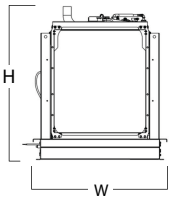
GENERAC INDUSTRIAL ENERGY

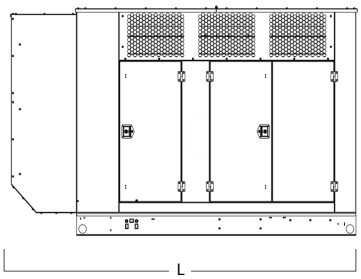
DIMENSIONS AND WEIGHTS*

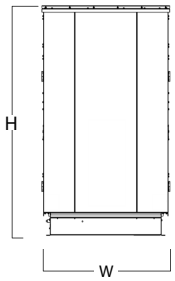




OPEN SET (Includes Exhaust Flex)

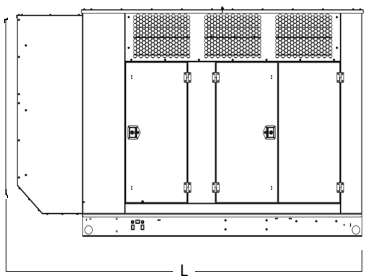
L x W x H - in (mm)	111.3 (2727) x 49.2 (1,249.2) x 62.1 (1,577.3)
Weight lbs (kg)	3,181 (1,443)

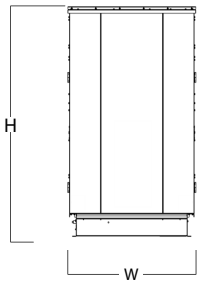




STANDARD ENCLOSURE

L x W x H - in (mm)	135.7 (3,446.8) x 49.2 (1,248.4) x 80 (2,032)
Weight lbs (kg)	Steel: 4,334 (1,966) Aluminum: 3,887 (1,763)





LEVEL 2 ACOUSTIC ENCLOSURE

L x W x H - in (mm)	135.7 (3,446.8) x 49.2 (1,248.4) x 80 (2,032)
Weight lbs (kg)	Steel: 4,561 (2,069) Aluminum: 3,903 (1,770)

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

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

Some ratings provided in the spec. sheets are calculated estimates and will be updated with test results.

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