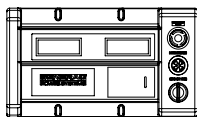
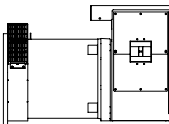
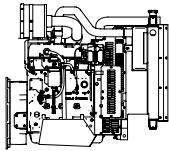
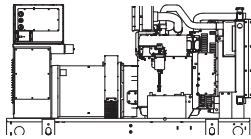
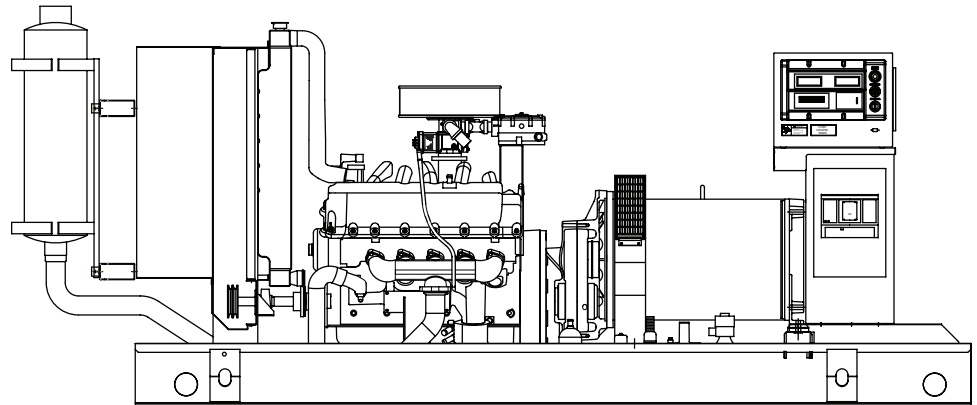


SG150

Industrial Gaseous Generator Set

EPA NSPS Emission Regulations
US EPA SI Stationary Emission Regulation 40CFR, Part 60, Subpart JJJJ

Standby Power Rating
150kW 60 Hz



features

benefits

Generator Set

- PROTOTYPE & TORSIONALLY TESTED
- UL2200 TESTED
- RHINOCOAT PAINT SYSTEM
- WIDE RANGE OF ENCLOSURES AND TANKS

- ▶ PROVIDES A PROVEN UNIT
- ▶ ENSURES A QUALITY PRODUCT
- ▶ IMPROVES RESISTANCE TO ELEMENTS
- ▶ PROVIDES A SINGLE SOURCE SOLUTION

Engine

- EPA COMPLIANT
- INDUSTRIAL TESTED, GENERAC APPROVED
- POWER-MATCHED OUTPUT
- INDUSTRIAL GRADE

- ▶ ENVIRONMENTALLY FRIENDLY
- ▶ ENSURES INDUSTRIAL STANDARDS
- ▶ ENGINEERED FOR PERFORMANCE
- ▶ IMPROVES LONGEVITY AND RELIABILITY

Alternator

- TWO-THIRDS PITCH
- LAYER WOUND ROTOR & STATOR
- CLASS H MATERIALS
- DIGITAL 3-PHASE VOLTAGE CONTROL

- ▶ ELIMINATES HARMFUL 3RD HARMONIC
- ▶ IMPROVES COOLING
- ▶ HEAT TOLERANT DESIGN
- ▶ FAST AND ACCURATE RESPONSE

Controls

- ENCAPSULATED BOARD W/ SEALED HARNESS
- 4-20mA VOLTAGE-TO-CURRENT SENSORS
- SURFACE-MOUNT TECHNOLOGY
- ADVANCED DIAGNOSTICS & COMMUNICATIONS

- ▶ EASY, AFFORDABLE REPLACEMENT
- ▶ NOISE RESISTANT 24/7 MONITORING
- ▶ PROVIDES VIBRATION RESISTANCE
- ▶ HARDENED RELIABILITY

primary codes and standards



SG150

application and engineering data

ENGINE SPECIFICATIONS

General

Make	Generac	
EPA Emissions Compliance	Stationary Emergency	
EPA Emissions Engine Reference	See Emissions Data Sheet	
Cylinder #	10	
Type	V	
Displacement - L (Cu. In.)	6.8	(414.96)
Bore - mm (in.)	90.17	(3.55)
Stroke - mm (in.)	105.92	(4.17)
Compression Ratio	9:1	
Intake Air Method	Naturally Aspirated	
Number of Main Bearings	7	
Connecting Rods	Forged	
Cylinder Head	Aluminum	
Cylinder Liners	No	
Ignition	High Energy	
Pistons	Alum Alloy	
Crankshaft	Steel	
Lifter Type	Overhead Cam	
Intake Valve Material	Steel Alloy	
Exhaust Valve Material	Steel Alloy	
Hardened Valve Seats	Yes	

Lubrication System

Oil Pump Type	Gear	
Oil Filter Type	Full-flow spin-on cartridge	
Crankcase Capacity - L (qts)	5.7	(6)

Cooling System

Cooling System Type	Closed	
Water Pump Flow	68 gal/min	
Fan Type	Puller	
Fan Speed (rpm)	2500	
Fan Diameter mm (in.)	558.8	(22)
Coolant Heater Wattage	1500	
Coolant Heater Standard Voltage	120V	
Coolant Flow - gal/min	68	

Fuel System

Fuel Type	Natural gas, propane vapor	
Carburetor	Down Draft	
Secondary Fuel Regulator	Standard	
Fuel Shut Off Solenoid	Standard	
Operating Fuel Pressure	11" - 14" H2O	

Engine Electrical System

System Voltage	12VDC	
Battery Charging Alternator (Amps)	30	
Battery Size	925CCA	
Battery Group	31	
Battery Voltage	12VDC	
Ground Polarity	Negative	

ALTERNATOR SPECIFICATIONS

Standard Model	520	
Poles	4	
Field Type	Revolving	
Insulation Class - Rotor	H	
Insulation Class - Stator	H	
Total Harmonic Distortion	<3.5%	
Telephone Interference Factor (TIF)	<50	
Standard Excitation	PMG	
Bearings	Sealed Ball	
Coupling	Gear Drive	
Load Capacity - Standby	100%	
Prototype Short Circuit Test	Yes	

Voltage Regulator Type	Full Digital	
Number of Sensed Phases	3	
Regulation Accuracy (Steady State)	+/- 0.25%	

Engine Governing

Governor	Electronic	
Frequency Regulation (Steady State)	+/- 0.25%	

CODES AND STANDARDS COMPLIANCE (WHERE APPLICABLE)

NFPA 99
 NFPA 110
 ISO 8528-5
 ISO 1708A.5
 ISO 3046
 BS5514
 SAE J1349
 DIN6271
 IEEE C62.41 TESTING
 NEMA ICS 1

Rating Definitions:

Standby – Applicable for a varying emergency load for the duration of a utility power outage with no overload capability. (Max. load factor = 70%)

Prime – Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. (Max. load factor = 80%) A 10% overload capacity is available for 1 out of every 12 hours.

SG150

operating data (60Hz)

POWER RATINGS (kW)

Single-Phase 120/240VAC @1.0pf
 Three-Phase 120/208VAC @0.8pf
 Three-Phase 120/240VAC @0.8pf
 Three-Phase 277/480VAC @0.8pf
 Three-Phase 346/600VAC @0.8pf

Natural Gas		
136	Amps:	567
142	Amps:	493
142	Amps:	427
142	Amps:	214
142	Amps:	171

Propane Vapor		
144	Amps:	600
150	Amps:	520
150	Amps:	451
150	Amps:	225
150	Amps:	180

STARTING CAPABILITIES (sKVA)

		sKVA vs. Voltage Dip											
		480VAC						208/240VAC					
Alternator*	kW	10%	15%	20%	25%	30%	35%	10%	15%	20%	25%	30%	35%
Standard	150	133	199	265	332	398	464	100	149	199	249	299	348
Upsize 1	200	187	280	373	467	560	653	140	210	280	350	420	490
Upsize 2													

*All Generac industrial alternators utilize Class H insulation materials. Standard alternator provides less than or equal to Class B temperature rise. Upsize 1 provides less than or equal to Class B temperature rise. Upsize 2 provides less than or equal

FUEL

Fuel Consumption Rates

Natural Gas				Propane Vapor			
Percent Load	cu ft/hr			Percent Load	cu ft/hr		
25%	700			25%	290		
50%	1154			50%	478		
75%	1525			75%	631		
100%*	2061			100%	853		

COOLING

STANDBY		
Air Flow (inlet air combustion and radiator)	m3/hr (cfm)	169.9(6000)
System Coolant Capacity	Liters(Gal)	23.85(6.3)
Heat Rejection to Coolant	BTU/hr	450,000
Max. Operating Air Temp on Radiator	°F (°C)	140(60)
Max. Ambient Temperature	°F (°C)	122(50)
Coolant System Capacity	Liters(Gal)	23.85(6.3)
Maximum Radiator Backpressure	"H ₂ O	1.50

COMBUSTION AIR REQUIREMENTS

Intake Flow at Rated Power STANDBY
 cfm 447

EXHAUST

STANDBY		
Exhaust Flow (Rated Output)	m3/hr (cfm)	42.67(1507)
Maximum Recommended Back Pressure	inHg (Kpa)	1.5(5.1)
Exhaust Temp (Rated Output)	°F (°C)	1402(761)
Exhaust Outlet Size	(in)	4.0" O.D.

ENGINE

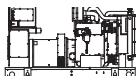
STANDBY		
Rated Engine Speed	rpm	3600
Horsepower at Rated kW**	hp	224
Temperature Deration		Consult Factory
Altitude Deration		Consult Factory

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

SG150

standard features and options

GENERATOR SET



Genset Vibration Isolation	Std
Seismic Rated Vibration Isolators	Opt
Extended warranty	Std
Gen-Link Communications Software	Opt
Steel Enclosure (Enclosed Models)	Std
Remote Emergency Shutdown	Opt
Factory Testing	Std
Padlockable Doors	Opt

ENGINE SYSTEM



General

Oil Drain Extension	Std
Air Cleaner	Std
Industrial Exhaust Silencer (Open Sets)	Opt
Critical Exhaust Silencer (Enclosed Sets)	Std
Stainless steel flexible exhaust connection	Std

Fuel System

Fuel Lockoff Solenoid	Std
Secondary Fuel Regulator	Std
Flexible Fuel Lines	Opt
LP Liquid Withdrawal	Opt
Automatic Gaseous Dual Fuel	Opt

Cooling System

120VAC Coolant Heater (3-wire connection cord)	Opt
208VAC Coolant Heater	Opt
50%/50% Propylene Glycol Coolant	Std
Level 1 Guarding (Open Sets)	Std
Closed Coolant Recovery System	Std
UV/Ozone resistant hoses	Std
Factory-Installed Radiator	Std
Radiator Drain Extension	Std
Fan guard	Std
Radiator duct adapter (Open Sets)	Std

Engine Electrical System

Battery charging alternator	Std
Battery cables	Std
Battery tray	Std
Battery box	Opt
75W 120VAC Battery heater	Opt
Solenoid activated starter motor	Std
2A 120VAC battery charger	Opt
10A UL float/equalize battery charger w/ 3-wire cord	Opt
Rubber-booted engine electrical connections	Std
GFCI Convenience Outlet	Opt

ALTERNATOR SYSTEM



UL2200 GENprotect™	Std
Main Line Circuit Breaker	Opt
2nd Circuit Breaker	Opt
3rd Circuit Breaker	-
Alternator Upsizing	Opt
Anti-Condensation Heater	Opt
Tropical coating	Opt

CONTROL SYSTEM



Control Panel

Digital H Control Panel - Dual 4x20 Display	Std
Digital G-100 Control Panel - Touchscreen	-
Digital G-200 Paralleling Control Panel - Touchscreen	-
Programmable Crank Limiter	Std
21-Light Remote Annunciator	Opt
Remote Relay Panel (8 function)	Opt
7-Day Programmable Exerciser	Std
Special Applications Programmable PLC	Std
RS-232	Std
RS-485	Std
All-Phase Sensing DVR	Std
Full System Status	Std
Utility Monitoring (Req. H-Transfer Switch)	Std
2-Wire Start Compatible	Std
Power Output (kW)	Std
Power Factor	Std
Reactive Power	Std
All phase AC Voltage	Std
All phase Currents	Std
Oil Pressure	Std
Coolant Temperature	Std
Coolant Level	Std
Oil Temperature	Opt
Fuel Pressure	Std
Engine Speed	Std
Battery Voltage	Std
Frequency	Std
Date/Time Fault History (Event Log)	Std
UL2200 GENprotect™	Std
Low-Speed Exercise	-
Isochronous Governor Control	Std
-40deg C - 70deg C Operation	Std
Waterproof Plug-In Connectors	Std
Audible Alarms and Shutdowns	Std
Not in Auto (Flashing Light)	Std
On/Off/Manual Switch	Std
E-Stop (Red Mushroom-Type)	Std
Remote E-Stop (Break Glass-Type, Surface Mount)	Opt
Remote E-Stop (Red Mushroom-Type, Surface Mount)	Opt
Remote E-Stop (Red Mushroom-Type, Flush Mount)	Opt
NFPA 110 Level I and II (Programmable)	Std
Remote Communication - RS232	Std
Remote Communication - Modem	Opt
Remote Communication - Ethernet	-
10A Run Relay	Opt
Autosynchronizer for paralleling	-
Isochronous Load Sharing Module	-
Reverse Power Protection Relay	-
Dead Bus Sensing	-
Sync Check Relay	-

Alarms (Programmable Tolerances, Pre-Alarms and Shutdowns)

Oil Pressure (Pre-programmed Low Pressure Shutdown)	Std
Coolant Temperature (Pre-programmed High Temp Shutdo)	Std
Coolant Level (Pre-programmed Low Level Shutdown)	Std
Fuel Pressure	Std
Engine Speed (Pre-programmed Overspeed Shutdown)	Std
Voltage (Pre-programmed Overvoltage Shutdown)	Std
Battery Voltage	Std

Other Options

Single Side Service
HUIO Control Module for additional digital I/O

dimensions, weights and sound levels

OPEN SET (includes exhaust flex)

L	W	H	WT	dBA*
128	49	84	5213	89.5

WEATHERPROOF ENCLOSURE

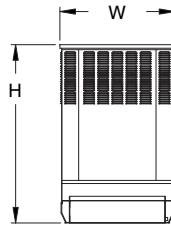
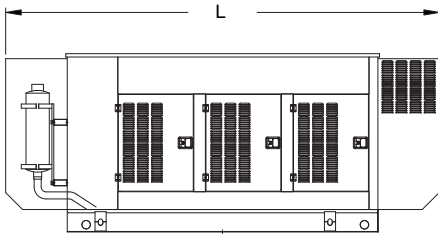
L	W	H	WT	dBA*
143	50	68	6403	86.5

LEVEL 1 SOUND ENCLOSURE

L	W	H	WT	dBA*
169	50	68	6583	

LEVEL 2 SOUND ENCLOSURE

L	W	H	WT	dBA*
143	50	92		



*Weights consider steel enclosure. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.

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.