MG150 9.0L 150kW



INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

Standby Power Rating 150 kW, 188 kVA, 60 Hz







*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.





NEMA ICS1, ICS10, MG1, 250, ICS6,



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.

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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

CONTROL SYSTEM



Digital G-200 Paralleling Control Panel Touchscreen

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

Electrical System

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

ALTERNATOR SYSTEM

- o Main Line Circuit Breaker
- 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)
- · 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

• Not in Auto (Flashing Light)

ENCLOSURE (If Selected)

Attenuation Enclosures)

Stamped Air-Intake Louvers

Stainless Steel Lockable Handles

Gasketed Doors

and Exhaust)

Alarms and Warnings

Coolant Temperature

Low Fuel Pressure

Engine Overspeed

Battery Voltage

Alarms & Warnings

PARALLELING CONTROLS

· Isochronous Load Sharing

Reverse Power Protection

Paralleling Switch

· Sync Check System

Controls (PLS)

Maximum Power Protection

· Electrically Operated, Mechanically Held

Optional Programmable Logic Full Auto Back-Up

Independent On-Board Paralleling

Shunt Trip and Auxiliary Contact

· Auto-Synchronization Process

· Alarms & Warnings Time and Date Stamped

Snap Shots of Key Operation Parameters During

· Alarms and Warnings Spelled Out (No Alarm Codes)

SPEC SHEET

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• Oil Pressure

· Coolant Level

GENERAC[®]

· Rust-Proof Fasteners with Nylon Washers to Protect Finish

Upward Facing Discharge Hoods (Radiator

· High Performance Sound-Absorbing Material (Sound

RhinoCoat[™] - Textured Polyester Powder Coat Paint

INDUSTRIAL

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CONFIGURABLE OPTIONS

ENGINE SYSTEM

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

ELECTRICAL SYSTEM

- $\circ~$ 10A UL Battery Charger
- Battery Warmer

FUEL SYSTEM

 $\circ~$ NPT Flexible Fuel Line

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- $\circ~$ Topical Alternator Coating

GENERATOR SET

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

MAIN LINE CIRCUIT BREAKER OPTIONS

- $\circ~$ 2nd Main Line Circuit Breaker
- Electronic Trip Breakers

CONTROL SYSTEM

- $\circ~$ Oil Temperature Indication and Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type,
- Surface Mount) o 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
- o 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
 - o Aluminum Enclosure
 - o AC/DC Enclosure Lighting Kit
 - o Door Alarm Switch
 - Enclosure Ambient Heaters
 - Up to 200 MPH Wind Load Rating* (Consult Factory for Availability)

WARRANTY (Standby Gensets Only)

- o 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- o 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- o 10 Year Extended Limited Warranty

ENGINEERED OPTIONS

CONTROL SYSTEM

o Battery Disconnect Switch

ALTERNATOR SYSTEM

o Unit Mounted Load Banks

GENERATOR SET

- Special Testing
- Battery Box



MG150 | 9.0L | 150kW



INDUSTRIAL SPARK-IGNITED GENERATOR SET

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APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Generac
Cylinder #	8
Туре	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

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

Lubrication System

Oil Pump Type	Gear	
Oil Filter Type	Full-Flow Spin-On Ca	artridge
Crankcase Capacity with Filters - L (qts)	8.5 (8.0) - G18	9.5 (10.0) - G26

±0.25%

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

ALTERNATOR SPECIFICATIONS

Frequency Regulation (Steady State)

Standard Model	K0150124Y21
Poles	4
Field Type	Rotating
Insulation Class - Rotor	Н
Insulation Class - Stator	Н
Total Harmonic Distortion	<5%
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 Duel Fuel 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 (m ³ /hr) Propane Vapor - cfh (m ³ /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

ENGINE

		Standby	
Air Flow (Fan Air Flow Across Radiator)	cfm (m ³ /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 0 (kPa)	0.50 (0.12)	

EXHAUST

COMBUSTION AIR REQUIREMENTS

Flow at Rated Power scfm (m³/min)

Standby 428 (12.1)

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

	St	tandby
 Exhaust Flow (Rated Output)	scfm (m³/min)	1,434.6 (40.6)
Max. Backpressure (Post Silencer)	inHg (kPa)	0.75 (2.5)
 Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	1,350 (732)

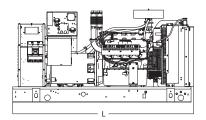
** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

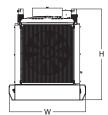
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards. Standby - See Bulletin - 1000001893 5 OF 6

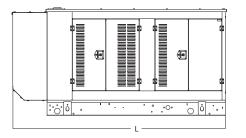


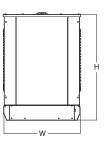
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DIMENSIONS AND WEIGHTS*







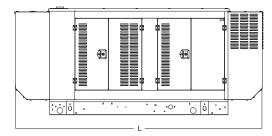


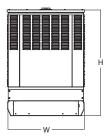
OPEN SET (Includes Exhaust Flex)

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

WEATHER PROTECTED ENCLOSURE

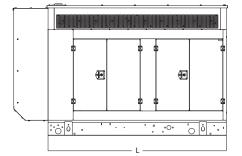
L x W x H - in (mm)	143.0 (3,633) x 50.4 (1,280) x 68.2 (1,731)
Weight Ibe (kg)	Steel: 3,845 (1,744)
Weight - Ibs (kg)	Aluminum: 3,386 (1,536)

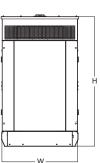




LEVEL 1 ACOUSTIC ENCLOSURE

L x W x H - in (mm)	168.5 (4,279) x 50.4 (1,280) x 68.2 (1,731)
Weight - Ibs (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 - Ibs (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

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