

#### **DEMAND RESPONSE READY**

# **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.





UL2200, UL508, UL489



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, 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. 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 singlesource 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** 

# MG150 | 9.0L | 150 kW

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency and Non-Emergency

#### STANDARD FEATURES

#### DEMAND RESPONSE READY

#### **ENGINE SYSTEM**

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

#### **Fuel System**

- · NPT Fuel Connection on Frame
- · Primary and Secondary Fuel Shutoff

## **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**

- Main Line Circuit Breaker
- UL2200 GENprotect™
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- · Permanent Magnet Excitation
- · Sealed Bearings
- · Amortisseur Winding
- · Full Load Capacity Alternator

#### **GENERATOR SET**

**GENERAC**<sup>®</sup>

- Internal Genset Vibration Isolation
- · Separation of Circuits High/Low Voltage
- Separation of Circuits Multiple Breakers
- Wrapped Exhaust Piping
- · Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Units Only)
- Ready to Accept Full Load in <10 Seconds

#### **ENCLOSURE (If Selected)**

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuated Enclosures)
- Gasketed Doors
- Stamped Air-Intake Louvers
- Upward Facing Discharge Hood (Radiator and Exhaust)
- · Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat<sup>™</sup> Textured Polyester Powder Coat

## **CONTROL SYSTEM**



### Digital G 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
- · 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)
- NFPA 110 Level I and II (Programmable)
- · Customizable Alarms, Warnings, and Events
- Modbus<sup>®</sup> Protocol
- · Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 Msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

#### **Full System Status Display**

- Power Output (kW)
- Power Factor

- · kW Hours, Total, and 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 and Warnings Time and Date Stamped
- Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

## **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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# GENERAC INDUSTRIAL POWER

### **CONFIGURABLE OPTIONS**

#### **DEMAND RESPONSE READY**

#### **ENGINE SYSTEM**

- O Engine Block Heater
- Oil Heater
- O Air Filter Restriction Indicator
- Radiator Stone Guard (Open Set Only)
- O Baseframe Cover/Rodent Guard
- O Level 1 Fan and Belt Guards (Enclosed Units Only)
- O Shipped Loose Critical Silencer (Open Set Only)

#### **FUEL SYSTEM**

O NPT Flexible Fuel Line

# **ELECTRICAL SYSTEM**

- O 10A UL Listed Battery Charger
- O Battery Warmer

#### **ALTERNATOR SYSTEM**

- Alternator Upsizing
- O Anti-Condensation Heater
- O Tropical Coating

#### **CIRCUIT BREAKER OPTIONS**

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

#### **GENERATOR SET**

- O Demand Response Rating
- Extended Factory Testing (3-Phase Only)
- O IBC Seismic Certification
- O 12 Position Load Center

#### WEATHER PROTECTED ENCLOSURE

- O Weather Protected Enclosure
- O Level 1 Sound Attenuated
- O Level 2 Sound Attenuated
- O Level 2 Sound Attenuated with Motorized Dampers
- O Steel Enclosure
- Aluminum Enclosure
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- O AC/DC Enclosure Lighting Kit
- O Enclosure Heaters
- O Door Open Alarm Switch

#### **CONTROL SYSTEM**

- NFPA 110 Compliant Level 1 21-Light Remote Annunciator
- O Remote Relay Assembly (8 or 16)
- O 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)
- O 10A Engine Run Relay
- O Ground Fault Annunciator
- 100 dB Alarm Horn
- O Damper Alarm Contacts (Motorized Dampers Only)
- O 120V GFCI and 240V Outlets
- O Auxiliary Circuit Breaker Contacts to Controller

## WARRANTY (Standby Gensets Only)

- O 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**

## **ENGINE SYSTEM**

O Fluid Containment Pans

#### **CONTROL SYSTEM**

O Battery Disconnect Switch

#### **ALTERNATOR SYSTEM**

O 3rd Breaker System

#### **GENERATOR SET**

- Special Testing
- Battery Box

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# GENERAC INDUSTRIAL POWER

# **APPLICATION AND ENGINEERING DATA**

#### **DEMAND RESPONSE READY**

### **ENGINE SPECIFICATIONS**

General	
Make	Generac
Cylinder #	8
Туре	V
Displacement - in <sup>3</sup> (L)	543 (8.9)
Bore - in (mm)	4.49 (114.3)
Stroke - in (mm)	4.25 (107.95)
Compression Ratio	G18 - 10.5:1 * G26 - 9.1:1 *
Intake Air Method	Naturally Aspirated and Turbocharge
Number of Main Bearings	5
Connecting Rods	Forged Steel
Cylinder Head	Cast Iron
Cylinder Liners	No
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

# Cooling System

Cooling System Type	Pressurized Closed
Fan Type	Pusher
Fan Speed - RPM	2,386
Fan Diameter - in (mm)	22 (558.8)

### Fuel System

Fuel Type	Natural Gas, Propane Vapor/Liquid
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure NG/LPV - in H <sub>2</sub> O (kPa)	7 - 11 (1.7 - 2.7)
Optional 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

<sup>\*</sup> G18 refers to all engines manufactured before August 3rd, 2018. G26 refers to all engines manufactured after August 3rd, 2018.

# **ALTERNATOR SPECIFICATIONS**

Oil Filter Type

Crankcase Capacity - qt (L)

Standard Model	K0150124Y26
Poles	4
Field Type	Revolving
Insulation Class - Rotor	Н
Insulation Class - Stator	Н
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50

Full-Flow Spin-On Cartridge

G18 - 8.5 (8.0) \* G26 - 10.0 (9.5) \*

Standard Excitation	Permanent Magnet
Bearings	Single Sealed Ball
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**

		Natural Gas		Liquid Propane	
Single-Phase 120/240 VAC @1.0pf	144 kW	Amps: 600	134 kW	Amps: 558	
Three-Phase 120/208 VAC @0.8pf	150 kW	Amps: 521	140 kW	Amps: 486	
Three-Phase 120/240 VAC @0.8pf	150 kW	Amps: 452	140 kW	Amps: 421	
Three-Phase 277/480 VAC @0.8pf	150 kW	Amps: 226	140 kW	Amps: 211	
Three-Phase 346/600 VAC @0.8pf	150 kW	Amps: 181	140 kW	Amps: 169	

# **MOTOR STARTING CAPABILITIES (skVA)**

# skVA vs. Voltage Dip

277/480 VAC	30%	208/240 VAC	30%
K0150124Y26	327	K0150124Y26	250
K0200124Y21	478	K0200124Y21	361

#### **FUEL CONSUMPTION RATES\***

Natural Gas – scfh (m³/hr)		Propane Vapor	Propane Vapor – scfh (m³/hr)		Propane Liquid – gph (Lph)	
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 (43.1)	
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)	

<sup>\*</sup> Fuel supply installation must accommodate fuel consumption rates at 100% load.

# **COOLING**

		Standby
Air Flow (Fan Air Flow Across Radiator)	sfcm (m³/min)	5,598 (158.5)
Coolant Flow	gpm (Lpm)	27.5 (104.1)
Coolant System Capacity	gal (L)	6.3 (24)
Maximum Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin	No. 0199270SSD
Maximum Radiator Backpressure	in H <sub>2</sub> O (kPa)	0.5 (0.12)

### **COMBUSTION AIR REQUIREMENTS**

		Standby	
Datad Dawar aafm	(m3/min)	242 7 (0.7)	

Flow at Rated Power scfm (m <sup>3</sup> /min)	342.7 (9.7)
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ENGINE			EXHAUST		
		Standby			Standby
Rated Engine Speed	RPM	1,800	Exhaust Flow (Rated Output)	scfm (m³/min)	1,205.8 (34.1)
Horsepower at Rated kW**	hp	229	Maximum Backpressure (Post Silencer)	inHg (kPa)	0.75 (2.54)
Piston Speed	ft/min (m/min)	1,275 (389)	Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	1,440 (782)
BMEP	psi (kPa)	185 (1,277)			

 $<sup>\</sup>star\star$  Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

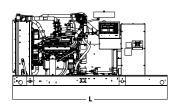
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

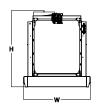
Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards. Standby - See Bulletin 0187500SSB



### **DIMENSIONS AND WEIGHTS\***

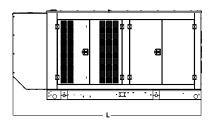
### **DEMAND RESPONSE READY**

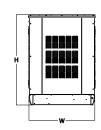




# OPEN SET (Includes Exhaust Flex)

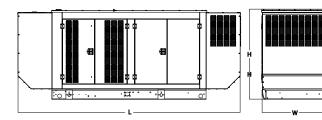
•	•	
L x W x H - in (mm)	116.5 (2,959) x 49.7 (1,262) x 55.6 (1,412)	
Weight - lbs (kg)	2,840 - 2,948 (1,288 - 1,337)	





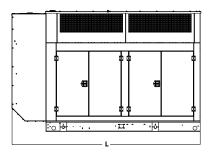
#### WEATHER PROTECTED ENCLOSURE

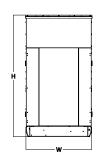
L x W x H - in (mm)	143.0 (3,632) x 50.4 (1,280) x 68.2 (1,732)			
Weight - lbs (kg)	Steel: 3,737 - 3,845 (1,695 - 1,744) Aluminum: 3,278 - 3,386 (1,487 - 1,536)			



#### **LEVEL 1 ACOUSTIC ENCLOSURE**

L x W x H - in (mm)	168.5 (4,280) x 50.4 (1,280) x 68.2 (1,732)
Weight - lbs (kg)	Steel: 4,023 - 4,131 (1,825 - 1,874) Aluminum: 3,111 - 3,157 (1,411 - 1,432)





# **LEVEL 2 ACOUSTIC ENCLOSURE**

L x W x H - in (mm)	143.0 (3,632) x 50.4 (1,280) x 91.7 (2,329)
Weight - Ibs (kg)	Steel: 4,215 - 4,323 (1,912 - 1,961) Aluminum: 3,486 - 3,594 (1,581 - 1,630)

\* All measurements are approximate and for estimation purposes only.



Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.

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