GGW150 | 9.0L | 150 kVA

INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division

*Assembled in the USA using domestic and foreign parts

Image used for illustration purposes only

Power Ratings		
GGW150	Standby	150 kVA/120 kW

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.

BS5514 and DIN 6271

SAE J1349

ISO 3046, 7637, 8528, 9001

NEMA ICS10, MG1, 250, ICS6, AB1

ANSI C62.41

ENERGY GENERATION

PRAMAC ensures superior quality and performance by managing all aspects of production: from design to manufacturing.

PRAMAC can trace its roots back to 1966; from then onwards it has been expanding its activity in the energy and material-handling sector, continuously growing globally with a wide and flexible product range.

In the field of power generation, PRAMAC offers solutions for every kind of power supply demand: portable and industrial generators for stand by and prime power applications and mobile and towable lighting for outdoor needs.

PRAMAC operates through a wide distribution network and provides global coverage even in the most demanding markets.

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STANDARD FEATURES

ENGINE SYSTEM

- Engine Coolant Heater
- Oil Drain Extension
- Heavy Duty Air Cleaner
- Level 1 Fan and Belt Guards (Open Set Only)
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Silencer (Enclosed Units Only)

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

- GENprotect™
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearing
- Amortisseur Winding
- Full Load Capacity Alternator

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
- 1 Year Limited Warranty or 1,000 Hours
- 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

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
- 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
- 0.2 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)

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INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division

CONFIGURABLE OPTIONS

ENGINE SYSTEM

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

FUEL SYSTEM

- ○ NPT Flexible Fuel Line

ELECTRICAL SYSTEM

- ○ 10A Battery Charger
- ○ Battery Warmer

ALTERNATOR SYSTEM

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

CIRCUIT BREAKER OPTIONS

- ○ Main Line Circuit Breaker
- ○ Shunt Trip and Auxiliary Contact
- ○ Electronic Trip Breaker

GENERATOR SET

- ○ Extended Factory Testing (3-Phase Only)
- ○ Pad Vibration Isolators
- ○ 8 Position Load Center

ENCLOSURE

- ○ Weather Protected Enclosure
- ○ Level 1 Sound Attenuated
- ○ Level 2 Sound Attenuated
- ○ Level 2 Sound Attenuated with Motorized Dampers
- ○ Steel Enclosure
- ○ Aluminum Enclosure
- ○ Up to 321 KMH Wind Load Rating (Contact Factory for Availability)
- ○ AC/DC Enclosure Lighting Kit
- ○ Door Open Alarm Switch
- ○ Enclosure Heater (with Motorized Dampers Only)

CONTROL SYSTEM

- ○ 21-Light Remote Annunciator
- ○ Remote Relay Assembly (8 or 16)
- ○ Oil Temperature Indicator with 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)
- ○ Remote Communication - Modem
- ○ 10A Engine Run Relay
- ○ 100 dB Alarm Horn
- ○ Ground Fault Annunciator
- ○ 120V GFCI and 240V Outlet
- ○ Damper Alarm Contacts (with Motorized Dampers)

ENGINEERED OPTIONS

ENGINE SYSTEM

- ○ Coolant Heater Ball Valves
- ○ Fluid Containment Pan

ALTERNATOR SYSTEM

- ○ 3rd Breaker System

CONTROL SYSTEM

- ○ Spare Inputs (x4) / Outputs (x4)
- ○ Battery Disconnect Switch

GENERATOR SET

- ○ Special Testing
- ○ Battery Box

GGW150 | 9.0L | 150 kVA

INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Generac
Cylinder #	8
Type	V
Displacement - L (In^3)	8.9 (543)
Bore - mm (in)	114.3 (4.49)
Stroke - mm (in)	107.95 (4.25)
Compression Ratio	9.1:1
Intake Air Method	Turbocharged
Number of Main Bearings	5
Connecting Rods	Forged Steel
Cylinder Head	Cast Iron
Cylinder Liners	No
Ignition	Electronic
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 Driven
Oil Filter Type	Full Flow Spin-On Cartridge
Crankcase Capacity - L (qts)	9.5 (10.0)

Cooling System

Cooling System Type	Pressurized Closed
Fan Type	Pusher
Fan Speed - RPM	1,988
Fan Diameter - mm (in)	559 (22)

Fuel System

Fuel Type	Natural Gas, Propane Vapor
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure - kPa (in H_2O)	1.7 - 2.7 (7 - 11)

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	40 A
Battery Size	See Battery Index 10000016949
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	R0120124Y21
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5% (3-Phase Only)
Telephone Interference Factor (TIF)	<50

Standard Excitation	Permanent Magnet Excitation
Bearings	Sealed Ball
Coupling	Direct Drive
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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INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division

OPERATING DATA

POWER RATINGS

	Natural Gas		Propane Vapor	
Single-Phase 110/220 VAC @1.0pf	115 kVA/115 kW	Amps: 523	107 kVA/107 kW	Amps: 486
Three-Phase 231/400 VAC @0.8pf	150 kVA/120 kW	Amps: 217	140 kVA/112 kW	Amps: 202

STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip

231/400 VAC	30%
R0120124Y21	273
R0160124Y21	401

FUEL CONSUMPTION RATES*

Natural Gas – m^3/hr (scfh)	
Percent Load	Standby
25%	15.8 (558)
50%	23.8 (842)
75%	31.4 (1,108)
100%	39.4 (1,393)

Liquid Propane Vapor – m^3/hr (scfh)	
Percent Load	Standby
25%	2.6 (92.9)
50%	4.5 (160.0)
75%	6.3 (222.0)
100%	8.1 (285.0)

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

COOLING

		Standby
Air Flow (Fan Air Flow Across Radiator) - Open Set	m^3/min (scfm)	176 (6,204)
Coolant Flow	Lpm (gpm)	87 (23)
Coolant System Capacity	L (gal)	24.0 (6.3)
Maximum Operating Ambient Temperature	°C (°F)	50 (122)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin No. 10000011319	
Maximum Additional Radiator Backpressure	in kPa (H_2O)	0.12 (0.5)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power - m^3/min (scfm)	6.6 (232)

ENGINE

		Standby
Rated Engine Speed	RPM	1,500
Horsepower at Rated kW**	hp	183
Piston Speed	m/min (ft / min)	324 (1,063)
BMEP	(kPa) psi	1,225 (178)

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

Deration - See Bulletin No. 10000011319.
Standby - See Bulletin No. 10000018933.
Prime - See Bulletin No. 10000018926.

EXHAUST

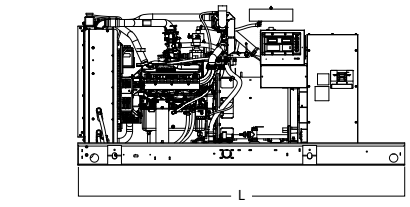
		Standby
Exhaust Flow (Rated Output)	m^3/min (scfm)	23 (816)
Maximum Allowable Backpressure (Post Silencer)	kPa (inHg)	2.54 (0.75)
Exhaust Temperature (Rated Output)	°C (°F)	782 (1,440)

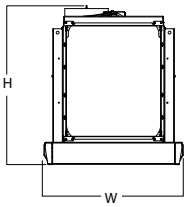
GGW150 | 9.0L | 150 kVA

INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division

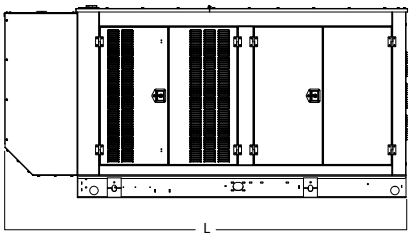
DIMENSIONS AND WEIGHTS*

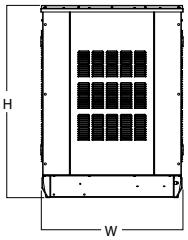




OPEN SET

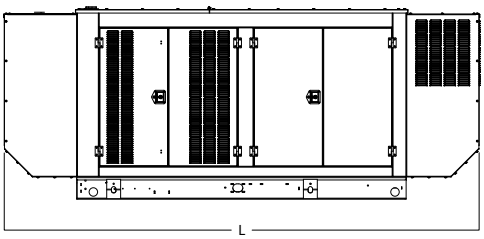
L x W x H - mm (in)	2,959 (116.5) x 1,262 (49.7) x 1,412 (55.6)
Weight - kg (lbs)	1,288 - 1,337 (2,840 - 2,948)

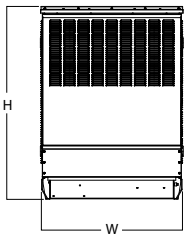




WEATHER PROTECTED ENCLOSURE

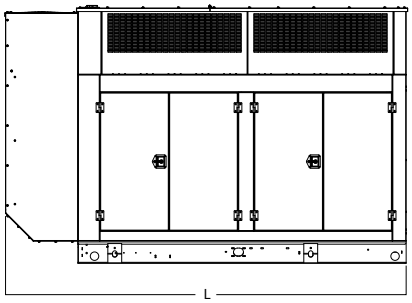
L x W x H - mm (in)	3,632 (143.0) x 1,280 (50.4) x 1,732 (68.2)
Weight - kg (lbs)	Steel: 1,695 - 1,744 (3,737 - 3,845) Aluminum: 1,487 - 1,536 (3,278 - 3,386)

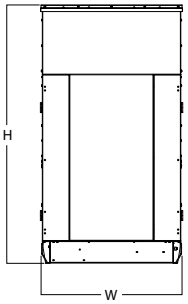




LEVEL 1 SOUND ATTENUATED ENCLOSURE

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





LEVEL 2 SOUND ATTENUATED ENCLOSURE

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

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

PR Industrial s.r.l. | Località Il Piano snc | 53031 Casole d'Elsa, Siena - Italy

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