

GGW200 | **14.2L** | **200 kVA**

INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division



*Assembled in the USA using domestic and foreign parts

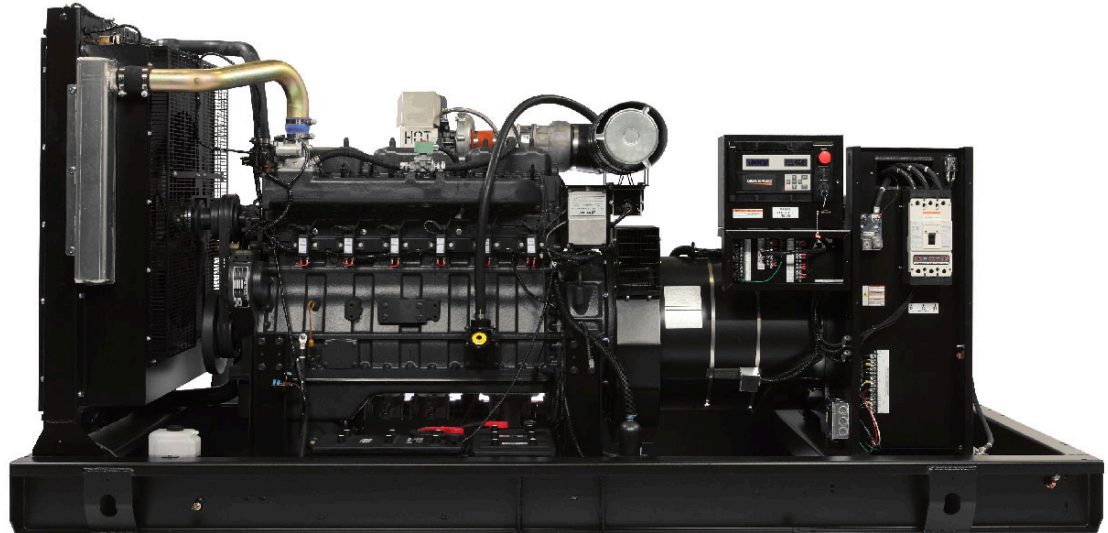


Image used for illustration purposes only

Power Ratings		
GGW200	Standby	200 kVA/160 kW
	Prime	180 kVA/144 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

- 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)
- Oil Temperature Indication and Alarm

FUEL SYSTEM

- Fuel Line - NPT Connection
- Primary and Secondary Fuel Shutoff

COOLING SYSTEM

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze

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



Power Zone® Pro Sync Controller

Program Functions

- NFPA 110 Level 1 Compliant
- Engine Protective Functions
- Alternator Protective Functions
- Digital Engine Governor Control
- Digital Voltage Regulator
- Multiple Programmable Inputs and Outputs
- Remote Display Capability
- Remote Communication via Modbus® RTU, Modbus TCP/IP, and Ethernet 10/100
- Alarm and Event Logging with Real Time Stamping

- Expandable Analog and Digital Inputs and Outputs
- Remote Wireless Software Update Capable
- Wi-Fi®, Bluetooth®, BMS and Remote Telemetry
- Built-In Programmable Logic Eliminates the Need for External Controllers Under Most Conditions
- Ethernet Based Communications Between Generators
- Programmable I/O Channel Properties
- Built-In Diagnostics

Protections

- Low Oil Pressure
- Low Coolant Level
- High/Low Coolant Temperature
- Sensor Failure
- Oil Temperature
- Over/Under Speed
- Over/Under Voltage
- Over/Under Frequency
- Over/Under Current
- Over Load
- High/Low Battery Voltage
- Battery Charger Current
- Phase to Phase and Phase to Neutral Short Circuits (I²T Algorithm)

7 Inch Color Touch Screen Display

- Resistive Color Touch Screen
- Sunlight Readable (1400 NITS)
- Easily Identifiable Icons
- Multi-Lingual
- On Screen Editable Parameters
- Key Function Monitoring
- Three Phase Voltage, Amperage, kW, kVA, and kVAr
- Selectable Line to Line or Line to Neutral Measurements
- Frequency
- Engine Speed
- Engine Coolant Temperature
- Engine Oil Pressure
- Engine Oil Temperature
- Battery Voltage
- Hourmeter
- Warning and Alarm Indication
- Diagnostics
- Maintenance Events/Information

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CONFIGURABLE OPTIONS

ENGINE SYSTEM

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

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
- Vapor Recovery Heater

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

CONTROL SYSTEM

- 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 Engine Run Relay
- 100 dB Alarm Horn
- Ground Fault Annunciator
- Damper Alarm Contacts (with Motorized Dampers Only)

ENGINEERED OPTIONS

ENGINE SYSTEM

- Coolant Heater Ball Valves
- Fluid Containment Pan

ALTERNATOR SYSTEM

- 3rd Breaker System

CONTROL SYSTEM

- Battery Disconnect Switch

GENERATOR SET

- Special Testing
- Battery Box

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APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Generac
Cylinder #	6
Type	Inline
Displacement – L (in ³)	14.2 (864.71)
Bore – mm (in)	135 (5.31)
Stroke – mm (in)	165 (6.50)
Compression Ratio	9.5:1
Intake Air Method	Turbocharged/Aftercooled
Number of Main Bearings	7
Connecting Rods	Carbon Steel
Cylinder Head	Cast Iron GT250, OHV
Cylinder Liners	Ductile Iron
Ignition	Electronic
Piston Type	Aluminum
Crankshaft Type	Ductile Iron
Lifter Type	Solid
Intake Valve Material	Special Heat-Resistant Steel
Exhaust Valve Material	High Temperature Steel Alloy
Hardened Valve Seats	High Temperature Steel Alloy

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear Driving
Oil Filter Type	Full-Flow Cartridge
Crankcase Capacity – L (qt)	34.3 (36.2)

ALTERNATOR SPECIFICATIONS

Standard Model	R0160124Y21
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

Cooling System

Cooling System Type	Pressurized Closed Recovery
Fan Type	Pusher
Fan Speed – RPM	1,581
Fan Diameter – mm (in)	762 (30)

Fuel System

Fuel Type	Natural Gas
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure – kPa (in H ₂ O)	1.7–2.7 (7–11)

Engine Electrical System

System Voltage	24 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 10000016949
Battery Voltage	(2) - 12 VDC
Ground Polarity	Negative

Standard Excitation	Permanent Magnet
Bearings	Sealed Ball
Coupling	Direct
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

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OPERATING DATA

POWER RATINGS

Three-Phase 231/400 VAC @0.8pf	Natural Gas	
	Standby	Prime
	200 kVA/160 kW Amps: 289	180 kVA/144 kW Amps: 260

MOTOR STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip	
231/400 VAC	30%
R0160124Y21	Contact Factory
R0200124Y21	Contact Factory
R0240124Y21	Contact Factory

FUEL CONSUMPTION RATES*

Percent Load	Natural Gas – m ³ /hr (scfh)	
	Standby	Prime
25%	25.5 (900)	23.8 (840)
50%	37.4 (1,320)	35.7 (1,260)
75%	51.0 (1,800)	44.2 (1,560)
100%	64.6 (2,280)	54.4 (1,920)

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

COOLING

		Standby	Prime
Air Flow (Fan Air Flow Across Radiator)	m ³ /min (cfm)	208 (7,330)	208 (7,330)
Coolant Flow	Lpm (gpm)	273 (72)	273 (72)
Coolant System Capacity	L (gal)	39.7 (10.5)	39.7 (10.5)
Maximum Operating Ambient Temperature	°C (°F)	50 (122)	50 (122)
Maximum Operating Ambient Temperature (Before Derate)		See Bulletin 10000011319	
Maximum Additional Radiator Backpressure	kPa (in H ₂ O)	0.12 (0.5)	0.12 (0.5)

COMBUSTION AIR REQUIREMENTS – NATURAL GAS

	Standby	Prime
Flow at Rated Power – m ³ /min (cfm)	9.3 (327)	8.6 (304)

ENGINE

		Standby	Prime
Rated Engine Speed	RPM	1,500	1,500
Horsepower at Rated kW	hp	242	218
Piston Speed	m/min (ft/min)	495 (1,625)	495 (1,625)
BMEP	kPa (psi)	1,016 (147)	914 (133)

EXHAUST

		Standby	Prime
Exhaust Flow (Rated Output)	m ³ /min (cfm)	30 (1,045)	27 (961)
Maximum Allowable Backpressure (Post Silencer)	kPa (inHg)	2.54 (0.75)	2.54 (0.75)
Exhaust Temperature (Rated Output)	°C (°F)	686 (1,266)	675 (1,247)

Deration – See Bulletin 10000011339
 Standby – See Bulletin 10000018933
 Prime – See Bulletin 10000018926

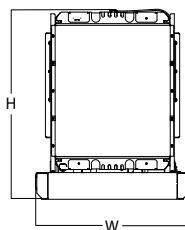
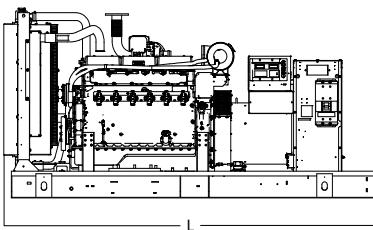
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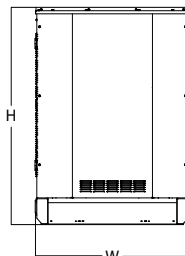
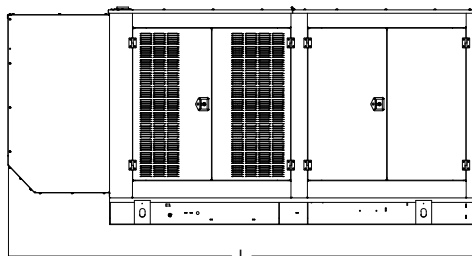


DIMENSIONS AND WEIGHTS*



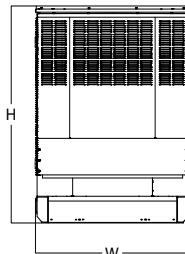
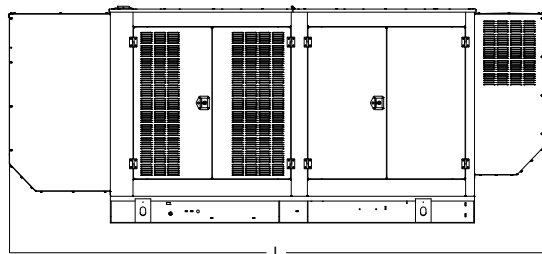
OPEN SET

L x W x H - mm (in)	3,250 (128.0) x 1,337 (53.4) x 1,583 (62.3)
Weight - kg (lbs)	2,395 - 2,735 (5,281 - 6,031)



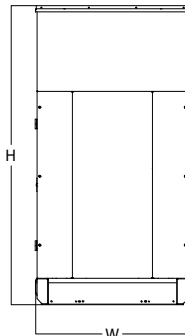
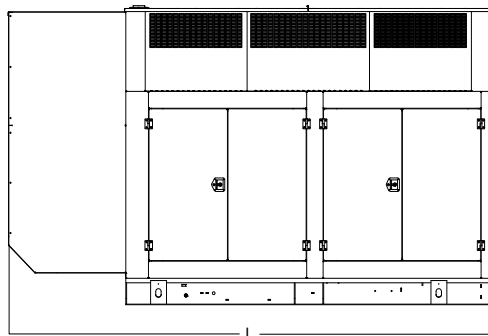
WEATHER PROTECTED ENCLOSURE

L x W x H - mm (in)	3,923 (154.4) x 1,371 (54.0) x 1,772 (69.8)
Weight - kg (lbs)	Steel: 2,839 - 2,921 (6,261 - 6,440) Aluminum: 2,628 - 2,710 (5,795 - 5,974)



LEVEL 1 SOUND ATTENUATED ENCLOSURE

L x W x H - mm (in)	4,569 (179.9) x 1,371 (54.0) x 1,772 (69.8)
Weight - kg (lbs)	Steel: 2,978 - 3,059 (6,566 - 6,744) Aluminum: 2,688 - 2,769 (5,926 - 6,104)



LEVEL 2 SOUND ATTENUATED ENCLOSURE

L x W x H - mm (in)	3,922 (154.4) x 1,372 (54.0) x 2,370 (93.3)
Weight - kg (lbs)	Steel: 3,084 - 3,166 (6,801 - 6,980) Aluminum: 2,733 - 2,815 (6,027 - 6,206)

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