



\*Assembled in the USA using domestic and foreign parts

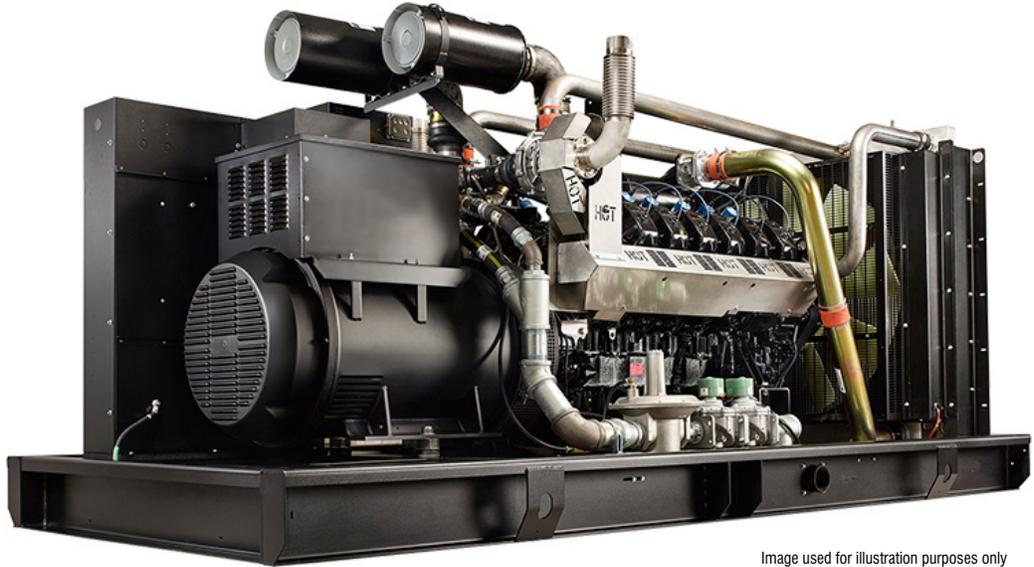


Image used for illustration purposes only

Power Ratings		
GGW500	Standby	500 kVA/400 kW
	Prime	450 kVA/360 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 and its affiliates ensure 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.



**STANDARD FEATURES**

**ENGINE SYSTEM**

- Oil Drain Extension
- Heavy Duty Air Cleaner
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Oil Temperature Indication with Alarm

**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**

- UL2200 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
- Standard Factory Testing
- 1 Year Limited Warranty or 1,000 Hours
- Silencer Mounted in the Discharge Hood (Enclosed Unit Only)

**ENCLOSURE (If Selected)**

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuation Enclosures)
- Gasketed Doors
- Stamped Air-Intake Louvers
- 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® 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 (I<sup>2</sup>T Algorithm)

**7 Inch Color Touch Screen Display**

- Capacitive 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



## CONFIGURABLE OPTIONS

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### ENGINE SYSTEM

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

### FUEL SYSTEM

- NPT Flexible Fuel Line

### ELECTRICAL SYSTEM

- 10A Battery Charger
- Battery Warmer

### ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater

### CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- 3rd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

### GENERATOR SET

- Extended Factory Testing (3-Phase Only)

### ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Steel Enclosure
- Aluminum Enclosure
- Up to 321 KMH Wind Load Rating (Contact Factory for Availability)
- AC/DC Enclosure Lighting Kit
- Door Alarm Switch

### CONTROL SYSTEM

- NFPA 110 Level 1 Compliant 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
- Ground Fault Annunciator
- 100 dB Alarm Horn

## ENGINEERED OPTIONS

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### ENGINE SYSTEM

- Fluid Containment Pan

### CIRCUIT BREAKER OPTIONS

- 4th Breaker System

### CONTROL SYSTEM

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

### GENERATOR SET

- Special Testing
- Battery Box

### ENCLOSURE

- Motorized Dampers

# GGW500G | 25.8L | 500kVA

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division



### APPLICATION AND ENGINEERING DATA

#### ENGINE SPECIFICATIONS

##### General

Make	Generac
Cylinder #	12
Type	V12
Displacement – L (in <sup>3</sup> )	25.8 (1,574)
Bore – mm (in)	132 (5.19)
Stroke – mm (in)	160 (6.30)
Compression Ratio	10.0:1
Intake Air Method	Turbocharged/Aftercooled
Number of Main Bearings	7
Connecting Rods	Steel Alloy
Cylinder Head	Cast Iron
Cylinder Liners	Cast Steel Alloy
Ignition	Electronic
Piston Type	Aluminum Alloy
Crankshaft Type	Forged Steel Alloy
Lifter Type	Solid
Intake Valve Material	High Temp Steel Alloy
Exhaust Valve Material	High Temp Steel Alloy
Hardened Valve Seats	High Temp Steel Alloy

##### Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%

##### Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Twin Full-Flow with Intercooler
Crankcase Capacity – L (qt)	90 (95)

#### ALTERNATOR SPECIFICATIONS

Standard Model	R0500124Y23
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<52

##### Cooling System

Cooling System Type	Pressurized Closed Recovery
Fan Type	Pusher
Fan Speed – RPM	1,366
Fan Diameter – mm (in)	1,117 (44)

##### Fuel System

Fuel Type	Natural Gas
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard (Dual)
Operating Fuel Pressure – kPa (in H <sub>2</sub> O)	2.7–3.5 (11–14)
Optional Operating Fuel Pressure – kPa (in H <sub>2</sub> 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	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%

# GGW500G | 25.8L | 500kVA

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division



### OPERATING DATA

#### POWER RATINGS – NATURAL GAS

	Standby	Prime
Three-Phase 231/400 VAC @0.8pf	500 kVA/400 kW Amps: 722	450 kVA/360 kW Amps: 650

#### MOTOR STARTING CAPABILITIES (skVA)

##### skVA vs. Voltage Dip

231/400 VAC	30%
R0500124Y23	1,300
R0694124Y23	2,350

#### FUEL CONSUMPTION RATES\*

##### Natural Gas – m<sup>3</sup>/hr (scfh)

Percent Load	Standby	Prime
25%	51.9 (1,836)	49.4 (1,746)
50%	76.1 (2,688)	71.1 (2,514)
75%	102.8 (3,630)	94.8 (3,348)
100%	128.4 (4,536)	118.0 (4,170)

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

#### COOLING

		Standby	Prime
Air Flow (Fan Air Flow Across Radiator)	m <sup>3</sup> /min (scfm)	557 (19,700)	557 (19,700)
Coolant Flow	Lpm (gpm)	709.4 (187.4)	709.4 (187.4)
Coolant System Capacity	L (gal)	77.6 (20.5)	77.6 (20.5)
Maximum Operating Ambient Temperature	°C (°F)	50 (122)	50 (122)
Maximum Operating Ambient Temperature (Before Derate)		See Bulletin 10000011319	
Maximum Radiator Backpressure	kPa (in H <sub>2</sub> O)	0.12 (0.5)	0.12 (0.5)

#### COMBUSTION AIR REQUIREMENTS

	Standby	Prime
Flow at Rated Power – m <sup>3</sup> /min (scfm)	21.8 (772)	21.1 (746)

#### ENGINE

		Standby	Prime
Rated Engine Speed	RPM	1,500	1,500
Horsepower at Rated kW	hp	536	482
Piston Speed	m/min (ft/min)	480 (1,575)	480 (1,575)
BMEP	kPa (psi)	1,186 (172)	1,069 (155)

#### EXHAUST

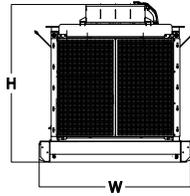
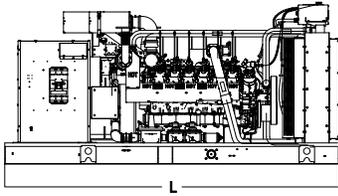
		Standby	Prime
Exhaust Flow (Rated Output)	m <sup>3</sup> /min (scfm)	74.8 (2,645)	66.5 (2,348)
Max. Allowable Backpressure	kPa (inHg)	2.54 (0.75)	2.54 (0.75)
Exhaust Temp (Rated Output)	°C (°F)	685 (1,265)	671 (1,240)

Deration – See Bulletin 10000011339

Standby – See Bulletin 10000018933

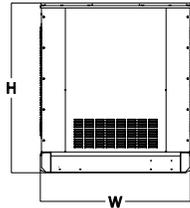
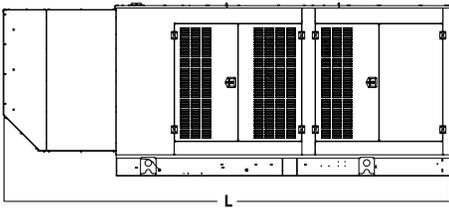
Prime – See Bulletin 10000018926

**DIMENSIONS AND WEIGHTS\***



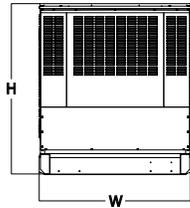
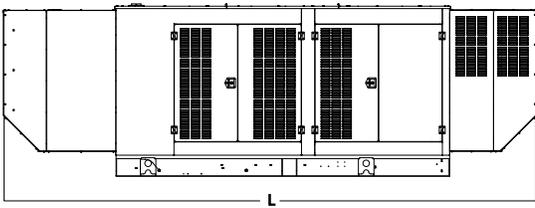
**OPEN SET (Includes Exhaust Flex)**

L x W x H – mm (in)	3,923 (154.4) x 1,803 (71.0) x 1,903 (74.9)
Weight – kg (lbs)	4,257 (9,386)



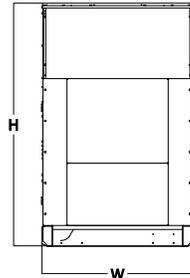
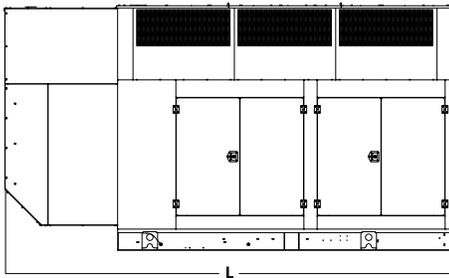
**WEATHER PROTECTED ENCLOSURE**

L x W x H – mm (in)	5,268 (207.4) x 1,800 (70.9) x 2,032 (80.0)
Weight – kg (lbs)	Steel: 5,250 (11,576) Aluminum: 4,757 (10,489)



**LEVEL 1 ACOUSTIC ENCLOSURE**

L x W x H – mm (in)	6,285 (247.5) x 1,800 (70.9) x 2,032 (80.0)
Weight – kg (lbs)	Steel: 5,707 (12,583) Aluminum: 4,953 (10,921)



**LEVEL 2 ACOUSTIC ENCLOSURE**

L x W x H – mm (in)	5,268 (207.4) x 1,800 (70.9) x 2,899 (114.1)
Weight – kg (lbs)	Steel: 5,860 (12,921) Aluminum: 5,019 (11,066)

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