



*Assembled in the USA using domestic and foreign parts

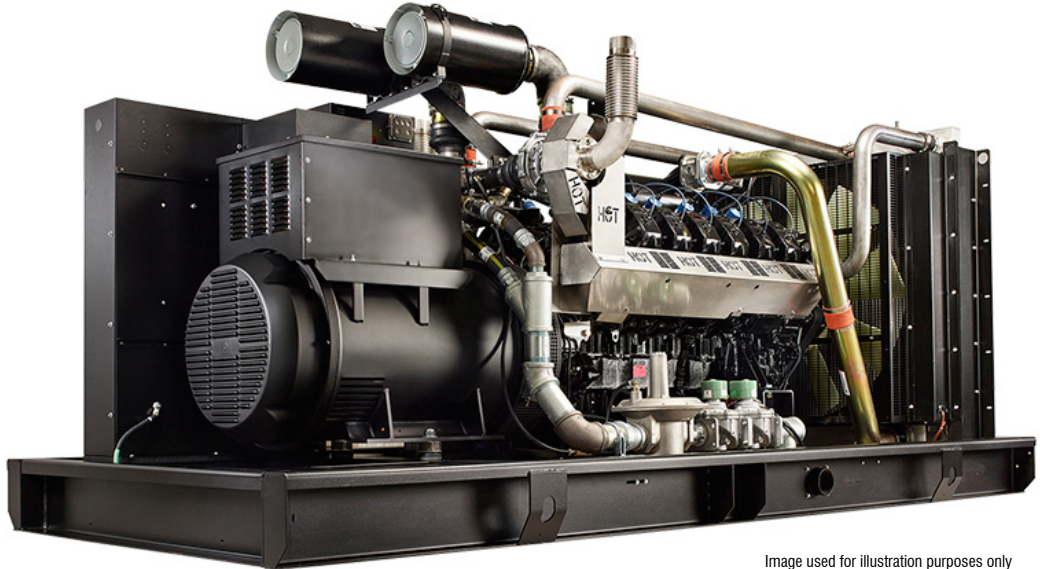


Image used for illustration purposes only

| Power Ratings | | |
|---------------|---------|----------------|
| GGW500 | Standby | 500 kVA/400 kW |
| | Prime | 450 kVA/360 kW |

Codes and Standards

PRAMAC products are designed to the following standards:



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

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.



STANDARD FEATURES

ENGINE SYSTEM

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

Fuel System

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

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



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
- 3-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 Alarm
- 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)



CONFIGURABLE OPTIONS

ENGINE SYSTEM

- Engine Coolant Heater with Ball Valves
- Air Filter Restriction Indicator
- Stone Guard (Open Set Only)
- Oil Heater
- Flexible Fuel Line

ELECTRICAL SYSTEM

- 10A Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating (231/400V Non-Upsized Only)

CIRCUIT BREAKER OPTIONS

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

GENERATOR SET

- GenLink Communications Software (English Only)
- Extended Factory Testing (3-Phase Only)
- 12 Position Load Center

ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Level 2 Sound Attenuation with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Up to 321 KMH Wind Load Rating*
- AC/DC Enclosure Lighting Kit
- Door Open Alarm Switch

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 Run Relay
- Ground Fault Indication and Protection Functions

*Consult factory for availability

ENGINEERED OPTIONS

ENGINE SYSTEM

- Fluid Containment Pan
- Low Fuel Pressure System (7"-11" H₂O / 1.7-2.7 kPa)

ALTERNATOR SYSTEM

- 3rd Breaker System

CONTROL SYSTEM

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

GENERATOR SET

- Special Testing
- Battery Box

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 ³) | 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 - OHV |
| 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 | WEG |
| Poles | 4 |
| Field Type | Revolving |
| Insulation Class - Rotor | H |
| Insulation Class - Stator | H |
| Total Harmonic Distortion | <5% |
| Telephone Interference Factor (TIF) | <50 |

Cooling System

| | |
|------------------------|-----------------------------|
| Cooling System Type | Pressurized Closed Recovery |
| Fan Type | Pusher |
| Fan Speed – rpm | 1,366 |
| Fan Diameter – mm (in) | 1,118 (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 ₂ O) | 2.7–3.5 (11–14) |
| Optional 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 | 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: 903 | 450 kVA/360 kW Amps: 812 |

STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip

| | | 231/400 VAC | | | | | |
|------------|-----|-------------|-----|-------|-------|-------|-------|
| Alternator | kW | 10% | 15% | 20% | 25% | 30% | 35% |
| Standard | 400 | 400 | 700 | 1,000 | 1,300 | 1,650 | 2,150 |
| Upsize 1 | 642 | 500 | 800 | 1,150 | 1,550 | 2,000 | 2,800 |

FUEL CONSUMPTION RATES*

Natural Gas – m³/hr (ft³/hr)

| Percent Load | Standby | Prime |
|--------------|---------------|---------------|
| 25% | 51.9 (1,836) | 46.7 (1,652) |
| 50% | 76.1 (2,688) | 68.5 (2,419) |
| 75% | 102.8 (3,630) | 92.5 (3,267) |
| 100% | 128.4 (4,536) | 115.6 (4,082) |

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

COOLING

| | | Standby | Prime |
|---|--|-------------------------|-----------------|
| Air Flow (Inlet Air Combustion and Radiator) | m ³ /min (ft ³ /min) | 557.8 (19,700) | 557.8 (19,700) |
| Coolant Flow | L/min (gal/min) | 709.4 (187.4) | 709.4 (187.4) |
| Coolant System Capacity | L (gal) | 77.6 (20.5) | 77.6 (20.5) |
| Heat Rejection to Coolant | kW (BTU/hr) | 285.7 (975,000) | 257.2 (877,500) |
| Maximum Operating Ambient Temperature | °C (°F) | 50 (122) | 50 (122) |
| Maximum Operating Ambient Temperature (Before Derate) | | See Bulletin 0199270SSD | |
| Maximum Radiator Backpressure | kPa (in H ₂ O) | 0.12 (0.5) | 0.12 (0.5) |

COMBUSTION AIR REQUIREMENTS

| | Standby | Prime |
|---|------------|------------|
| Flow at Rated Power – m ³ /min (cfm) | 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) | 479.9 (1,574.8) | 479.9 (1,574.8) |
| BMEP | kPa (psi) | 1,186 (172) | 1,069 (155) |

EXHAUST

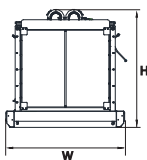
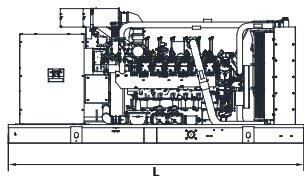
| | | Standby | Prime |
|-----------------------------|---------------------------|--------------|--------------|
| Exhaust Flow (Rated Output) | m ³ /min (cfm) | 74.8 (2,645) | 66.5 (2,348) |
| Max. Allowable Backpressure | kPa (inHg) | 2.54 (0.75) | 2.54 (0.75) |
| Exhaust Temp (Rated Output) | °C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

Deration – See Bulletin 10000011339

Standby – See Bulletin 10000018933

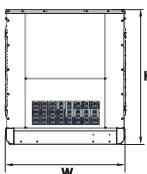
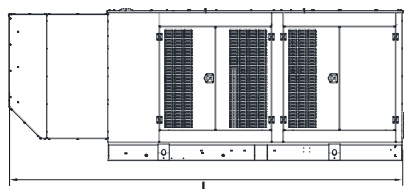
Prime – See Bulletin 10000018926

DIMENSIONS AND WEIGHTS*



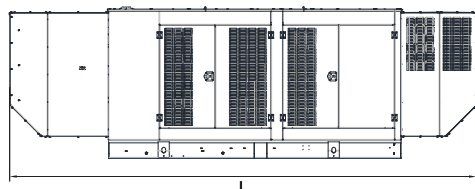
OPEN SET (Includes Exhaust Flex)

| | |
|---------------------|---|
| L x W x H – mm (in) | 3,923 (154.4) x 1,803 (71) x 1,702 (67) |
| Weight – kg (lbs) | 4,256 (9,386) |



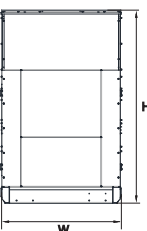
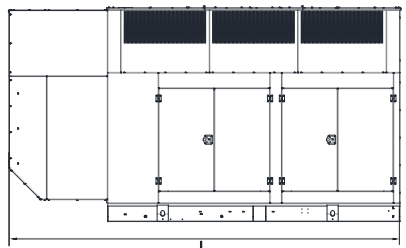
STANDARD ENCLOSURE

| | |
|---------------------|---|
| L x W x H – mm (in) | 5,268 (207.4) x 1,803 (71) x 2,032 (80) |
| 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 1,803 (71) x 2,032 (80) |
| 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 1,803 (71) x 2,899 (114) |
| 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 consult a PRAMAC Industrial Dealer for detailed installation drawings.