



Image used for illustration purposes only



\*Assembled in the USA using domestic and foreign parts

| Power Ratings |         |                |
|---------------|---------|----------------|
| GGW275        | Standby | 275 kVA/220 kW |
|               | Prime   | 248 kVA/198 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 (Enclosed Only)

**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 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**

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**ENGINE SYSTEM**

- Engine Coolant Heater
- Air Filter Restriction Indicator
- Stone Guard (Open Set Only)
- Critical Exhaust Silencer (Open Set Only)

**ELECTRICAL SYSTEM**

- 10A Battery Charger

**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**

- GenLink® Communications Software (English Only)
- Extended Factory Testing (3-Phase Only)
- Pad Vibration Isolators

**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

\*Contact factory for availability.

**ENGINEERED OPTIONS**

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**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

# GGW275G | 14.2L | 275kVA

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division



### APPLICATION AND ENGINEERING DATA

#### ENGINE SPECIFICATIONS

##### General

|                                     |                              |
|-------------------------------------|------------------------------|
| Make                                | Generac                      |
| Cylinder #                          | 6                            |
| Type                                | In-line                      |
| Displacement – L (in <sup>3</sup> ) | 14.17 (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 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             | Full-Flow Spin-On Cartridge |
| Crankcase Capacity – L (qt) | 34.3 (36.2)                 |

#### ALTERNATOR SPECIFICATIONS

|                                     |                |
|-------------------------------------|----------------|
| Standard Model                      | Generac 520 mm |
| 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        | 1,894                       |
| Fan Diameter – mm (in) | 762 (30)                    |

##### 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) | 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 via Flexible Disc |
| Prototype Short Circuit Test       | Yes                      |
| Voltage Regulator Type             | Full Digital             |
| Number of Sensed Phases            | All                      |
| Regulation Accuracy (Steady State) | ±0.25%                   |

# GGW275G | 14.2L | 275kVA

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division



### OPERATING DATA

#### POWER RATINGS – NATURAL GAS

|                                | Standby                  | Prime                    |
|--------------------------------|--------------------------|--------------------------|
| Three-Phase 231/400 VAC @0.8pf | 275 kVA/220 kW Amps: 397 | 248 kVA/198 kW Amps: 357 |

#### STARTING CAPABILITIES (sKVA)

##### sKVA vs. Voltage Dip

|            |     | 231/400 VAC |     |     |     |     |       |
|------------|-----|-------------|-----|-----|-----|-----|-------|
| Alternator | kW  | 10%         | 15% | 20% | 25% | 30% | 35%   |
| Standard   | 300 | 303         | 454 | 605 | 757 | 908 | 1,059 |

#### FUEL CONSUMPTION RATES\*

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

| Percent Load | Standby      | Prime        |
|--------------|--------------|--------------|
| 25%          | 25.7 (907)   | 23.1 (816)   |
| 50%          | 39.2 (1,384) | 35.3 (1,246) |
| 75%          | 52.7 (1,862) | 47.4 (1,676) |
| 100%         | 66.2 (2,339) | 59.6 (2,105) |

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

#### COOLING

|   |  | Standby                  | Prime          |
|---|--|--------------------------|----------------|
| Air Flow (Inlet Air Combustion and Radiator)          | m <sup>3</sup> /min (ft <sup>3</sup> /min) | 452.7 (15,987)           | 452.7 (15,987) |
| Coolant Flow  | L/min (gal/min)                            | 333 (88)                 | 333 (88)       |
| Coolant System Capacity                               | L (gal)                                    | 54.9 (14.5)              | 54.9 (14.5)    |
| Heat Rejection to Coolant                             | (kW) (BTU/hr)                              | 256 (872,408)            | 230 (785,167)  |
| 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 (cfm) | 21.7 (766) | 19.5 (689) |

#### ENGINE

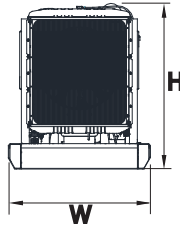
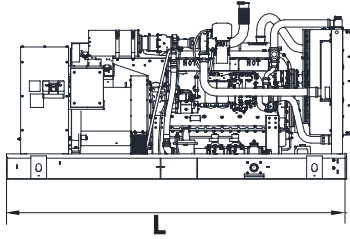
|                        |                | Standby     | Prime       |
|------------------------|----------------|-------------|-------------|
| Rated Engine Speed     | rpm            | 1,500       | 1,500       |
| Horsepower at Rated kW | hp             | 415         | 362         |
| Piston Speed           | m/min (ft/min) | 1,949 (594) | 1,949 (594) |
| BMEP                   | kPa (psi)      | 1,455 (211) | 1,048 (152) |

#### EXHAUST

|   |                           | Standby      | Prime        |
|---|---------------------------|--------------|--------------|
| Exhaust Flow (Rated Output)                 | m <sup>3</sup> /min (cfm) | 75.8 (2,677) | 68.2 (2,409) |
| Max. Allowable Backpressure                 | kPa (inHg)                | 2.54 (0.75)  | 2.54 (0.75)  |
| Exhaust Temp (Rated Output - Post Silencer) | °C (°F)                   | 732 (1,350)  | 723 (1,334)  |

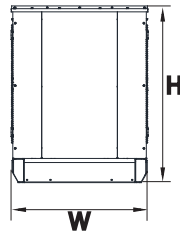
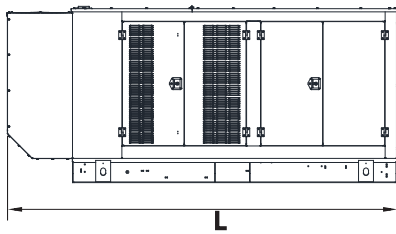
Deration – See Bulletin 10000011339  
 Standby – See Bulletin 10000018933  
 Prime – See Bulletin 10000018926

**DIMENSIONS AND WEIGHTS\***



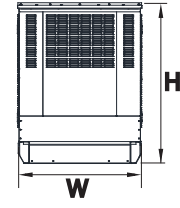
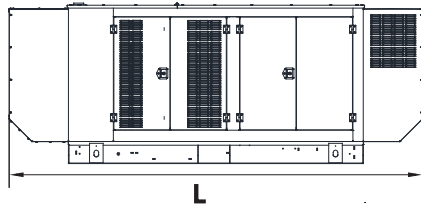
**OPEN SET (Includes Exhaust Flex)**

|                     |   |
|---------------------|---|
| L x W x H – mm (in) | 3,455 (136.0) x 1,463 (57.6) x 1,724 (67.9) |
| Weight – kg (lbs)   | 2,852 (6,274)                               |



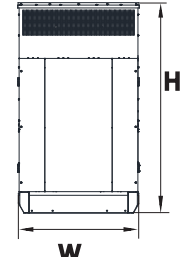
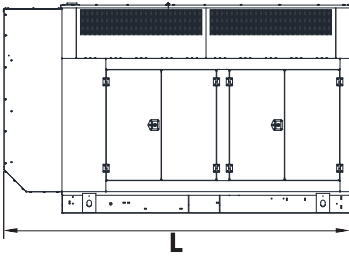
**STANDARD ENCLOSURE**

|                     |   |
|---------------------|---|
| L x W x H – mm (in) | 4,437 (174.7) x 1,460 (57.5) x 1,976 (77.8)     |
| Weight – kg (lbs)   | Steel: 3,562 (7,836)<br>Aluminum: 3,201 (7,042) |



**LEVEL 1 ACOUSTIC ENCLOSURE**

|                     |   |
|---------------------|---|
| L x W x H – mm (in) | 5,085 (200.2) x 1,460 (57.5) x 1,976 (77.8)     |
| Weight – kg (lbs)   | Steel: 3,772 (8,829)<br>Aluminum: 3,292 (7,242) |



**LEVEL 2 ACOUSTIC ENCLOSURE**

|                     |   |
|---------------------|---|
| L x W x H – mm (in) | 4,588 (108.7) x 1,460 (57.5) x 2,725 (107.3)    |
| Weight – kg (lbs)   | Steel: 4,032 (8,870)<br>Aluminum: 3,403 (7,487) |

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