



\*Assembled in the USA using domestic and foreign parts

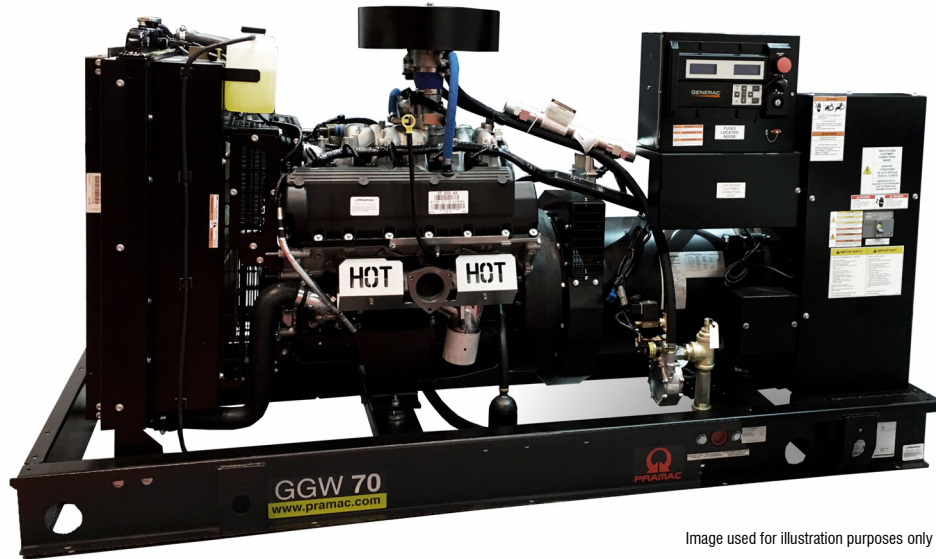


Image used for illustration purposes only

Power Ratings		
GGW70	Standby	70 kW/88 kVA
	Prime	63 kW/79 kVA

## 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



IBC 2009, CBC 2010, IBC 2012,  
 ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)

## 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
- Synchronous Brushless Excitation
- Sealed Bearing
- Amortisseur Winding
- Full Load Capacity Alternator

**GENERATOR SET**

- Internal Genset Vibration Isolation
- Separation of Circuits-High/Low Voltage
- 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
- 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
- Permanent Magnet Excitation

**CIRCUIT BREAKER OPTIONS**

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

\*Consult factory for availability

**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**

- 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



**APPLICATION AND ENGINEERING DATA**

**ENGINE SPECIFICATIONS**

General

Make	Generac
Cylinder #	10
Type	V
Displacement – in <sup>3</sup> (L)	414.96 (6.8)
Bore – in (mm)	3.55 (90.17)
Stroke – in (mm)	4.17 (105.92)
Compression Ratio	9.0:1
Intake Air Method	Naturally Aspirated
Number of Main Bearings	7
Connecting Rods	Forged Steel
Cylinder Head	Aluminum
Cylinder Liners	No
Ignition	High Energy
Piston Type	Aluminum Alloy
Crankshaft Type	Steel
Lifter Type	Overhead Cam
Intake Valve Material	Steel Alloy
Exhaust Valve Material	Steel Alloy
Hardened Valve Seats	Yes

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 – qt (L)	6.0 (5.7)

**ALTERNATOR SPECIFICATIONS**

Standard Model	Generac 390 mm
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5% (3-Phase)
Telephone Interference Factor (TIF)	<50

Cooling System

Cooling System Type	Pressurized Closed Recovery
Fan Type	Pusher
Fan Speed – rpm	2,300
Fan Diameter – in (mm)	22 (558)

Fuel System

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

Engine Electrical System

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

Standard Excitation	Synchronous Brushless
Bearings	Single Sealed
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%

# GGW70G | 6.8L | 70kW

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

PRAMAC | Power Engineering Division



### OPERATING DATA

#### POWER RATINGS

	Natural Gas					Propane Vapor/Propane Liquid			
	Standby		Prime			Standby		Prime	
Single-Phase 120/240 VAC @1.0pf	64 kW/64 kVA	Amps: 267	58 kW/58 kVA	Amps: 242		67 kW/67 kVA	Amps: 279	60 kW/60 kVA	Amps: 250
Three-Phase 120/208 VAC @0.8pf	67 kW/84 kVA	Amps: 233	60 kW/75 kVA	Amps: 208		70 kW/88 kVA	Amps: 243	63 kW/79 kVA	Amps: 219
Three-Phase 120/240 VAC @0.8pf	67 kW/84 kVA	Amps: 202	60 kW/75 kVA	Amps: 180		70 kW/88 kVA	Amps: 211	63 kW/79 kVA	Amps: 189
Three-Phase 277/480 VAC @0.8pf	67 kW/84 kVA	Amps: 101	60 kW/75 kVA	Amps: 90		70 kW/88 kVA	Amps: 105	63 kW/79 kVA	Amps: 95
Three-Phase 346/600 VAC @0.8pf	67 kW/84 kVA	Amps: 81	60 kW/75 kVA	Amps: 72		70 kW/88 kVA	Amps: 84	63 kW/79 kVA	Amps: 76

#### STARTING CAPABILITIES (sKVA)

##### sKVA vs. Voltage Dip

277/480 VAC								208/240 VAC							
Alternator	kW	10%	15%	20%	25%	30%	35%	Alternator	kW	10%	15%	20%	25%	30%	35%
Standard	70	59	88	117	147	176	205	Standard	70	44	66	88	110	132	154
Upsize 1	100	79	118	157	197	236	275	Upsize 1	100	59	89	118	148	177	206
Upsize 2*	130	116	174	232	290	348	406	Upsize 2*	130	87	131	174	218	261	305

\*Brushless Excitation Only

#### FUEL CONSUMPTION RATES\*

Natural Gas – ft <sup>3</sup> /hr (m <sup>3</sup> /hr)			Propane Vapor – ft <sup>3</sup> /hr (m <sup>3</sup> /hr)			Propane Liquid – gal/hr (L/hr)		
Percent Load	Standby	Prime	Percent Load	Standby	Prime	Percent Load	Standby	Prime
25%	353 (10.0)	317.7 (9.0)	25%	153.8 (4.4)	138.4 (4.0)	25%	4.3 (16.3)	3.9 (14.7)
50%	605 (17.1)	544.5 (15.4)	50%	263.7 (7.5)	237.3 (6.8)	50%	7.4 (28.0)	6.7 (25.2)
75%	817 (23.1)	735.3 (20.8)	75%	356.0 (10.1)	320.4 (9.1)	75%	9.9 (37.5)	8.9 (33.8)
100%	1,009 (28.6)	908.1 (25.7)	100%	439.5 (12.4)	395.6 (11.2)	100%	12.3 (46.6)	11.1 (41.9)

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

#### COOLING

		Standby	Prime
Air Flow (Inlet Air Combustion and Radiator)	ft <sup>3</sup> /min (m <sup>3</sup> /min)	5,813 (164.6)	5,813 (164.6)
Coolant Flow	gal/min (L/min)	38 (144)	38 (144)
Coolant System Capacity	gal (L)	6.3 (23.9)	6.3 (23.9)
Heat Rejection to Coolant	kW (BTU/hr)	81 (275,800)	67 (228,914)
Maximum Operating Ambient Temperature	°F (°C)	122 (50)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)		See Bulletin 10000011339	
Maximum Radiator Backpressure	in H <sub>2</sub> O (kPa)	0.5 (0.12)	0.5 (0.12)

#### COMBUSTION AIR REQUIREMENTS

	Standby	Prime
Flow at Rated Power – cfm (m <sup>3</sup> /min)	213 (6.0)	200 (5.6)

#### ENGINE

		Standby	Prime
Rated Engine Speed	rpm	1,800	1,800
Horsepower at Rated kW	hp	107	86
Piston Speed	ft/min (m/min)	1,251 (381)	1,251 (381)
BMEP	psi (kPa)	119 (821)	114 (786)

#### EXHAUST

		Standby	Prime
Exhaust Flow (Rated Output)	cfm (m <sup>3</sup> /min)	679.5 (19.2)	639.0 (18.0)
Max. Allowable Backpressure	inHg (kPa)	1.5 (5.1)	1.5 (5.1)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	1,250 (676.7)	1,150.0 (621.0)

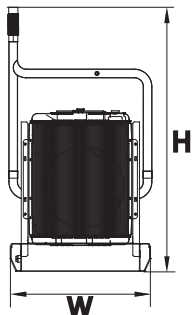
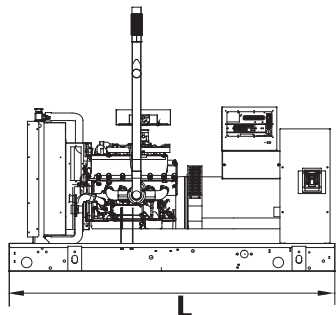
Deration – See Bulletin 10000011339  
 Standby – See Bulletin 10000018933  
 Prime – See Bulletin 10000018926

**GGW70G** | **6.8L** | **70kW**  
**INDUSTRIAL SPARK-IGNITED GENERATOR SET**

PRAMAC | Power Engineering Division

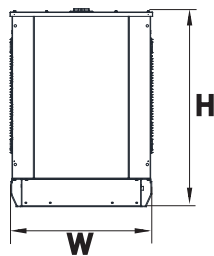
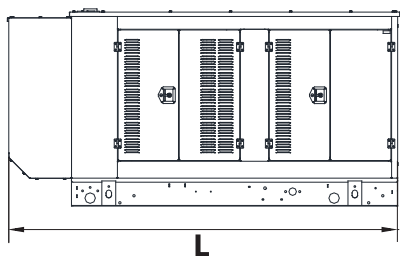


**DIMENSIONS AND WEIGHTS\***



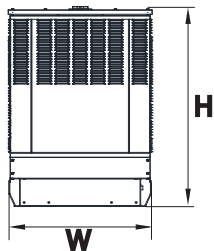
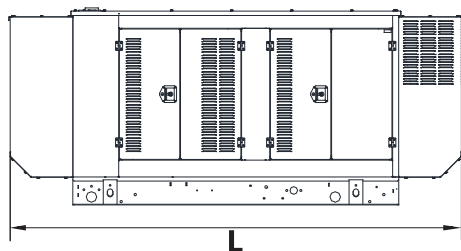
**OPEN SET (Includes Exhaust Flex)**

L x W x H – in (mm)	92.9 (2,360) x 40.0 (1,016) x 75.4 (1,914)
Weight – lbs (kg)	1,929 (875)



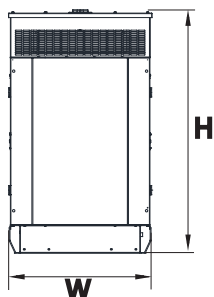
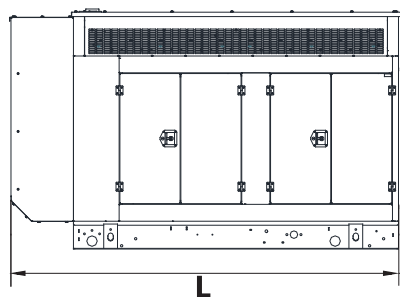
**STANDARD ENCLOSURE**

L x W x H – in (mm)	111.8 (2,839.5) x 40.5 (1,027.8) x 56.2 (1,427)
Weight – lbs (kg)	Steel: 2,370 (1,075) Aluminum: 2,075 (941)



**LEVEL 1 ACOUSTIC ENCLOSURE**

L x W x H – in (mm)	129.4 (3,287.2) x 40.5 (1,027.8) x 56.2 (1,427.0)
Weight – lbs (kg)	Steel: 2,590 (1,175) Aluminum: 2,147 (974)



**LEVEL 2 ACOUSTIC ENCLOSURE**

L x W x H – in (mm)	111.8 (2,839.5) x 40.5 (1,027.8) x 68.6 (1,742.8)
Weight – lbs (kg)	Steel: 2,811 (1,275) Aluminum: 2,220 (1,007)

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