

**DEMAND RESPONSE READY**

**Standby Power Rating**

70 kW, 88 kVA, 60 Hz

**Demand Response Rating**

70 kW, 88 kVA, 60 Hz

**Prime Power Rating\***

63 kW, 79 kVA, 60 Hz

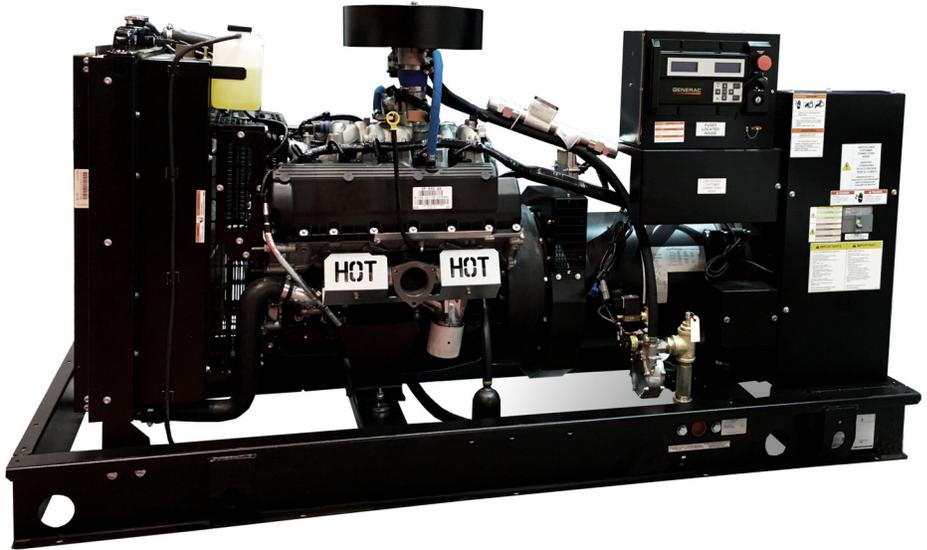


Image used for illustration purposes only



\*EPA Certified Prime ratings are not available in the US or its Territories

**Codes and Standards**

Generac products are designed to the following standards:

-   UL2200, UL508, UL489
-  CSA 22.2
-   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)

**Powering Ahead**

Generac ensures superior quality by designing and manufacturing most of its generator components, such as alternators, enclosures, control systems and communications software. Generac also makes its own spark-ignited engines, and you'll find them on every Generac gaseous-fueled generator. We engineer and manufacture them from the block up — all at our facilities throughout Wisconsin. Applying natural gas and LP-fueled engines to generators requires advanced engineering expertise to ensure reliability, durability and necessary performance. By designing specifically for these dry, hotter-burning fuels, the engines last longer and require less maintenance. Building our own engines also means we control every step of the supply chain and delivery process, so you benefit from single-source responsibility.

Plus, Generac Industrial Power's distribution network provides all parts and service so you don't have to deal with third-party suppliers. It all leads to a positive owner experience and higher confidence level. Generac spark-ignited engines give you more options in commercial and industrial generator applications as well as extended run time from utility-supplied natural gas.

**STANDARD FEATURES**

**DEMAND RESPONSE READY**

**ENGINE SYSTEM**

- Oil Drain Extension
- Heavy Duty Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- 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
- Radiator Drain Extension
- 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
- Brushless Excitation
- Sealed Bearings
- 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
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)
- 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

## DEMAND RESPONSE READY

### ENGINE SYSTEM

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

### ELECTRICAL SYSTEM

- 10A UL Battery Charger
- 2.5A UL Battery Charger
- Battery Warmer

### ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating
- Permanent Magnet Excitation

### CIRCUIT BREAKER OPTIONS

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

### GENERATOR SET

- Demand Response Ready
- GenLink® Communications Software (English Only)
- Extended Factory Testing (3-Phase Only)
- 8 Position Load Center

### ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Level 2 with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Up to 200 MPH Wind Kit (Contact Factory for Availability)
- 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

### WARRANTY (Standby Gensets Only)

- 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

## 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

- Special Testing
- Battery Box

### ENCLOSURE

- Enclosure Ambient Heaters

# SG070 | 6.8L | 70 kW

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

### APPLICATION AND ENGINEERING DATA

**DEMAND RESPONSE READY**

#### 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 (105.992)
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 (5.7)

##### 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 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

#### 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

Standard Excitation	Synchronous Brushless
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%

# SG070 | 6.8L | 70 kW

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

### OPERATING DATA

**DEMAND RESPONSE READY**

#### POWER RATINGS - STANDBY/DEMAND RESPONSE

		Natural Gas	Propane Vapor/Propane Liquid
Single-Phase 120/240 VAC @1.0pf	64 kW	Amps: 267	67 kW Amps: 279
Three-Phase 120/208 VAC @0.8pf	67 kW	Amps: 233	70 kW Amps: 243
Three-Phase 120/240 VAC @0.8pf	67 kW	Amps: 202	70 kW Amps: 211
Three-Phase 277/480 VAC @0.8pf	67 kW	Amps: 101	70 kW Amps: 105
Three-Phase 346/600 VAC @0.8pf	67 kW	Amps: 81	70 kW Amps: 63

#### 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 - gph (lph)	
Percent Load	Standby	Percent Load	Standby	Percent Load	Standby
25%	353 (10.0)	25%	154 (4.4)	25%	4.3 (16.3)
50%	605 (17.1)	50%	264 (7.5)	50%	7.4 (28.0)
75%	817 (23.1)	75%	356 (10.1)	75%	9.9 (37.5)
100%	1,009 (28.6)	100%	440 (12.4)	100%	12.3 (46.6)

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

#### COOLING

		Standby
Air Flow (Inlet Air Combustion and Radiator)	ft <sup>3</sup> /min (m <sup>3</sup> /min)	5,813 (164.6)
Coolant Flow	gpm (lpm)	38 (144)
Coolant System Capacity	gal (L)	6.3 (23.9)
Heat Rejection to Coolant	BTU/hr (kW)	275,800 (80.8)
Maximum Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)		See Bulletin No. 0199270SSD
Maximum Radiator Backpressure	in H <sub>2</sub> O (kPa)	0.5 (0.12)

#### COMBUSTION AIR REQUIREMENTS

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

#### ENGINE

		Standby
Rated Engine Speed	rpm	1,800
Horsepower at Rated kW**	hp	107
Piston Speed	ft/min (m/min)	1,251 (381)
BMEP	psi (kPa)	119 (820)

#### EXHAUST

		Standby
Exhaust Flow (Rated Output)	cfm (m <sup>3</sup> /min)	680 (19.2)
Maximum Exhaust Backpressure	inHg (kPa)	1.5 (5.1)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	1,250 (676.7)

\*\* Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards.

Standby - See Bulletin 0187500SSB

Demand Response - See Bulletin 10000018250

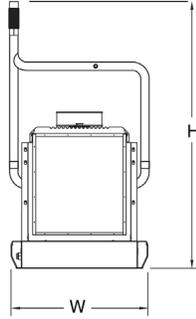
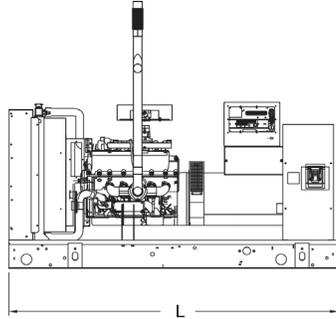
Prime - See Bulletin 0187510SSB

**SG070 | 6.8L | 70 kW**  
**INDUSTRIAL SPARK-IGNITED GENERATOR SET**

EPA Certified Stationary Emergency

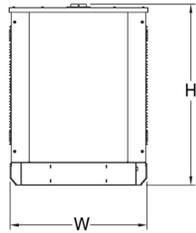
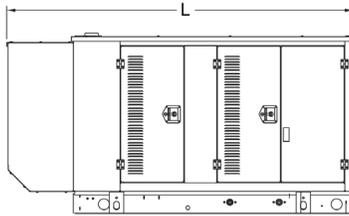
**DIMENSIONS AND WEIGHTS\***

**DEMAND RESPONSE READY**



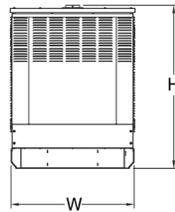
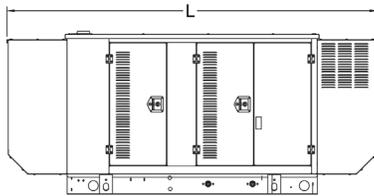
**OPEN SET (Includes Exhaust Flex)**

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)



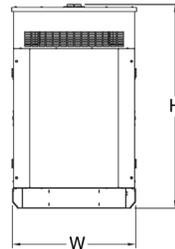
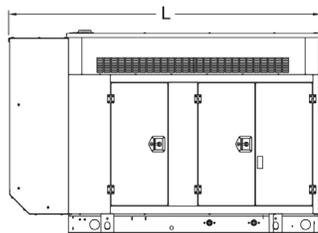
**STANDARD ENCLOSURE**

L x W x H - in (mm)	111.8 (2,840) x 40.5 (1,028) 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) x 40.5 (1,028) x 56.2 (1,427)
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 (2,840) x 40.5 (1,028) x 68.6 (1,743)
Weight - lbs (kg)	Steel: 2,811 (1,275) Aluminum: 2,220 (1,007)

\* All measurements are approximate and for estimation purposes only.

**YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER**

Specification characteristics may change without notice. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.