

GENERAC®

GUARDIAN® SERIES Residential Standby Generator Set Air-Cooled Gas Engine

20 kVA

Standby Power Rating

G007219-0 (Aluminum - Bisque) - 20 kVA 50 Hz Australian

INCLUDES:

- True Power™ Electrical Technology
- Two-line multilingual digital LCD Evolution™ controller (English/Spanish/French/Portuguese)
- Electronic governor
- System status & maintenance interval LED indicators
- Standard Wi-Fi™ connectivity
- Sound attenuated enclosure
- Natural gas or LP gas operation
- 5 Year limited warranty
- RCM approved
- Listed and labeled by the Southwest Research Institute allowing installation as close as 457 mm (18 in) to a structure.*

*Must be located away from doors, windows, and fresh air intakes and in accordance with local codes.

https://assets.swri.org/library/DirectoryOfListedProducts/ConstructionIndustry/973_DoC_204_13204-01-01_Rev8.pdf



QUIET TEST™



FEATURES

- **INNOVATIVE ENGINE DESIGN & RIGOROUS TESTING** are at the heart of Generac's success in providing the most reliable generator sets possible. Generac's G-Force engine lineup offers added peace of mind and reliability for when it's needed the most. The G-Force series engines are purpose built and designed to handle the rigors of extended run times in high temperatures and extreme operating conditions.
- **TRUE POWER™ ELECTRICAL TECHNOLOGY:** Superior harmonics and sine wave form produce less than 5% Total Harmonic Distortion for utility quality power. This allows confident operation of sensitive electronic equipment and micro-chip based appliances, such as variable speed HVAC systems.
- **TEST CRITERIA:**
 - ✓ **PROTOTYPE TESTED**
 - ✓ **SYSTEM TORSIONAL TESTED**
 - ✓ **NEMA MG1-22 EVALUATION**
 - ✓ **MOTOR STARTING ABILITY**
- **MOBILE LINK® CONNECTIVITY:** FREE with select Guardian Series Home standby generator sets, Mobile Link Wi-Fi allows users to monitor the status of the generator set from anywhere in the world using a smartphone, tablet, or PC. Easily access information such as the current operating status and maintenance alerts. Users can connect an account to an authorized service dealer for fast, friendly, and proactive service. With Mobile Link, users are taken care of before the next power outage.
- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION:** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine. Digital voltage regulation at ±1%.
- **SINGLE SOURCE SERVICE RESPONSE** from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.
- **GENERAC TRANSFER SWITCHES:** Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line is offered with its own transfer systems and controls for total system compatibility.

THE GENERAC PROMISE



*Assembled in the USA using domestic and foreign parts.

20 kVA

Features and Benefits

Engine

- Generac G-Force design
- Quiet-Test™
- “Spiny-lok” cast iron cylinder walls
- Electronic ignition/spark advance
- Full pressure lubrication system
- Low oil pressure shutdown system
- High temperature shutdown

Maximizes engine “breathing” for increased fuel efficiency. Plateau honed cylinder walls and plasma moly rings help the engine run cooler, reducing oil consumption and resulting in longer engine life.

Greatly reduces sound output and fuel consumption during bi-weekly exercise.

Rigid construction and added durability provide long engine life.

These features combine to assure smooth, quick starting every time.

Pressurized lubrication to all vital bearings means better performance, less maintenance, and longer engine life. Now featuring up to a 2 year/200 hour oil change interval.

Shutdown protection prevents catastrophic engine damage due to low oil.

Prevents damage due to overheating.

Generator Set

- Revolving field
- Skewed stator
- Displaced phase excitation
- Automatic voltage regulation
- UL 2200 listed

Allows for a smaller, light weight unit that operates 25% more efficiently than a revolving armature generator set.

Produces a smooth output waveform for compatibility with electronic equipment.

Maximizes motor starting capability.

Regulating output voltage to $\pm 1\%$ prevents damaging voltage spikes.

For your safety.

Evolution™ Controls

- AUTO/MANUAL/OFF illuminated buttons
- Two-line multilingual LCD
- Sealed, raised buttons
- Utility voltage sensing
- Generator voltage sensing
- Utility interrupt delay
- Engine warm-up
- Engine cool-down
- Programmable exercise
- Smart battery charger
- Electronic governor

Selects the operating mode and provides easy, at-a-glance status indication in any condition.

Provides homeowners easily visible logs of history, maintenance, and events up to 50 occurrences.

Smooth, weather-resistant user interface for programming and operations.

Constantly monitors utility voltage, defaults 264 V dropout, 350 V pick up.

Constantly monitors generator set voltage to verify the cleanest power delivered to the home.

Prevents nuisance start-ups of the engine, adjustable 2-1500 seconds from the factory default setting of 5 seconds by a qualified dealer.

Verifies engine is ready to assume the load, setpoint approximately 5 seconds.

Allows engine to cool prior to shutdown, setpoint approximately 1 minute.

Operates engine to prevent oil seal drying and damage between power outages by running the generator set for 5 minutes every other week. Also offers a selectable setting for weekly or monthly operation providing flexibility and potentially lower fuel costs to the owner.

Delivers charge to the battery only when needed at varying rates depending on outdoor air temperature. Compatible with lead acid and AGM-style batteries.

Maintains constant 50 Hz frequency.

Unit

- SAE weather protective enclosure
- Enclosed critical grade muffler
- Small, compact, attractive

Sound attenuated enclosures ensure quiet operation and protection against mother nature, withstanding winds up to 241 km/h (150 mph). Hinged key locking roof panel for security. Lift-out front for easy access to all routine maintenance items. Electrostatically applied textured epoxy paint for added durability.

Quiet, critical grade muffler is mounted inside the unit to prevent injuries.

Makes for an easy, eye appealing installation, as close as 457 mm (18 in) away from a structure.

Installation System

- Integral sediment trap

Meets IFGC and NFPA 54 installation requirements.

Connectivity

- Ability to view generator set status
- Ability to view generator set Exercise/Run and Total Hours
- Ability to view generator set maintenance information
- Monthly report with previous month's activity
- Ability to view generator set battery information

Monitor the generator set with a smartphone, tablet, or computer at any time via the Mobile Link application for complete peace of mind.

Review the generator set's complete protection profile for exercise hours and total hours.

Provides maintenance information for the specific model generator set when scheduled maintenance is due.

Detailed monthly reports provide historical generator set information.

Built in battery diagnostics displaying current state of the battery.

Generator Set

Model	G007219-0
Rated maximum continuous power capacity (LP)	20,000 VA
Rated maximum continuous power capacity (NG)	17,000 VA
Rated voltage	380 / 400 / 416
Rated maximum continuous load current – 380 volts (LP / NG)	30.4 / 25.8
Total Harmonic Distortion	Less than 5%
Main line circuit breaker	32 amp
Phase	3
Number of rotor poles	2
Rated AC frequency	50 Hz
Power factor	0.8
Battery requirement (not included)	12 volts, Group 26R 540 CCA Minimum or Group 35AGM 650 CCA Minimum
Unit weight (lb / kg)	486 / 220
Dimensions (L x W x H) (cm / in)	121.9 x 63.5 x 73.7 / 48 x 25 x 29
Sound output in dB(A) at 7 m (23 ft) with generator set operating at normal load**	65
Sound output in dB(A) at 7 m (23 ft) with generator set in Quiet-Test™ low-speed exercise mode**	59
Exercise duration	5 min

Engine

Engine type	GENERAC G-Force 1000 Series	
Number of cylinders	2	
Displacement	999 cc	
Cylinder block	Aluminum w/ cast iron sleeve	
Valve arrangement	Overhead valve	
Ignition system	Solid-state w/ magneto	
Governor system	Electronic	
Compression ratio	9.5:1	
Starter	12 VDC	
Oil capacity including filter	Approx. 1.8 L / 1.9 qt	
Operating rpm	3,000	
Fuel consumption		
Natural Gas - m ³ /hr (ft ³ /hr)	1/2 Load	4.30 (152)
	Full Load	6.48 (229)
Liquid Propane - L/hr (gal/hr) [ft ³ /hr]	1/2 Load	7.16 (1.89) [68.8]
	Full Load	11.11 (2.94) [106.8]

Note: **Fuel pipe must be sized for full load.** Required fuel pressure to generator fuel inlet at all load ranges - 0.87–1.74 kPa (3.5–7 in water column) for NG, 2.49–2.99 kPa (10–12 in water column) for LP gas. For BTU content, multiply ft³/hr x 2500 (LP) or ft³/hr x 1000 (NG). For Megajoule content, multiply m³/hr x 93.15 (LP) or m³/hr x 37.26 (NG).

Controls

Two-line plain text multilingual LCD	Simple user interface for ease of operation.
Mode buttons: AUTO	Automatic start on utility failure. 7 day exerciser.
MANUAL	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
OFF	Stops unit. Power is removed. Control and charger still operate.
Ready to Run/Maintenance messages	Standard
Engine Run Hours indication	Standard
Programmable start delay between 2–1500 seconds	Standard (programmable by dealer only)
Utility Voltage Loss /Return to Utility adjustable (brownout setting)	From 222–296 V /350–374 V
Future Set Capable Exerciser/Exercise Set Error warning	Standard
Run/Alarm/Maintenance logs	50 events each
Engine start sequence	Cyclic cranking: 16 sec on, 7 rest (90 sec maximum duration).
Starter lock-out	Starter cannot re-engage until 5 sec after engine has stopped.
Smart battery charger	Standard
Charger Fault/Missing AC warning	Standard
Low Battery/Battery Problem Protection and Battery Condition indication	Standard
Automatic Voltage Regulation with Over and Under Voltage protection	Standard
Under-Frequency/Overload/Stepper Overcurrent protection	Standard
Safety Fused/Fuse Problem protection	Standard
Automatic Low Oil Pressure/High Oil Temperature shutdown	Standard
Overcrank/Overspeed (@ 72 Hz)/rpm Sense Loss shutdown	Standard
High Engine Temperature shutdown	Standard
Internal Fault/Incorrect Wiring protection	Standard
Common external fault capability	Standard
Field upgradable firmware	Standard

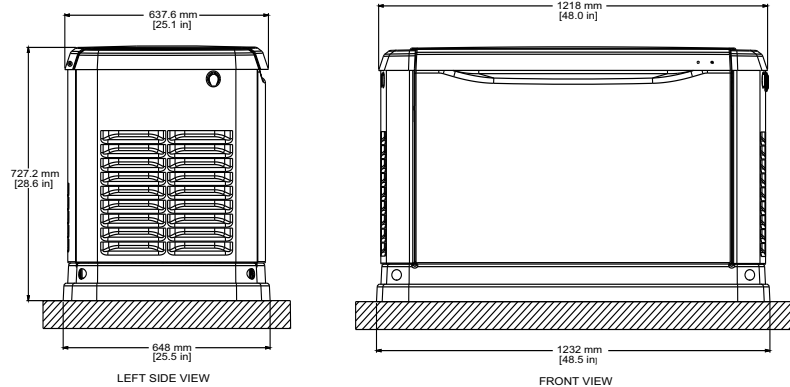
**Sound levels are taken from the front of the generator. Sound levels taken from other sides of the generator may be higher depending on installation parameters. Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). * Maximum kilovolt amps and current are subject to and limited by such factors as fuel BTU/megajoule content, ambient temperature, altitude, engine power and condition, etc. Maximum power decreases approximately 3.5% for each 304.8 m (1,000 ft) above sea level; and also will decrease approximately 1% for each 6 °C (10 °F) above 16 °C (60 °F).

20 kVA

Model #	Product	Description
G007101-0	Battery Pad Warmer	Pad warmer rests under the battery. Recommended for use if the temperature regularly falls below -18 °C (0 °F). (Not necessary for use with AGM-style batteries).
G007102-0	Oil Warmer	Oil warmer slips directly over the oil filter. Recommended for use if the temperature regularly falls below -18 °C (0 °F).
G007027-0	Fascia Base Wrap Kit	The fascia base wrap snaps together around the bottom of the new air-cooled generator sets. This offers a sleek, contoured appearance as well as offering protection from rodents and insects by covering the lifting holes located in the base.
G005703-0	Touch-Up Paint Kit	If the generator set enclosure is scratched or damaged, it is important to touch-up the paint to protect from future corrosion. The touch-up paint kit includes the necessary paint to correctly maintain or touch-up a generator set enclosure.
G006485-0	Scheduled Maintenance Kit	Generac's scheduled maintenance kit provides all the items necessary to perform complete routine maintenance on a Generac automatic standby generator set (oil not included).

Dimensions & UPCs

Model	UPC
G007219-0	696471078718



Dimensions shown are approximate. See installation manual for exact dimensions. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.