

20 kVA

GENERAC®

20 kVA

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

1 of 5

INCLUDES:

- True Power™ Electrical Technology
- Two-Line LCD Multilingual Digital Evolution™ Controller
- Standard Wi-Fi™ Remote Monitoring
- Electronic Governor
- System Status & Maintenance Interval LED Indicators
- Sound Attenuated Enclosure
- Flexible Fuel Line Connector
- Natural Gas or LP Gas Operation
- 5 Year Limited Warranty
- 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_Rev9.pdf

Standby Power Rating
Model G007189-0 (Aluminum - Bisque) - 20 kVA 50 Hz



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 you need it 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™ REMOTE MONITORING:** FREE with every Guardian Series Home standby generator set. Allows you to monitor the status of your 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. Connect your account to your authorized service dealer for fast, friendly, and proactive service. With Mobile Link, you 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 $\pm 1\%$.

GENERAC
PROMISE



* Assembled in the USA using domestic and foreign parts.

Engine

- Generac G-Force design Maximizes engine “breathing” for increased fuel efficiency. Plateau honed cylinder walls and plasma moly rings help the engine run cooler, reducing oil consumption resulting in longer engine life.
- Quiet-Test™ Greatly reduces sound output and fuel consumption during bi-weekly exercise.
- “Spiny-lok” cast iron cylinder walls Rigid construction and added durability provide long engine life.
- Electronic ignition/spark advance These features combine to assure smooth, quick starting every time.
- Full pressure lubrication system 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.
- Low oil pressure shutdown system Shutdown protection prevents catastrophic engine damage due to low oil.
- High temperature shutdown Prevents damage due to overheating.

Generator Set

- Revolving field Allows for a smaller, light weight unit that operates 25% more efficiently than a revolving armature generator set.
- Skewed stator Produces a smooth output waveform for compatibility with electronic equipment.
- Displaced phase excitation Maximizes motor starting capability.
- Automatic voltage regulation Regulates the output voltage to $\pm 1\%$ prevents damaging voltage spikes.
- True Power Technology Less than 5% total harmonic distortion (THD).

Evolution™ Controls

- AUTO/MANUAL/OFF illuminated buttons Selects the operating mode and provides easy, at-a-glance status indication in any condition.
- Two-line multilingual LCD Provides homeowners easily visible logs of history, maintenance, and events up to 50 occurrences.
- Sealed, raised buttons Smooth, weather-resistant user interface for programming and operations.
- Utility voltage sensing Constantly monitors utility voltage, defaults 264V dropout, 350V pick up.
- Utility interrupt delay Prevents nuisance start-ups of the engine, adjustable 2–1500 seconds from factory default setting of 5 seconds by a qualified dealer.
- Generator voltage sensing Constantly monitors generator set voltage to verify the cleanest power is delivered to the home.
- Voltage selection options Output voltage is selectable through the controller from 380V, 400V, or 416V.
- Engine warm-up Verifies engine is ready to assume the load; setpoint approximately 5 seconds.
- Engine cool-down Allows engine to cool prior to shutdown; setpoint approximately 1 minute.
- Programmable exercise Operates engine to prevent oil seal drying and damage between power outages by running the generator set for 5 minutes every other week. Offers a selectable setting for weekly or monthly operation providing flexibility and potentially lower fuel costs to the owner.
- Smart battery charger Delivers charge to the battery only when needed at varying rates depending on outdoor air temperature. Compatible with lead acid and AGM-style batteries.
- Electronic governor Maintains constant 50 Hz frequency.

Unit

- SAE weather protective enclosure Sound attenuated enclosures provides 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.
- Enclosed critical grade muffler Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
- Small, compact, attractive Makes for an easy, eye appealing installation, as close as 45.7 cm (18 in) away from a building.

Installation System

- 30.5 cm (1 ft) flexible fuel line connector Absorbs any generator set vibration when connected to rigid pipe.
- Integral sediment trap Prevents particles and moisture from entering the fuel regulator and engine, prolonging engine life.

Remote Monitoring

- Ability to view generator set status Monitor the generator set via your smartphone, tablet, or computer at any time via the Mobile Link application for complete peace of mind.
- Ability to view generator set Exercise/Run and Total Hours Review the generator set's complete protection profile for exercise hours and total hours.
- Ability to view generator set maintenance information Provides maintenance information for the specific model generator set when scheduled maintenance is due.
- Monthly report with previous month's activity Detailed monthly reports provide historical generator set information.
- Ability to view generator set battery information Built in battery diagnostics displaying current state of the battery.

Generator Set

Model	G007189-0
Rated maximum power capacity - LPG (ESP)	20,000 VA
Rated maximum power capacity - NG (ESP)	17,000 VA
Rated voltage	400
Rated maximum load current – 400 volts (LPG/NG)	28.9 / 24.5
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 35 AGM 650 CCA minimum
Unit weight (kg/lb)	207 / 457
Dimensions (L x W x H) cm/in	122.8 x 63.5 x 73.3 / 48.4 x 25.0 x 28.8
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 - m³/hr (ft³/hr)	1/2 Load	4.50 (159)	
	Full Load	7.02 (248)	
Liquid Propane - L/hr (gal/hr) [m³/hr LPG]	1/2 Load	6.83 (1.80) [1.87]	
	Full Load	10.86 (2.87) [2.94]	

Note: **Fuel pipe must be sized for full load.** Required fuel pressure to generator set fuel inlet at all load ranges - 0.87-1.74 kPa (3.5-7.0 in water column) for natural gas, 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

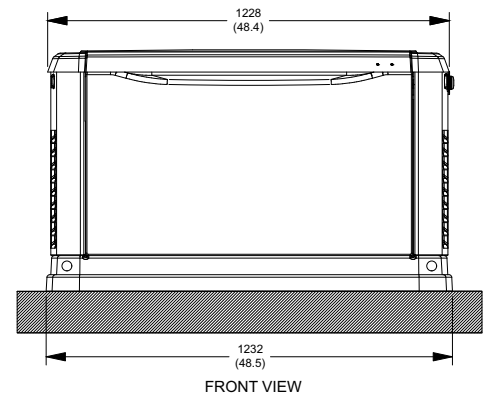
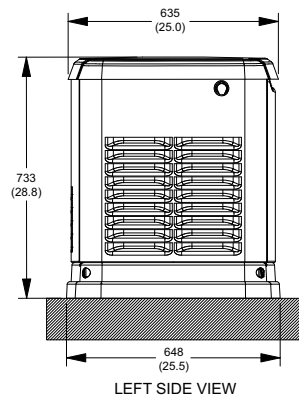
Two-line plain text multilingual LCD	Simple user interface for ease of operation.		
Mode buttons: AUTO	Automatic Start on Utility failure. 7 day exerciser.		
MANUAL	Start with starter control, unit stays on. If utility fails, transfer to load takes place.		
OFF	Stops unit. Power is removed. Control and 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 generator set. Sound levels taken from other sides of generator set may be higher depending on installation parameters. Rating definitions - Standby: Applicable for supplying emergency power for 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 about 3.5% for each 304.8 m (1,000 ft) above sea level; and also will decrease about 1% for each 6 °C (10 °F) above 16 °C (60 °F).

Model #	Product	Description
G007101-0	Battery Pad Warmer	The 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	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 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 kits provide all the hardware necessary to perform complete routine maintenance on a Generac automatic standby generator set.

Dimensions & UPCs

Model	UPC
G007189-0	696471075113



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