10/13/16 kW

GENERAC®

GUARDIAN® SERIES
Residential Standby Generators
Air-Cooled Gas Engine

INCLUDES:

- True Power™ Electrical Technology
- Two-line multilingual digital LCD Evolution™ controller (English/Spanish/French/Portuguese)
- Two transfer switch options available:
  100 amp 16 circuit switch or
  200 amp service rated smart switch
- Electronic governor
- Standard Wi-Fi™ connectivity
- 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 18 in (457 mm) 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

G007171-0, G007172-0 (Aluminum - Bisque) – 10 kW 60 Hz
G007173-0, G007174-0, G007175-0 (Aluminum - Bisque) – 13 kW 60 Hz
G007176-0, G007177-0, G007178-0 (Aluminum - Bisque) – 16 kW 60 Hz

or QUIET TEST™

Note: CETL or CUL certification only applies to unbundled units and units packaged with limited circuit switches. Units packaged with the Smart Switch are ETL or UL certified in the USA only.

FEATURES

- **INNOVATIVE ENGINE DESIGN & RIGOROUS TESTING** are at the heart of Generac's success in providing the most reliable generators 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™ WI-FI CONNECTIVITY:** FREE with select Guardian Series home standby generators, Mobile Link Wi-Fi allows users to monitor the status of the generator 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 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.

GENERAC®

10/13/16 kW

Features and Benefits

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 and resulting in longer engine life.
● "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

● Revolving field	Allows for a smaller, light weight unit that operates 25% more efficiently than a revolving armature generator.
● Skewed stator	Produces a smooth output waveform for compatibility with electronic equipment.
● Displaced phase excitation	Maximizes motor starting capability.
● Automatic voltage regulation	Regulating output voltage to ±1% prevents damaging voltage spikes.
● UL 2200 listed	For your safety.

Transfer Switch (if applicable)

● Fully automatic	Transfers vital electrical loads to the energized source of power.
● NEMA 3R	Can be installed inside or outside for maximum flexibility.
● Remote mounting	Mounts near an existing distribution panel for simple, low-cost installation.

Evolution™ Controls

● AUTO/MANUAL/OFF illuminated buttons	Select the operating mode and provide 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, setpoints 65% dropout, 80% pick-up, of standard voltage.
● Generator voltage sensing	Constantly monitors generator voltage to verify the cleanest power is delivered to the home.
● Utility interrupt delay	Prevents nuisance startups of the engine, adjustable 2–1500 seconds from the factory default setting of 5 seconds by a qualified dealer.
● 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 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.
● Main line circuit breaker	Protects generator from overload.
● Electronic governor	Maintains constant 60 Hz frequency.

Unit

● SAE weather protective enclosure	Sound attenuated enclosures ensure quiet operation and protection against mother nature, withstanding winds up to 150 mph (241 km/h). 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 18 in (457 mm) away from a structure.

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Features and Benefits

Installation System

● 14 in (35.6 cm) flexible fuel line connector	Listed ANSI Z21.75/CSA 6.27 outdoor appliance connector for the required connection to the gas supply piping.
● Integral sediment trap	Meets IFGC and NFPA 54 installation requirements.

Connectivity

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

GENERAC®

10/13/16 kW Specifications

Generator

Model	G007171-0, G007172-0 (10 kW)	G007173-0, G007174-0, G007175-0 (13 kW)	G007176-0, G007177-0, G007178-0 (16 kW)
Rated maximum continuous power capacity (LP)	10,000 Watts*	13,000 Watts*	16,000 Watts*
Rated maximum continuous power capacity (NG)	9,000 Watts*	13,000 Watts*	16,000 Watts*
Rated voltage	240		
Rated maximum continuous load current – 240 volts (LP/NG)	41.7 / 37.5	54.2 / 54.2	66.7 / 66.7
Total Harmonic Distortion	Less than 5%		
Main line circuit breaker	45 Amp	60 Amp	70 Amp
Phase	1		
Number of rotor poles	2		
Rated AC frequency	60 Hz		
Power factor	1.0		
Battery requirement (not included)	12 Volts, Group 26R 540 CCA Minimum or Group 35AGM 650 CCA Minimum		
Unit weight (lb/kg)	338/153	385/175	420/191
Dimensions (L x W x H) in / cm	48 x 25 x 29 / 121.9 x 63.5 x 73.7		
Sound output in dB(A) at 23 ft (7 m) with generator operating at normal load**	61	65	65
Sound output in dB(A) at 23 ft (7 m) with generator in Quiet-Test™ low-speed exercise mode**	57	55	55
Exercise duration	5 min		

Engine

Engine type		GENERAC G-Force 400 Series	GENERAC G-Force 800 Series	
Number of cylinders		1	2	
Displacement		460 cc	816 cc	
Cylinder block		Aluminum w/ cast iron sleeve		
Valve arrangement		Overhead valve		
Lifter type		Solid	Hydraulic	
Ignition system		Solid-state w/ magneto		
Governor system		Electronic		
Compression ratio		9.5:1		
Starter		12 VDC		
Oil capacity including filter		Approx. 1.1 qt / 1.0 L	Approx. 2.2 qt / 2.1 L	
Operating rpm		3,600		
Fuel consumption				
Natural Gas	ft^3/hr (m^3/hr)			
	1/2 Load	101 (2.86)	154 (4.36)	182 (5.15)
	Full Load	127 (3.60)	225 (6.37)	245 (6.94)
Liquid Propane	ft^3/hr (gal/hr) [L/hr]			
	1/2 Load	36 (0.97) [3.66]	56 (1.54) [5.83]	62 (1.70) [6.45]
	Full Load	54 (1.48) [5.62]	90 (2.45) [9.28]	109 (2.99) [11.32]

Note: **Fuel pipe must be sized for full load.** Required fuel pressure to generator fuel inlet at all load ranges - 3.5–7.0 in water column (0.87–1.74 kPa) for NG, 10–12 in water column (2.49–2.99 kPa) for LP gas. For BTU content, multiply ft^3/hr x 2,500 (LP) or ft^3/hr x 1,000 (NG). For Megajoule content, multiply m^3/hr x 93.15 (LP) or m^3/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. Weekly, Bi-Weekly, or Monthly selectable 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 140-171 V / 190-216 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 sec 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 1,000 ft (304.8 m) above sea level; and also will decrease approximately 1% for each 6 °C (10 °F) above 16 °C (60 °F).

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Switch Options

Limited Circuits Switch Features

- 16 space, 24 circuit. Breakers not included.
- Electrically operated, mechanically-held contacts for fast, positive connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive.
- 2-pole, 250 VAC contactors.
- 30 millisecond transfer time.
- Dual coil design.
- Rated for both copper and aluminum conductors.
- Main contacts are silver plated or silver alloy to resist welding and sticking.
- NEMA/UL 3R aluminum outdoor enclosure allows for indoor or outdoor mounting flexibility.
- Multi listed for use with 1 in standard, tandem, GFCI, and AFCI breakers from Siemens, Murray, Eaton, and Square D for the most flexible and cost effective install.

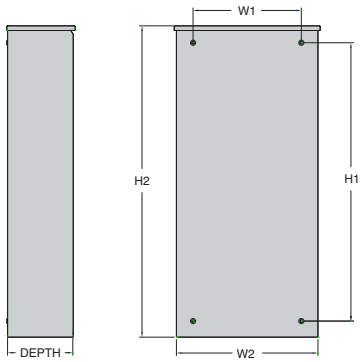
Model	G007172-0 (10 kW)	G007174-0 (13 kW)	G007177-0 (16 kW)
No. of poles		2	
Current rating (amps)		100	
Voltage rating (VAC)		120 / 240, 1Ø	
Utility voltage monitor (fixed)*			
-Pick-up		80%	
-Dropout		65%	
Return to utility*		Approx. 15 sec	
Exercises bi-weekly for 5 minutes*		Standard	
ETL or UL Listed		Standard	
Total circuits available		24	
Tandem breaker capabilities		8 tandems	
Circuit breaker protected Available RMS Symmetrical Fault Current @ 250 Volts		10,000	

*Function of Evolution controller
Exercise can be set to weekly or monthly

Dimensions

	Height		Width		Depth
	H1	H2	W1	W2	
in	26.75	30.1	10.5	13.5	6.91
cm	67.94	76.43	26.67	34.18	17.54

Wire Ranges		
Conductor Lug	Neutral Lug	Ground Lug
2/0 - #14	2/0 - #14	2/0 - #14



Service Rated Smart Switch Features

- Includes Smart A/C Management (SACM) module standard.
- Intelligently manages up to four air conditioner loads with no additional hardware.
- Up to eight large (240 VAC) loads can be managed with Smart Management Modules (SMMs).
- Electrically operated, mechanically-held contacts for fast, clean connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive.
- 2-pole, 250 VAC contactors.
- Service equipment rated, dual coil design.
- Rated for both aluminum and copper conductors.
- Main contacts are silver plated or silver alloy to resist welding and sticking.
- NEMA/UL 3R aluminum outdoor enclosure allows for indoor or outdoor mounting flexibility.

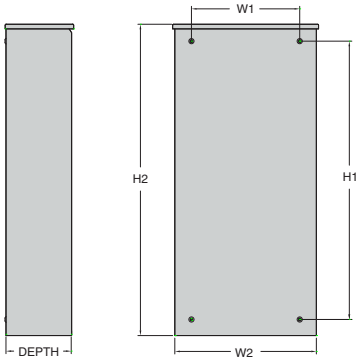
Model	G007175-0 (13 kw)	G007178-0 (16 kW)
No. of poles	2	
Current rating (amps)	200	
Voltage rating (VAC)	120/240, 1Ø	
Utility voltage monitor (fixed)*		
-Pick-up	80%	
-Dropout	65%	
Return to utility*	15 sec	
Exercises bi-weekly for 5 minutes*	Standard	
ETL or UL Listed	Standard	
Enclosure type	NEMA/UL 3R	
Circuit breaker protected	22,000	
Lug range	250 MCM - #6	

*Function of Evolution Controller
Exercise can be set to weekly or monthly

Dimensions

	200 Amps 120/240, 1ø Open Transition Service Rated				
	Height		Width		Depth
	H1	H2	W1	W2	
in	26.75	30.1	10.5	13.5	6.3
cm	67.94	76.45	26.67	34.3	16.01

Wire Ranges		
Conductor Lug	Neutral Lug	Ground Lug
400 MCM - #4	350 MCM - #6	2/0 - #14



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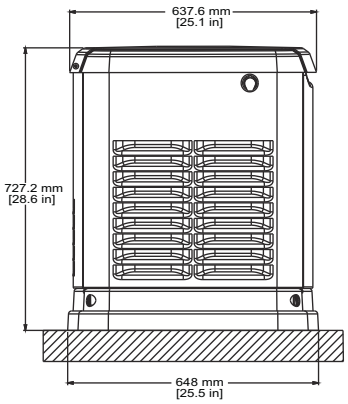
Available Accessories

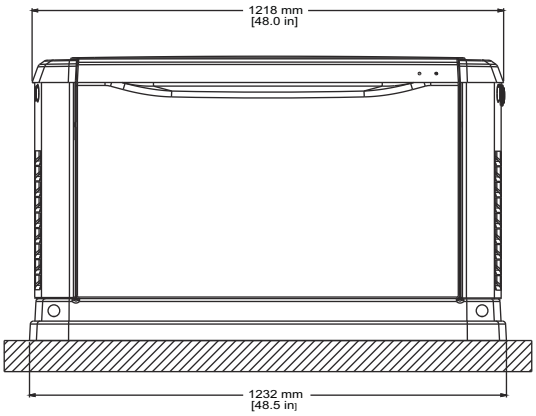
Model #	Product	Description
G005819-0	26R Wet Cell Battery	Every standby generator requires a battery to start the system. Generac offers the recommended 26R wet cell battery for use with all air-cooled standby product (excluding PowerPact®).
G007101-0	Battery Pad Warmer	The pad warmer rests under the battery. Recommended for use if the temperature regularly falls below 0 °F (-18 °C). (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 0 °F (-18 °C).
G007103-1	Breather Warmer	The breather warmer is for use in extreme cold weather applications. For use with Evolution controllers only in climates where heavy icing occurs.
G005621-0	Auxiliary Transfer Switch Contact Kit	The auxiliary transfer switch contact kit allows the transfer switch to lock out a single large electrical load you may not need. Not compatible with 50 amp pre-wired switches.
G007027-0 - Bisque	Fascia Base Wrap Kit	The fascia base wrap snaps together around the bottom of the new air cooled generators. 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 - Bisque	Touch-Up Paint Kit	If the generator 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 enclosure.
G006482-0 – 10 kW G007216-0 – 13 / 16 kW	Scheduled Maintenance Kit	Generac's scheduled maintenance kits provide all the items necessary to perform complete routine maintenance on a Generac automatic standby generator (oil not included).
G007005-0	Wi-Fi LP Fuel Level Monitor	The Wi-Fi enabled LP fuel level monitor provides constant monitoring of the connected LP fuel tank. Monitoring the LP tank's fuel level is an important step in verifying the generator is ready to run during an unexpected power failure. Status alerts are available through a free application to notify users when the LP tank is in need of a refill.
G007000-0 (50 amps) G007006-0 (100 amps)	Smart Management Module	Smart Management Modules (SMM) are used to optimize the performance of a standby generator. It manages large electrical loads upon startup and sheds them to aid in recovery when overloaded. In many cases, using SMM's can reduce the overall size and cost of the system.
G007169-0	Mobile Link™ 4G LTE Cellular Accessory	The Mobile Link 4G LTE Cellular Accessory allows users to monitor the status of the generator 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 with an authorized service dealer for fast, friendly, and proactive service. With Mobile Link, users are taken care of before the next power outage.

Dimensions & UPCs

Model	UPC
G007171-0	696471074680
G007172-0	696471074673
G007173-0	696471076400
G007174-0	696471077100
G007175-0	696471077117
G007176-0	696471076417
G007177-0	696471077124
G007178-0	696471077131



LEFT SIDE VIEW



FRONT VIEW

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