14/17/20kW

GENERAC®

GUARDIAN® SERIES
Residential Standby Generators
Air-Cooled Gas Engine

INCLUDES:

- True Power™ Electrical Technology
- Two Line LCD Multilingual Digital Evolution™ Controller (English/Spanish/French/Portuguese)
- Two Transfer Switch Options Available: 100 Amp Pre-Wired Switch or 200 Amp Smart Switch. See Page 4 for Details.
- Electronic Governor
- External Main Circuit Breaker, System Status & Maintenance Interval LED Indicators
- Sound Attenuated Enclosure
- Flexible Fuel Line Connector
- Composite Mounting Pad
- Natural Gas or LP Gas Operation
- 5 Year Limited Warranty
- Capability to be installed within 18" of a building*

Standby Power Rating

Models 006240-0, 006241-0, 006247-0 (Steel - Bisque) - 14 kW 60Hz

Models 006242-0, 006248-0 (Steel - Bisque) - 17 kW 60Hz

Models 006243-0, 006249-0 (Aluminum - Gray) - 17 kW 60Hz

Models 006244-0, 006250-0 (Aluminum - Gray) - 20 kW 60Hz

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USA ENGINEERED & BUILT

Note: CUL certification only applies to unbundled units and units packaged with pre-wired switches. Units packaged with the Smart Switch are UL certified in the USA only.

*Only if located away from doors, windows and fresh air intakes, and unless otherwise directed by local codes.

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **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**

- **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 includes its own transfer systems and controls for total system compatibility.

GENERAC®

ISO 9001:2008

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14/17/20kW features and benefits

Engine

• Generac (OHVI) design	Maximizes engine "breathing" for increased fuel efficiency. Plateau honed cylinder walls and plasma moly rings helps the engine run cooler, reducing oil consumption 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	Regulates the output voltage to ±1% prevents damaging voltage spikes.
• UL 2200 listed	For your safety.

Transfer Switch

• Fully automatic	Transfers your vital electrical loads to the energized source of power.
• Pre-wired, color-coded conduits (Pre-wired switches only)	Ensures the easiest, trouble-free installation.
• DPM Technology (Smart Switch only)	Digital Power Management Technology allows for the smart control of two air conditioners without any additional items.
• Remote mounting	Mounts near your existing distribution panel for simple, low-cost

Evolution™ Controls

• Auto/Manual/Off illuminated buttons	Selects the operating mode and provides easy, at-a-glance status indication in any condition.
• Sealed, raised buttons	Smooth, weather-resistant user interface for programming and operations.
• Utility voltage sensing	Constantly monitors utility voltage, setpoints 60% dropout, 80% pick-up, of standard voltage.
• Generator voltage sensing	Constantly monitors generator voltage to ensure the cleanest power delivered to the home.
• Utility interrupt delay	Prevents nuisance start-ups of the engine, adjustable 2-1500 seconds from the factory default setting of 10 seconds by a qualified dealer.
• Engine warm-up	Ensures 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 seven day exerciser	Operates engine to prevent oil seal drying and damage between power outages by running the generator for 12 minutes every week.
• Smart battery charger	Delivers charge to the battery only when needed at varying rates depending on outdoor air temperature.
• Main line circuit breaker	Protects generator from overload.
• Electronic governor	Maintains constant 60 Hz frequency.

Unit

• Weather protective enclosure	Ensures protection against mother nature and can withstand winds up to 150mph. 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.
• SAE	Sound attenuated enclosure ensures quiet operation.

Installation System

• 1ft. (305mm) flexible fuel line connector • Composite mounting pad	Easy installation.

GENERAC®

14/17/20kW specifications

Generator

Model	006240-0, 006241-0, 006247-0, (14 kW)	006242-0, 006243-0, 006248-0, 006249-0 (17 kW)	006244-0, 006250-0 (20kW)
Rated Maximum Continuous Power Capacity (LP)	14,000 Watts*	17,000 Watts*	20,000 Watts*
Rated Maximum Continuous Power Capacity (NG)	14,000 Watts*	16,000 Watts*	18,000 Watts*
Rated Voltage	240	240	240
Rated Maximum Continuous Load Current – 240 Volts (LP/NG)	58.3/58.3	70.8/66.6	83.3/75
Total Harmonic Distortion	Less than 5%	Less than 5%	Less than 5%
Main Line Circuit Breaker	60 Amp	65 Amp	90 Amp
Phase	1	1	1
Number of Rotor Poles	2	2	2
Rated AC Frequency	60Hz	60Hz	60Hz
Power Factor	1.0	1.0	1.0
Battery Requirement (not included)		Group 26R, 12 Volts and 525 CCA Minimum	
Unit Weight (Pounds/Kilos)	435/197.3	471/213.6 (Steel); 437/198.2 (Aluminum)	451/204.6
Dimensions (L x W x H) in./mm		48 x 25 x 29/1218 x 638 x 732	
Sound output in dB(A) at 23 ft. (7m) with generator operating at normal load**	66	66	66
Sound output in dB(A) at 23 ft. (7m) with generator in Quiet-Test™ low-speed exercise mode**	NA	60	60

Engine

Type of Engine	GENERAC OHVI V-TWIN	GENERAC OHVI V-TWIN	GENERAC OHVI V-TWIN
Number of Cylinders	2	2	2
Displacement	992cc	992cc	999cc
Cylinder Block		Aluminum w/Cast Iron Sleeve	
Valve Arrangement	Overhead Valve	Overhead Valve	Overhead Valve
Ignition System	Solid-state w/Magneto	Solid-state w/Magneto	Solid-state w/Magneto
Governor System	Electronic	Electronic	Electronic
Compression Ratio	9.5:1	9.5:1	9.5:1
Starter	12 Vdc	12 Vdc	12 Vdc
Oil Capacity Including Filter	Approx. 1.9 Qts./1.8L	Approx. 1.9 Qts./1.8L	Approx. 1.9 Qts./1.8L
Operating RPM	3,600	3,600	3,600
Fuel Consumption			
Natural Gas ft^3/hr (m^3/hr)			
1/2 Load	177 (5.01)	193 (5.47)	205 (5.8)
Full Load	279 (7.9)	312 (8.83)	308 (8.72)
Liquid Propane ft^3/hr (gal/hr) [Liters/hr]			
1/2 Load	67.2 (1.85) [6.99]	72.4 (1.99) [7.53]	75.6 (2.08) [7.87]
Full Load	111.6 (3.07) [11.61]	130 (3.57) [13.53]	140 (3.85) [14.57]

Note: **Fuel pipe must be sized for full load.** Required fuel pressure to generator fuel inlet at all load ranges - 3.5-7" water column (7-13mm mercury) for natural gas, 10-12" water column (19-22mm mercury) for LP gas. For Btu content, multiply ft^3/hr x 2500 (LP) or ft^3/hr x 1000 (NG). For Megajoule content, multiply m^3/hr x 93.15 (LP) or m^3/hr x 37.26 (NG)

Controls

2-Line Plain Text Multilingual LCD Display		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		From 140-171V/190-216V
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 (@ 72Hz)/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 wattage 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 percent for each 1,000 feet (304.8 meters) above sea level; and also will decrease about 1 percent for each 6° C (10° F) above 16° C (60°F).

GENERAC®

14/17/20kW switch options

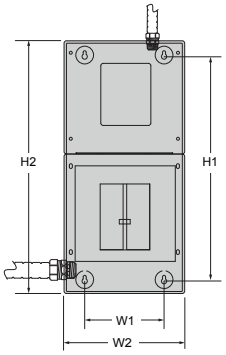
Pre-wired Features

available on 14 & 17kW models only

- 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.
- Main contacts are silver plated or silver alloy to resist welding and sticking.
- NEMA 1 (indoor rated) enclosure is standard on the pre-wired switch.
- Pre-wired 30 foot (9.1 meter) whip to connect to the provided 5 foot pre-wired whip and external connection box.
- Pre-wired 2 foot (0.61 meter) whip, color coded to connect into the existing electrical panel.

Model	006240-0 (14 kW)	006242-0 (17kW)
No. of Poles	2	2
Current Rating (Amps)	100	100
Voltage Rating (VAC)	250	120/240, 1Ø
Utility Voltage Monitor (Fixed)*		
-Pick-up	80%	80%
-Dropout	60%	60%
Return to Utility*	approx. 15 sec.	approx. 15 sec.
Exercise weekly for 12 minutes*	Standard	Standard
UL Listed	Standard	Standard
Total of Pre-wired Circuits	14	16
No. 15A 120V	4	5
No. 20A 120V	6	5
No. 20A 240V	1	1
No. 30A 240V	-	-
No. 40A 240V	1	1
No. 50A 240V	-	1
Circuit Breaker Protected Available RMS Symmetrical Fault Current @ 250 Volts	10,000	10,000

*Function of Evolution Controller



Dimensions

Mechanical Dimensions

Amps	Height		Width		Depth
	H1	H2	W1	W2	
100	23.5 in	26.4 in	8.3 in	12.6 in	6.3
	597mm	671.7mm	211mm	320.7mm	159.6mm

Wire Ranges

Amps	Conductor Lug	Neutral Lug	Ground Lug
100	2/0 - #14	2/0 - #14	2/0 - #14

Smart Switch Features

- Includes Digital Power Management Technology standard (DPM).
- Intelligently manages two air conditioner loads with no additional hardware.
- Up to four more large (120/240VAC) loads can be managed when used in conjunction with Power Management Modules (PMM**).
- 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.
- NEMA/UL 3R aluminum outdoor enclosure.
- Main contacts are silver plated or silver alloy to resist welding and sticking.

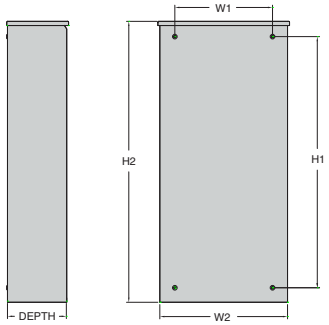
**Note: PMM starter kit is required prior to using the modules.

Model	006241-0 (14kW)/006243-0 (17kW)/006244-0 (20kW)
No. of Poles	2
Current Rating (Amps)	200
Voltage Rating (VAC)	120/240, 1Ø
Utility Voltage Monitor (Fixed)*	
-Pick-up	80%
-Dropout	60%
Return to Utility*	approx. 13 sec.
Exercise weekly for 12 minutes*	Standard
UL Listed	Standard
Enclosure Type	NEMA/UL 3R
Withstand Rating (Amps)	22,000
Lug Range	250MCM - #6

*Function of Evolution Controller

Dimensions

	200 Amps 120/240, 1ø Open Transition Service Rated				
	Height		Width		Depth
	H1	H2	W1	W2	
Inches	27.24	30.0	11.4	13.5	7.09
mm	692.0	762.4	289.0	343.0	180.0



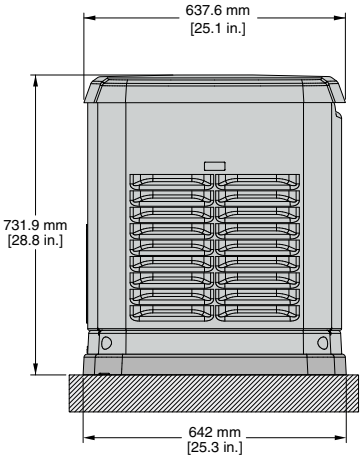
14/17/20kW available accessories

Model #	Product	Description
005819-0	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.
006212-0	Cold Weather Kit	If the temperature regularly falls below 32°F (0°C), install a cold weather kit to maintain optimal battery and oil temperatures. Kit consists of a battery warmer and oil filter heater with built-in thermostats.
005621-0	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.
005839-0 - Bisque 005666-0 - Gray	Fascia Base Wrap Kit* (Standard on 20kW)	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.
005703-0 - Bisque 005704-0 - Gray	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 properly maintain or touch-up a generator enclosure.
006484-0 - 14 & 17kW 006485-0 - 20kW	Scheduled Maintenance Kit	Generac's scheduled maintenance kits provide all the hardware necessary to perform complete routine maintenance on a Generac automatic standby generator.
005928-0	Wireless Remote	Completely wireless and battery powered, Generac's wireless remote monitor provides you with instant status information without ever leaving the house. Not compatible with CorePower or EcoGen systems.
005951-0	Advanced Wireless Remote	Remotely control generator functions with the advanced model's LCD display. In addition to remote testing of the generator, set the excercise cycle and maintenance interval reminders. Not compatible with CorePower or EcoGen systems.
006199-0	PMM Starter Kit	The PMM Starter Kit consists of a 24VAC, field installed transformer that enables the use of the 24VAC Power Management Modules (PMMs)and one PMM. The standard controller (without starter kit) can control two HVAC loads with no additional hardware. Not compatible with pre-wired switches.
006186-0	Power Management Module (50 Amps)	Power Management Modules are used in conjunction with the Smart Switch to increase its power management capabilities. It gives the Smart Switch additional power management flexibility not found in any other transfer switch. Not compatible with pre-wired switches. Note: PMM Starter Kit required.
006463-0	Mobile Link™ Device	Generac's Mobile Link device allows you to check the status of your generator from anywhere that you have access to an Internet connection from a PC or with any smart device. You will even be notified when a change in the generator's status occurs via e-mail or text message.

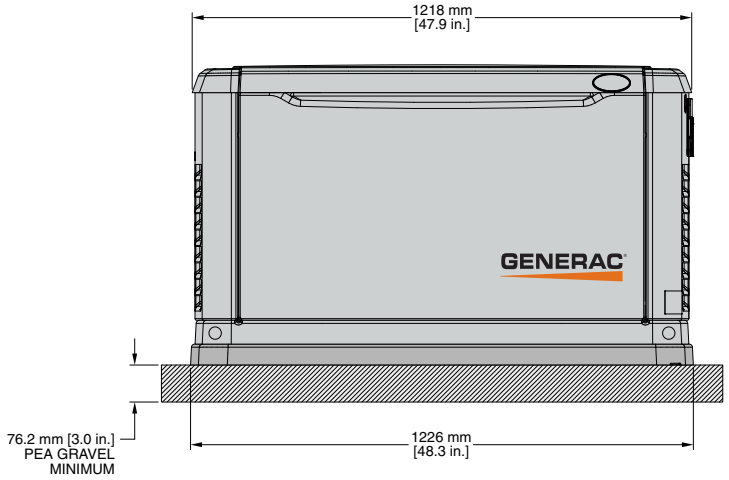
* Note: Bisque kits are used in conjunction with steel enclosures. Gray kits are used in conjunction with aluminum enclosures.

dimensions

Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.



LEFT SIDE VIEW



FRONT VIEW