



# GENERAC® GUARDIAN® SERIES STANDBY GENERATORS

## 20 kW

### Air-Cooled Gas Engine Generator Sets

Standby Power Rating

Model 005887-1 (Aluminum - Gray) - 20 kW 60Hz

#### INCLUDES:

- True Power® Electrical Technology
- Two Line LCD Tri-lingual Digital Nexus™ Controller
- Electronic Governor
- External Main Circuit Breaker, System Status & Maintenance Interval LED Indicators and GFCI Duplex Outlet
- Sound Attenuated Enclosure
- Flexible Fuel Line Connector
- Composite Mounting Pad
- Base Fascia
- Natural Gas or LP Gas Operation
- 3 Year Limited Warranty
- UL 2200 Listed



## 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.
- **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.



# FEATURES

## Generac® Guardian® Series Standby Generator - 20 kW

ENGINE	<ul style="list-style-type: none"> <li>•Generac (OHVI) Design</li> </ul>	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.
	<ul style="list-style-type: none"> <li>•”Spiny-lok” cast iron cylinder walls</li> </ul>	Rigid construction and added durability provide long engine life.
	<ul style="list-style-type: none"> <li>•Electronic ignition/spark advance</li> </ul>	These features combine to assure smooth, quick starting every time.
	<ul style="list-style-type: none"> <li>•Full pressure lubrication system</li> </ul>	Pressurized lubrication to all vital bearings means better performance, less maintenance and longer engine life. Now featuring a 2 year/200 hour oil change interval.
	<ul style="list-style-type: none"> <li>•Low oil pressure shutdown system</li> <li>•High temperature shutdown</li> </ul>	Superior shutdown protection prevents catastrophic engine damage due to low oil. Prevents damage due to overheating.
GENERATOR	<ul style="list-style-type: none"> <li>•Revolving field</li> </ul>	Allows for smaller, light weight unit that operates 25% more efficiently than a revolving armature generator.
	<ul style="list-style-type: none"> <li>•Skewed stator</li> </ul>	Produces a smooth output waveform for compatibility with electronic equipment.
	<ul style="list-style-type: none"> <li>•Displaced phase excitation</li> </ul>	Maximizes motor starting capability.
	<ul style="list-style-type: none"> <li>•Automatic voltage regulation</li> <li>•UL 2200 Listed</li> </ul>	Regulates the output voltage to $\pm 1\%$ prevents damaging voltage spikes. For your safety.
TRANSFER SWITCH	Sold separately	
NEXUS CONTROLS	<ul style="list-style-type: none"> <li>•Auto/Off/Manual switch</li> </ul>	Selects the operating mode.
	<ul style="list-style-type: none"> <li>•Utility voltage sensing</li> </ul>	Constantly monitors utility voltage, setpoints 60% dropout, 80% pick-up, of standard voltage.
	<ul style="list-style-type: none"> <li>•Generator voltage sensing</li> </ul>	Constantly monitors generator voltage to ensure the cleanest power delivered to the home.
	<ul style="list-style-type: none"> <li>•Utility interrupt delay</li> </ul>	Prevents nuisance start-ups of the engine, adjustable 10-30 seconds.
	<ul style="list-style-type: none"> <li>•Engine warm-up</li> </ul>	Ensures engine is ready to assume the load, setpoint approximately 5 seconds.
	<ul style="list-style-type: none"> <li>•Engine cool-down</li> </ul>	Allows engine to cool prior to shutdown, setpoint approximately 1 minute.
	<ul style="list-style-type: none"> <li>•Programmable seven day exerciser</li> </ul>	Operates engine to prevent oil seal drying and damage between power outages by running the generator for 12 minutes every week.
	<ul style="list-style-type: none"> <li>•Smart battery charger</li> </ul>	Delivers charge to the battery only when needed at varying rates depending on outdoor air temperature.
	<ul style="list-style-type: none"> <li>•Main Line Circuit Breaker</li> <li>•Electronic governor</li> </ul>	Protects generator from overload. Maintains constant 60 Hz frequency.
UNIT	<ul style="list-style-type: none"> <li>•Aluminum weather protective enclosure</li> </ul>	Provides the ultimate protection against mother nature. 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.
	<ul style="list-style-type: none"> <li>•Enclosed critical grade muffler</li> </ul>	Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
	<ul style="list-style-type: none"> <li>•Small, compact, attractive</li> <li>•SAE</li> </ul>	Makes for an easy, eye appealing installation. Sound attenuated enclosure ensures quiet operation.
INSTALLATION SYSTEM	<ul style="list-style-type: none"> <li>•1' Flexible Fuel Line Connector</li> <li>•Composite Mounting Pad</li> </ul>	Easy Installation.

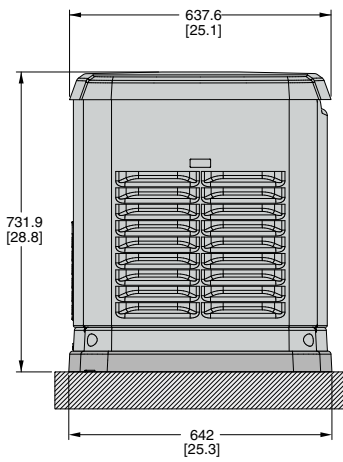
GENERATOR		Model 005887-1 (20 kW)
Rated Maximum Continuous Power Capacity (LP)		20,000 Watts*
Rated Maximum Continuous Power Capacity (NG)		18,000 Watts*
Rated Voltage		240
Rated Maximum Continuous Load Current – 240 Volts		83.3 LP/75 NG
Total Harmonic Distortion		Less than 5%
Main Line Circuit Breaker		90 Amp
Phase		1
Number of Rotor Poles		2
Rated AC Frequency		60Hz
Power Factor		1
Battery Requirement (not included)		Group 26R 12 Volts and 525 Cold-cranking Amperes Minimum
Unit Weight (Pounds/Kilos)		451/204.6
Dimensions (L x W x H) Inches/mm		48 x 25 x 29 (1218 x 638 x 732)
Sound output in dB(A) at 23 ft. with generator operating at normal load		66**
Sound output in dB(A) at 23 ft. with generator in Quiet-Test™ low speed exercise mode		60**
ENGINE		Model 005887-1 (20 kW)
Type of Engine		GENERAC OHVI V-TWIN
Number of Cylinders		2
Displacement		999cc
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. 1.9 Qts./1.8L
Operating RPM		3,600
Fuel Consumption		
Natural Gas	cu.ft./hr.	
	1/2 Load	
	Full Load	206
Liquid Propane	ft <sup>3</sup> /hr (gal/hr) [Liter/hr]	
	1/2 Load	69 (1.89) [7.15]
	Full Load	106 (2.90) [10.98]
Required fuel pressure to generator fuel inlet at all load ranges - 5 to 7 inches of water column for natural gas, 10 to 12 inches of water column for LP gas For Btu content, multiply ft <sup>3</sup> /hr x 2520 (LP) or ft <sup>3</sup> /hr x 1000 (NG)		
CONTROLS		
2-Line Plain Text LCD Display		Simple user interface for ease of operation.
Mode Switch		
-Auto		Automatic Start on Utility failure. 7 day exerciser.
-Off		Stops unit. Power is removed. Control and charger still operate.
-Manual/Test (start)		Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Programmable start delay between 10-30 seconds		Standard
Engine Start Sequence		Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration).
Engine Warm-up		5 seconds
Engine Cool-Down		1 minute
Starter Lock-out		Starter cannot re-engage until 5 sec. after engine has stopped.
Smart Battery Charger		Standard
Automatic Voltage Regulation with Over and Under Voltage Protection		Standard
Automatic Low Oil Pressure Shutdown		Standard
Overspeed Shutdown		Standard, 72Hz
High Temperature Shutdown		Standard
Overcrank Protection		Standard
Safety Fused		Standard
Failure to Transfer Protection		Standard
Low Battery Protection		Standard
50 Event Run Log		Standard
Future Set Capable Exerciser		Standard
Incorrect Wiring Protection		Standard
Internal Fault Protection		Standard
Common External Fault Capability		Standard

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 content, ambient temperature, altitude, engine power and condition, etc. Maximum power decreases about 3.5 percent for each 1,000 feet above sea level. \*\*Sound output ratings from certain points on the generator subject to change based on installation parameters.

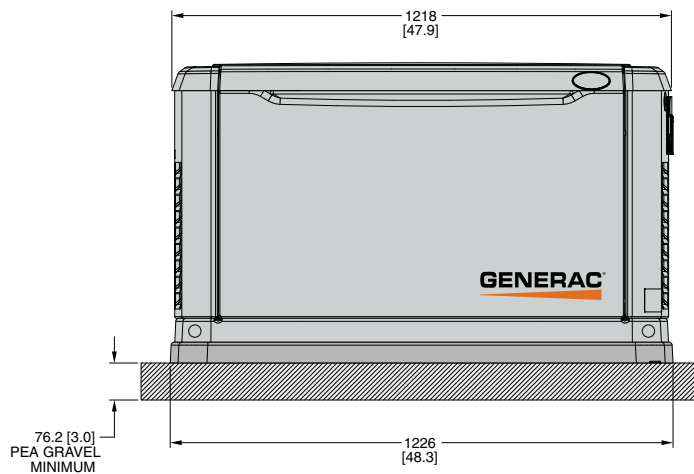
**AVAILABLE ACCESSORIES**

Model #	Product	Description
5819	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.
6212	Cold Weather Kit	If the temperature regularly falls below 32° F, install a cold weather kit to maintain optimal battery temperature. Kit consists of battery warmer with thermostat built into the wrap.
5621	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.
5704	Paint Kit	Medium Gray Kit
5665	Scheduled Maintenance Kit	Generac's scheduled maintenance kits provide all the hardware necessary to perform complete routine maintenance on a Generac automatic standby generator.
5928	Nexus Wireless Remote	Completely wireless and battery powered, Generac's Nexus wireless remote monitor provides you with instant status information without ever leaving the house. Not compatible with CorePower or EcoGen systems.
5951	Advanced Nexus Wireless Remote	Remotely control generator functions with the advanced model's LCD display. In addition to remote testing of the generator, set the exercise cycle and maintenance interval reminders. Not compatible with CorePower or EcoGen systems.
5937	DLM Load Control Module (50 Amps)	DLM Modules are used in conjunction with the Nexus Smart Switch to increase its load management capabilities. It gives the Nexus Smart Switch additional load management flexibility not found in any other transfer switch.

Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.



LEFT SIDE VIEW



FRONT VIEW