



# CERTIFICATE OF APPROPRIATENESS PLACARD

for Raleigh Historic Resources

**Project Description:**

Install generator

\*Beyond this expiration date, NC Session Law 2021-03 grants an extension to all valid development permits until 150-days after NC Executive Order 116 is rescinded.

218 N East St

Address

Oakwood

Historic District

Heck-Pool House

Historic Property

COA-0143-2021

Certificate Number

8/31/2021

Date of Issue

2/27/2022\*

Expiration Date

*This card must be kept posted in a location within public view until all phases of the described project are complete. The work must conform with the code of the City of Raleigh and laws of the state of North Carolina. When your project is complete, you are required to ask for a final zoning inspection in a historic district area. Telephone the RHDC office at 832-7238 and commission staff will coordinate the inspection with the inspections Department. If you do not call for this final inspection, your Certificate of Appropriateness is null and void.*

Signature, \_\_\_\_\_

*Erin Mochon*

Raleigh Historic Development Commission

*Pending the resolution of appeals, commencement of work is at your own risk.*





Type or print the following:		
Applicant name: Julie Blandford		
Mailing address: 218 N East Street		
City: Raleigh	State: NC	Zip code: 27601
Date: 8/20/21	Daytime phone #: 9195185937	
Email address: blandfordj@mac.com		
Applicant signature:		
Minor work (staff review) – one copy Major work (COA committee review) – ten copies Additions > 25% of building sq. footage New buildings Demolition of building or structure All other Post approval re-review of conditions of approval	<b>Office Use Only</b> Transaction #: _____ File #: COA-0143-2021 Fee: _____ Amount paid: _____ Received date: _____ Received by: _____	
Property street address: 218 N East Street, 27601		
Historic district: Oakwood		
Historic property/Landmark name (if applicable): Heck Pool		
Owner name: Julie and Jay Blandford		
Owner mailing address: 218 N East Street, Raleigh NC 27601		

**For applications that require review by the COA Committee (major work), provide addressed and stamped envelopes for owners for all properties with 100 feet on all sides of the property, as well as the property owner.**

Property Owner Name & Address	Property Owner Name & Address



I understand that all major work applications that require review by the Raleigh Historic Development Commission's COA Committee must be submitted by 4 p.m. on the date of the application deadline; otherwise, consideration will be delayed until the following committee meeting. An incomplete application will not be accepted.

Will you be applying for rehabilitation tax credits for this project? Yes <input type="radio"/> No <input checked="" type="radio"/>	Office Use Only Type of work: <u>50</u>
Did you consult with staff prior to filing the application? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Design Guidelines: please cite the applicable sections of the design guidelines ( <a href="http://www.rhdc.org">www.rhdc.org</a> ).		
Section/Page	Topic	Brief description of work (attach additional sheets as needed).
		Add a whole house generator

Minor Work Approval (office use only)	
Upon being signed and dated below by the Planning Director or designee, this application becomes the Minor Work Certificate of Appropriateness. It is valid until <u>02/27/2022</u> . Please post the enclosed placard form of the certificate as indicated at the bottom of the card. Issuance of a Minor Work Certificate shall not relieve the applicant, contractor, tenant, or property owner from obtaining any other permit required by City Code or any law. Minor Works are subject to an appeals period of 30 days from the date of approval.	
Signature (City of Raleigh) <u>Erin North</u>	Date <u>08/31/2021</u>





## Morton, Erin

---

**From:** Julie Blandford <blandfordj@mac.com>  
**Sent:** Tuesday, August 31, 2021 2:00 PM  
**To:** Morton, Erin  
**Subject:** Re: COA-0143-2021 (218 N East St) - Minor Work

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you verify that the attachment and content are safe. If you believe this email is suspicious, please click the 'Phish Alert' link in the banner to report this message.

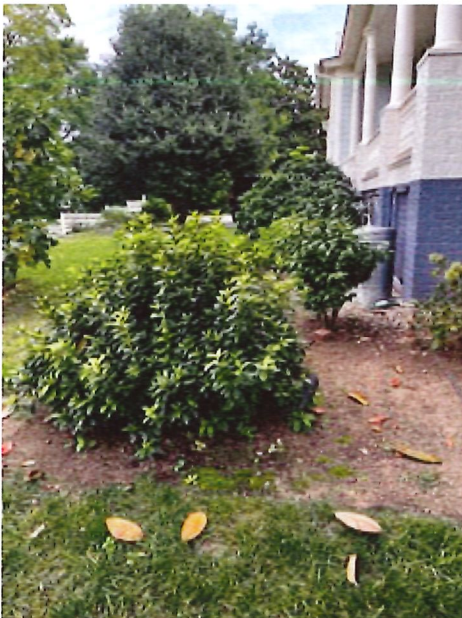
Hi.

Yes, the dimensions of the generator is 48inx25inx29in & weighs approximately 445lbs

The concrete pad is required. The dimensions of the pad is 54inx31inx4in & weighs approximately 189lbs

The generator will be 3ft away from the house and 10 ft from the front of the house and it will be parallel to the house.

Because the house is high from the street you will not be able to see the generator from street level, but we do have a large azalea and do plan on letting the camilla that is next to the site grow larger (we trim to keep small usually) and it will fill in the area well.



I hope this answers all your questions.  
Julie

On Aug 31, 2021, at 11:29 AM, Morton, Erin <[Erin.Morton@raleighnc.gov](mailto:Erin.Morton@raleighnc.gov)> wrote:

Julie,



Thank you for submitting a minor work COA application for 218 N East Street. We need a little bit more information to consider the application complete.

The proposed dimensions of the mechanical unit is 48x25x29, is that correct? Is a concrete pad required for installation; if so, what are the proposed dimensions of the concrete pad? I can see the general proposed location for the generator on the site plan – thank you for that. How will the generator be oriented in the planting bed? How far will the front of the generator be set back from the front wall of the house and how far away from the house's foundation will the unit be installed?

Finally, it looks like the existing shrubs are not tall enough to provide adequate screening and may need to be removed to accommodate the generator. How will the unit be screened from the street?

Please let me know if you have any questions. Thank you.

Best,  
Erin

**Erin Morton**

Preservation Planner II

**City of Raleigh**

Planning and Development

■ Raleigh Urban Design Center

919-996-2632 | [raleighnc.gov](http://raleighnc.gov)

For Planning and Development COVID-19 updates, [visit our information page.](#)















# GENERAC®

## GUARDIAN® SERIES Residential Standby Generators Air-Cooled Gas Engine

20/22 kW

1 of 6

## 20/22 kW

### INCLUDES:

- True Power™ Electrical Technology
- Two-line multilingual digital LCD Evolution™ controller (English/Spanish/French/Portuguese)
- 200 amp service rated smart switch transfer switch available
- 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](https://assets.swri.org/library/DirectoryOfListedProducts/ConstructionIndustry/973_DoC_204_13204-01-01_Rev9.pdf)

### Standby Power Rating

G007038-1, G007039-1, G007038-3, G007039-3 (Aluminum - Bisque) - 20 kW 60 Hz  
G007042-2, G007043-2, G007042-3, G007043-3 (Aluminum - Bisque) - 22 kW 60 Hz



or C-UL US LISTED

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 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**
- **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  $\pm 1\%$ .
- **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.
- **MOBILE LINK® CONNECTIVITY:** FREE with select Guardian Series Home standby generators, Mobile Link Wi-Fi allows users to monitor generator status 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.

GENERAC  
PROMISE



\* Assembled in the USA using domestic and foreign parts.

**20/22 kW****Features and Benefits****Engine**

- Generac G-Force design
- "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.

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**

- 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.

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.

**Transfer Switch (if applicable)**

- Fully automatic
- NEMA 3R
- Remote mounting

Transfers vital electrical loads to the energized source of power.

Can be installed inside or outside for maximum flexibility.

Mounts near an existing distribution panel for simple, low-cost installation.

**Evolution™ Controls**

- AUTO/MANUAL/OFF illuminated buttons
- Two-line multilingual LCD display
- Sealed, raised buttons
- Utility voltage sensing
- Generator voltage sensing
- Utility interrupt delay
- Engine warm-up
- Engine cool-down
- Programmable exercise
- Smart battery charger
- Main line circuit breaker
- 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, setpoints 65% dropout, 80% pick-up, of standard voltage.

Constantly monitors generator 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 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.

Protects generator from overload.

Maintains constant 60 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 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.

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

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



## 20/22 kW

## Features and Benefits

### Installation System

- 14 in (35.6 cm) flexible fuel line connector
- Integral sediment trap

Listed ANSI Z21.75/CSA 6.27 outdoor appliance connector for the required connection to the gas supply piping.  
Meets IFGC and NFPA 54 installation requirements.

### Connectivity (Wi-Fi equipped models only)

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

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

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

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

Detailed monthly reports provide historical generator information.

Built in battery diagnostics displaying current state of the battery.

Provides detailed local ambient weather conditions for generator location.



## 20/22 kW

## Generator

Model	G007038-1, G007039-1 (20 kW)	G007042-2, G007043-2 (22 kW)	G007038-3, G007039-3 (20 kW)	G007042-3, G007043-3 (22 kW)
Rated maximum continuous power capacity (LP)	20,000 Watts*	22,000 Watts*	20,000 Watts*	22,000 Watts*
Rated maximum continuous power capacity (NG)	18,000 Watts*	19,500 Watts *	18,000 Watts*	19,500 Watts *
Rated voltage	240			
Rated maximum continuous load current – 240 volts (LP/NG)	83.3 / 75.0	91.7 / 81.3	83.3 / 75.0	91.7 / 81.3
Total Harmonic Distortion	Less than 5%			
Main line circuit breaker	90 amp	100 amp	90 amp	100 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)	448 / 203	466 / 211	436 / 198	445 / 202
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**	67	67	67	67
Sound output in dB(A) at 23 ft (7 m) with generator in Quiet-Test™ low-speed exercise mode**	55	57	55	57
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. 1.9 qt / 1.8 L			
Operating rpm	3,600			
Fuel consumption				
Natural gas	ft <sup>3</sup> /hr (m <sup>3</sup> /hr)			
1/2 Load		204 (5.78)	228 (6.46)	164 (4.64)
Full Load		301 (8.52)	327 (9.26)	287 (8.13)
Liquid propane	ft <sup>3</sup> /hr (gal/hr) [L/hr]			
1/2 Load		87 (2.37) [8.99]	92 (2.53) [9.57]	86 (2.36) [8.95]
Full Load		130 (3.56) [13.48]	142 (3.90) [14.77]	136 (3.74) [14.15]
				92 (2.53) [9.57]
				142 (3.90) [14.77]

Note: **Fuel pipe must be sized for full load.** Required fuel pressure to generator fuel inlet at all load ranges – 3.5–7 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<sup>3</sup>/hr x 2500 (LP) or ft<sup>3</sup>/hr x 1000 (NG). For Megajoule content, multiply m<sup>3</sup>/hr x 93.15 (LP) or m<sup>3</sup>/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 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 10 °F (6 °C) above 60 °F (16 °C).



20/22 kW

Switch Options

Service Rated Smart Switch Features

- Includes digital power management technology (DPM) standard.
- Intelligently manages up to four air conditioner loads with no additional hardware.
- Up to eight additional large (240 VAC) loads can be managed when used in conjunction 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.

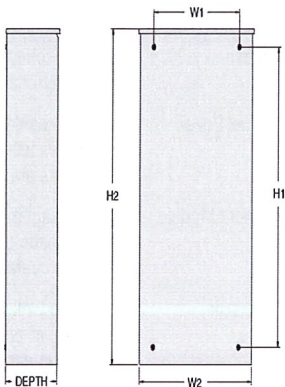
Model	G007039-1 (20 kW)
	G007043-2 (22 kW)
	G007039-3 (20 kW)
	G007043-3 (22 kW)
No. of poles	2
Current rating (amps)	200
Voltage rating (VAC)	120/240, 1Ø
Utility voltage monitor (fixed)*	
-Pick-up	80%
-Dropout	65%
Return to Utility*	Approx. 13 sec
Exercises bi-weekly for 5 minutes*	Standard
ETL or UL 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	6.91
cm	67.95	76.45	26.67	34.29	17.55

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



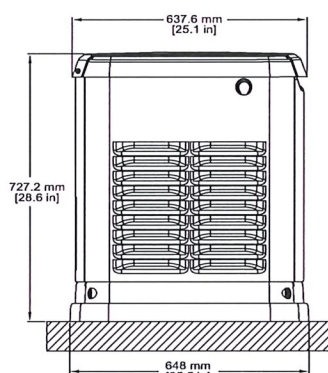


**Available Accessories**

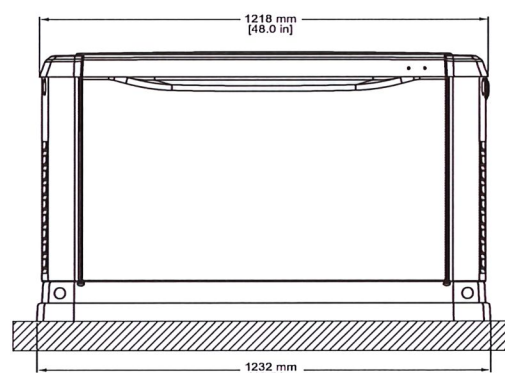
Model #	Product	Description
G005819-0	26R Wet Cell Battery	Every standby generator requires a battery to start the system. Generac offers the recommended 26R wet cell battery for use with all air-cooled standby product (excluding PowerPact®).
G007101-0	Battery Pad Warmer	Pad warmer rests under the battery. Recommended for use if 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 temperature regularly falls below 0 °F (-18 °C).
G007103-1	Breather Warmer	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 that may not be needed. Not compatible with 50 amp pre-wired switches.
G007027-0 - Bisque	Fascia Base Wrap Kit (Standard on 22 kW)	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 touch-up paint kit includes the necessary paint to correctly maintain or touch up a generator 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 (oil not included).
G007005-0	Wi-Fi LP Tank Fuel Level Monitor	The Wi-Fi enabled LP tank 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 amp) G007006-0 (100 amp)	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® Cellular Accessories	The Mobile Link family of Cellular Accessories allows users to monitor generator status from anywhere in the world, using a smart phone, 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
G007038-1	696471074185
G007038-3	696471074185
G007039-1	696471074192
G007039-3	696471074192
G007042-2	696471074208
G007042-3	696471074208
G007043-2	696471074215
G007043-3	696471074215



LEFT SIDE VIEW



FRONT VIEW

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