

What Do You Need To Know About Residential Generators?



It's easy to feel left in the dark when it comes to knowing what to look for when selecting a generator. Will it be used in a small business, big house or small home? Does it matter? What if it needs to power expensive electronics during a power outage – would that require anything special? Surrounded by loads of choices, many consumers feel powerless to make the right decision.

Don't accept a one size fits all recommendation when looking for standby power. Each individual's specific needs dictate the load size and type of generator that would work best in a given situation. The challenge comes in identifying those needs and matching it to a generator with similar capabilities. Overcoming that challenge places consumers in a position of power at all times – whether they're weathering a storm at home or keeping a small business operational.

Size is important

As you know, generators are available in a wide range of sizes. Generators with power supply capacities of 5kW to 50kW are readily available in the personal and home use markets, while industrial generators run anywhere from 50kW to over 3 Megawatts.

Many consumers believe smaller generators can be used for standby electric power because they are not running all the time. Unfortunately, generator under sizing is one of the most common mistakes when buying a generator. Not only does it pose a potential risk to the generator, it can also damage other assets connected to it, create hazardous situations and limit overall productivity of the unit and/or the business relying on it. If a generator is too small, it could fail catastrophically. At the very least, it will shut down, leaving you without power.

Kinsley Power Systems Offers Preventative Maintenance Programs,

Which Include:

- Regularly scheduled visits
- Multi-point inspections
- Fluid and filter changes
- Environmentally safe waste disposal
- Complete system testing
- Optional fluids analysis

What characteristics/ specifications should I look for in a residential generator?

Local service - This is a factor that many homeowners overlook when purchasing generators. Some online manufacturers can't support their customers with service after the sale.

Warranty - Warranty is always a sign of quality. For generators, you'll want to be sure to ask if the warranty includes parts, travel time and labor. Some manufacturers have been known to include only parts and labor.

Engine temperature - You'll want an engine temperature specification that runs under 300 degrees. When a generator engine starts running over 300 degrees, engine oil starts to break down. As a result, in time, the life of your engine will be significantly reduced.

Electronic voltage regulation is a sign of a quality generator. The alternative to electronic voltage regulators - droop governors - can lead to voltage spikes. This has the potential to damage electronic equipment. A variation of only +/- 2% in voltage fluctuation is a good range; that means your power will oftentimes be cleaner than that coming from the local utility.

Direct drive vs. belt driven generators - direct drive generators have fewer moving parts and thus are a more reliable design. Direct drive generators are another sign of a quality system.

Listing - the stamp of approval by the Underwriter's Laboratory (UL) is a mark of quality. You'll want to make sure that your ATS is UL listed as well.

Reputation - Since your generator is an insurance policy, you'll want to pick a generator company that has a long-standing reputation for quality and extensive experience in the generator field.

What are the advantages to a standby vs. portable generator?

- **Fuel storage** - Residential generators run on diesel, natural gas or liquid propane (LP) gas whereas portable generators typically run on gasoline. Over long periods of time, gasoline spoils and can corrode the engine. In addition, home standby generators are designed to be connected to large fuel tanks - a real advantage in the event of an extended power outage. This arrangement saves you the trouble of having to refuel your generator every two to 10 hours, common to most portable units on the market.
- **Fluctuation and output** - Many portables can have very high power fluctuations, or what is known as "dirty power." When measured, the voltages would appear as a saw tooth pattern. Dirty power results in damage to electronics. Fluctuations also create "brownout-like" conditions that can damage refrigerators, air conditioning systems, oil burners, or anything else with a motor. Many times when you listen to a portable running you can hear the power fluctuations - which sound like variations in

revving. Kohler generators produce the cleanest power, and when measured, looks like a soft wave instead of a saw tooth.

- **Reliability and durability** - Residential standby generators tend to longer lasting. It's fairly common to hear stories of KOHLER® standby generators from the 1940s, '50s & '60s still in operation.
 - **Automatic Transfer Switches** - Residential generators are commonly wired to an automatic transfer switch that will automatically start your generator in the event of a power outage. In addition, the switch will automatically exercise your generator once a week. Most manufacturers recommend that your generator run at least half an hour per week. It's been our experience that generators without ATs often don't get the exercise they require. Your generator is like your car: it needs routine exercise.
 - **Noise** - The smaller residential sets (8.5 to 20kW) come packaged in sound attenuated housings, and are significantly quieter than portable generators.
 - **Service** - Typically, residential generator distributors are prepared for 24/7 emergency field service. Kinsley Power, for example, has over 30 generator technicians who travel home at night with their vans ready to respond in an emergency. Kinsley also has an extensive parts stock on hand. In the case of the discount chain stores or on-line re-sellers, there's no service after the sale.
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Why buy from a certified dealer vs. discount store

Oftentimes discount stores do not have a certified installer available and the installation is provided through an external contractor. The store has no ownership of the unit after the sale, as opposed to a dealer, who has a direct link to the manufacturer. Also, a certified dealer is required to be trained and up to date on the latest technology in order to retain their dealership. They are required to pass rigorous testing every two years in order to remain certified.

Do I really need a service contract? (I don't have one on my lawn mower)

Unlike your lawnmower your generator is more comparable to your car, you bring your car in for regular oil changes, the same things need to be done on a generator.

What fuel source should I use? Natural Gas? Liquid Propane? Diesel?

Fuel sources are often dictated by availability. Many homeowners choose natural gas because it is what runs their household. Some people choose liquid propane so they can be truly "off the grid" in the event of a severe outage. Diesel, although used in many industrial applications, is a more expensive choice, and is generally only for the homeowner who needs a different caliber (industrial) generator.



The Kinsley Group was founded in 1964 by Kenneth N. Kinsley in Springfield, Massachusetts. Over the years, the company has grown into an energy solutions provider for customers throughout the northeast, and has developed a reputation for integrity and professionalism. Our mission is to set the standard for energy systems performance and service.

Central to that mission is providing quality products and employing the best people in the business. Kinsley has been a distributor of KOHLER® Power Systems - one of the most respected names in power generation - for over 45 years. We also can furnish prime movers for co-generation, biomass and landfill applications. More than anything, Kinsley is proud of the expert team of energy professionals we employ. Our people exceed customer expectations, exemplify pride and ownership, and display uncompromising excellence.