

GENERATORS

Blackouts are nothing new, but major storms over the past few years have certainly hit home as to the importance of electrical power. In 2012 Hurricane sandy slammed the northeast, disrupting power for more than eight million customers and leaving families homeless as temperatures dropped. Most recently and close to home we all recall this summer series of storms that crippled upwards of 60,000 people in our area, leaving many without power or water for days, even weeks in some cases.

No matter how well maintained and reliable our electric service normally is, harsh weather conditions can cause power outages. Although they can occur during any time of year, wintertime is when we generally experience the majority of outages. Heavy snow and/or ice build-up on power lines or even a car skidding into power poles will leave you in the dark. When temperatures are dropping below freezing it's not the time to be caught powerless.

Be Prepared

The most common generator in the US is the portable gas powered small engine type. Yet there's more to using one of these than simply wheeling it outside and firing it up. The key to using a generator safely is preparedness. Size it adequately, plan where and how you'll use it, then test run the machine. We stock, but are not limited to, the following portable generators.

- Generac GP Series 5500 watt
- Westinghouse 420cc 7500 watt
- Pulsar PG 2000 (2000 watt peak 1400 watt rated)
- Lifan Storm Series ES4000 (3500 watt running/4000 watt surge)

Larger units and variety available by catalog.

It takes a lot of calculation to properly size a home generator, and you'll need to talk to a knowledgeable dealer to be sure you've got it right. The machine's wattage has to be slightly larger than all simultaneous loads. First, tally the running watts of each appliances and devices you will use at the same time. Now add the startup wattage of the largest motor – operated load liable to come on line with the other loads. Motor wattage is three to five times greater at startup than it is running at a steady state, and your largest startup load will usually come from a furnace fan or well pump, assuming you won't be running an AC unit during an outage. Wattage is listed on a motor nameplate or on the electrical data plate affixed to an appliance. If wattage isn't listed but amperage is, calculate wattage by multiplying amps by volts. Aside from motor wattages, other loads, such as those imposed by electric water heaters, can severely strain a generator's output. Calculate accordingly.

Safety First

The risk from carbon monoxide poisoning is not to be taken lightly, so locate the machine to minimize that risk. A rule of thumb is to keep a portable generator 10 feet from the house (a garage with the door open is not enough ventilation to run your machine safely). Permanently installed generators are much safer in this regard since they are not fueled with gas but a cleaner-burning natural gas or propane.

The next major safety issue with generators is electrical. Don't operate a generator using a home make extension cord with two pronged ends, connecting one to the generator and the other to wall outlet receptacle. Electrifying a house's branch circuit this way can create a fire and shock hazard, especially in older homes with weak or improper wiring.

Always use heavy duty exterior cords to plug appliances directly to the machine, or use a single cord and connect the generator to a power-transfer switch. This is a specialized circuit-breaker panel that is wired into the house regular circuit panel. It isolates circuits to be powered, while blocking generated current from flowing into the grid outside the house. **CURRENT FEED BACK CAUSES AN EXTREME HAZARD TO UTILITY CREWS WORKING ON DOWNED LINES.** The reason this is so deadly is that the voltage of the reverse flow is stepped up when it passes through the pole-mounted transformer, which normally steps down voltage to households levels.

In addition to boosting safety, a transfer switch better enables you to power built-in appliances such as a furnace that cannot be connected with an extension cord.