



Standby Generators — FAQs

Training Materials TR00407002E

Effective August 2006

About Eaton's Standby Generator Systems

Why do I need a generator?

No region of the United States is immune to power outages from natural and man-made disturbances. But some regions including the Gulf Coast, New England, and the Midwest are more prone to severe weather including thunderstorms, tornadoes, hurricanes, ice, snow, and heat waves (which cause over consumption of power). These disturbances can lead to the loss of: a continuous light supply, refrigerated food, the ability to keep elderly relatives cool, and productivity in a home office or small business. An alternative to all of this is having the peace of mind knowing that your home will have a continuous power supply with a home standby generator.

What options are available?

When it comes to generators, there are two options available: portable and home standby generators.

What is the difference between portable and home standby generator systems?

Differences between portable and standby generators are the steps needed to have emergency power flowing into your house in the event of a power outage. Portable systems are wheeled or skid-mounted units that require you to roll the generator outside, start it up, and hook it up to a power inlet box. From there, you must go to the transfer switch panel installed near your circuit breakers and switch the power coming into your house from the main line to the generator running outside. After the power from your local utility is restored, you are required to reverse the setup process.

On the other hand, an advantage of an Eaton standby generator system is that the unit turns itself on and off automatically, and you never have to leave the safety of your home. The standby generators also perform a self-diagnostic test once a week to ensure their continued readiness. You can even set the time when the unit will perform this self-test. Visit www.EatonElectrical.com for more information about the options available.

What size standby generator do I need to run the electrical equipment in my house during a power outage?

Most average homes of 1200 to 3000 sq. ft. can run critical items in the home by using a 12 kW generator. The most common items that need emergency power during a blackout are the furnace blower motor, refrigerator, freezer, lights, TV, sump pump, and water pumps. Larger liquid-cooled standby generator systems can supply as much as 75 kW of starting power to your home automatically, giving your family the power, freedom, and comfort of their normal lifestyle, uninterrupted by a power failure.

Can I run a computer or other sensitive electronic equipment off the generator during a power outage?

Yes, the power coming from your Cutler-Hammer® standby generator is just as safe as the utility-supplied electricity you would normally have coming out of your wall socket. The spikes or surges that accompany power generation (also known as "harmonic distortion") are just a normal property of electricity. However, when considering sensitive or expensive electronic equipment running off a wall outlet, you should use a good surge protector to guard against small influxes of power.

How much does a standby generator system cost?

When you choose the safety, reliability and automatic operation of a standby generator, there are several factors that contribute to the total cost. The cost of the system includes the generator, a power transfer switch and installation charges. Optional maintenance contracts can also add cost.

Installation costs vary, depending on customer requirements. A professional focusing on the customer's specific needs will help to ensure an accurate estimate of total installation costs.

What kind of warranty do you offer?

Eaton's electrical business offers various warranties depending on the model of standby generator.

Can I install the standby generator myself or should I let someone else do it?

It is highly recommended that you have your standby generator system (generator and transfer switch) installed by a licensed electrical contractor. Failure to do so could be dangerous for family members, as well as outside repair workers trying to fix downed power lines. In addition, professional installation is required to maintain the warranty on the system. Eaton's installation contractors are capable of not only carrying out the installation, but also offer maintenance agreements that ensure the standby generator is being serviced on a regular basis.

What happens during a typical installation?

A basic installation includes:

1. Delivery of the system.
2. The transfer switch is hardwired by the electrical contractor (installer) into the home or business.
3. The customer is responsible for making arrangements to provide all necessary gas connections for the standby generator.
4. Final startup inspection of the system and completion of the startup form should be finished by the electrical contractor or startup service provider.
5. Clean up of installation debris after installation is completed.

If you ever need service on your standby generator, you can count on the Eaton network of electrical service providers to offer prompt, expert maintenance and repair services.

Technical Data

Does starting the motor require different wattage?

Induction motors require larger amounts of electricity for initial start-up than when they are running. Some appliances and tools, such as refrigerators/freezers, furnace fans, air conditioners, electric chain saws, weed trimmers, etc., may require more watts than normal running wattage for motor starting. This factor must be considered when sizing a generator to meet your needs.

What is the difference between running and starting watts?

The running watts of a generator equal the amount of power the unit can produce continuously. The starting wattage is the additional power that the generator can produce for short periods of time to start items in your home that require larger amounts of electricity for initial startup than when they are running.

What does Automatic Voltage Regulation (AVR) do?

AVR maintains steady voltage supply for the home. This is important for running sensitive electronics such as computers, microwave ovens and televisions.

Who makes your transfer switches?

Eaton's electrical business has created a family of custom-made Automatic Transfer Switches designed exclusively for use with standby generator systems. All Cutler-Hammer brand switches are lightweight, easy to install, and feature built-in advanced control boards for residential and small business applications.

About Maintenance and Use

Do I need to run the standby generator frequently when it is not being used?

One of the advantages of Cutler-Hammer standby generators is that they are designed to run once a week for 20 minutes as a self-test. All you have to do is program the unit for when you want this task to be performed and it will automatically start and test itself, then switch itself back off again. During this time it will not only lubricate the engine and charge the included battery, but it will also run a diagnostics check to identify potential problems. If any problems are detected during the test, an LED located on the display panel inside the front access panel will alert you.

How long will a unit run before I have to let it cool down or refill it with fuel?

Another of the clear advantages of the Cutler-Hammer standby generator is that they do not need to be refueled as often – if at all – because they use LP (propane) or NG (natural gas). Rest periods to allow cooling are also not necessary. All Cutler-Hammer standby generators employ air- or liquid-cooled engines that do not require you to turn them off after extended run times. However, you will need to turn off the unit before refueling, if applicable, or when checking the oil levels which should be done on a regular basis after extended use. (Refer to your Owner's Guide for complete instructions.)

Do I have to worry about back-feed if the generator is running when the power comes back on?

No. All Eaton transfer switches are designed to keep generator back-feed from occurring. When the contractor installs the transfer system into a house or small business, they will also hardwire the switch directly into the circuit breaker. When the home is receiving electrical power from the generator, it automatically separates the power coming in from the utilities from that of the generator, preventing damage to your home and its electrical equipment. Only when the system switches back to utility-supplied power will the appliances assigned to the generator receive power from the homeowner's utility. With an automatic standby generator, the unit senses when the power has been restored and automatically switches back to utility power before shutting down. Eaton's electrical business has taken great care in the design of each system to ensure maximum safety.

How often do I have to change the system's oil?

An oil change is recommended approximately every 50 hours and the oil filter should be changed every 100 hours. Synthetic oil is required when it's time for a change of oil.

Note: Cutler-Hammer home standby generator engines are shipped with a pre-filled crankcase and their engines already broken in at the factory, effectively eliminating the need for you to break-in your system. An hour meter located inside the front access door will help you know when it's time to change the oil in your system.

Who do I call if I have any questions or maintenance issues?

We recommend that you first contact the person or contractor who performed your original system installation. Firsthand knowledge of your original system installation makes them best equipped to field specific questions you might have or to perform any needed maintenance. Often, installers will also offer you special maintenance agreements, making any potential mechanical problems much less likely. You can also call the Eaton Technical Resource Center (TRC) directly at 800-356-1243, Option 3, Monday through Friday, 8 a.m. – 5 p.m. Central Standard Time if a problem requires additional assistance.

Can I run the generator inside my home?

No. A generator employs an internal combustion engine and uses gas and oil. The exhaust from running the generator contains lethal carbon monoxide, as well as other unhealthy gases. Therefore, the unit should always be placed in a well-ventilated area.

Can I vent the exhaust out of an enclosed area?

No. Carbon monoxide gas produced by the engine can be deadly. Portable generators are designed to run outside where there is plenty of ventilation. All Cutler-Hammer standby generators are permanently installed outside your home.

Why choose an Eaton Cutler-Hammer standby generator?

No one knows more about power and the residential electrical business than Eaton. They've been manufacturing quality Cutler-Hammer products for more than 100 years.

Eaton offers the broadest line of Cutler-Hammer home standby generators in the industry to meet any home's emergency electrical power needs from 7 kW to 75 kW. Eaton also offers a variety of automatic and manual transfer switches, power panels and accessories. All Cutler-Hammer standby generators are UL® Certified, meet CSA® standards, and are backed by a network of service experts.

Cutler-Hammer standby generators have an excellent in-service record. The generators are built for years and years of reliable operation and are powered by tough, efficient Briggs & Stratton®, Ford, or Isuzu engines, making them the perfect choice for standby power.

These home standby generators boast the smallest footprint in the industry for a subtle yard presence and easy installation. They feature sound-absorbing, weather-protected enclosures and spark-arrest mufflers, so they're neighbor-friendly.

Packed with cost-saving, consumer-friendly features like easy-to-understand control panels, engines that don't require break-in, and easy fuel conversion for natural gas or propane, they cost less to install and operate over the long term.

I'm not familiar with Eaton, can you tell me more?

Eaton Corporation is a diversified industrial manufacturer with 2005 sales of \$11.1 billion. Eaton is a global leader in electrical systems and components for power quality, distribution and control; fluid power systems and services for industrial, mobile and aircraft equipment; intelligent truck drivetrain systems for safety and fuel economy; and automotive engine air management systems, powertrain solutions and specialty controls for performance, fuel economy and safety. Eaton has 60,000 employees and sells products to customers in more than 125 countries. For more information, visit www.EatonElectrical.com.

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Printed in USA
Publication No. TR00407002E / Z4798
August 2006