IS YOUR GENERATOR SIZED PROPERLY? HOW TO SIZE YOUR GENERATOR?

Lost your power, just finished cooking dinner, and now you've kicked your shoes off, you're relaxing and enjoying a movie, gas fireplace is going, kids are doing homework, dishwasher going, someone's in the shower, and life is good. Four years of peace of mind.

Then BANG!. Power goes out. It's happened before. You get your boots on, get dressed, and go outside to reset the breaker on the generator. Only this time, the breaker doesn't have to be reset, and this time, the generator will not restart.

You call for service, the tech comes out and after diagnosing the unit, tells you that you need a new motor, this one is shot. The cost to replace the motor on this unit will be $2400 to $2700, and may take two to four weeks to fix. You are in the middle of predicted blizzards.

Now you ask, how could this happen, why did happen.

Well this happens quite often. Many generators are installed in an unsafe manner and/or are not sized properly. In fact, most generators are undersized for the intended load.

You may ask, isn't the generator protected with a circuit breaker if I overload it? Let's use an example. If you run your car at 120 miles/hour down the interstate for five or ten minutes, you probably will not hurt your engine. If, however, you did that same speed for 48 hours straight, you will probably blow your engine'

Your generator is the same as the car. You can run it for short periods of time at max and not harm it, however, running it at th max for an extended period of time will shorten it's life.

DO NOT EXCEED 80% OF YOUR GENERATOR CAPACITY ON A CONTINOUS LOAD.

If your generator output is 30 amps, do not exceed 24 amps, if it is 83 amps, do not exceed 66 amps, etc.

How many amps does your generator produce? Take your generator wattage and divide it by 240 volts, this will give you your amperage. Keep in mind, KW = 1000 watts, so a 10KW is 10,000 watts. Divide the 10,000 by 240, which would be 41.7 amps. If you multiply that by 80%, that would equal 33 amps, and that is the max you should use on a continuous basis.

MYTH: Some installers will state their 10KW will put out more than 'the other guys' 10 KW. It doesn't matter the brand, the math is the same. Beware of anyone who makes this claim.

What size generator do you need? Add up your usage, for example, your stove may take 40 amps, electric hot water heater, 20 amps, etc. and this will give you your expected usage. Usage guides are available on many websites. After you have determined your load, talk to a professional and find out how to manage the load.

Most reputable generator companies will do a free site visit and evaluate your existing system, or give you a free evaluation on a new system.

PROTECT YOUR INVESTMENT, PROTECT YOUR PEACE OF MIND

If you have any questions, please forward them to dirfygenerators@yahoo.com, and we will try and answer them. We will also answer some of the questions in future articles

Note: There was a news clip a little while back that mentioned a house fire that was started by a generator, and I have received many questions on that issue. Although I do not have any official information on that incident, my next article will cover some possible causes of generator related fires, and what to look for in your installation.