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All you have to remember is this **"2.6 kilowatts"** of storage.

Okay if you are like me, all this volts, amps and watts stuff is hard to figure out. But it's easy once you understand that all you really need to know is the wattage of what you are using and convert that to kilowatts. Let's take a refrigerator for example. If you go into Lowes, Sears or Home Depot, and look at their refrigerator section you'll see that there are a whole lot of refrigerators and models to choose from. It can be hard to try to figure out what the electrical usage of an appliance is because most people really don't worry about those things. Most people have reliable grid power and just pay their electric bill at the end of the month. But times are changing; the cost of running that electricity is being felt, not just in our pocket books, but also to the environment. Also there are more people going off power than there used to be because the innovations in alternative energy technology are making it easier to do so. Either way, lucky for us, the Dept of Energy years ago required all appliance manufacturers to post what the electrical cost (or usage) of an appliance is so consumers can compare and know easily before they buy it. It's the big yellow sticker with a dollar value on the front of the appliance (sometimes it will be inside). Now you really can't take for granted what the cost of the electricity is going to be based on what it says on the sticker, because the cost to run electricity varies greatly from one place to the next. However all we really need to know is what the yearly wattage usage is, which is also displayed on that same sticker.

So for instance, I called up our local Lowes and spoke the salesperson on the floor who sells the kitchen and laundry appliances. She said that her most popular selling refrigerator is the 20.5 cubic foot Frigidaire. This model runs at 408 kilowatts per year according to the tag. If you break that down to number of days in the year it is a little more than one kilowatt per day.

So the Ready2Go runs on a pair of 220 amp hour 6 volt batteries. A watt is simply the sum total of an amp multiplied by a volt. So the equation is amps x volts = watts (AxV=W). So then we know that the Ready2go has a storage capacity of 2.6 kilowatts and so can run this refrigerator for two and a half days on emergency power. Example:

220amps x 6 volts x 2 batteries= 2,640 total storage watts or 2.6 kilowatts

1 refrigerator x 1 kilowatt per day ÷by 2.6 kilowatts = 2.6 days of use.

Most power outages last from a few hours to at the most two days. Disasters such as Hurricane and Earthquakes can be worse which is why it is highly advised that the Ready2go be used in conjunction with solar panels.

Keep the fridge closed and it will last longer, open it often it will use the batteries faster. Hot days, cool days… elevation… humidity… all these can affect the actual amount of electricity that is used by the refrigerator and therefore can change the amount of time that the Ready2go can run this refrigerator; Which is why we just say, 'your times may vary.' However some things are easier to calculate even if you don't have the yearly wattage posted for you. For example:

A 60 watt light bulb: 1(bulb) x .6 (60 watts converted to kilowatts) ÷ 2.6 (battery storage) = 23 days of continuous light. If you only use the light for four hours at night then; a 24 hour day divided by four hours is 6. So you'd get six more times out of it or 138 days of light. The other good news is that when that light bulb is off, the Ready2go is only drawing a tiny bit of power to keep a tiny LED light and a sensor on to sense when there is a need to power on again. This is not the case with a gas powered generator, which even in energy saving idle mode, still puts out the same carbon emissions (and sound pollution) and uses fuel to remain on.

Another good example is a Skilsaw. The most commonly used tool on any construction site is the reliable 7.25" worm drive circular saw made by Skill Corporation. This saw uses 120 volts at 13amps. So it uses 1560 watts (or 1.5 kw) to run. This means that if you were cutting continuously a Ready2go would last you a more than a day. However nobody runs a Skilsaw continuously all day long 24 hours… it is turned on to make a cut and then set down again… turned on and set down… turned on and set down. So the actual use of the Skilsaw is only a few minutes for an entire day. Even if you did have a man that could actually keep the saw running continuously (without he or the saw burning out) for an eight hour day then the same calculation goes for the Skilsaw as the light bulb. 24 hours divided by an actual 8 hour working day equals 3. So take the 1560 watts and divide that by 3 and you have 520 watts. So a Ready2go would last 5 days at that rate. However even that is not realistic, most cutting etc. is done much more sporadically and my experience is that a crew of four to five carpenters using a pancake compressor, with nail guns and a Skilsaw or two can use the Ready2Go without needing a recharge for 2-4 days (by the way charging takes about 4 hours on 120 volts). The best thing to do for builders is to keep it in the back of the truck and just charge it up at home every night, like an electric car. Then at the jobsite all you hear is the sweat sound of work getting done, without any noisy generator in the background, or the knowledge that you have to stop to or from work to get gas to feed it every day. I have built 2 houses with the Ready2Go so far, so I know this to be true.

Now the with the exception of the example I use for construction the above calculations are for emergency calculations only because in everyday use you never want to reduce the batteries by less than half their capacity, to keep them at their peak performance, but in a life threatening situations it's better to replace a battery later on than it is to let the Iron Lung run out of power. Additionally if you had some solar panels hooked up to the unit it can be recharging itself on a daily basis.

Solar panels, however, is another discussion altogether.

I know there is a website that has a breakdown of popular appliances and about what their wattage is. I'll try to find it. If any of you have found that already please let me know.

I hope this helps. Aloha

http://www.consumerspower.org/home_energy/billestimator.php

http://michaelbluejay.com/electricity/howmuch.html

http://www.energysavers.gov/your_home/appliances/index.cfm/mytopic=10040

I hope this helps. Aloha

Tony

P.S. the upgrade 300 amp hour batteries are 3.6 kw