



Winglette

WIND POWER FOR YOU...

Electricity

For you...

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Model W03



—Battery bank sizing—

How to determine the Size of the Battery array that will work well for your needs:

The **first thing** that you will have to decide on is the **operating voltage** of your system, whether a 36Volt or 48Volt system. The higher voltage systems is slightly more effective, but a little more expensive. We found that independent home owners mostly prefer the 36Volts packages, while the communication industry rather the 48Volts systems.

Sizing your battery bank and inverter is elementary math's. Power is measured in **Watts**. The formula to determine watts is as follows: **(Watts = amps x volts.)** Appliances wattage is usually listed on the manufacturer's label. After you've collected this information about all the items that you want to power off your system, you are ready to determine the battery size you will need.

PICTURE GALLERY

Testimonials.

In the end, it is what our customers say that really matters. Here are the comments of some of them:

Johnny Hanekom, Keetmanshoop, Namibia: The two (2) machines that I've bought, exceed all my expectatoin's as far as power generation is concerned. I am really pleased with their performance, and I am planning to buy the third unit.

STEP 1:

Determine your daily energy budget. Make a list of all the appliances that you want to serve with power. List their Watt ratings and list an estimate of the number of hours that each item will be used per day. Multiply the watt ratings with the hours used per day, to determine the daily watt-hours per items. Add these values together, to arrive at a total budgeted watt-hour needed per day.

STEP 2:

Multiply total daily Watt hours needed by the number of **anticipated days of autonomy**, to determine you basic battery size requirement. (For excellent wind conditions choose 1. For poor wind conditions choose 3.) This figure we call you **basic battery size**.

STEP 3:

Multiply this basic battery size by 2, to determine **safe battery size**.

Johnny van der Linde, Groblershoop: We are retired on our farm outside Groblershoop, and have always experienced a shortage of electricity from the solar panels we had. With our Winglette wind generator now installed, we are seeking ways to utilize the abundance of power that's available now!

Nico Grobler, East Coast, Mozambique:
We have a holiday home near Vilancuro, and are well pleased with our Winglette. Being a pilot for the South Africa Air ways, I just love the Winglette's modern technology and good looks!

STEP 4:

Now, convert this safe battery size, to amp-hours as follows: **Safe battery size expressed in Amp-hours = Watt hours / DC volts.** (DC volts is the operating voltage you've chosen for the battery bank. For small systems it is normally either 36 volts or 48 volts. For larger system it can be 110 Volt, 240 volt or 600 volt.) With this figure for a Safe battery size, expressed in amp=hours, **you can go and shop around for a suitable battery bank.**

STEP 5:

To determine the correct **inverter size**, total the wattage requirements for all the appliances you plan to run simultaneously. Add at least 25% to this perceived requirement. The final check is to look for **surge watts** of any item of your appliances that might exceed your inverter size. Choose an inverter size to suite this requirement.. and if in doubt, go for one size up.

Click here to **download a Battery & Inverter sizing form.**

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