How to match the motor with the battery pack

How do you choose a battery for a motor?
The motor should have a voltage and power rating. You choose the same voltage (or lower) battery as your motor. The battery has to be capable of outputting more current than the motor needs at full load. Let's say you have a 12V 100W motor. You'll need a 12V battery,it should have a "C" rating,this is it's maximum current it can output safely.

How do I choose a battery Ah rating?
The battery voltage needs to match the motor rating. The controller voltage rating needs to be the same or higher. The battery AH rating should be chosen based on the motor power rating ÷ motor voltage rating x 1hr. A 48V 500W motor should be paired with a 48V battery that has an AH rating of at least 500W ÷ 48V x 1hr = 10.4AH.

How do I choose a battery-powered AGV motor?
Optimal motor and battery pairing relies on the selection of an efficient motor as well as a battery with the appropriate capacity, cost, size, maintainability, and discharge duration and curve. Battery-powered AGVs for automated warehousing require brushless dc motors engineered for top efficiency.

Should I use a 48v battery or a 36V motor?
Matching your motor voltage and your battery voltage cannot be understated if you want your setup to even work,let alone cause serious damage. If your motor is rated at 36v,get a 36v batteryand so on. Getting a 72v battery and a 48v motor will likely fry your electronics located in the motors controller.

What happens if you use a 72V battery and a 48V motor?
Getting a 72v battery and a 48v motor will likely fry your electronics located in the motors controller. Using too low of a voltage will not give enough voltage to even register in the controller and you will not be able to power it up. Some motors have a variable voltage they can run off and are usually clearly marked.

Can a 12V battery run a 100W motor?
The battery has to be capable of outputting more current than the motor needs at full load. Let's say you have a 12V 100W motor. You'll need a 12V battery,it should have a "C" rating,this is it's maximum current it can output safely. You multiply the capacity (measured in Ah) by the "C" (discharge) rating and you get it's maximum current.

Judging from the 250W motor I was using around 2016 and the small battery pack on that giving me about 11 or 12 miles (24V/8.8Ah) I worked out on the same Wattage motor should give me about a 55 mile range on a ...

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Discussion How to match up MOTOR to ESC and LIPO ... all the load on the motor, ESC, and battery, and if wrong lets the "magic smoke" escape from motors and ESC"s. Oct 06, 2009, 07:38 AM #5; vintage1. vintage1. Registered User. Roughly, the current the motor will TRY to draw, is a function of the pack CELL count, the motor KV and the prop size ...

I recently acquired 50 used li-ion cells (18650). I"d like to efficiently determine which cells are good matches (i.e. which cells have similar: capacity, charge times, & discharge times) so that I can put them into battery ...

The battery pack is able to support 60amp continuous and 180 max discharge. Please correct me if I have given the wrong info. Am I right to calculate the battery life to support the 4500W motor as (72V*25Ah)/4500W = 0.6 hours? or shorter battery life if ...

To ensure proper operation, the motor should match the voltage and power rating of the chosen battery or have a lower voltage rating. It is important that the battery can deliver a higher ...

No more need to ask "will battery X work with my motors?" WORK IT OUT YOURSELF! Use this simple formula and the linked spreadsheet by SSGT-

To connect a battery to a motor, you will need the following tools and materials: A battery with the appropriate voltage and capacity for the motor. Wires with connectors to connect the battery to the motor. A battery charger to charge the battery. A multimeter to test the voltage and current of the battery. A wrench or pliers to tighten the ...

Matching a Speed Controller to a Lithium Battery (Li-ion or LiFePO4) Overview: There are a few characteristics of lithium batteries and speed controllers which need to be understood in order to match them up so they are compatible with each other. Voltage: Lithium batteries have battery management system (BMS) boards which control what Voltage the battery will shut down at to ...

Battery voltage/cell count, Capacity and Discharge rating. Usually Hobby motor specs include the number of Li Cells recommended in your battery. If the voltage is listed, divide by 3.7(Voltage of one Lithium cell) to get the number of cells. Battery capacity is a measure of how much power the battery can hold and is rated in milliamp hours(mAh).

Choose your battery voltage based on the top speed you want to try for with the motor. Under 72V, over 49V is the norm these days. Controller"s job is to pull battery amps at pack voltage to suit the watts needed by the motor and convert to the voltage / amps varying every second according to throttle / weight / slope grade / headwind etc

However, a gear motor will function at a higher voltage. Current and Voltage . Besides matching the controller with the motor type used in the bike"s conversion kit, you must also ensure the brushless motor controller can

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meet the power ...

Web: https://agro-heger.eu