

Three 12V lithium batteries vs.36V lithium battery

Ok, so you've chosen lithium. Now let's get to the question at hand. Should you use a single 36V battery to power your trolling motor/other application? Or three 12V batteries

Truth is, both options work well with lithium! So you could say the only "pros" and "cons" are based on application-specific needs and personal preference. Here's a breakdown of the difference between using a 36-volt battery vs. three 12 volt batteries:

Pros and Cons of Using Three 12V Lithium Batteries

Pros: One argument for using three 12 batteries in a series is that if one of them fails, it's easy to replace. Also, you have more flexibility when placing the batteries in your application. This may be useful for those who want to distribute weight in a boat.

Unlike a 36 volt battery, you won't need a special charger for your 12V batteries.

Cons: The more batteries you have, the more connection points you have. You'll have to mount and connect each one, and each exposed connection is a potential source of unreliability.

Pros and Cons of Using One 36V Lithium Battery

Pros:The most obvious advantage of choosing a single 36V battery is, well, it's only one! One lightweight battery (if it's lithium) to install and store. Just one set of cables to hook up, fewer connection points to worry about, and less clutter to trip over.

Another pro is the fact that 36V batteries are "plug and go". You don't have to figure out how to link three 12V batteries together in a series to obtain the higher voltage.

But the most important advantage for many might be the fact that using just one 36V battery saves space! That's great for fishing boats, where every inch of space counts. It's one reason why they're popular for use with high-powered trolling motors.

Besides, the cost of three 12V lithium batteries with the same capacity is higher than that of a single 36V lithium battery (three 12V batteries are connected in series to form a 36V battery, which requires more BMS, more cables, etc.); Technically, making the battery 36V directly is conducive to battery consistency and stability of the battery, make it a longer life, and higher efficiency.

Of course, if you want to get a higher capacity, you only need to connect 2 or 3 in parallel, or even more.

Cons: You'll need a special charger for a 36V lithium battery. 12V chargers are more common on the market, but they won't cut it.