



RELi³ON[®]

5 REASONS TO INVEST In Lithium Battery Power



5 REASONS TO INVEST IN LITHIUM BATTERY POWER

Lithium iron phosphate batteries are an increasingly popular way to power electronic applications, including recreational vehicles, solar energy systems and military hardware. Although it costs more upfront, lithium provides superior longevity, efficiency and safety benefits compared to traditional, lead acid batteries.

Lithium batteries represent a significant improvement over traditional battery alternatives. Technologically, they're the next step – but what makes them so advantageous? If you're researching batteries and need to decide whether lithium or lead acid is right for you, here are a few reasons why lithium is likely the investment you need.

1. LITHIUM IS LONG-LASTING

Most LiFePO4 batteries last five years or longer. For context, the average lead acid battery only makes it to two years due to chemical degradation. Lead acid batteries also need to be maintained, requiring water replacement to avoid structural damage; if they aren't maintained properly, their life span is shortened even further. Because lithium batteries require no active maintenance, a one-time purchase guarantees longevity (assuming you're using a properly fitted battery and following usage guidelines).



2. LITHIUM IS QUICK

Lithium charges and discharges power rapidly, giving you more usage versatility. Fast battery charging is important for applications with little downtime, such as monitoring equipment. High rate discharging is important for applications requiring higher bursts of power, such as a vehicle ignition. Because lead acid batteries need to be charged over a longer period, in stages, and because they deliver poor performance during high discharge periods, they are less versatile than their lithium counterpart.

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3. LITHIUM IS EFFICIENT

Most LiFePO4 batteries last five years or longer. Lithium's efficiency is unparalleled, especially under high-stress situations. Unlike lead acid, lithium's power delivery is barely affected by temperature fluctuations and energy depletion. If you plan on exhausting your battery or setting up your application in extreme weather, lithium is the only logical choice.



4. LITHIUM IS LIGHT

Certain applications require careful consideration be made regarding battery weight and balance. Compared to lead acid, lithium provides the same or greater power at less than half the weight and size, giving you a more flexible approach to installation (and also making installation considerably easier).



5. LITHIUM IS SAFE AND GREEN

Finally, don't overlook lithium's environmental and personal safety record. Because lithium batteries are made from light metals, recycling and redistribution is easy and cost-effective, reducing the financial and operational burdens associated with recycling lead acid. Lithium batteries also contain no toxic chemicals that cause structural decay, further improving their environmental profile. RELiON lithium batteries have built in safety features that reduces fire and explosion risk.

WHAT ABOUT A CUSTOM SOLUTION?

When an off-the-shelf battery doesn't meet your engineered product's size or energy requirements, you should look at this problem as an opportunity to design a lithium battery solution that perfectly matches your application's needs. If you're not sure how to assess your battery needs and discover the optimal approach, consider working with an experienced provider to get a detailed analysis and recommendation.

As with any major purchase decision, research your options diligently and make the most informed decision possible. However, chances are if you've invested a considerable amount of time and money into a new application, it's worth investing in a lithium power solution, too.

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Making the switch to lithium doesn't have to be a complicated decision. Receive expert advice on equipping your products with lithium batteries by [clicking here to contact RELiON today](#) or calling us at 1-844-385-9840.

