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FAQ ATG Lithium Batteries

ATG lithium batteries offer numerous advantages over traditional lead-acid battery technology, making them highly suitable for everyday applications. These benefits can be categorized into six key areas:

Maintenance:

ATG lithium batteries require minimal to no maintenance, unlike flooded lead-acid batteries, which necessitate regular water replenishment. This reduced maintenance requirement enhances convenience for users.

Weight:

A standard lead-acid battery can weigh more than 35 kg, whereas an equivalent ATG lithium battery typically weighs between 10 kg and 15 kg, significantly reducing the overall weight.

Durability:

The lifespan of a conventional lead-acid battery ranges from approximately 400 to 700 cycles, while an ATG lithium battery can endure over 4,000 cycles. This extended lifespan eliminates the frequent need to replace aging lead-acid batteries.

Effortless and Rapid Charging:

ATG lithium batteries support fast charging, optimizing the efficiency of charging systems. They are equipped with an advanced Battery Management System (BMS) that allows compatibility with existing AC chargers, DCDC chargers, and solar power systems.

Safety:

Unlike standard lead-acid batteries, which lack safety features, ATG lithium batteries incorporate multiple safety mechanisms, including over-discharge protection, over-voltage protection, cross polarity protection, and temperature protection, ensuring enhanced safety and longevity.

Operational Power:

An ATG lithium battery delivers nearly 100% of its capacity as usable power, in stark contrast to lead-acid batteries, which provide only about 50% of their total capacity. This difference highlights the superiority of ATG lithium technology, as discharging a lead-acid battery below 50% can significantly reduce its lifespan. The usable power aspect also complements the weight-saving advantage of ATG lithium batteries, allowing for the potential replacement of two 100 Ah lead-acid batteries, each weighing 35 kg, with a single ATG lithium battery.





Is it possible to use and charge an ATG lithium battery simultaneously?

Yes, you can charge and discharge simultaneously with an ATG lithium battery.

What are the appropriate voltage settings for my charging system?

For optimal performance, we advise adjusting the settings on your charger, controller or regulator to the following parameters:

- Bulk at 14.4V.
- Absorption at 14.2V.
- Float at 13.5V.

I own a charger that does not utilize lithium technology; can it be used with your battery?

The vast majority, up to 99%, of chargers that do not utilize a lithium profile are compatible with ATG lithium batteries. The exceptions are chargers that are exclusively designed for calcium batteries. Additionally, non-lithium profile solar controllers and DCDC chargers are also suitable for use with ATG batteries. When employing non-lithium profiles, the battery will achieve a charge level between 98% and 100%.



Which charging profile should I select on my charger for non-lithium battery types?

It is crucial to use a charger with a lithium profile as the primary option. If such a profile is unavailable, AGM and GEL charging profiles may be used, as ATG lithium batteries can effectively accept charges from these alternatives.

Am I able to link an ATG lithium battery with a non-lithium cranking battery?

Mixing different chemistries in a battery bank is not permissible. When charging an ATG lithium battery from a cranking battery, regardless of whether it is lithium or another chemistry, a DCDC charger is required between the two. This ensures proper isolation of the batteries and facilitates the correct charging process for each. A voltage sensing relay (VSR) will not meet the requirements; a DCDC charger is essential.

Am I able to connect ATG lithium batteries in a parallel configuration?

Yes, ATG batteries can be connected in parallel. For information on the maximum number of batteries that can be connected, please refer to our website. The standard limit is four (4), unless otherwise noted. We recommend using the same type of batteries and advise against mixing different batches of ATG batteries or those from other manufacturers.

Is it possible to connect ATG lithium batteries in a series configuration?

It is possible to connect ATG lithium batteries in series. For detailed information on the maximum number of batteries that can be connected in this manner, please visit our website. Typically, the limit is four (4) batteries, allowing for a maximum system voltage of 48V, unless otherwise specified.



Can an ATG battery be safely mounted horizontally?

ATG batteries are designed to be installed horizontally or on their side.

Is it possible for my ATG lithium battery to start a vehicle?

An ATG battery lacks a CCA or CA rating, but it can potentially start small vehicles, including outboard motors. It is important to note that the ATG battery series is not intended for use in cranking applications.

How should I properly store my ATG lithium battery?

- Bring the battery to a resting voltage of 13.2 to 13.5 volts during charging.
- Store the battery in a cool, dry place, ensuring it is protected from moisture and humidity. Inspect the battery voltage every three months and add charge if needed.
- Keep the battery out of direct sunlight while in.

I currently do not have an MPPT solar charge controller. Will this device charge my lithium batteries?

Our lithium batteries are compatible with both PWM and MPPT solar controllers, regardless of whether they feature a lithium-specific profile. You can use your existing portable solar panel to charge an ATG lithium battery.

I have just received my ATG lithium battery. Can you confirm if it is fully charged?

The batteries are shipped at a voltage of 13.2v.



Can an ATG lithium battery be charged using a low current trickle charger?

A trickle charger is not essential. A notable feature of an ATG lithium battery is its ability to maintain voltage and charge for an extended period when not under load. It is advisable to charge the battery to at least 13.2 volts, disconnect any loads, and then monitor the battery every 2 to 3 months. If a recharge is needed, utilize a charger to replenish the battery.

What are the reasons for utilizing LiFePO₄?

Due to several significant properties, LiFePO₄ (Lithium Iron Phosphate) batteries are deemed safe for use in recreational vehicles (RVs, Caravans and 4WD).

Thermal Stability and Safety:

LiFePO₄ batteries exhibit superior thermal stability compared to other lithium-ion technologies. They are characterized by minimal thermal runaway tendencies, resulting in a significantly reduced risk of overheating. Even in the rare event of overheating, these batteries have a lower likelihood of igniting or exploding, making them a safer option for use in confined RV spaces.

Durability:

These batteries are capable of withstanding thousands of charge and discharge cycles without considerable loss in performance, making them a robust selection for the demanding usage patterns of RVs.

Charging Capability:

LiFePO₄ batteries enable rapid and effective charging, which is particularly useful during travel. They consistently maintain voltage levels while discharging, ensuring that appliances and systems within the RV receive stable power supply.

**Low Self-Discharge Rate:**

With a low rate of self-discharge, these batteries can hold their charge for extended periods when not in use, which is ideal for RVs that may not be used regularly.

Eco-Friendly:

LiFePO₄ batteries are often viewed as more environmentally benign than other lithium-ion variants, as they do not contain cobalt or other harmful heavy metals that pose greater toxicity risks and environmental concerns.

Weight Advantage:

In comparison to conventional lead-acid batteries, LiFePO₄ batteries are notably lighter, potentially enhancing fuel efficiency for RV operations.

The features of LiFePO₄ batteries establish them as a superior choice for recreational use, ensuring a reliable, safe, and efficient power supply that enhances the overall enjoyment of the experience.

Visit our store [ATG Battery Shop](#) to find a comprehensive selection of batteries, solar products, and charging solutions.