

WHY LITHIUM BATTERIES ?



High specific energy

<40% weight compared to lead-acid

"Specific energy" measures the amount of energy per unit of mass: E.g. Wh/kg. Lithium batteries have a very high measure of specific energy compared to lead-acid batteries, giving them a comparative advantage.



Maintenance free

Requires no maintenance

No refilling of water, no sulfation, no stratification and no float/maintenance charging. Completely maintenance free.



Fast charging

Standard <3 hours

Standard lithium batteries can be charged with a current that's 50% of the nominal capacity. E.g. for a 40Ah battery, 20A charging current is fine.



Longer run times

Use your equipment for longer periods of time

Many of the advantages listed here, result in an overall run-time improvement, which means spending less time charging or changing batteries.



Opportunity charging

Charging during the coffee break is fine

Lithium batteries can be charged partially or fully. Neither will affect the life-time of the battery pack.



High charging efficiency

More than 95% efficient charging

A high charging efficiency means that almost all the energy that is delivered by your charger, will actually also be stored in the battery, which in turn should result in lower charging costs.



Low TCO

Similar or lower TCO than lead-acid is attainable

The Total-Cost-of-Ownership of a Lithium battery is now similar or lower than a lead-acid battery. This is mainly due to our very competitive prices.



High energy density

<50% volume compared to lead-acid

In general terms, a lithium battery pack will only have half the volume of an AGM/GEL battery of equal capacity.



No hydrogen gas

Lithium batteries don't create gas while charging

There is no need to have a specially ventilated charging room, for charging lithium batteries because there is no potential gas development.



Pollution free

No cadmium, lead or mercury

Lithium-ION batteries are free of some of the most environmentally dangerous substances like cadmium.



Customizable design

No size or shape constraints

Because our lithium batteries are built up of a number of individual battery cells, we are mostly free of design constraints.



Low capacity loss at high C-rates

(Low Peukert-exponent)

On an AGM/GEL battery, the capacity is very dependent on the discharge rate. The higher the rate (discharge current), the lower the available capacity. This relationship is expressed through the Peukert-exponent.



High DOD tolerance

Discharge as you like

As opposed to lead-acid batteries, lithium batteries can be discharged to a very low DOD without adversely affecting the SOH (State-of-Health) or life-time.



Low self-discharge

Long time storage is fine

With an inherently low self-discharge, lithium batteries are perfect for long time storage. In other words: You don't have to worry about your batteries going "sour".

