



WARRANTY

Warranty Terms and Conditions for Lithium Battery Packs.

June 2017

J.K.Medico ApS provides a 2-year full warranty for all lithium battery packs. This warranty ensures complete replacement of the product in question, if one or more of the following conditions have been met:

- The battery does not perform within a reasonable threshold of the accompanying datasheet.
- The battery malfunctions due to a component error; a manufacturing error or an assembly/workmanship error.

The warranty period is calculated from the battery purchase date.

Replacement will be honored by WS Technicals, or a WS Technicals distributor or dealer. You are responsible for paying all of the following costs associated with the replacement: labor for removal or installation; applicable taxes; and any shipping or transportation costs incurred in returning The battery to WS Technicals or the distributor/dealer for evaluation.

WS Technicals DISCLAIMS ANY LIABILITY FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

WS Technicals reserves the right to no longer honor the warranty, if one or more of the following conditions are deemed to have been met:

- The battery been regularly charged in order to maintain capacity. (This should be done every 6 months, from the time of delivery)
- The battery has been exposed extreme heat or flame.
- The battery has been short-circuited, over-charged or over-discharged.
- The battery has been disassembled or modified.
- The battery has been improperly installed.
- The battery has been stored with metallics that can come into contact with the battery terminals.
- The battery has been connected with reverse polarity to any circuit or charger.
- The battery has been immersed in water or sea water (or other liquids).
- The battery has NOT been used together with a constant current, constant voltage (CC/CV) lithium-ion battery charger.
- The battery has been mistreated, dropped or damaged in any way.
- The battery has been used in a manner in which it was not intended.

This document and the warranties given herein are subject to change without prior notice.

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".





Patented computer controlled
BATTERY CHARGERS

We offer customized solutions of battery packs and power electronics of any kind.

We handle everything from specification, development, certification, assembly, testing and packing to shipment.