Warranty Claims

1. Contact the original point of purchase for instructions.
2. The battery must only be returned in compliance with the transport and packaging regulations ruling at the date of return. Failure to do this may result in the carrier refusing to ship the battery.

Lifos Safety and Product Limitations

- Keep out of the reach of children
- Do not under any circumstances disassemble this battery
- Do not immerse the battery in liquid
- Do not use the battery with damaged cables or terminals
- This battery is not designed for cranking and starter applications
- Do not expose the battery to fire or crush or puncture its casing

Limited Liability

The manufacturer nor any of its employees, agents, distributors or resellers are liable for any third-party damage howsoever caused. The extent to which the manufacturer is liable to a customer is limited to the purchase price paid by the customer for the Lifos battery.

DC to DC Charging

Charger Specification	Compatible	Recharge an over discharged LiFOS Battery	Able to charge LiFOS	Recommended Settings
Sterling BB1230	YES	YES	100%	LiFePO4 charge mode
Ring RSCDC30	YES	YES*	>80%	BULK charge 14.4V~14.6V
CTEK D250SA	YES	YES*	>80%	Automated 14.4V

* LiFOS battery will go into dormant mode when battery voltage is < 8V and battery output is 0V. Please contact us or use a specific LiFePO4 battery wall charger to recharge it for 3-5 minutes – this will release it. Please contact your dealer, retailer to get the wall charger if necessary.

UK Distributors

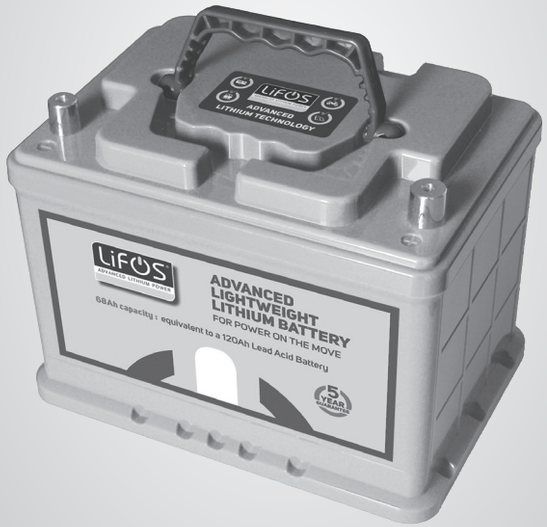
BBL Batteries Ltd, 3 St Philips Trade Centre, Albert Road, St Philips, Bristol BS2 0YB
Solar Technology International Ltd, Unit 6, Station Drive, Bredon, Gloucestershire GL20 7HH

www.lifos.co.uk

CE RoHS

User Manual

LiFOS
ADVANCED LITHIUM POWER



Lithium iron phosphate battery
(LiFPO4)

IMPORTANT: PLEASE READ BEFORE FIRST USE

Thank you for purchasing this advanced lithium iron phosphate (LiFPO4) battery. Combining the very best lithium cells along with an outstanding battery management system ensures this battery will provide you with incredibly long-lasting power in a super lightweight package.

A few tips on how to get the best from your Lifos Battery:

- Protect the battery from direct sunlight although it will work well in a wide temperature range (-20 to +60 degrees C).
- Avoid using Lifos in damp or wet conditions but if you do need to use it in these conditions consider using an all-weather enclosure such as the BB0001 Battery Box.
- Observe the correct polarity otherwise permanent damage could be caused – the battery casing is marked with + and –.
- Do not short circuit Lifos otherwise permanent damage could be caused.
- Lifos can be connected in parallel but not in series (you cannot connect two Lifos batteries to create a 24v system). A maximum of two Lifos batteries can be joined in parallel and it is important that when two Lifos batteries are thus linked they are at the same level of charge (ie <0.005v of each other) - check the details of each on the App to confirm this and if one is higher than the other, charge both batteries fully so you can be certain they are at the same level.
- Any mains lead acid or lithium charger (max 40A) can be used to charge Lifos or a 12v solar panel with suitable charge controller or a vehicle alternator. If a "smart" battery charger is used it is possible Lifos will only be 90% charged so in this instance we recommend using the Lifos lithium battery charger supplied with this battery. For Dc to DC charging, please check the list on back of these instructions or check our website ***www.lifos.co.uk*** for most up-to-date list.
- Lifos can be used if it is positioned on its side but will give best performance if it is positioned with its terminals facing upward.

Storage of Lifos

Lifos battery has an extremely low rate of self-discharge but if you intend not to use the battery for an extended period of time please fully charge it prior to storage. It is recommended to re-charge the Lifos once every 6 months.

NOTE – allowing the battery to over discharge (+6 months since its last charge) can lead to a shortened life.

Lifos App Icon

Accessing the Lifos App

The App is available for all Apple and Android devices. Visit ***www.lifos.co.uk*** where a link will take you directly to download this App for free. The App will give you full visibility of your Lifos battery and its performance. Your device connects to the Lifos app via Bluetooth so you need to be within 10m of the battery to access its data. Each time you wish to view the data you will need to log on via the App but this is quick and easy. If you are using two Lifos batteries whether independently or joined in parallel, you will not need to down load the App twice. When your mobile device is searching for the battery it will see two different serial numbers. Each Lifos has an individual serial number printed on top of its casing so you can quickly determine which battery the App is showing you the information for. You simply switch between each serial number as required.

Lifos App

If you have any questions about this connectivity please visit ***www.lifos.co.uk*** for help.

NOTE – only one Apple/Android device at a time can be connected to each battery.

TECHNICAL HELPLINE 01684 774000

Lifos Battery Load Limitation

The Lifos 68A battery is perfectly suited to heavy DC loads such as motor movers, but its Battery Management System (BMS) will not allow any load higher than 80A or 1000w at 12.5vDC or 800w at 230vAC through an inverter. It should be noted that inductive loads, even if rated at 800w may not be powered by the Lifos 68 because the inrush current of these devices can often be many times the rated load during initial start up. Examples of inductive loads are micro wave ovens and motors.

Resistive AC loads (via a suitable 12vDC to 230AC inverter) that can be powered by Lifos 68 include; toasters, travel kettles, travel irons, hair dryers, heaters etc (Max 800W).

NOTE – in the event an AC load higher than 800w is connected to Lifos 68, the battery will shut down and will not power the device but the battery will not be damaged because its BMS will protect it. In this circumstance the Lifos will be instantly reset so it is able to power loads within its approved power range as noted above.

Connecting up your Lifos Battery

Your lifos battery has removeable battery pole terminals depending on how you wish to connect you battery.

Generally the pole connections are great for quick release connections found in Caravans, RVs and Boats. However if you unscrew the pole connections you will then be able to use ring terminals directly onto the battery.

Please connect the Positive (+) connection first before connecting the Negative (-) connection.

Disconnection is the reverse process, Negative (+) first, Positive (-) last. (This is standard disconnection procedure for connection and disconnection of batteries and will help to avoid short circuits).

Disposal

Disposal of a used or damaged Lifos battery must be done at a certified recycling location. There are many of these nationwide – please see ***www.lifos.co.uk*** for details.

Warranty

A Lifos battery is supplied with a 5-year warranty from the date of purchase (please keep your proof of purchase) or 2750 battery cycles, whichever comes first. Note a full battery cycle is determined by a fully discharged Lifos (down to 10% of its gross capacity) and charged to 100%. The 5 year warranty period assumes no more than one full cycle per 24hr period. In the event of a valid warranty claim the manufacturer will, at its discretion, supply a new or re-conditioned Lifos battery dependent on how many years have passed since the date of purchase or how many cycles the battery has undertaken.

Conditions

a. Any warranty claim can only be validated by a proof of purchase.
b. The warranty is invalid if the battery has been subject to misuse, abuse or physical damage.
c. This Lifos battery must be of the correct size, design, and capacity for the intended application.
d. The battery should be installed and operated at a temperature not exceeding the batteries design limits as noted on the previous page and on the battery itself.
e. The warranty shall be voided if the battery becomes unserviceable due to: fire, freezing, abuse, alteration, modification or it suffers from an over discharged state.
f. Installation of the battery must be performed by a responsible adult.