

# USER MANUAL CHARGER FOR LI-ION BATTERIES CB2000





## **IMPORTANT SAFETY INSTRUCTIONS!**



TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK:

READ THROUGH THESE INSTRUCTIONS PRIOR TO USING

THE PRODUCT. CAREFULLY FOLLOW THESE

INSTRUCTIONS WHEN USING THE PRODUCT.



CAUTION! DOUBLE POLE / NEUTRAL FUSING!



This product is designed for indoor use.



At the end of their service life electric and electronic equipment and their accessories shall not be discarded with the municipal waste but be disposed of using separate collection, treatment, recovery/recycling and environmentally sound disposal. This also applies to any potentially bio hazardous parts and accessories. If in doubt, contact your local authorities to determine the proper method. Technical specifications for your product: seet ables, the marking on the product.

# Cautions to observe prior to use

- The intended use for this product is to charge a battery or a battery powered electrical accessory(NiCd/NiMH, LeadAcid, Lithium-Ion or LiFePO4 batteries)or to be used as a Power Supply to power an electrical accessory. Please see the marking on the product you have to verify the type of product you have and read the applicable instructions and technical specifications included with this manual
- This product may be used by unskilled operators, under the condition that these instructions are followed.
- Unskilled operators may contact the supplier or manufacturer for assistance, if needed, in setting up, using or maintaining this product and to report unexpected operation or events.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Do not allow small children to handle this product while unattended as cables may represent a risk for strangulation and small parts may represent a risk for inhalation or swallowing.
- Do not allow animals to come into contact with this product. Some animals are known to cause damage to cables etc which may be a potential for risk of electric shock and excessive temperatures. Also, cables and small parts may represent a strangulation risk for the animal.
- If the product is equipped with a mains cord, please check that the cord is not damaged. If the cord is damaged, the product must not be used until the cord is replaced. Replacement should be carried out by qualified personnel.

Immediate removal of the products mains supply should an operational error occur during use. If the product has a detachable mains cord the appliance coupler may be used as adisconnect device.

- The product is "switched on" by inserting the mains plug into the mains socket and "switched off" by disconnecting the mains plug from the mains socket.
- Should an operational error or unexpected change in the performance occur during use, disconnect the product from the mains immediately by disconnecting the mains plug from the mains socket and contact the supplier or manufacturer (see contact details on the front of this document)
- When not in use please think about disconnecting the product from the mains. This will reduce the risk of hazards, reduce the products environmental impact and save electricity costs.
- •To avoid overheating make sure there is sufficient room for the circulation of air around the product when in use. Do not cover it up.

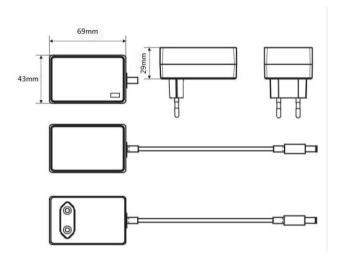
# MECHANICAL REQUIREMENT

The power supply size:

L69\*W43\*H29mm

WEIGHT:

The net weight of the power supply is about 113 g



# Explanation of Li-Ion battery charge cycle

(See tables for methods for each charger model)

## Charging method A

## STEP 1 - CONSTANT CURRENT CHARGE

To start a charge cycle, connect the charger to the mains.

The charger is in constant current mode, charging with the maximum current indicated on the charger, the LED-indication on the charger is RED. This step allows rapid charging of your battery until the battery reaches typically 80 - 95% of its capacity.

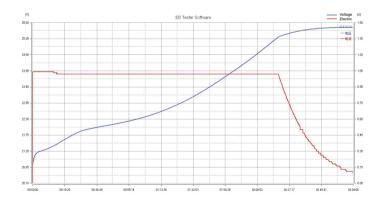
## STEP 2 - CONSTANT VOLTAGE CHARGE

The charger is in constant voltage mode, charging with a decreasing current until the current is below the charger's charge termination level (indicated on the charger). The LED-indication on the charger is RED. The battery is charged to its full capacity at the end of this step.

## STEP 3 -CHARGE COMPLETE

The LED-indication on the charger is GREEN and the battery is fully charged. For Li-lon batteries the charge current is zero and the battery has been charged to its full capacity.

After end of charge battery voltage will remain at "Step 2" level even if output voltage of charger is indicated as lower in the diagram. The charger will return to Step 1 if the battery is used. A load larger than the cut-off current will initiate a new charge cycle.







The insulation class of the charger is Class B.

The battery charger is manufactured by Dongguan GaoFanDe Technology Co., Ltd. in China. Address: Room 301, No. 8, FoAo One Street, DaLang Town, DONGGUAN CITY, Guangdong, China.

#### © MBL, November 2024, Issue 1.0

MBL is continuously developing our products and can make changes without prior notice. Therefore we can't guartate that the information stated on our webpage or in our written material always is up to date, nor can we take responsibility for any misinterpretation of our written context. Technical specification might change due to load and external circumstances, MBL products shall be tested in its intended application before use.

MBL Denmark MBL a/s Glarmestervej 18 B, St. Th. 8600 Silkeborg CVR: 12825242 contact@mbl.dk MBL Poland MBL Poland Sp. z o.o. Sulejowska 450 97-300 Piotrkow Trybunalski VAT No: 7710008003 Tei: +48 44 73 24 100 contact@mbl.pl

MBL China MBL (Xiamen) Co. Ltd. No.289 Wengjiao Road Xinyang Industrial District Haicang 361022 Xiamen Tel: +86 592 5961 896 contact@mbl.com.cn