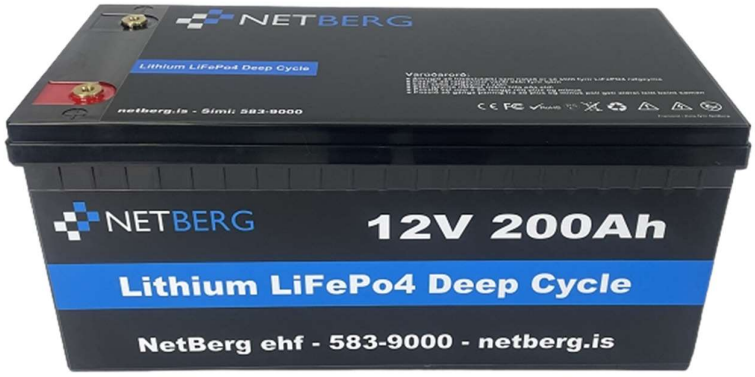
# Deep Cycle LiFePO4 Lithium Battery with Built-in BMS

User Manual




**WARNING:** Read carefully and understand all assembly and operation instructions before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Voltage:12v~24v  Capacity:100AH~400AH

SAVE THESE INSTRUCTIONS

# Important Safety Information

Thank you for choosing an NetBerg LiFePO4 Lithium Battery.
Save the receipt and these instructions. You must read the entire manual to become familiar with this product before you begin using it.
This product is designed for certain applications only. The distributor cannot be responsible for issues arising from modification. We strongly recommend this product not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, do not use the product until you have first contacted the distributor to determine if it can or should be performed on the product.
For a technical question please email: netberg@netberg.is

***WARNING***

This product can expose you to chemicals, including Di(2-Ethylhexyl) phthalate (DEHP) which is known to the State of California to cause cancer, birth defects, or other reproductive harm.

## WARNING

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- The warnings cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this tool. Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the product until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this product in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the product. There are specific applications for which the product was designed.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of large industrial equipment. There are certain applications for which this equipment was designed. It will be a safer experience and do the job better at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements

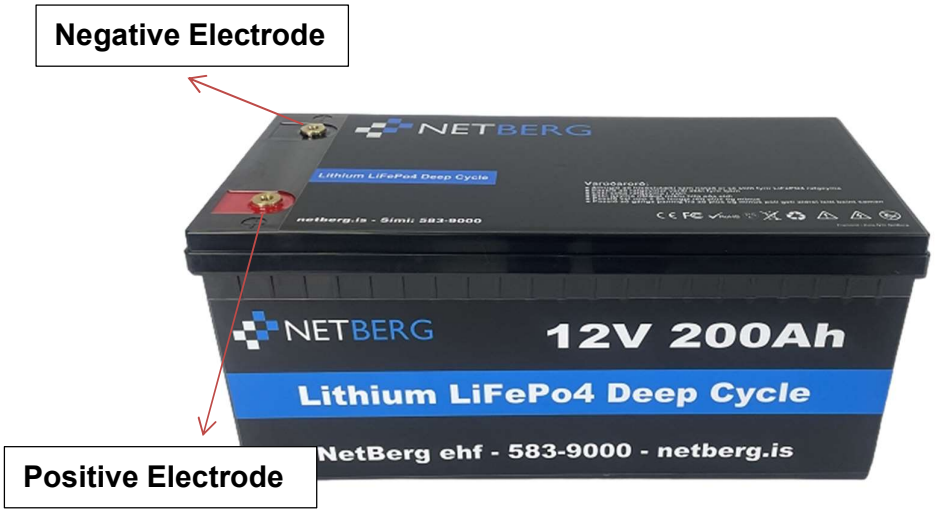
# Caution

- This product has a built-in high-voltage power supply and battery. Keep away from children.
- For long-term storage(more than one month), please charge the LiFePO4 Lithium Battery to about 70%.
- Do not place the unit close to or in a fire or expose it to heat. Keep out of direct sunlight.
- Do not use in a damp environment, do not knock or hit the product.
- Please charge with the original charger or according to the charger in accordance with the electrical parameters specified by the manufacturer.
- Please charge the LiFePO4 Lithium Battery within the temperature range of 0~45°C. Charging at too low or too high a temperature will shorten the life of the battery.
- In the case of long-term storage (more than 3 months), it should be stored in a semi-electric state in a low humidity environment without corrosive gas at a temperature of-10~35°C.
- If the LiFePO4 Lithium Battery emits a peculiar smell, high heat smoke, and other abnormal conditions during charging, using, or storage, please stop charging immediately, and place it in an open place for remote observation, after confirmation of safety, contact the manufacturer or dealer.
- Precautions when working with solar panels
  With the incidence of sunlight or other light sources on all solar panels, a voltage appears at the output terminals of the solar panel turning it into a source of electricity. To avoid a shock hazard make sure the solar panel is covered with an opaque(dark) material such as paper/cloth during the installation. Do not make contact with the terminals when the panel is exposed to sunlight or other light sources.

# Part List

| | Reference | Quantity/pcs |
|---|---|---|
| 1 | LiFePO4 Battery | 1 |
| 2 | Manual | 1 |
| 3 | busbars | 2 |

# Product Function



LP12-100A

| | |
|---|---|
| Picture |  |
| Model | 12V 100Ah |
| Standard Voltage | 12.8V(12V) |
| Rate Capacity | 100Ah |
| Max charging current | 80A |
| Continuous discharge current | 100A |
| Output port | Positive and Negative |
| Lifecycle | 6000times |
| Material | Lithium Iron LiFePO4 |
| BMS Protection | Over-charge, over-discharge, over-current, short circuit protection |
| Body size | 330*172*215mm |
| Weight | 10kg |

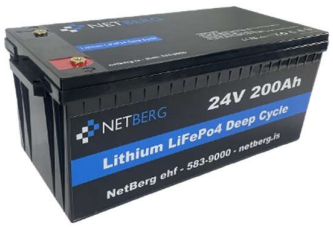
LP12-200A

| | |
|---|---|
| Picture |  |
| Model | 12V 200Ah |
| Standard Voltage | 12.8V(12V) |
| Rate Capacity | 200Ah |
| Max charging current | 80A |
| Continuous discharge current | 200A |
| Output port | Positive and Negative |
| Lifecycle | 6000times |
| Material | Lithium Iron LiFePO4 |
| BMS Protection | Over-charge, over-discharge, Over-current, short circuit protection |
| Body size | 345*190*245mm |
| Weight | 20kg |

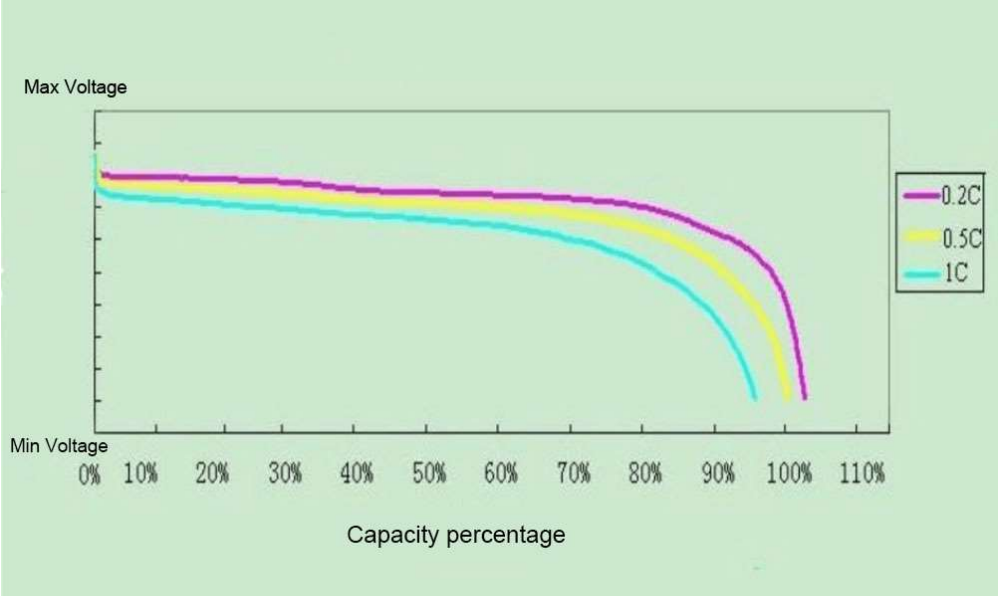
LP12-400A

| | |
|---|---|
| Picture |  |
| Model | 12V 400Ah |
| Standard Voltage | 12.8V(12V) |
| Rate Capacity | 400Ah |
| Max charging current | 100A |
| Continuous discharge current | 200A |
| Output port | Positive and Negative |
| Lifecycle | 6000times |
| Material | Lithium Iron LiFePO4 |
| BMS Protection | Over-charge, over-discharge, Over-current, short circuit protection |
| Body size | 522*240*218mm |
| Weight | 36kg |

LP24-200A

| | |
|---|---|
| Picture |  |
| Model | 24v 200Ah |
| Standard Voltage | 25.6V(24V) |
| Rate Capacity | 200Ah |
| Max charging current | 100A |
| Continuous discharge current | 150A |
| Output port | Positive and Negative |
| Lifecycle | 6000times |
| Material | Lithium Iron LiFePO4 |
| BMS Protection | Over-charge, over-discharge, over-current, short circuit protection |
| Body size | 522*240*218 mm |
| Weight | 36kg |

## Different Rate Discharge Diagrams at 25° C




## Common Malfunction Judgement

| Malfunction | Solution |
|---|---|
| **The battery pack cannot be charged and discharged normally** | 1) Check whether the line connection is correct. |
| | 2) Check whether the battery pack voltage is normal. |
| | 3) Check whether the battery connection is loose. |
| | 4) Disconnect the load and then reconnect. |
| | 5) Change the protection board. |
| **The battery heats up when in use** | 1) Continuous working current is too large. |
| | 2) The connection between the batteries is not tight. |