

HomeTroniX e.U.
We power your life

Manual and Installation Guide

Lifepo4 Batterys for
PV, Boat, Caravan.....
12V/24V
100Ah-600Ah
double/triple the values for
24/48V

Charging Parameters

Bulk/Absorption

For your Bulk/Absorption stage, the ideal voltage is 14.6v. For full charge and balance, the absorption mode should be set to last for at least 20 minutes per battery (for multiple batteries in parallel).

Float

Our batteries do not need a float stage for charging, but a float voltage between 13.4V and 13.8V can be used when connected to shore power.

Equalization

Equalization is not recommended for our batteries. Most chargers will allow you to shut this feature off or use a setting that does not use equalization. If you cannot turn off this mode, then you will need to adjust the equalization voltage to below 14.6v

Temperature Compensation

Temperature compensation is not needed with our batteries and in some cases, may trigger the built in BMS to go into protect mode. For this reason, we recommend that temperature compensation be shut off or set to 0.

BMS Basic Features

All HomeTronix Batteries come with a built-in battery management system (BMS) that protects the cells for long-term cycling. The BMS protects against the following conditions:

High voltage:

> 14.7V If an individual cell voltage exceeds a prescribed threshold during charging, the BMS will prevent a charge current from continuing. Discharge is always allowed under this condition.

Low voltage:

< 10V If an individual cell falls below a prescribed threshold during discharge, the BMS will prevent further discharge. Although the battery is in “low-voltage disconnect” mode, it will still allow a charging current. (Note: many chargers must detect a voltage over 10v to send a charge to the battery).

High Current

The BMS will not allow a current that exceeds 100 (+/- 5%) Amps for 30s, or 200 (+/-10%) Amps for 0.5s. After a high current disconnection, the battery will automatically reconnect after 5 seconds.

A passive balancing process is activated by the BMS at the top of each charge cycle, when the battery voltage exceeds around 14,4V. This ensures that all the cells

remain at the same state of charge, which helps for pack longevity and performance.

Installation

The batteries may be mounted in any orientation. But care must be taken in connecting to the battery terminals. The positive and negative terminals are labeled and color coded (red for +, blue for -).

DO NOT REVERSE POLARITY THE BATTERY AS THIS WILL DAMAGE BOTH THE BATTERY AND THE DEVICE BEING CONNECTED!!!

The batteries come standard with a M8 bolt and wingnuts.

Parallel

Multiple 12V100Ah may be mounted in parallel to increase the current capacity of the system. When batteries are mounted in parallel, the voltage of the system does not change, but the current limits are additive. For example, two 12V100Ah batteries mounted in parallel can deliver 200A continuously and 400A for 30 seconds. Three 12V100Ah batteries mounted in parallel can deliver 300A continuously and 600A for 30 seconds. Therefore, all cables and connections **MUST** be able to accommodate the high currents that can be delivered by the battery. Appropriate fuses and circuit breakers are also highly recommended to protect downstream components from current spikes and short circuits.

Series

Up to four batteries may be connected in series to increase the voltage of the system up to a 48V system. When batteries are mounted in series, current capacities remain the same, but the system voltage is additive. Two batteries mounted in series to form a nominally 24V system should be charged using a bulk and absorption voltage of 29.2V, and a float voltage of 29.2V.

Four batteries mounted in series to form a nominally 48V system should be charged using a bulk and absorption voltage of 58.4V, and a float voltage below 58.4V.

Batteries to be connected in series should be at the same state-of-charge before they are connected. For best results, fully charge each battery using a 12V charger prior to connecting them in series, in order to ensure that they are at the same state-of-charge. .

DO NOT SUBMERGE THE BATTERIES

DO NOT SHORT CIRCUIT THE BATTERIES

DO NOT REVERSE POLARITY

**DO NOT EXPOSE THE BATTERIES TO
EXCESSIVE HEAT**

**DO NOT MISHANDLE, DROP, THROW, OR
APPLY EXCESSIVE FORCE TO THE BATTERIES**

**DO NOT OPERATE WITH LOOSE TERMINAL
CONNECTIONS**

Do not load below 0 degrees

Storage and maintenance

Storage:

Storage could not be easier simply charge the batteries to at least 50% state-of-charge and disconnect from any charge or discharge.

Maintenance:

Hometronix Batteries require very little maintenance if any at all. If your batteries are in series and not being charged by a multi-bank charger it is recommended that you fully charge the batteries individually once a year. This will balance out the entire battery bank to ensure the batteries will reach its expected life span. If your batteries are in parallel this is not necessary. Our BMS has a built in passive balancing system that will take care of this for you.

Warranty Policy

In the unlikely event, you are having an issue with one of our batteries

we have developed a straight forward warranty policy to help answer any questions you may have.

Hometronix Batteries offers a warranty from the date of purchase (see attached Warranty) We also warrant all other complimentary products (inverters, converters, chargers etc) we sell are free from defect for 30 days from the date of purchase. After that time it is the responsibility of our manufacturing and a standard manufacturer's warranty applies (2 years from date of

purchase, unless otherwise stated by the manufacturer).

Return & Refund Policy

Thanks for shopping at Hometronix Batteries.

If you are not entirely satisfied with your purchase, we're here to help.

Returns

You have 30 calendar days to return an item from the date the item shipped.

To be eligible for a return, your item must be in the same condition that you received it in.

Keep the original packaging for 30 days. Your item must be in the original packaging. Your item needs to have the receipt or proof of purchase.

Refunds

Once we receive your item, we will inspect it and notify you that we have received your returned item.

We will immediately notify you on the status of your refund after inspecting the item. If your return is approved, we will initiate a refund to your original method of payment.

Shipping

You will be responsible for paying for your own shipping costs for returning your item. Shipping costs are nonrefundable. If you receive a refund, the cost of return shipping will be deducted from your refund. If you have any questions on how to return your item to us, please contact us

Wiring

red = positive pole

blue = negative pole



Contact Us

If you have any further questions, or need help with anything regarding your battery please do not hesitate to contact us.

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