

Small boat

Battery management systems take excellent care of Lithium batteries, protecting the individual cells of LiFePO₄ batteries against over voltage, under voltage and over temperature and will shut down or reduce charging (VE.Bus products only) or disconnect the loads when this occurs.

Victron Energy also offers full flexibility when it comes to selecting a third-party off-grid battery bank (and their BMS) of choice. A large number of well supported Lithium battery manufacturers can be easily integrated through the use of a mandatory GX-device. This flexibility enables our customers to perfectly match their off-grid needs for their unique power situation. When working with unsupported brands, a Victron Energy Battery Monitor is required to pass on accurate state of charge readings to the wider system.

When the Voltages of the starter and house batteries are the same, use a Cyrix: its current rating should be equal or bigger than the current rating of the alternator. If the house battery is Lithium and the alternators Amperage is smaller than the house battery, or when the Voltages of the starter and house battery are different: use a Orion or Buck-Boost.

The BMS 12/200 is a dedicated battery management system (BMS) that protects Victron Smart 12,8V LFP batteries against deep discharges, overcharging and high temperatures with up to 200 Amps maximum DC current. When critical values are exceeded, the BMS acts immediately: loads are disconnected physically in case of a deep discharge and charging is stopped when there is a risk of overcharging. High temperatures trigger an immediate end to both charging and discharging.

This is the only BMS that can be directly connected to an alternator, protecting them from overload/overheating. This works with a combination of an AB fuse (rated in accordance with the expected max load current of the alternator) and an internal programmable input (which limits the input current electronically to 80% of the AB fuse).

Once the starter batteries are recharged, the engines can also recharge the house battery and power the boats electronics. When the engine is used the majority of the day, there will always be enough energy generation to compensate the daily consumption. However, when the boat isn't used over time, batteries might run dead eventually. Our battery chargers take excellent care of your batteries when in the harbour or garage.

All Victron Energy battery chargers are developed for professional duty. Our advanced multi step charging algorithms get the best out of your battery, giving the battery the power it needs, maintaining its health, ensuring better performance... and a longer life.

Smart models work with VictronConnect, so you can check the status and configure all settings of your battery charger remotely via Bluetooth. Chargers with different waterproof ratings (IP rating) are also available. Our

wide range of models makes it easy to select the right charger, saving you the cost of having to buy a larger one.

The house battery supplies power to your boat's electrical system. Choose a battery with a generous capacity as there might be long intervals between re-charges. Sometimes the starter battery doubles up as the house battery. If you opt for this set-up, make sure the battery is well protected against discharge. It will be hard to start the boat when the battery is flat.

The inverter needs to be big enough to handle the maximum AC load you want to bring on board. If the load exceeds 375 VA, you might consider a combined inverter/charger instead. Models start at 500 VA.

The starter battery is needed to start your boat's engine. These batteries are different from house batteries and engineered to deal with a large discharge current. The starter battery should always be ready to go. It's best to isolate the starter battery from all other electrical circuits on board, so it cannot be accidentally drained of power, with a BatteryCombiner.

All Victron products on your boat can be monitored and controlled from the palm of your hand. Just connect the VictronConnect App via Bluetooth and you'll have direct access to indicators like battery voltage and current. You can also turn devices on or off, as well as change their settings.

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