Sailing yacht

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A modern sailing yacht is packed with a lot of electrical equipment. Most things used to run the boat usually use DC, bigger (household) appliances need AC. When it comes to estimating power consumption, many just add up the Watts. Time is equally important. A microwave might use 1000 Watts, but only for 2 minutes. A fridge might consume as little as 50 Watts, but is turned on 24 hours a day.

Discharging your battery too far will damage it. Adding a Victron BatteryProtect will disconnect the boat"s electronics when the battery voltage drops below a pre-set level. It will also automatically reconnect everything when the battery is sufficiently recharged.

There is more to a Victron BatteryProtect. The built-in shutdown delay ensures that vital electronics aren"t disconnected in error, i.e. when starting the engine causes a short drop in battery voltage.

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.

Keeping grips on all the systems on board can be a hassle. The solution: tie everything together in a single boat network using NMEA communication standards. Your boat network can include navigation equipment, tank senders, battery monitoring and much more. The status information can trigger alarms and shutdowns, adding to the safety on board. The Cerbo GX now supports the NMEA2000 out protocol, allowing you to monitor your boat"s network of systems from wherever you are.

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).

The Victron Cerbo GX is the communication-centre of your boat"s installation, allowing you to always have perfect control from wherever you are and maximises its performance. Simply connect through our Victron Remote Management (VRM) portal, or access directly, using the optional GX Touch 50 screen, a Multi Functional Display or our VictronConnect app thanks to its added Bluetooth capability.

The Victron Cerbo GX is an easy to use visual system. Instantly monitor the battery state of charge, power consumption, power harvest from PV, generator, and mains, or check tank levels and temperature measurements. Easily control the shore power input current limit, (auto)start/stop generator(s) or even set quiet periods to avoid starting the generator in the middle of the night. Change any setting to optimise the system, follow up on alerts, perform diagnostic checks and resolve challenges remotely. The Cerbo GX turns any power challenge into an effortless experience.

DC-DC converters, or battery-to-battery chargers (converters with built-in charge algorithms) are used in dual battery systems, where the (smart) alternator and the start battery are combined with the service battery (of equal or different voltages) to charge it. They can also be used to charge applications that have dedicated batteries (eg. bow thrusters), or to power applications that have a voltage different than the service battery bank.

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