Battery Compatibility

Victron inverter/chargers, inverters, chargers, solar chargers, and other products work with common lead-based battery technologies such as AGM, Gel, OPzS, OPzV, traction batteries and more.

We also provide some documentation and guidelines for other battery or energy storage technologies that require deeper integration and communication between the power electronics and the battery management hardware.

These are mostly connected via the CANBus on a GX device, require special settings or parameters, and proper operation requires testing and adjustment by both battery manufacturer and Victron.

Specific information about compatible batteries that have been tested and are supported:

- Aquion AHI
- AXIstorage 7S/9S
- BattleBorn
- Bluenova Energy Storage
- BMZ ESS 7.0 / ESS 9.0 / ESS X and ESS Z
- BSLBATT Lithium battery
- BYD B-Box
- Cegasa eBick
- Discover AES
- Exide
- Freedom Won LiTE and eTower
- Hubble Lithium
- LG Chem Resu - (Grid Connected ESS Only)
- MG Energy Systems
- Pylontech
- Redflow ZBM2 / ZCell
- Rolls LFP
- SimpliPhi Power
- SolarMD
- Victron Lithium Batteries

Unsupported 3rd Party Battery BMS

There are many other 3rd party options on the market, and some claim compatibility with Victron. If they are not listed above, from Victron's perspective they are considered untested, and unsupported.

Ongoing support and features may be limited if you use a 3rd party battery that is not listed as supported above.

While we always recommend to use the known-compatible options above first, if you choose an unsupported option please seek support from that 3rd party supplier.

DIY / Self-build oriented BMSes

Above lists contain manufacturers of battery packs including BMS. Besides those, there are also companies selling BMS-es geared toward self built BMSes. Typically used when readily available BMSes don't meet the requirement of the application, or to save costs.

That is what below list is for.

SAFETY WARNING: Batteries can be dangerous. And Lithium Batteries even more so, though don't under estimate the danger of gassing lead acid batteries either. Some types of lithium cells are somewhat intrinsically safe in the way that they won't catch fire when treated wrongly. Note though that while mostly not burning, there will be an enormous mess and smell. And other lithium technologies are less/not intrisically safe : they will easily catch fire by overcharging them for example. To go into more detail about all this is beyond the scope of this page - but please take this seriously and also be aware that Victron does not take any responsibility for this. Worded simply: a battery must be intrinsically safe, and thus include its own large disconnect mechanism such as a contactor. Only relying on digital signals telling our inverters and chargers to stop charging is not sufficient. Same message in more words is also here in this blog post: https://www.victronenergy.com/blog/2019/09/19/msol-gmbh-a-pv-energy-storage-ups-project/, as well as available all over the internet when reading into this issue.

SUPPORT WARNING: At Victron, we do offer very limited support to systems running on below batteries. For example, batteries with a BMS that blocks charge or discharge current, or sets CCL to 0 when full, cause all sorts of warnings and alarms, which can often be very confusing or misleading: For example, the Victron inverter/charger reports overload, a lot of time is spent in diagnosing the Victron and understanding why it gives an overload in the application, while not on the test bench; and then after further looking into it its caused by a "smart" BMS.

List of 3rd party BMSes that are known to work with Victron (but not tested by Victron!):

- 123\SmartBMS - Victron instructions
- REC BMS - https://www.rec-bms.com/ (various Victron documentation on their website)
- Boostech GmbH BMS - https://www.boostech.de/bms-konfigurator/

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Permanent link:
https://www.victronenergy.com/live/battery_compatibility:start

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