



All battery chemistries have voltage and current limitations while charging and discharging.

Lithium Ion batteries are no different. In fact, understanding these limits is even more important because Li-ion batteries have a built in Battery Management System or BMS. The BMS will protect the battery if you operate it beyond the limits.

When choosing which battery to purchase, you need to understand how to choose the right number and size of batteries for your application. Each LiFeBlue Battery data sheet shows the limits for charging and discharging, voltage and current.

Lets consider the LB12200-HC battery. It can be charged at 120 Amps or up to 150 Amps @ 75° internal temperature. The discharge current is 200 Amps for 30 minutes or 150 Amps continuously. If you will not charge or discharge above these current ratings, then a single battery may work for you. Remember this includes all current from all sources.



2800 Watt Inverter with 3 200AH batteries

Many people have large inverters of 2kW or more. At full load, the inverter can use over 200 Amps. In this case, a single LB12200-HC battery will not work. You will need to have 2 or more batteries in parallel so the current is divided between the parallel batteries. The same rules apply for charging. Lets say you have 800 Watts PV solar power and a 120 Amp battery charger and the engine alternator can produce 100 Amps. It is conceivable to charge at over 300 Amps if all these sources were on at the same time. This would exceed the charge limit of a 1 or 2 batteries but could work fine with 3 batteries in parallel.

We know this may not be easy to understand. If you need assistance in calculating which batteries to buy, please contact us. We are always glad to help you!