

1 Overview

The largest and bulkiest device on any electrical vehicle is the battery. Dense energy storage is a difficult task, and batteries are a must for almost all devices.

2 Capacity

The larger the capacity of a battery network, the larger, heavier, and more expensive the battery network becomes. The use case of the system needs to be considered for choosing a capacity. Capacitance is normally measured in Amp-Hours, or how many hours a battery can supply the rated current at the nominal voltage of the battery.

3 Charging

Battery charging is difficult, specific charging circuits are needed for most modern high density batteries. When trying to charge lots of batteries quickly a large amount of heat is generated, which needs to be considered in the design stage. Large modern batteries can also be very dangerous - and this is amplified when charging, so care needs to be taken that the design isn't a health hazard.