

# [Battery can we select charge controllers: based on](https://assignbuster.com/battery-can-we-select-charge-controllers-based-on/)

Battery bank it store DCenergy to be used later, also battery decrease the output power and efficiencyof the system, approximately by 10 %. However, it makes the system more complexand more expensive. There are many types ofbatteries, but the mostly used in the system are: Lead-Acid: Thisbattery is the most common in the systems generally and sealed lead- acidbattery are the most common used in PV systems. AlkalineBattery: Since it has high cost, this battery isrecommended for the system, it has very cold temperatures about -50oFtheir application for certain commercial or industrial requiring theiradvantages over lead-acid battery. SizingBattery Banks: Grid connected system with backup batteriessystem is typically sized for short period with 8 hours, nevertheless, itdepend on the output power expected.

4. 2 Charge Controller: Function: charge controller it prevent overcharging of thebattery, also it prevent charge from draining back to solar system, whichincrease the output PV array’s, increase the energy produces. Types of Charge Controllers: There are two types of charge controllers: shunt andseries. Shunt: bypasses current round fully charged battery. Shunt controllers are simple andinexpensive. Series: Stopthe flow of current by making open circuit between the battery and the PVarray. How can we select Charge controllers: based on twothings.

PV voltage array: input DC voltage must match thedetermined value of the voltage of the solar array. PV current array: The controller charger must be sizedto make the maximum current formed by the PV array. The Charge controller’s interaction: First Interaction with Inverter: The charge controller could be set up like as itdoesn’t interfere with the function of inverter. Second Interaction with Battery: The charge controller should be selected to deliver asuitable charge current for the kind of battery used in the system.