

Battery can we select
charge controllers:
based on



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Battery bank it store DC energy to be used later, also battery decrease the output power and efficiency of the system, approximately by 10 %. However, it makes the system more complex and more expensive. There are many types of batteries, but the mostly used in the system are: Lead-Acid:

This battery is the most common in the systems generally and sealed lead-acid battery are the most common used in PV systems. Alkaline Battery: Since it has high cost, this battery is recommended for the system, it has very cold temperatures about -50°F their application for certain commercial or industrial requiring their advantages over lead-acid battery. Sizing Battery Banks: Grid connected system with backup battery system is typically sized for short period with 8 hours, nevertheless, it depend on the output power expected.

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

PV voltage array: input DC voltage must match the determined value of the voltage of the solar array. PV current array: The controller charger must be sized to 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 it doesn'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.