GEL BATTERY

GEL battery is mainly made up of positive and negative plate, special diaphragm, battery shell and security valve and so on. Through colloid technology, the electrolyte is fixed in solid state in battery. Some trace gases are generated during the charge-discharge process. The trace gases, freely floating through the crannies of the gel, can be regenerated according to Pb-Ca alloy cathode absorption principle, which make sealed up and maintenance free come true. The GEL battery series are specially designed for applying in solar energy photovoltaic power system and have advantages as below.

- Totally sealed up and water-free maintenance; no acid gas spilling and environmental friendly.
- It has adopted colloid electrolyte technology, avoiding density stratification problem of acid solution and eliminating plate corrosion and passivation caused by density stratification. It has a long float life. The designed service life of 12V series battery can reach up to 10 years (environment temperature between 20℃ to 25℃)
- It has adopted German Gel formula, grid alloy and plate formula. Excellent performance in cycling and recovery from deep discharge, especially in rainy days.
- More suitable for using in harsh condition than AGM battery as the flooded electrolyte

inside of the GEL battery makes it working stable in high temperature or over charge.

- Good performance in cold environment and the battery capacity decreases little when using in low temperature.
- Little self discharge because of the super-pure material and the low density of the electrolyte, it can be stored over 12 months.

5. Usage and Maintenance

5.1 Charge

The capacity and life of the sealed battery is affected by some parameters like charging voltage, environmental temperature and so on. Therefore, the imperative principle for using this kind of battery is to take the correct charge way. The following is the way for the gel battery used in photovoltaic power system.

When charging for 6V battery, the charge voltage of the solar cell should be 7.35-7.45V; while charging for 12V battery, the charge voltage of the solar cell should be 14.5-14.7V. The charge voltage mentioned above is under the condition that the environmental temperature is between 20℃ to 25℃. When the environmental temperature has big changes, the charge voltage should be adjusted accordingly. That is to say, when the temperature increases by 1℃, the charge voltage should be decreased by 0.003V; when the temperature decreases by 1℃, the charge voltage should be increased by 0.003V. Therefore, in order to avoid over charge in summer and undercharge in winter, we suggest installing a device to ensure the charge voltage with the temperature automatic compensatory function when the solar panel delivers power to the storage batteries. It would be better to set the initial charge current at 0.1C (A).

5.2 Discharge

Charge battery as soon as it finishes discharge! It may be hard to get charged if keep the battery uncharged in a long time. Since continuous rainy days could be possible, the capacity of the battery should be 5 to 7 times of the equipment load, besides, over-discharge protection controller should be installed to avoid over discharging.

Specifications & Wholesale prices

GEL BATTERY FOR SOLAR ENERGY SYSTEM				
MODEL	GJ12-100	GJ12-120	GJ12-150	GJ12-200
VOLTAGE	12(V)	12(V)	12(V)	12(V)
CAPACITY	100(AH)	120(AH)	150(AH)	200(AH)
LENGTH	332mm	332mm	488mm	513mm
WIDTH	174mm	174mm	170mm	250mm
HEIGHT	214mm	214mm	242mm	210mm
T．H.	239mm	239mm	242mm	240mm
WEIGHT	32kg	36kg	49kg	63kg