

Dear Customer

The batteries produced by ABLE NEW ENERGY CO.,LTD, are categorized as lithium batteries according to the International Battery Standard, they are all not chargeable batteries. For the safety consideration to our customer using our lithium batteries, we specially made this notification, to let our customer be fully aware during the designing, loading, maintenance and transporting process of the batteries.

#### **I. Lithium Batteries Cannot Be Charged**

Charging the lithium battery may directly lead to explosion. The probability of the explosion is related to the charging time and charging current. Our customer should pay great attention about it, we suggest our customer use diode in the lithium battery circuit, manage the 'charging current' under 10μA.

#### **II. Over-Discharge Protection**

When several batteries are connected in serial, if there is one or more than one batteries are old or used batteries, may cause the phenomenon known as Over Discharge. It is caused due to the un-uniform capacity of each battery, and after a certain amount of time, may cause accident.

To protect the battery from being over charged, we suggest our customer do not apply battery group mixing used and unused batteries to application devices.

If battery group is needed, please contact ABLE NEW ENERGY CO.,LTD, we will work out the design for the battery group and provide to you.

#### **III. High Temperature**

If the temperature of the operating environment exceed 100°C, the battery may explode. So please be fully aware of the operating environment.

#### **IV. Notice of Passivation**

As one of the most important characteristics of Lithium Thionyl battery, passivation may leads to low voltage which may cause poor performance when our customer demand for high current. So please be fully aware of the passivation and follow the instructions below to minimize the passivation drawbacks:

1. Consider about loaded resistance and operation environment, choose the battery that can work under medium or low current.
2. Finished battery goods should not be stored in warehouse more than half a year(6 months), for those who has been stored more than 6 months, the depassivation process is needed.
3. When the battery is loaded in the application device which the current is at μA level, the passivation will be relatively weaker. But if the designed current is larger than the max operation current of the battery, we suggest our customers add capacitance during the designing process so that the passivation will be weakened.

#### **V. Manual Instruction Guide**

1. Short circuit, charging, self grouping the battery is forbidden, over-discharge, crushing, burning the battery is forbidden, heating the battery under the temperature exceed the safety temperature range is forbidden (the battery will be dangerous when the temperature over 100°C.)
2. Check the appearance carefully before using the battery, do not use the battery if there is any flaws in the appearance and check for the reasons. When the battery arrangement is mixed up, proper action should be taken to re-arrange the batteries and notify the supplier immediately.
3. Do not connect batteries together if the batteries are different in model and specifications, do not weld the electrodes without instructions, if there are pin tabs on the electrodes, the welding process should be finished within 5 seconds.
4. After discharging to the Cut-off Voltage, continue using of the battery is forbidden, and the battery cannot be soaked into water when peeling the wire or welding the wire to the battery, must peel the wire on the electrodes one by one, do not connect the electrodes with metal substance, or it may cause the short circuit of the battery.
5. When storing the excess batteries, the suggest storing temperature is <25°C, humidity <70%, or the batteries may get rusty and leakage of electrolyte.
6. Instructions of installing and using the batteries: the cathode of the battery should be pointing up vertically, if the cathode is pointing down may cause 20% of the capacity unavailable to be consumed. The scrapped batteries should be disposed according to the laws of domestic environment department.

Above is the manual instructions for lithium batteries.

Best Regards

SHENZHEN ABLE NEW ENERGY CO.,LTD