

Precautions for using Varta rechargeable batteries

Precautions for use:

- 1 Batteries in stock or installed in generators but not in use should be charged at least once every 3 months to prevent the deterioration of battery life.
(Generators that are installed but not yet accepted or put into operation require particular attention).
- 2 When the voltage of a single 12V battery drops to 12.45V, it must be recharged promptly.
- 3 The batteries installed in backup generator sets must be charged using a mains power float charger. The float charge voltage for 12V batteries should not exceed 13.5V, and for 24V battery sets, it should not exceed 27V.
Excessive float charge voltage can lead to overcharging of the batteries, affecting their lifespan.
- 4 The batteries installed in backup generator sets are generally continuously charged by mains power float chargers 24 hours a day. However, the batteries unavoidably lose water (dilute sulfuric acid) gradually over time. This leads to the internal busbars and plates of the batteries being exposed to a mixture of hydrogen and oxygen gases, resulting in irreversible electrochemical corrosion. There is a risk of premature battery failure or even explosion. Therefore, end users must regularly conduct self-checks on the batteries (following the battery

self-check steps) to promptly identify any faulty batteries and replace them immediately.

5 The typical lifespan of a battery is around 2 years, and it must be replaced when its lifespan expires.

6 It is strictly prohibited to approach the batteries when the unit is starting up to avoid personal injury.

The steps for self-checking batteries are as follows:

1 Perform a battery self-check at least once a month.

2 Disconnect the mains float charge and allow the batteries to stop charging for 8 to 12 hours. Then, measure the open-circuit voltage of each individual battery using a multimeter. If a multimeter is not available, you can check the battery voltage on the generator control panel after the charging has been stopped for 8 to 12 hours. Note: The battery voltage displayed on the generator control panel is typically twice the voltage of a single battery.

3 If, according to the method described in step 2, the voltage of an individual battery is found to be below 12.45V, it indicates that the battery is unable to hold a charge despite continuous charging. This signifies battery failure, and it must be replaced immediately to avoid the risk of explosion.