

AQUAMOT

User Manual

ALS Batteries



Follow these instructions and keep it visible near the batteries. Only qualified personnel should work on the battery.



There is a risk of explosion and fire. Do not short circuit it and use insulated tools.



Electrolyte is highly corrosive. Normally, a contact with electrolyte is not possible. If the housing is damaged, however, electrolyte may be released.



Do not smoke and avoid sparks near the battery. There is a risk of explosion and fire.



Wear safety glasses and protective clothing when working on the battery. Please always note the accident prevention regulations.



Batteries are heavy. Ensure adequate safety during installation and always use suitable transport equipment.



The metal parts of the battery are always current-carrying. Do not lay tools or other objects on the battery. Do not wear metal parts such as watches, bracelets, etc.

Generally:

Aquamot ALS AGM-batteries are ready to use.

Installation

- Check the battery for mechanical damage and correct tighten terminals.
- Recommended torque for screwed connection: 7 till 9 Nm (model 85Ah: 4 till 6 Nm).
- Installation angle of the battery: 180°. An installation in an upright position is recommend.
- Please keep a distance of >1cm between the batteries.
- Keep away from heat sources.
- Permissible operating temperature: -20 till 60°C; Rated operating temperature: 5 till 50°C. Recommended temperature: 30°C. Each 10° temperature increase will shorten the batteries' lifetime by half. Lower temperatures reduce the available capacity.

- Clean the terminals before connecting.

- During the installation all leads and chargers must be switched off.

- For standardized connection a direct mounting of the cable lugs on the batteries pole is required. (suitable fittings are attached to each battery) Battery-pole adapter can be supplied for an extra surcharge, if required.

- Use only correct and reliable cable lugs.

Tighten all connections. (Observe the correct torque!)

- **Connect the battery with correct polarity. The position of the battery poles may differ from previously installed batteries.**

- Connect the negative cable at the end.

- It is very important to use the enclosed battery poles insulations as short-circuit protection (They are required for a standard-compliant use)

- Batteries which are installed in series or parallel must be identical in terms of mark, type, capacity and state of charge. Do not use old or new batteries together when they need to be connected in parallel or in series.

Charging.

Use only chargers with IUoUo features.

Voltage settings: Conservation charging 13,80V @ 25°C; Equalisations charging: 14,7V @ 25°C (max. 5 hours).

Max. charging current: 30% der C10 Rated capacity. Incomplete charging can damage the batteries. That's why the batteries must be fully charged.

Discharging:

Please avoid deep discharge. . Regular discharging of more than 50% of the rated capacity is not recommended because it can shorten the batteries' lifetime. Recharge the battery immediately after discharging. The battery must never be discharged below the final discharge voltage. The final discharge voltage is related to the discharge current.

Maintenance:

Check the batteries and connections regularly, at least every three months. Defects such as loose or corroded connections must be rectified immediately. Store the battery when it is charged. If the ambient temperature increases the self-discharge rate of the battery increases too. Batteries should be charged if the electromotive force drops down below 12.3 volts. Store the battery in a dry and clean place. Use only damp and soft cloths to clean the battery. Never use any additives, acids or abrasives. Do not open the battery. Never fill in acid or distilled water.

Disposal of batteries

Used batteries may harm your health and the environment. Therefore, old batteries should not be mixed with normal household or industrial waste. They must be collected and recycled separately. Contact your supplier or an authorized waste management company so that they can collect and recycle your batteries



Pb