SONNENSCHEIN EPzV + EPzV-BS

Kullanım Talimatları tr 1-2

GNB INDUSTRIAL POWER
A Division of Exide Technologies

To avoid overloading the electric cables and contacts as well as the inadmissible generation of gases, only connect the battery to a charger rated and approved for the battery‘s capacity. EPzV batteries have a low charging gases emission. In the gassing stage the current limits given in EN 62485-3 must not be exceeded. If you purchased your charger separately, you are advised to have the manufacturer’s aftersales service verify its suitability.

Properly extract all gases generated when charging the battery. Open or remove the lids or covers from battery trays or compartments. Ensure proper ventilation pursuant to EN 62485-3. Check that the charger is off and connect the battery leads to the correct poles (plus to plus and minus to minus). Do not turn on the charger until after that.

While charging, the temperature inside the battery will rise by about 10 K. Before starting a charging cycle, you should therefore allow the temperature to drop to less than 35 °C. To ensure proper charging results, check that the temperature is 15 °C or higher before you start charging. Provide appropriate means of constant charger voltage control if the temperatures are permanently higher than 40 °C or lower than 15 °C.

The applicable correction factor is -0.004 V/Z per Kelvin (K). The reference temperature is 30 °C.

Note on operating batteries in danger zones:

These batteries are exposed to explosive atmospheres and belong to equipment category Ex I or Ex II pursuant to EN 60079. Check the warning signs affixed to the battery.

2.3 Equalizing charge

Applying an equalizing charge is meant to maintain the battery‘s service life and capacity. Such charge should be applied after a normal charging cycle and must be applied after a total discharge and if recharging is repeatedly found to be insufficient. Equalizing charges must be applied by means of the chargers approved by the battery manufacturer only.

Check the temperature.

2.4 Temperature

A battery temperature of 30 °C is called the nominal temperature. Higher temperatures will shorten the battery‘s life, lower temperatures will reduce its capacity. Operating the battery at its temperature limit of 45 °C is not allowed.

2.5 Electrolyte

Sulfuric acid fixed in gel serves as the electrolyte. Thus, electrolyte density cannot be measured.

3. Maintenance

Do not water the battery.

3.1 Daily

Recharge the battery after every time of use.

3.2 Weekly

Inspect the battery for dirt and mechanical damage. Clean the battery, as necessary. Have qualified persons immediately repair any damage you find.

3.3 Quarterly

Fully recharge the battery, allow not less than 5 hours of downtime, the measure and keep a record of the following parameters:

- Total voltage
- Individual voltages

Contact Aftersales Service for immediate verification/repair if you discover major differences from previous measurements or differences between the cells.

3.4 Annually

DIN EN 1175-1 demands that a skilled electrician the vehicle’s and the battery’s insulation resistance as necessary but at least once a year. Measure the battery‘s insulation resistance in conformity with DIN EN 1987-1. Pursuant to DIN EN 62485-3, the insulation resistance reading should not be lower than 50 Ω per volt of nominal voltage. Thus, the minimum resistance is 1000 Ω for batteries up to a nominal voltage of 20 V.

4. Care

To prevent the occurrence of leak currents, keep the battery dry and clean at all times. ZVEI’s Code of Practice No. 6 “Battery Cleaning” describes how to clean batteries. Visit the ZVEI web site for a free download. Drain and duly discharge of the liquid in the battery tray. If you find the tray insulation to be damaged, clean and repair the damaged spots to ensure insulations to DIN EN 62485-3 and to avoid tray corrosion. You are advised to contact the Aftersales Service in case cells need to be removed.

5. Storage

Fully recharge a battery prior to any extended downtime period and keep the battery in a dry and frost-proof room. The following recharge cycles will ensure that the battery remains ready for use:

1. Fully recharge every three months as described in section 2.2. Fortnightly recharging may be necessary if consumers such as measuring or control equipment is connected.
2. Trickle charging at a charging voltage of 2.30 V x number of cells.

Consider the time of storage when assessing the battery’s service life.

6. Problems

Immediately contact the Aftersales Service if you discover any battery or charger problems. Readings taken as described in section 3.3 will help you locate a problem and troubleshoot the battery. A Service Level Agreement with GNB will support the early detection of problems and extend the life of the battery.

7. Transport and installation of individual cells

Transport and install individual cells in upright position (pole connectors facing upward). Do not transport, install or operate cells that are lying on their side as this will provoke an irreversible loss of capacity and early battery failure.