UZB12.051

BATTERY REPLACEMENT 12V, 5AH



BATTERY REPLACEMENT

- Maintenance-free VRLA Lead-Acid Battery
- AGM (Absorbent Glass Mat) Technology
- Can Be Installed in Any Orientation Except Permanently Inverted
- High-current Type

PRODUCT DESCRIPTION

The UZB12.051 is a non-spillable maintenance-free VRLA lead-acid battery with absorbent glass mat (AGM) technology. It can be used as a battery replacement for many DC-UPS battery modules.

SHORT-FORM DATA

Nominal voltage	DC 12V	
Nominal battery capacity	5Ah	Capacity class
Nominal battery life	3 to 5 years	According EUROBAT
Battery current	Max. 35A	Discharging current
	Max. 1.8A	Charging current
Recommended charging voltage	13.9V	At 10°C
	13.75V	At 20°C
	13.6V	At 30°C
	13.45V	At 40°C
Self-discharge rate	3%/month	At 20°C
Temperature range	-10°C to +40°C	For charging
	-15°C to +50°C	For discharging
Connection terminal	Faston 250 6.35x0.8mm	
Size (WxHxD)	90x106x70mm	
Weight	2100g / 4.63lb	

ORDER NUMBERS

Battery Replacement **UZB12.051**

MAIN APPROVALS

For details and the complete approval list, see chapter 6

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⚠ WARNING **Risk of electrical shock, fire, personal injury or death.**

- Do not short-circuit the battery poles or power wires and always check correct battery polarity.
- Do not modify or repair the unit.

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1. INTENDED USE

The battery is intended to be used as a battery replacement for DC-UPS systems.
Check the product datasheet of the DC-UPS or the battery module to confirm that it is suitable for the desired device.

2. INSTRUCTIONS FOR DISPOSAL OF THE BATTERIES

Always dispose batteries through a recycling organization.
Optionally, batteries can be returned to the supplier or the battery manufacturer. Batteries must be completely discharged before recycling

3. INSTRUCTIONS FOR BATTERY STORAGE

Do not store batteries or battery modules at temperatures higher than 25°C or performance and lifetime may change.
Before initial use, check the last charging which is marked on the battery. If it is older than 9 months, replace the battery.
Do not store batteries longer than 9 months without charging or performance and lifetime may change. Every 9 months or whenever the open circuit voltage (OCV) falls below 12.6V, the battery module should be charged. Apply a charging voltage of 13.8V (at 25°C) for 72 hours. Batteries with an OCV below 12V should be disposed.
Frequently charging below +5°C reduces the lifetime of the battery.

4. INSTALLATION INSTRUCTIONS

Do not short-circuit the battery poles or power wires and always check correct battery polarity.
Install the device in a cool area inside an enclosure providing protection against electrical, mechanical and fire hazards.
Do not cover or block the pressure release valves of the battery. Do not install the battery with the valve pressure releases on the bottom side. Hydrogen gas can be released via pressure relief valves. It will form an explosive mixture in air when the concentration exceeds 4% in volume. It is mandatory to ensure sufficient ventilation of the battery. The necessary ventilation and air flow must be calculated according to EN 50272-2.
The device is designed for pollution degree 2 areas in controlled environments. No condensation or frost allowed.

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5. ENVIRONMENT

Operational temperature *)	-10°C to +40°C (14°F to 104°F)	For charging Frequently charging below +5°C (41°F) reduced the lifetime of the battery
	-15°C to +50°C (5°F to 122°F)	For discharging
Storage temperature	-20°C to +50°C (-4°F to 122°F)	For storage and transportation Recommendation: Do not store at temperatures higher than 25°C or performance and lifetime may change.
Humidity	5 to 95% r.h.	IEC 60068-2-30 Do not energize while condensation is present
Vibration sinusoidal	±4mm at 16.7Hz fixed frequency for 1hour	Vibration in vertical mounting orientation according to IEC/EN 61056-1
Shock	free fall from 20cm onto a wooden floor	Shock with bottom down orientation according to IEC/EN 61056-1
Altitude	0 to 6000m (0 to 20 000ft)	
Degree of pollution	2	According to IEC 62477-1, not conductive

*) Operational temperature is the same as the ambient temperature and is defined as the air temperature 2cm below the unit.

6. APPROVED, FULFILLED OR TESTED STANDARDS

UL 1989		Vendor Certificate Standard for Standby Batteries UL94: HB

7. REGULATORY PRODUCT COMPLIANCE

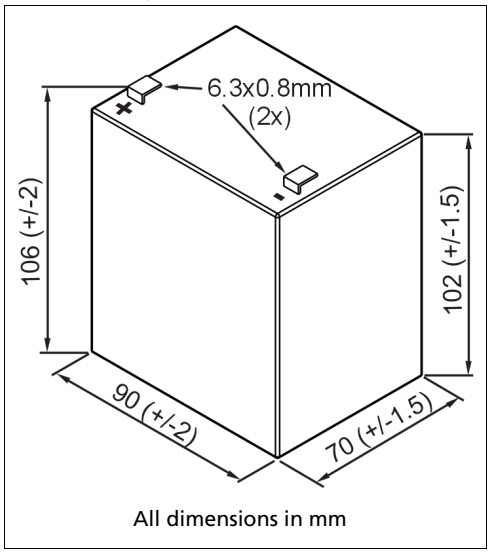
WEEE Directive		Manufacturer's Statement EU-Regulation on Waste Electrical and Electronic Equipment Registered in Germany as business to business (B2B) products.

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8. PHYSICAL DIMENSIONS AND WEIGHT

Width	90mm / 3.54''	
Height	102mm / 4.02''	Container height
Height	106mm / 4.17''	With battery poles
Depth	70mm / 2.76''	
Weight	2100g / 4.63lb	

Fig. 7-1 **Isometric view**



All dimensions in mm

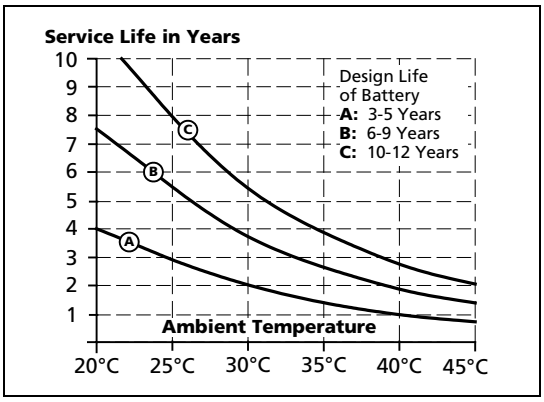
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9. RECOMMENDATIONS FOR A LONG BATTERY LIFE

Temperature:

The temperature has the most impact on the service life. The hotter the temperature, the earlier the wear-out phase of the battery begins. The wear-out results in a degradation of battery capacity. Place the battery module in a cool location, e.g. near the bottom of the control cabinet. Do not place the battery module near heat generating devices. Do not overcharge batteries!

Fig. 8-1 **Service life (according to EUROBAT) vs. ambient temperature, typ.**

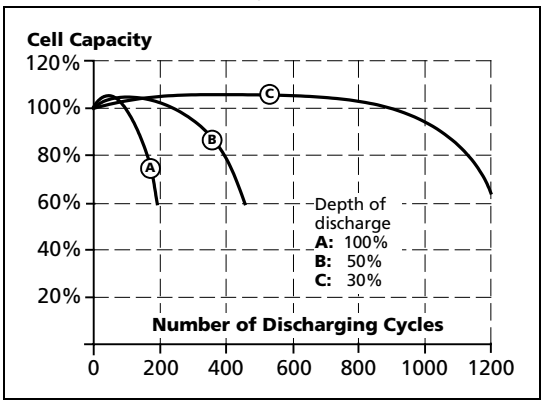


Number of discharge cycles and depth of discharge:

Do not discharge batteries more than necessary. Set buffer time limiter to the required buffer time. The number, as well as the depth of discharging cycles is limited. A replacement of the battery might be necessary earlier.

When choosing the battery capacity, always try to get the next higher capacity than required. The depth of discharge reduces the service life of the battery and limits the number of cycles.

Fig. 8-2 **Battery degradation vs. discharging cycles, typ.**



Store batteries fully charged

Do not store discharged batteries. Keep batteries fully charged!

Charge retention is important to get the longest battery life. Stored batteries which are not fully charged age faster then charged batteries. Batteries which are not in use should be recharged at least once a year. The higher the ambient temperature, the shorter the charging interval. At storage temperatures higher than 30°C, recharging should be done at least every nine months.

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