

OPERATING INSTRUCTIONS FOR THE BATTERY CHARGER EBL2435



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1 Introduction

Dear customer!

As the purchaser of this battery charger you have made a discriminating choice. This battery charger is equipped with an advanced computer control system which will ensure that your batteries are charged or recharged properly and efficiently. The battery charger is intended for different batteries with a nominal voltage of 24V and a nominal capacity $C_5 = 100 \dots 320\text{Ah}$ (see Table 3: Charging Characteristics). The type of battery is adjusted using an internal switch on the charger. The flashing green LED indicates the characteristic chosen when starting the charging program. Optimal charging is achieved in accordance with an IU1a/IU1oU (1008W max) characteristic curve as detailed by the manufacturer. The life of your battery will be maximised if you always reconnect it to the charger after use. During the charging process the charger determines exactly how much energy you have drawn from it, and only that amount of energy is replaced. When the battery is fully charged this state is maintained by means of a low maintenance charging current so that the battery's maximum capacity is available at any time.



2 Safety

Carefully read through the operating instructions before using the charger. It is essential to obey the contained operating conditions. Please also follow instructions of the battery manufacturer.

2.1 Designated use

- Only batteries in perfect condition may be charged.
- Keep children away from both battery and charger.
- The charging connector may not be modified in any way.
- The charger must not be connected to non-rechargeable batteries.

Charging batteries can generate explosive gases. You must therefore ensure that these are properly expelled. Do not smoke in the vicinity of the charger or when handling batteries. Naked flames and sparks must be avoided.

Connecting the wrong batteries to the charger may lead to gassing, boiling and explosion.

2.2 Installation

- The charger must be operated stationary in the designated installation position.
- It must not be set up outdoors, on traffic routes or where there is any danger of explosion.
- Its location must be dry and well-ventilated.
- Smoking and all naked flames are prohibited in battery rooms.
- All the charger's ventilation outlets must be kept unobstructed.
- The charger must be protected from electrically conductive dust and particles (e.g. soot or metal shavings).
- The charger may only be opened and repaired by a specialist.
- Do not alter the charging wire as this would interfere with the charging characteristic.

Caution: lethal voltages. Before opening the charger remove the mains plug and disconnect it from the battery.

3 Connecting and setting up

The charger is fitted with a 3-pole mains plug (Europlug). It may only be connected to the mains with safety contact specified under point 6 Technical Data. A damaged power line is only to be replaced by your customer service or a qualified specialist.

4 Commissioning

To start charging connect the mains plug to a suitable outlet. Charging starts automatically. With the power cord plugged the immobilizer system is activated. The current charger status is displayed on LEDs (see table 1: LED-display). By unplugging the power cord the charging process will end and the immobilizer system is deactivated. Normally the charging process should not be interrupted. The maximum charging time for a completely discharged battery is up to 16 hours. If this charging time is not available, i.e. if power is once more drawn from the battery before the recharging process has been completed, its capacity will gradually reduce with each uncompleted charging cycle. In this case the battery must undergo a complete recharging cycle at least once a week. Attention! During the charging process there should be no parallel load connected to the battery.

There are 3 LED displays on the charger:

● yellow LED lit	battery being charged
● green LED lit	charging complete, trickle charge
● red LED	<ul style="list-style-type: none"> • Invalid position of characteristics selector (LED flashes fast) • Battery fault (no battery, charging timeout) (LED flashes slowly) • Device temperature too high (error will not be cleared automatically)
○ no LED lit	no power supply

Table 1 LED-display

In the event of a charger fault please contact your customer service.

Never on any account let batteries get too low discharged as this damages them.

New batteries must be fully charged before initial use.

5 Maintenance

The charger is maintenance-free. However, certain components are subject to wear depending on conditions of use. It is therefore recommended that a specialist should check whether

- the mains cable is damaged, the charging cable or the charging connector is damaged (which may have led to consequential damage),
- the ventilation outlets are obstructed,
- there are any loose components in the charger.

Faults identified may only be corrected by a specialist. Only original replacement parts may be used. Please contact your customer-service point.

6 Technical data

Type	EBL2435
Mains	230V +10% / -15% 50/60Hz, Insulation class I
Input current	4,5A
Output	24V / 35A DC
Charging characteristic	IUIa/IUIoU (1008W max)
Residual ripple	<1%
Primary fuse	T10A/250VAC safety fuse, not externally accessible
Self-protection	electronically protected against reversed polarity, open- and short-circuit proof, protection against excessive heat
Protection class	IP20
Ambient temperature	0..+40 °C (during charging)
Display	3 LED, see Table 1
Weight	2,4kg
Dimensions	225x157x76 mm

Table 2: Technical data

7 Charging Characteristics

1	GiV	100-125 Ah
2	GiV	160-180 Ah
3	GiV	240 Ah
4	PzV/ GiV	210-250 Ah
5	PzS	160-200 Ah
6	PzS	200-250 Ah
7	PzV	280 Ah
8	PzS	320 Ah

Table 3: Characteristics

EG-Konformitätserklärung



Hiermit erklären wir

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dass das nachfolgend bezeichnete Gerät aufgrund seiner Konzipierung und Bauart sowie der von uns in Verkehr gebrachten Ausführung den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der EG-Richtlinien entspricht.

Bei einer nicht mit uns abgestimmten Änderung des Gerätes verliert diese Erklärung ihre Gültigkeit.

Produkt: **Batterieladegerät**
Typ: **EBL 2435**
Technische Daten: **24V; 35A**

Einschlägige EG-Richtlinien:


2006/95/EG (EG-Niederspannungsrichtlinie)
2004/108/EG (EG-Richtlinie Elektromagnetische Verträglichkeit)

Angewandte harmonisierte Normen:

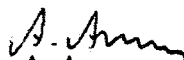
EN 55014-2:1997+Corr: 1997+A1:2001+A2:2008,
EN 55014-1:2006+A1:2009,
IEC 61000-3-2: 2005+A1:2008+A2:2009
IEC 61000-3-3: 2008
EN 61000-6-2: 2005
EN 61000-6-3: 2007
EN 60335-1: 2010
EN 60335-2-29: 2011
EN 50178: 1998

Durch interne Maßnahmen ist sichergestellt, dass die Seriengeräte immer den Anforderungen der aktuellen EG-Richtlinien und angewandten Normen entsprechen.

Gießübel, 30.08.2011


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