

Controlled battery charger for lead batteries with liquid and solid electrolyte in SNT technology

controlled backup charging - reverse battery protection
protection against short circuit - const. conservation of charge
low AC-current

General Information

The housing of the battery charger is made of enclosed sheet metal steel.

Connection to wall outlet (plug socket) is made via an incorporated mains special connection cable.

Mains fuse (F1): miniature fuse TR5. Back-up only through value resembles T6,3 A 250V.

The battery charger is protected against short circuits and equipped with a reverse battery protection.

The operating status can be indicated with LEDs.

The battery charger should only be opened by qualified personnel.

The charger especially designed for the "Power Pack" (No. 7732.11) and must be used only in combination with this battery trolley.

Initial Operation

At first there has to be a check of accordance of the preset battery type with the used battery (Customer Service).

The mains connection (120-230V AC, 50-60Hz) has to be implemented with a delay-action fuse.

The charger is connected to the mains with the mains plug.

For charging a battery the regulations of the battery manufacture have to be allowed!

Important Note:

Before using a battery for the first time there has to be done an initial operation charge (please see also battery manual). This is accomplished by doing a regular charge process. Only after the charge cycle is fully completed with the "End of Charge" indication, the machine can be used. For maintenances-free PzV- batteries an additional 15h compensator charge is recommend.

Sequence of connection:

The charger has to be disconnected form the mains supply before connecting/ disconnecting the charge plug/ cables to the battery.

The battery charger complies with the protection regulations of the low voltage guideline 72/23/EEC and the guideline for electro-magnetic compatibility 89/336/EEC




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EN 60 335-2-29


Functional description and monitoring of charging process


Start charging sequence:

- connect Charge plug/ cable with the battery.
- connect main plug with the mains supply

The 1st yellow LED „<80%“  lights up.

When the preset gassing voltage has been reached this voltage is stabilized and the current drops slowly (U-constant). After the current falls below a certain value, the charger switches over to backup

charging and the middle and the 2nd yellow LED „>80%“  lights up.

After the backup charge has been completed the charging electronic switch device changes to end of charging/const. conservation of charge. The green LED FULL „100%“  lights up.

To switch off the charger press the push-button approximately 2-3 seconds.

The charger restarts automatically after 15 seconds.

To pause the charging press the push-button short. The LED green 100% and yellow <80% blinking alternate. In this charge state the charge plug can be disconnected. To continue the charging press the push button short or wait 1 minute.









Do not interrupt the charging procedure until battery is adequately charged. An interruption may cause a loss of capacity and premature failure of the battery.

„Battery not connected“ is indicated by the red LED and is detected immediately when switching on the battery charger during operation; at the latest 60sec after disconnection of the battery.

Please make sure that there is no reverse connection of the battery during this time!

When the battery is connected again, the charging set switches itself on.

Indication of operating status by external LED-Indicator

operating status	LED-Indicator				
	 <80%	 >80%	 100%	 ⚡	
Main charging	X				
Backup charging		X			
Conservation charging			X		
Pause-Mode	X		X		alternate blinking
operating status during malfunction	 <80%	 >80%	 100%	 ⚡	malfunction number
Battery malfunction				X	1..2
Time malfunction	X			X	3..4
Control malfunction		X		X	11..13
Temperature malfunction			X	X	6

Safety function of the electronic charging switch device at malfunction number

- | | |
|--------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1. battery missing, reverse con. or voltage is < 1.25V/Z | 4. const. current phase to long |
| 2. during switch on the battery voltage is > 2.40V/Z,
under 2.30V/Z the charger switch on automatic | 6. temperature in the charger is to high |
| 3. battery voltage longer as 30min < 1.5V/Z | 11.-13. control malfunction |