



USER MANUAL

WBC-HANDY FM 24/6

Battery Charger



WBC-HANDY FM 24/6

90-230VAC – 0-100Hz



CRITICAL INFORMATION

The technical data, information and illustrations have been carefully compiled and corresponds to the product status at the time of printing this manual. The manufacturer reserves the right to improve or modify the product, specifications and documentation at any time without prior notice, provided that it is not considered necessary for technical reasons.

Descriptions have been prepared very carefully and in detail, yet it is never possible to completely rule out wrong. Under no circumstances will the manufacturer be held responsible for errors or damages resulting from wrong use or from misinterpretation.

The content of this documentation may not be copied, reproduced, translated or otherwise passed on to third parties in any form without the express written consent of WhisperPower.

WARNING: Failure to follow these safety instructions could result in personal injury, property damage or impair the function of the charger.

DANGER! HIGH VOLTAGE!

Failure to follow this safety instruction can result in injury or death, or may damage or destroy the charger.



OBS!

If nothing is mentioned, WhisperPower will always deliver the charger programmed for standard batteries. See charging curves.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance
Cleaning and user maintenance shall not be made by children without supervision.

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TECHNICAL SPECIFICATION

	WBC-HANDY FM 24/6
Article nr.	61124006
SPECIFICATIONS	
Dimensions (L x W x H)	155 x 80 x 43 mm
Weight	0,8Kg
Ambient temperature	- 25°C > +40°C
Mains voltage	90-230VAC – 0-100Hz
Rated voltage/current	24V/6A
Output	28,8V / 27,6V
Mains cables	3 x 0,75 2 Rubber cable with Shuko plug. 1,5m
Battery cables	2 x 1,5mm ² 1,5m
Protection	Class I, grounded
IP Code	IP65
Fuse 24V	10Amp
Housing	Aluminum, Powder coated RAL 7035
General	Protection against wrong polarity and short circuits. CE-certified in accordance with valid EN-standards.

USER MANUAL

- Read this instruction before the charger is taken into use
- Keep this manual within easy reach for the user of this battery charger
- During charging, the batteries must be placed in a well-ventilated area
- Always connect the positive cable to the battery first, then the negative to the chassis. The battery charger is then to be connected to the mains.
- Hydrogen gas will be produced when charging lead-acid batteries and hydrogen gas is explosive
- Open flames and sparks should be kept away from batteries they may produce explosions
- After charging, disconnect the battery charger from the supply mains, then remove the chassis connection and then the battery connection
- The supply cord cannot be replaced. If the cord is broken the appliance should be scrapped

General

The WBC-HANDY FM 24/6

Battery Charger is suitable both for Freely Ventilated- (Wet) and Valve Regulated- (Dry) lead/acid batteries. The charger is small and very compact and can therefore easily be fitted close to the battery.

The charger operates in high frequency and should be connected to a standard 230V mains connection with ground. The built in micro controller controls the charging process according to the chosen charging algorithm.

During charging the charging progress is displayed with status indicator LED on the front panel. The micro-controller is also controlling the charging progress with regards to temperature in the charger and time. If a fault occurs in some cells or the temperature rises the charging current will be limited. If you have a special requirement of charging algorithm or application, please contact Whisper Power.

Installation

The WBC-HANDY FM 24/6 Battery Charger is suited for indoor and outdoor use. It can be used positioned horizontally on a table or a shelf, hang on a wall or as a built-in charger in the vehicle or machinery. The charger can be with fixed connection to the battery or with conventional connectors. Position the charger in such a way that the air supply will not be obstructed. When the charger is fitted on a wall or mounted in a vehicle it should preferable be vertical mounted for optimal cooling.



Function

Check that the polarity between the charger and the battery is right. Positive + (red) to positive + and negative - (black) to negative -. The charging starts after a few seconds and the status indicator, Yellow LED, is lit up. Yellow LED remains on until the battery is fully charged. If the charger is connected to a fully charged battery the charger will be charging for 4 hours. This is the minimum charging time. During this phase the green led will be illuminated. When only green LED is on, the charger is kept in maintenance charge and ready to be used.

Maintenance charging will continue as long as the battery is connected. The charger will be reset as soon as the charger is switched off and on. The charging time depends on the size of battery and the depth of discharge.

A freely ventilated battery (Wet) can be discharged to max. 80% and a valve regulated (Dry) with max 70%.



Switch off the charger before the battery is disconnected. If the battery is disconnected without switching of the charger, sparks may be produced.

TYPES, CELLS & RATED CAPACITY

CHARGER	BATTERY TYPE	NUMBER OF CELLS	RATED CAPACITY
chAmp 24/6	Lead acid batteries	12	20-100Ah

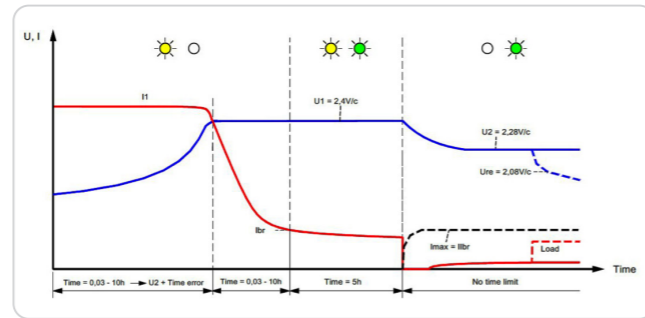
CHARGING INDICATORS

DIODE COMBINATION	EXPLANATION	EVENT
	Yellow LED	The charging process will start with max power – I Phase. The current will drop as the battery is recharged. The charging time is determined by the battery size and the degree of discharge.
	Green and yellow LED	When the threshold value (BR) is reached, the internal timer will start the U" phase of the charging process. The U2 phase keeps the charger in the higher charging voltage 28,8V in 4 hours. This ensures recharge and equalize the charge in all battery cells. This action also prevents sulfating of the battery.
	Green LED	Maintenance charge, the voltage drops to 27,5V. This phase keeps the battery fully charged and the charger can be left switched on in this position over time. Possible parallel load or consumption is supplied from the charger and the battery is kept fully charged. The battery charger can provide rated current in this phase.

CHARGING CURVES

The WBC-HANDY FM 24/6

Battery Charger is designed for charging open- and valve-regulated Lead acid batteries of different sizes. If Whisper Power is informed of the battery capacity and type the charger is delivered correctly programmed.



WARRANTY



WARNING!

Do not use this product without reading the entire manual! Incorrectly installed or use of the product can sincerely damage the user, destroy the product or connected equipment. If the product is used the wrong way, warranty may be void.

- WhisperPower warranty applies only to original purchaser within a period of 24 months from the date from delivery.
- WhisperPower guarantees that the product is in excellent condition upon delivery, unless comes full refund.
- If the user has not conducted a proper installation or used the product incorrectly applies no warranty.

WARRANTY CLAIM

To take advantage of warranty please contact your retailer.

Please have following information available:

- Receipt
- Model number
- Product serial number
- A brief description of the problem

CE MANUFACTURER DECLARATION

Product: WhisperPower WP-Sine 'AC Power from the battery'

Whisperpower guarantees that the unit complies with the relevant standards.

