Qoltec®

USER MANUAL

Smart microprocessor-controlled charger

Model: 52666 52667

EN

Introduction

Thank you for choosing a Qoltec battery charger. Our devices have been designed with high reliability, safety and user comfort in mind.

Before use, please read this user manual carefully, as it contains all the necessary information regarding correct installation, operation and safety guidelines. We are confident that the device will meet your expectations and serve you reliably for a long time.

If you have any questions or require technical support, please contact our customer service department.

About the product

The Qoltec 12A and 15A microprocessor-controlled chargers constitute an advanced range of devices designed for charging and maintaining lead-acid batteries (STD, AGM, GEL, EFB) and 14.6V LiFePO4 lithium iron phosphate batteries. Both models utilise a high-performance MCU control system, which continuously analyses battery parameters and dynamically adjusts the charging current and voltage, ensuring optimal efficiency, safety and extended cell life. The devices are equipped with a multi-stage safety system including, among other things, short-circuit protection, reverse polarity protection, overheating control, and an automatic stop function that terminates the charging process once the battery is fully charged.

Safety Instructions

The following warnings are intended to ensure the safe use of the charger. Failure to follow the instructions may result in electric shock, fire, personal injury or damage to equipment.

1. Risk of electric shock
- Do not touch the charger with wet hands and do not use it in a damp, wet or condensing environment.
- Do not immerse the device in water or expose it to rain or spilled liquids.
- Only carry out any work involving connecting or disconnecting the battery when the charger is disconnected from the mains.
- Do not use the charger if the cables, terminals or casing are damaged.

2. Risk of battery gas explosion

- During charging, batteries may emit hydrogen – an extremely flammable gas. Do not charge batteries near open flames, sparks or equipment that may generate sparks.
- Ensure the room is well ventilated during charging.
- Do not allow sparks to form when connecting the terminals to the battery terminals.
- Use only batteries that are compatible in terms of technology, voltage and capacity as specified in the charger's specifications.
- Do not charge batteries that are damaged, cracked, deformed, leaking electrolyte or showing signs of terminal corrosion.

3. Do not cover the charger or restrict its cooling. Minimum clearance around the device: 20 cm.
4. Do not use the device at ambient temperatures below 0°C or above 40°C.
5. Protect the charger from direct sunlight and heat sources.
6. Do not modify the device, cables, connectors or safety features. Modifications invalidate the declaration of conformity and may lead to danger.
7. Before starting to charge, ensure that the polarity of the connection is correct: red – (+), black – (–).
8. For batteries with liquid electrolyte, check the electrolyte level before charging.
9. If the battery or charger becomes excessively hot, stop the charging process immediately and disconnect the device.
10. Do not leave the charger unattended whilst charging damaged, old or reconditioned batteries.
11. The charger is intended solely for the uses described in the manual — do not use it as a power source or for any other purpose.
12. The device is not intended for use by children, persons with reduced physical or cognitive abilities, or by persons without technical training.
13. Keep children and pets away from the device whilst it is in operation.

Selecting the operating mode

Each press of the **MODE** button cycles the device through the available operating modes:

Lead-acid / maintenance-free batteries (STD) – standard charging mode for lead-acid batteries.

AGM / GEL / EFB – mode adapted for batteries manufactured using AGM, gel and EFB technology.

Motorcycle – mode dedicated to motorcycles and small lead-acid batteries.

LiFePO4 (14.6V) – mode intended exclusively for charging 14.6 V lithium iron phosphate batteries.

Repair – a regeneration mode recommended for batteries that are heavily discharged, have not been used for a long time, or are sulphated.

LCD display

Figure 1 – LCD display

Description of displayed parameters

Temperature display – 26.0º

Voltage display – 13.8V

Current display – 15A

Fully charged FUL

Repair PUL

OFF

Reverse connection EI-I-

Figure 2 in the appendix – No load

Summer/winter mode

Winter mode – designed for operation at ambient temperatures of 0–10°C.

Summer mode – designed for operation at ambient temperatures above 28°C.

Normal range (no icon) – operation at ambient temperatures of 10–27°C.

The charger periodically (every 3–5 seconds) measures the ambient temperature and automatically adjusts the charging parameters to ensure correct charging characteristics, safety and maximum battery life.

Charging procedure

1. Check that the battery parameters match the charger's technical specifications.
2. Connect the output cables to the battery:

- red terminal to the positive (+) terminal,
- black terminal to the (–) terminal.

3. Connect the charger to the mains supply.
4. Select the appropriate charging mode using the MODE button.
5. Once the charging process is complete, the display will show "OFF" – disconnect the charger from the mains, then disconnect the terminals from the battery.

Nine-stage charging

The product features a nine-stage charging function (Figure 1 – illustration 3 in the appendix)

1. Battery detection
2. Desulphurisation
3. Half-power constant current charging
4. Full-power constant current charging
5. Constant voltage charging
6. Repair
7. Floating charge
8. Battery maintenance
9. Shutdown

Technical specifications

Parameter	Model: 52667	Model: 52666
Input voltage	220–240V AC, 50/60Hz	220–240V AC, 50/60Hz
Charging current (max.)	12A	15A
Charging voltage	13.8–15.5V	13.8–15.5V
Battery capacity	2Ah–220Ah	2Ah–220Ah
Display	LCD	
Supported battery types	WET/STD, AGM, GEL, EFB, LiFePO4 14.6V	

Charging method	MCU microprocessor control, automatic multi-stage charging
Operating temperature	0°C to +40°C
Storage temperature	–20°C to +45°C

Troubleshooting

1. The battery is flat, but the charger displays the message 'FUL' (full).

Reason: A battery may become sulphated after a long period of disuse. The increased internal resistance causes an immediate rise in voltage when charging is attempted, which the charger mistakenly interprets as the battery being fully charged.

Solution: After switching on the charger, press the MODE button three times to switch to Repair mode, which attempts to regenerate the battery.

2. The battery shows voltage, but the charger does not respond when connected.

Cause: No mains power is being supplied to the charger.

Solution: Check that the mains socket is working properly or use a different power source.

3. The charger is connected to the mains and the battery symbol on the screen is flashing.

Cause: The battery is completely discharged. The voltage has dropped below the charger's detection threshold.

Solution: Try to charge the battery in parallel with another, working battery, or replace the battery with a working one.

4. The charging process is taking an excessively long time.

Cause: Possible sulphation of the battery, current leakage, insufficient electrolyte or too low a resting voltage. In such cases, the battery may be charging continuously and generating excessive heat.

Solution: If excessive heating is noticeable, stop charging. In batteries with liquid electrolyte, check the electrolyte level.

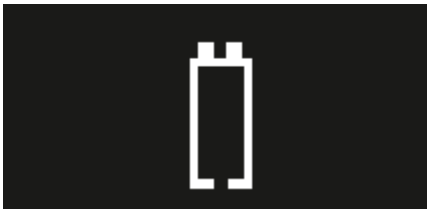
Maintenance, disposal and servicing

1. Before cleaning or maintenance, disconnect the charger from the mains and from the battery.
2. Use a dry cloth for cleaning — do not use solvents, detergents or corrosive agents.
3. If you notice a burning smell, smoke, unusual noises or deformation of the casing, immediately disconnect the power supply and stop using the device.
4. Repairs to the device may only be carried out by a qualified service centre.
5. Store in a dry place at a temperature of –20°C to +45°C, protected from dust and moisture.
6. Do not dispose of used batteries in household waste — they must be taken to a disposal point compliant with the WEEE Directive.

Attachment 1

1

2



3