



LIVOLTEK LIMITED WARRANTY POLICY FOR BATTERY PRODUCTS (For EU markets only)

This limited warranty policy (hereinafter “Warranty) specified below applies to battery products (herein referred to as the Products, model BLF51-5) which is supplied by Hangzhou LIVOLTEK Power Co., Ltd. (“LIVOLTEK”) to the purchaser (the customer) which is apply to the EU markets only. (Here, the customer is deemed to be the owner of the installed products at first sale.

1. Warranty Terms

LIVOLTEK warrants the Products will be free from defects in materials or workmanship under normal use, and in the event of the occurrence of a defect for which LIVOLTEK is responsible during the agreed warranty period, LIVOLTEK may, at its discretion, elect to:

- Fix the issue by changing configurations or updating software.
- Repair the battery system by replacing with spare parts.
- Exchange the battery product for a product that is brand new or refurbished but at least functionally equivalent to the original product, or an upgraded model which is either functionally equivalent or functionally superior to the original product. If the device is replaced within the warranty period, the remaining warranty period will be automatically transferred to the replacement unit.

2. Warranty period

- 120 months of product warranty: LIVOLTEK Warranty covers defects in workmanship and materials of the battery products (model BLF51-5) for 120 months from the date of installation but no more than 125 months from the date of manufacturing (whichever comes first).
- Performance warranty: LIVOLTEK warrants and represents that the battery system cells retains seventy percent (70%) of its usable energy after 6000 cycles at 90% DOD from the date of the installation; or for a Minimum Throughput Energy which is calculated from the earlier one of installation, whichever comes first.

Product Model	Usable Energy(kWh)	Minimum Throughput Energy (MWh)
BLF51-5	4.5 kWh	25.0 MWh

Note: The Minimum Throughput energy means the total output energy of the Product recorded in the control module of the Product.

3. Warranty Registration

The direct customers who have purchased the Products shall register the battery products and upload the information within 12 months of installation. It is recommended that they are registered no more than 6 weeks following the successful installation and commissioning of the Product where possible. Register online: <https://livoltek.com/service/warranty/#product-registration>.

If a customer fails to register the Products before the deadline, the Products warranty period will be counted automatically from 6 months after the manufacturing date.

4. Warranty Claim Process

It is customer's duty to contact LIVOLTEK in the event of a warranty claim with following information:

- Contact information of the user, product(s) information such as serial number(s), installation date and failure date, valid warranty certificate, installation information such as brand, model, number of PV panels, error message on LED/LCD screen, description of actions before the failure.
- Purchasing invoice, receipt, commissioning report, or any other document which can prove the purchase of the inverter or accessory, or the date of installation.

Furthermore, the customer shall to fill in the RMA Application form in writing and submit to LIVOLTEK for review and approval if there must replace a new device. The LIVOLTEK may ask for further details depending on the fault conditions. LIVOLTEK will reproduce the issue according to the scenarios provided by the customer, and may arrange an on-site inspection to find out the root of the fault if necessary. The customer is responsible for granting access, making time, and ensuring the safety of the inspection by a technician from LIVOLTEK or an authorized third-party company.

LIVOLTEK reserves the right to reject the warranty claim:

- If you fail to provide the above-mentioned information.
- If you fail to ensure the safety, grant access, make time and so on.
- If the product is replaced without the prior consent of LIVOLTEK.
- If the defect that is claimed is not caused by defective materials or workmanship.

The defective parts or units replaced under a warranty claim become LIVOLTEK's property.

The customer is obligated to arrange the shipping of the faulty product back to LIVOLTEK local office, fail to do so will forfeit eligibility of the service rebate.

Any claims shall be made within one month of failure dates to be considered under the warranty. LIVOLTEK will seek reimbursement of all costs (labour, travel, delivery, and/or replacement units that have been sent) incurred from the claimant if the product is found to be free from defects in materials or workmanship, or if the claimant refuses the faculty following this warranty claim. For any units sold for one country/region but installed in another country/region, the warranty will become invalid if LIVOLTEK does not provide written confirmation/approval prior to the installation.

5. Warranty Coverage and Not Coverage

Unless a special/unique agreement exists between LIVOLTEK and the customer, the LIVOLTEK standard warranty covers only the cost of hardware material required to get the device functioning again. All other costs including but not limited to compensation from direct or indirect damages arising from the defective device or other facilities of the PV system, or

loss of electrical power generated during the Product downtime are NOT covered by the LIVOLTEK limited warranty. And LIVOLTEK's liability shall be limited to the purchase value of the product.

6. Warranty Limitations

The following circumstances may cause device defects, but are NOT covered by LIVOLTEK's limited warranty and LIVOLTEK shall not be responsible for any such defects.

- Any defects that occur when the battery warranty period has expired (excluding additional agreements of warranty extension).
- Faults or damages due to faulty installations or operations, maintenance carried out against LIVOLTEK instructions by an unauthorized installer. Usage which does not comply with the safety rules and regulations (VDE, IEC, etc). Damage or defect caused by End User's improper use, misuse, abuse, which non-confirming with User Manual.
- Disassembly, repair or modifications performed by a third-party company/person not authorized by LIVOLTEK. Battery system modifications, design changes or part replacements not approved by LIVOLTEK.
- The battery products or accessory is damaged during transportation.
- The Products failure is not reported to LIVOLTEK within one month of appearance.
- The product is moved for any reason after it has been installed (regardless of whether it has been reinstalled subsequently or moved back to the same location) unless it is reinstalled at the same address by a qualified installer who has provided a test report to LIVOLTEK.

- Faults or damage due to unforeseen circumstances, man-made factors, or the damage or defect is caused by lightning, flood, fire, power surge, corrosion, pest damage, actions of a third-party, or any other force majeure factors.
- Products that the original identification markings (including trademark or serial number) of such products have been defaced, altered, or removed.
- Vandalism, engraving, labels, irreversible marking or contamination or theft.
- Normal wear or tear (including without limitation, wear and tear of batteries).
- Any rust that appears on the device's enclosure caused by harsh environmental conditions, accidents and external influences. Faults or damage caused by exposure to sea coasts/saltwater or other aggressive atmospheres or environmental conditions without LIVOLTEK's written confirmation/approval prior to the installation.
- Exposure of the Product to movement or shaking following installation, or temperatures greater than the specified temperature in the specification and manual.
- Operation of the Product with an inverter rectifier or PCS that have not been confirmed and approved by LIVOLTEK. If this happens, LIVOLTEK shall assume no liability for system malfunctions and any incurred loss or damages whatsoever.
- Damage caused by End User deliberately or by willful act.
- The Product not being operated for any period of 6 months or more.
- Defects of Product arise due to renewal of the national or regional laws or regulations.
- Faults or damage caused by other accidents and external influences not related to product quality issues.

The substitute battery or accessory with technical improvement may not be entirely compatible with the remaining components of the photovoltaic system. The costs incurred as a consequence will not be covered by the warranty or extended warranty. For any units sold for one country/region but installed in another country/region, the warranty will become invalid if LIVOLTEK does not provide written confirmation/approval prior to the installation.

7. Further Rights at Law

In addition to the warranty provided by LIVOTEK, the end-user/customer have statutory rights that will not be limited or replaced by this warranty. The products provided by LIVOTEK come with guarantees that cannot be excluded under consumer laws in the country/territory where the product is stalled. Beijing International Arbitration Centre shall have jurisdiction for further disputes about a warranty claim arising from this policy.

Appendix

The remaining usable energy mentioned above is as measured and calculated using the following testing method and values:

1. Ambient temperature: 25~28°C.
2. Initial battery temperature from BMS: 25~28°C.
3. Discharge the battery with constant current until the battery reaches End of Discharge Voltage ("EODV") or its self-protective voltage.
4. Wait for 10 minutes.
5. Charge the battery with constant current and constant charge voltage to its full capacity.

6. Wait for 10 minutes.
7. Discharge the battery with constant current until it reaches EODV or its self-protective voltage. Record the current, voltage, and time.
8. The remaining Usable Energy is the integral of discharge time and current multiplied by voltage.

Test value list:

Product Model	End of discharge voltage (V)	Constant charge voltage(V)	Constant current(A)
BLF51-5	40 V	58.4 V	20A

Contact

<https://www.livoltek.com>

(1) The service hotline is **+86 157 1576 8455**

(2) Service email address: **service@livoltek.com**.

Customers can contact Livoltek service representative directly as well.

Head Office

Hangzhou LIVOLTEK Power Co., Ltd.

Email: info@livoltek.com

Address: 1418-35 Moganshan Road, Hangzhou, 310011, China