

## WeCo S.r.l.

### LIMITED WARRANTY

This Limited Warranty ("Warranty") indicated below, applies to batteries 5K3/4K4 and the HV and LV controller units (hereinafter collectively "Products" or singularly "Product") produced by WeCo S.r.l. (hereinafter "WeCo" or "Seller") for the Buyer customer (hereinafter "Buyer") through an Authorized Reseller.

#### 1. Purpose

The main purpose of this document is to define conditions and procedures relating to the performance Warranty policy applied to Products for indoor home storage use combined with a compatible solar battery charger system, manufacturing defect warranty is applied as per the Local Warranty Regulation, if purchased inside the European Community the warranty is defined as per the current European Law.

#### 2. Warranty Conditions

##### General Guarantee

Products Performance Warranty is valid for 120 months from the initial date of installation or 120 + 2 months from the date of manufacture or 7.000 charge/discharge cycles, depending on which condition occurs first, provided that the product is installed and operated according to section 4. below.

The manufacturing defect Warranty is regulated by the current European Law

##### Limitations and Liability

WECO's liability under this warranty is limited to replacement, repair and / or compensation of the Products. Seller is not responsible for any direct or indirect damages related to failure to achieve performance, unproductive stop of the system, or any other damages deriving from any malfunctions.

Replaced or repaired Products will be warranted for the remainder of the duration of the replacement battery warranty.

The act of replacement will not justify the renewal of the original duration of the guarantee, without exception.

Seller is not responsible for damages resulting from non-use of the battery, loss of profit, interruption of any type of services or supplies.

WeCo BMS must be readable, if the memory has been damaged due to improper usage of the battery or if the BMS have been removed or replaced the Warranty become ineffective.

##### Warranty Exclusions

Damage to Products caused by any of the following activities is NOT covered by this Warranty:

- a) Transport, storage, installation or non-compliant wiring carried out by the Buyer.
- b) Opening of the Products by non-WeCo approved technicians.
- c) Wrong parallel connection of multiple units, wrong configuration of parallel units, parallel connection of incompatible batteries or of different power and/or type and/or brand.
- d) Reverse polarity
- e) Wrong serial connection of multiple units, wrong configuration of serial units, serial connection of incompatible batteries or of different power and/or type and/or brand.
- f) Failure to follow the instructions in the respective Products manuals.
- g) Modification, installation, alteration, disassembly, repair or replacement by anyone other than personnel certified by WeCo.
- h) Failure to disconnect the battery from the system in the presence of inverter or battery alarms.
- i) Failure to charge and discharge the battery for prolonged periods (over 3 months) or following the relocation of the battery from the initial installation location or the replacement of the inverter with an inverter that is not in the list of inverters approved by WeCo.
- j) Failure to connect the BMS via CAN to the inverter, incorrect wiring, incorrect cable section choice, polarity inversion and the use of unsuitable cables.
- k) External influences including unusual physical or electrical stress (power surges, high inrush current, lightning, flood, fire, fall, accidental breakage, cover opening, cable removal, manual actuation of the contactor, etc.).
- l) Any condition in contradiction with the Indoor application as per IP20 rating
- m) Use of incompatible inverter, rectifier, battery charger, BMS, etc., with the battery even if on a temporary basis.
- n) Product label removed or canceled.

From time to time WeCo may issue on the website and/or by email to the registered Buyer address a "Critical Firmware Upgrade".

It is the responsibility of the Buyer to ensure that any Critical Firmware Upgrade is implemented through their re-seller channels to each and every battery within 60 days of receiving the Critical Firmware Upgrade. Failure to do so could prevent the batteries from functioning correctly and make the warranty ineffective.

### 3. List of equipment included in this Guarantee Policy

Battery Label Code	Capacity +/- 3%	Voltage Vdc
HeSU 4K4 PRO	4.45 kWh	45.5 - 58.4Vdc
HeSU 5K3	5.3 kWh	45.5 - 58.4Vdc
5K3 HVBOX	Up to 1000Vdc	150 – 1000Vdc
5K3 HUB LV	Up to 58.4Vdc	45.5 -58.4Vdc
5K3 HVBOX XP and 5K3 HUB LV have 5 years warranty independently by the numbers of cycles of the Battery		

### 4. Performance Guarantee Conditions (conditions applied)

WeCo's guarantee on batteries is valid up to ten (10) years from the date of initial installation, or 120 + 2 months from its manufacturing date or 7.000 charge/discharge cycles, depending on which condition occurs first, provided that the Products is installed and operated according to section 4.1. mandatory conditions.

Limited to batteries mod. 5K3/4K4, WeCo guarantees that the cells (\*1) of the Product will maintain a residual value of discharge capacity of 70% if the above prescriptions have been respected  
(\*1) *Residual value of discharge capacity of the complete battery could be up to 3% lower than cells, due to losses and internal consumption of the assembled pack.*

#### 4.1. Installation and operation mandatory conditions

The warranty is recognized if the below conditions are respected

1. The Products must be installed away from moisture in a dry environment. They cannot be installed outdoors.
2. The technical room in which the Products are installed must maintain an average ambient temperature of 25°C
3. The BMS shall not record an ambient Temperature below 11°C and above 35°C
4. Limited to 5K3/4K4 units, the coefficient of charge must not exceed 1C for 1 Cycle a Day
5. Limited to 5K3/4K4 units, the coefficient of discharge must not exceed 1C for 1 Cycle a Day
6. Limited to 5K3/4K4 units, Depth of Discharge (DoD) must not exceed 90%
7. The maximum altitude must be below 3000mt above the sea level
8. The maximum degree of humidity in the room must not exceed 80%, and the ventilation must be such as to avoid the formation of condensation.
9. Products must be protected from liquids, including nebulized liquids, direct or indirect impacts of water or other liquids which, in addition to causing the immediate loss of the guarantee, can be dangerous for users.
10. Products must not be installed under direct sunlight, nor inside areas closed by means of glass surfaces which can contribute to raising the temperature of the battery even if exposed only for a few hours.
11. Products must not be installed in rooms with a high saline concentration in the atmosphere or near sources of forced air recirculation. The battery must not be installed in rooms with an atmosphere contaminated by acids, salt, water vapor, solvent vapors or Products that can cause damage to lithium cells, inner circuits, BMS and other parts such as contactor, fuses, sensors, etc.. Installations in such environments are prohibited.
12. Installation in the vicinity of fuels, flammable material in general, or GAS storage is prohibited.
13. The side and rear ventilation areas of Products must be checked and cleaned regularly according with the site conditions. Accumulations of dust or dirt void the warranty. The Products must be used and maintained as indicated in the WeCo manual and exceptions are not allowed.
14. The Products controller units must be installed in a vibration free environment.

**The performance guarantee for 10 years or 7000 cycles is void if the installation and operating conditions referred to in this section 4. are not complied with.**

### 5. Standard Test Conditions (STC) for the Capacity Measurement

In order to claim the activation of the guarantee, the performance of the 5K3 batteries cells must be measured according to the procedure specified below:

- Place the battery in the climatic chamber for not less than 30mins: before starting the testing phase the temperature of the cells measured by the BMS must be 25°C +/-1°C.

- Connect directly to negative and positive terminals of cells array and discharge with constant 0,5C current until the array reaches 43.5V.
- Connect directly to negative and positive terminals of cells array and charge with constant 0,2C current until the array reaches the BMS protection limit (open circuit / OV protection)
- Wait 30 minutes and then restart the charge process at constant voltage with 0,05C until the BMS reaches again the OV protection. (Open circuit)
- Repeat the above discharge/charge cycle until voltage difference between cells is below 0,05V.
- Leave the array to rest until cells temperature, measured by the BMS, is 25°C +/-1°C.
- When cells reach 25°C +/-1°C, connect directly to negative and positive terminals of cells array and discharge with constant 0,2C current until the array reaches 43.5V and measure capacity at negative and positive terminals of cells array using a certified DC meter with datalogger frequency of 1 second.

## 6. Warranty Exclusions

For Products damages that are not caused by the seller, WeCo will provide a paid service, including all expenses such as material costs, labor and travel costs, general and transport costs, customs duties and disposal costs (if applicable.)

**Modules used outside the standard operating conditions of the section 4. are excluded from the warranty.**

## 7. Replacement Parts

The Products or spare parts supplied for warranty claims and normal operations may come from new, equivalent, or reconditioned Products in order to maintain the guaranteed minimum residual performance.

In the event that the Products are no longer available on the market, or are not available in the short term (within 90 days), WeCo, at its discretion, may replace them with other types of Products with equivalent functions and performances or refund the residual value of the purchase price of the Products (during the Warranty Term).

The purchase price mentioned indicates the invoice price actually paid by Buyer to WeCo for the Products.

In the event of a manufacturer's defect, WeCo will provide a proposal that will take into account the aging and condition of the Product. WeCo will provide options to the Buyer to replace the damaged Product with a similar one with the same residual capacity at that time, alternatively, if the Product of the same model is not available or is out of production, an equivalent one will be supplied.

## 8. Requests for intervention

In order for a warranty claim for replacement or partial compensation to be processed, the Distributor / Installer of the Products must transmit the information below, via the Buyer, to WeCo:

- (1) Proof of the original purchase of the Products.
- (2) Serial number of the Products in question.
- (3) The initial installation date and manufacturing date (\*2)
- (4) Description of the symptom / problem.
- (5) Pictures of the installation (Minimum five pictures from different angles).

For all warranty claims the Buyer is responsible to return all Products to the seller.

**Shipment must be done in accordance with UN38.3 regulations.**

WeCo will inspect the Products by extracting the stored logs and after the inspection will issue a report. Report could be generated also by third parties assigned by WeCo.

In case logs is unavailable or BMS is not accessible, warranty claim will not be processable.

In the event of a manufacturer defect, WeCo will be responsible for shipping the Products back to the Buyer.

In the event that the warranty claim is not substantiated, WeCo will provide the Buyer with a proposal to repair or replace the item in question. In this case the return shipping costs will be at the expense of the Buyer.

It is possible that the cells or the Products are replaced with new models, which may not be fully compatible with the equipment subject to request for intervention. In this case, the most favorable technical solution for the customer will be proposed.

If the Product dealer is not traceable, the requesting party can contact WeCo via the "Contact" section by connecting to the website [www.wecobatteries.com](http://www.wecobatteries.com).

### Note:

(\*2) Buyers who are unable to contact the installer or retailer from whom the Products was purchased can contact WeCo on the website, "Contact" section, and provide the battery serial and purchase invoice in order to trace the date of battery manufacture.