

# SOLUNA

POWER DESIGNED FOR NIGHT AND DAY

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Tel. +86 21 57475835

[www.solunabattery.com](http://www.solunabattery.com)

service@solunabattery.com

**SOLUNA**

No.3492 Jinqian Road, Fengxian  
District, Shanghai, China

## Soluna Limited warranty

### WARRANTY CONDITIONS

For the SolunaESS Product Series

#### **Warranty**

Subject to the terms and conditions detailed below, we provide a voluntary product warranty (the Warranty) to end users of the following products (the Products) which are supplied by us:

Batteries

- Soluna 10K Pack LV
- Soluna Venus 16K Pack LV , Soluna Jupiter 32K Pack LV
- Soluna HV Ultra

#### **Warranty start date definition**

The Warranty Period shall commence from the earlier date of the following:

(1)The date of when the first installation of the warranted product is completed

(2)180 days after the date of shipment from Soluna (Shanghai) Co.,Ltd

## **Warranty period**

We warranty that we will repair or replace (according to Soluna's assessment) a Product or any part there of, if such Product is faulty or defective in manufacture or materials for a period of 10 years Soluna batteries from the warranty start date. This warranty does not include any accessories provided with the product.

We will endeavor to replace Products with identical products. However, due to technological advancements, that Product may not be available. In these cases, we will supply another type of product of at least the same value and standard, although the replacement product may be a different size, shape, color and/or capacity. Due to technical advances it is possible that replacement parts or components may not be compatible with the other components already installed. Any costs relating to the incompatibility of systems is not covered by this Warranty.

If the products are replaced within the warranty period, the remaining warranty period will be automatically transferred to the replacement products. In this event, you will not receive a new certificate.

It is required that all systems have internet connection for monitoring. Those systems that are not connected to the internet, please ensure to register battery SN/ installing date to Soluna website [www.solunabattery.com](http://www.solunabattery.com), otherwise the warranty is then reduced to 5 years.

Products used without communications, or when used in mobile vehicles such as camp and marine applications, the warranty period is five (5) years from the warranty start date. And this must base on that the customer gets official approval from Soluna.

This Warranty covers a capacity equivalent to 1 full cycle per day.

Full cycle : Discharge the nominal capacity of a fully charged battery and fully charge it afterwards. Micro cycles sum up to full cycles according to amount of

energy charged and discharged.

All battery models listed in this document have a cycle life of no less than 8,000 times (25°C under standard charge and discharge conditions)

Note: Products are unavailable to protect itself from the deep discharge/charging in condition of without communication connection.

### **Battery Performance warranty**

Upon the granting of the Warranty (with internet connection), we guarantee as follows:

For systems operate under self-consumption mode, we warrant that the each battery module retains at least sixty five percent (65%) of its usable capacity for 120 months from the earlier of (i) the date the battery storage system is installed at the end user's property or (ii) the date two months after the Product being sold to another business or personnel.

For other applications, the warranty can expire earlier if a total energy of 2.92MWh per kWh usable capacity has been dispatched from the battery.

### **Capacity measurement condition**

Ambient temperature: 25~30°C

Initial battery temperature from BMS: 25~30°C

### **Battery Storage Condition:**

1. Maintain a state of charge (SOC) between 30% and 50% during storage. To preserve battery health, perform a full charge-discharge cycle every six months.
2. Store the battery in a temperature-controlled environment between 15°C and 30°C, and avoid storage periods longer than one year.

## Exclusions

This warranty will not apply to a defect or fault to the extent to which one or more of these conditions arises:

- Due to storage, handling, installation (or removal and/or re-installation) or commissioning of the Product otherwise than in accordance with instructions provided by us, applicable safety regulations or without reasonable care including installation of a Product which is of an inappropriate size or type for the intended purpose (mixed installation with the battery of other brands);
- Due to operation, use or maintenance of the Product otherwise than in accordance with instructions provided by us or without reasonable care (including failure to maintain/ clean the Product in accordance with recommendations in instruction/operation manuals);
- Due to accidental damage, theft or vandalism, or use of the Product for a purpose or in environmental conditions for which the Products were not designed for or sold, or use of the Products outside the specified or normal operating ranges for such Products;
- As a result of changes which occur in the condition or operational performance of the Product due to climate or other environmental influence, foreign material contamination (e.g. dirt, smoke, salt, chemicals and other impurities), water entry, exposure to excessive heat or solvents or because of use of the Product with insufficient ventilation (in particular the maximum temperatures according to the operating manual), exposure to strong vibrations, exposure to a strong magnetic field or damage as result of Force Majeure event;
- From normal wear and tear or when replacement or repair of parts would be part of normal maintenance or service of the Product or where the damage is only to surface coating, varnish or enamel;
- As a result of repairs, alterations or modifications to the Product which have been performed by a third party not authorized by us;

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- Where the nameplate or serial number of the Product is modified, altered or not readable;
- If damage has occurred during transportation; or other damages not affecting energy generation and which are of a visual nature (e.g. surface scratching).
- Without payment to the Seller, the Buyer may pay the unpaid amount to the Seller in support of the warranty claim under the circumstances that the Seller has the right to refuse the warranty request in accordance with this clause.
- Not complying with Soluna' s official user manual of the product and "Appendix 1 - Usage and Transportation requirements".
- Products failure is not reported to Seller Soluna Authorized Service Partner within 2 weeks of appearance.
- Use of an incompatible inverter, rectifier or PCS.
- Warranty period specified above has already expired.

This Warranty does not apply to damage caused by continued use of the Product after it is known, or would have been known with regular servicing, it is defective.

## **About Service Products/Parts**

### **Fault Handling**

- If the product fails, the Buyer shall cooperate with the Seller to obtain the faulty equipment usage information, including but not limited to: faulty equipment serial number, working temperature, usage mode, supporting energy storage inverter manufacturer/model/specification, power consumption equipment power

information, PV system configuration information, fault phenomena, operating procedures, battery operation logs, etc.

- When both parties agree that the product belongs to the warranty scope, Soluna or Soluna authorized sellers can repair or replace the non-conforming products or parts. Before repairing or replacing the non-conforming products, the Buyers shall confirm with the Soluna or Soluna authorized sellers in writing and provide the serial number of the failure equipment and the serial number of the spare parts to be installed in time. The warranty period of the replacement product shall follow the remainder of the original product warranty period.

- If the two parties disagree with whether the faulty equipment meets the warranty conditions, the products may be tested jointly by the ways approved by both parties, or the products shall be submitted to the third-party testing institutions recognized by both parties. Both parties can provide reasonable opinions on the test methods, basis and conclusions. The testing fee shall be borne by the Buyer first. If the testing result proves that the product meets the warranty conditions, the Seller shall pay the transportation fee and testing fee generated in full to the Buyer, and assume the responsibility for the faulty equipment warranty.

### **Out of Warranty**

- If the product is out of warranty or not covered by the warranty, Soluna may (in its discretion) provide certain after-sales service to Original Buyer, but all the costs and expenses, such as parts, labour costs and travel expenses, shall be borne by Original Buyer, Please contact with Soluna for details.

### **Claim payment policy**

Soluna reserves the rights to refuse product warranty claim for lacking proper documentation and information.

Claims under this Warranty must be made by notifying the Seller from whom Products was purchased within 2 weeks of defects' appearance.

For a Warranty Claim to be processed, it must include but not limited following

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items:

- Proof of the original
- Description of the alleged defect(s) from authorized service center
- The relevant Product' s serial number and the start date of the warranty

Buyers who are unable to contact the Seller from whom Product was purchased should contact Soluna (Shanghai) Co.,Ltd. at the Contact Us Section of the Website : [www.solunabattery.com](http://www.solunabattery.com)

Email:

[service@solunabattery.com](mailto:service@solunabattery.com)

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When contacting us by the online monitoring, please fill in the relevant form;

When contacting us by email, please have the following information to hand:

- Your name, address, postcode and a telephone number where you can be contacted
- The model designation and serial number of the Product (you can find both on the Product)
- Proof of purchase with date and address of the vendor
- Installation date and installation address
- Signed commissioning report or protocol
- Contact details of the installer
- A complete and detailed list of observed faults and other information which could help with the analysis of the fault (e.g. any modifications)

## **Product Liability and Product Safety**

We should be informed immediately about any potential product safety concerns within and

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outside the warranty period. We are well aware of our product liability and product safety obligations and responsibilities. It is our aim to ensure appropriate product safety standards

are met in order to avoid injury, loss and damage caused by defects in any Product.

## **Applicable Law**

The Warranty is subject to the local legislation and regulations. The certified which is excluded in the English language shall prevail in the event of conflict between the English version and the translated Chinese version.

The company(Soluna) reserves all rights for the final explanation of the warranty terms.

## **Miscellaneous**

This Warranty shall form part of the purchase contract in respect of the Product between us and the end-user and shall be complied with by both parties.

## Appendix

### Usage and Transportation requirements

These products include Lithium iron phosphate battery and the Accessory Components. In order to ensure that the buyer is entitled to full warranty policy, the following clauses should be strictly observed in the transportation and use of products. The product failure or damage caused by violation of the following requirements is not covered by this Limited Warranty.

#### 1 Operating environment requirements

- Working temperature : -10~50°C
- Working humidity: 5%~85% RH
- Altitude: <2000m
- No conductive dust and corrosive gas
- Installation location should be away from the sea to avoid brine and high humidity environment.
- The ground is flat and level.
- There is no flammable explosive near to the installation places.
- Keep away from dust and messy zones, water source and heat source, prevent equipment from entering water and overheating.

#### 2 Storage environment requirements

- Short-term storage environment:  
Within 3 months of temperature range is -20~40°C.  
Relative humidity <85%RH.

No corrosive gases.

- More than 3 months long-term storage  
environment: temperature range for -10~35°C  
Relative humidity <65% RH No corrosive gases
- If long-term storage is required, it should be recharged every 6 months,  
and no less than 80% of SOC should be charged.
- Keep away from dust and messy zones, water source and heat  
source, prevent equipment from entering water and overheating.

### 3 Transportation requirements

- (1) When the product is transported separately, the individual products  
should be transported with the original packaging materials of the Seller.  
If long- distance transportation such as sea transportation is required,  
additional packaging measures should be taken to ensure the safety of  
transportation.
- (2) If the product does not use Seller's original packaging material  
transportation, Buyer shall fully consider the risks of vibration, drop and  
collision in the transportation process, and adopt adequate product  
protection measures.

### 4 Equipment installation requirements

- (1) Visual inspection

Check the appearance for damage and check the attachment variety and  
quantity according to the packing list.

Verify that the device is off state.

- (2) Electrical Specification confirmation

The rated working voltage of the energy storage PACK according to user  
manual, and it should be confirmed that the storage energy inverter battery  
power interface parameter is matched.

Confirm that the maximum charging and discharging current designed by the  
system meets the specification requirements of the energy storage PACK.

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The external power supply should not generate a surge that causes damage to the battery or BMS.

When connecting the power line, pay attention to the positive and negative electrode, avoid reverse connection and short circuit.

It is forbidden to connect the battery directly to ac power. The battery can be used in parallel and not in series.

Do not mix batteries with other factory batteries or other types of batteries.

## 5 Equipment Use

### (1) Charge

The battery's long-term max continuous charging current should be  $\leq 0.5 C$ .

If the battery capacity is empty, please charge it within 48 hours after the battery is empty.

Charge the over-charged battery or system within seven days when temperature is above 25°C.

Charge the over-charged battery or system within fifteen days when temperature is below 25°C.

### (2) Discharge

The long-term max continuous discharging current of the battery should be  $\leq 0.5C$

The maximum depth of discharge (DOD) of Battery PACK is no more than 90%.

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(3) Cycles

This Warranty covers a capacity equivalent to 1 full cycle per day for ten (10) years.

Full cycle: Discharge the Nominal capacity of a fully charged battery and fully charge it afterwards. Micro cycles sum up to full cycles according to amount of energy charged and discharged.

(4) Move

To remove the battery, disconnect the external power supply and turn off the switch.

(5) Maintain

It is forbidden to open the battery shell or dismantle the components before obtaining the written authorization of Seller.

(6) Fire Emergency

In case of emergency, for the use of fire-fighting equipment, use only dry powder fire extinguishers.

In the conditions of 25°C, 80%DOD, 0.2C charging/discharging, the product can achieve 8000 cycles