

# Sunlight Group Energy Storage Systems

### **LIMITED WARRANTY TERMS AND CONDITIONS**



#### 1. Warranty Coverage

This limited warranty applies to **powerESS Li.ON 51.2V - 100Ah** (hereinafter "Product/-s", "Battery/-ies)") supplied by Sunlight Group Energy Storage Systems.

For each Product, Sunlight Group Energy Storage Systems:

- guarantees the capacity and number of cycles ("Performance Warranty") for ten (10) years
- warrants that it will be free from defects caused by improper workmanship or defective materials for five (5)
   years

from Product's Invoicing Date ("Warranty Start Date").

This Warranty applies only to the original purchaser ("User") and is not transferable.

#### 2. Performance Warranty

Warranty is valid only in the case that the battery and inverter keep normal communication and are used in strict accordance with the operation and maintenance manual. The Warranty of the Product will take effect from whichever of the following conditions below happens earlier:

- 1) The Product retains a minimum energy of sixty percent (60%) of nominal energy/capacity after ten (10) years from the Warranty Start Date.
- 2) The cycle times of the Product within 10 years do not exceed 6000 times. Capacity degradation may be observed after 6000 cycles.
- 3) The Product reaches the minimum throughput energy that has been calculated and recorded in the BMS.

The nominal energy and minimum throughput energy of each Product for 10 years operation is set out in the table below:

Product Model	Nominal Energy	Usable Energy	Minimum Throughput Energy
powerESS Li.ON 51.2V - 100Ah	5.12 kWh	4.92 kWh	14.4 MWh

#### Remarks:

- Capacity measurement conditions is defined in *Appendix 1*.
- 1 cycle time is counted as accumulated charged/discharged capacity at 80%.



#### 3. Preconditions for Warranty

The following preconditions shall be met to fulfill the basic requirements of the Limited Warranty:

- Product shall fall within the warranty period.
- Any system failure or fault must be reported to Sunlight Group Energy Storage Systems within one (1) week of appearance.
- Product shall be installed by skilled personnel, recognized or authorized service partner.
- User shall correctly operate and use the system according to the operation and maintenance manual and Inverter integration manual.
- Users shall provide the proof of the original purchase of the Product.
- The Product shall be installed within three (3) months from invoicing date.
- The ambient temperature during the operation of the Product must be within -5 ~ 50°C (charging) and -10 ~ 50°C (discharging).
- The Product can only be installed and operated in indoor (on-grid/off-grid) applications.
- The Product can be discharged at maximum of 96% DOD.
- The Product must operate with inverters approved in latest compatibility list from Sunlight Group Energy
   Storage Systems and establish communication between them according to the inverter integration manual.

#### 4. Exclusions of Warranty

The Limited Warranty in Clauses 2 and 3 does not apply to any defect or damages resulting from:

- Product failure caused by inverter/MPPT charger or other system related component.
- The Product being installed with inverters not in the approved list.
- Failure to install, operate or maintain the Product properly in accordance with the Operating Manual.
- The Product being installed in an outdoor environment without avoid of direct sunlight and frost or the outdoor enclosure fails.
- Product modification, repair, or other changes modification on both hardware and/or software without the approval from Sunlight Group Energy Storage Systems.
- Product damage caused by improper transportation, storage, installation, or wiring, including but not limited by dropping, trampling, deforming, impacting, or spearing with a sharp item.
- The serial number on the Product can no longer be identified or has been modified.
- Product damage caused by any force majeure event (e.g., natural catastrophes, such as flooding, fires, earthquakes, lightning or other abnormal environmental conditions, war, etc.).
- The Product not being operated for any period of over 6 months or not be charged after 1 week when fully discharged (96%DOD).
- Mixing use of different brand batteries or different battery model without confirmation from Sunlight Group Energy Storage Systems.

#### 5. Warranty claim

Claim shall be reported to Sunlight Group Energy Storage Systems with the following information:

1. Installation date



- 2. Invoice number
- 3. Product model
- 4. System configuration (e.g. inverter mode/work)
- 5. Mode/environment
- 6. Serial Number (SN)
- 7. Installation Location or Picture
- 8. Abnormal description

#### 6. Replace or Repair

In the event that any Product meets the requirements set in this Limited Warranty, is reported by the User and is confirmed by Sunlight Group Energy Storage Systems to be defective, Sunlight Group Energy Storage Systems, at its sole option, shall replace or repair the defective Product using a new or refurbished condition which performance is equal to or higher than defective Product and guaranteed by Sunlight Group Energy Storage Systems.

The replacement Battery or the Battery that has been repaired shall only be warranted for the remaining unused portion of the warranty of the original Battery.

The User is responsible and obliged to return any defective Battery or Battery parts to Sunlight Group. Upon return of any defective Battery or Battery part by User, User releases to Sunlight Group all title and interest with respect to the returned Battery.

The cost and responsibility for removal of the defective Battery or Battery part and its shipment to Sunlight Group premises, the freight & installation charges of the replacement Battery or Battery part and all other costs related to the replacement process will be the responsibility of the User.

#### 7. Limitations

Sunlight Group Energy Storage Systems shall not be liable for any special, indirect, incidental or consequential damages arising out of the sale or relating to the use, maintenance, transportation or installation of the Battery.

The User assumes responsibility for personal injury and property damage resulting from the handling, possession or use of the Battery.

In no event, shall the liability of Sunlight Group Energy Storage Systems for any and all claims, including claims of breach of warranty or negligence, exceed the purchase price of the Battery. The assertion of a warranty claim in no case extends the warranty period.

This warranty is understood to be the exclusive agreement between the parties relating to the subject matter here for. No representing agent unless noted so by Sunlight Group Energy Storage Systems in writing is authorized to any warranty in addition to those made in this agreement.

This warranty is governed by and construed under the laws of Greece.



## Appendix 1 Capacity measurement conditions:

If any testing of the Product's remaining energy/capacity is required, the test method should be consistent with the following conditions and steps:

#### Conditions:

- The ambient temperature of test area must be 25°C±2°C
- The initial temperature of the battery pack must be 25°C±2°C

Charge and discharge parameter table:

Model	Bulk voltage	Battery over discharged voltage (BODV)	Constant current
powerESS Li.ON 51.2V - 100Ah	57.6V	44V	20A

#### Steps:

- 1. Discharge the battery with constant current until the battery voltage reaches BODV or battery protect itself automatically.
- 2. Stand aside the battery for 5 mins.
- 3. Charge the battery in constant current and voltage mode with bulk voltage until the current is less than 2A or battery protect itself automatically.
- 4. Stand aside the battery for 30-60mins.
- 5. Discharge the battery with constant current until the battery voltage reaches BODV or battery protect itself, record the discharge end time and voltage.
- 6. Charge the battery with constant current for 2h and finish the test.