

Voltgo
Manufacturer
Warranty
Statement Australia



Date: 22 July, 2024

# MANUFACTURER WARRANTY AGREEMENT

Voltgo Power brand, hereby extend our limited guarantee to the below products warranty.

Name	Мо	del	Battery Usable Energy (kWh)	Cycle Times (80%DOD, @25°C,0.5C)	Basic warranty (Y)	Remark
	VLRV1280A	12.8V100Ah	1.28	6000	10	1.Cycle times or
	VLRV2560A	12.8V200Ah	2.56	6000	10	time, whichever
NA. Iki muma a aa	VLRV5120A	12.8V400Ah	5.12	6000	10	comes first;
Multi-purpose battery	VLRV2560B	25.6V100Ah	2.56	6000	10	2.Basic
battery	VLRV5120B	25.6V200Ah	5.12	6000	10	2.Dasic
7 4	VLRV5120C	51.2V100Ah	5.12	6000	10	warranty: 10 years.

Below are the terms and conditions.

This limited warranty ("Warranty") applies to the Multi-purpose Battery and the accessory components ("Products") supplied by Voltgo to the end User through the Authorized Seller.

#### **End User Definition**

End User (hereinafter "Buyer") is the buyer who puts the Products into operation for the first time via the way authorized by Voltgo.

# **Authorized Seller**

Authorized Seller is the Agents, Distributors, Partners, etc. authorized by Voltgo.

## 1. Warranty Products

- Voltgo Battery Module Unit
- Applicable product types: Multi-purpose battery 12.8V/25.6V/51.2V series batteries;



#### 2. Warranty Start Date Definition

The commencement of the warranty shall be the date of the Seller's invoice to the End User.

### 3. Product Warranty

The warranty period for the product is a specified period Ten (10) years from the date of sale as stated in the invoice issued by the Seller to the end user ("Invoice Date"), which may vary for different product lines. This Warranty covers a capacity equivalent to 1 full cycle per day.

Full cycle: Discharge the usable 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. In other words, In the case of a non-complete cycle, the calculation is based on the actual capacity throughput of the battery. For example, if DOD 50% for twice the cumulative discharge capacity of the two times is 100%, it is also counted as a complete cycle.

Taking into account shipping, shelf storage, self-discharge and battery degradation, warranty time begins to be credited 240 days from factory shipment, regardless of whether or not the battery product is sold to the end user.

# 4. Performance Warranty (Standard)

## 4.1 Capacity performance warranty

Voltgo warrants that the Products maintain at least 70% of the initially stated Usable Energy for 10 years from the Invoice Date or until they achieve the cycle times or calendar life, depending on which occurs first. Termination of warranty based on the condition of first achievement

Usable Energy is defined as the energy capacity listed on the product label at the time of purchase. For the 10-years Performance Warranty to remain valid, the Products must be used according to the Usage and Transportation requirements detailed in Appendix.

Basic warranty means that Voltgo provides free warranty under normal use without any manmade damage. If there is any quality problem with the product during the warranty period, the customer needs to send the product back to the designated after-sales repair workshop or dealer at his own expense, and the cost of returning the product will be borne by Voltgo.

#### 4.2 Capacity measurement condition

Ambient temperature: 25±3°C

Initial battery temperature from BMS: 25±3 °C



# Charge/discharge method:

- 1) Discharge the battery with a constant current—0.5C, until it reaches the designated end-of-discharge voltage.
- 2) Rest for 5 minutes.
- 3) Charge the battery with a constant current-0.5C, and voltage (14V for 12.8V battery, 28V for 25.6V battery, 56V for 51.2V battery) until the current falls to cut-off current.
- 4) Rest for 5 minutes.
- 5) Discharge the battery once more with a constant current-0.5C, until the end-of-discharge voltage. calculating the discharged capacity, Cap=discharge current(A)\*discharge time(H)
- 6) Charge the battery again until the cut-off current is reached with a constant current and specific voltage (14V for 12.8V battery,28V for25.6V battery,56V for 51.2V battery). If the battery has been inactive for three months, repeat the full charge-discharge cycle three times, with a four-hour rest period between cycles, and record the highest capacity achieved as the final result.

#### Test value list:

Product Type	Charge:	Discharge:	Current
12.8V100Ah	(0.5C) CC/CV (Constant voltage: 14V/ Cut-off current (0.05) C)	(0.5)CC (Cut-off voltage: 10V	0.5C
12.8V200Ah	(0.5) CC/CV (Constant voltage: 14 V/ Cut-off current (0.05) C)	(0.5)CC (Cut-off voltage: 10V	0.5C
12.8V400Ah	(0.5) CC/CV (Constant voltage: 14 V/ Cut-off current (0.05) C)	(0.5)CC (Cut-off voltage: 10V	0.5C
25.6V100Ah	(0.5) CC/CV (Constant voltage: 28 V/ Cut-off current (0.05) C)	(0.5)CC (Cut-off voltage: 20V	0.5C
25.6V200Ah	(0.5) CC/CV (Constant voltage: 28 V/ Cut-off current (0.05) C)	(0.5)CC (Cut-off voltage: 20V	0.5C
51.2V100Ah	(0.5) CC/CV (Constant voltage: 56 V/ Cut-off current (0.05) C)	(0.5)CC (Cut-off voltage: 44.8V	0.5C

<sup>\*</sup>Note: Current and voltage measurement at battery DC side

## 5. Exclusion of Warranty

This Limited Warranty does not cover damage to the Products resulting from any of the following circumstances:

1) Non-payment of dues to the Seller. The Buyer must settle all outstanding payments to



- support a warranty claim, unless the Seller exercises the right to deny such claims based on non-payment.
- 2) Failure to adhere to Voltgo's official user manual and the "Appendix 1 Usage and Transportation Requirements".
- 3) Damage from modifications, alterations, disassembly, unauthorized repairs, or maintenance performed by personnel not authorized by Voltgo.
- 4) Damage or defects resulting from unauthorized use, including the use of non-standard materials, design alterations, or unauthorized functional modifications.
- 5) Improper use, misuse, or abuse of the Products, contrary to instructions in the User Manual.
- 6) Cosmetic damage such as scratches, dents, rust, or mildew caused during regular use.
- 7) Improper transportation, storage, installation, or use of the Products with faulty or incompatible devices. Damage is not covered if original packaging is not used during transportation.
- 8) Alterations to the model number, nameplate, serial number, or tampering with the products' tamper-evident features.
- 9) Exposure to external elements like abnormal physical or environmental conditions, electrical surges, lightning, floods, or fires.
- 10) Damage from external forces or events beyond Voltgo's control, including natural disasters, acts of war, civil unrest, or governmental interventions.
- 11) Changes in national or regional regulations that affect the product.
- 12) Intentional damage or modifications by the end user.
- 13) Use with an incompatible inverter, rectifier, or power conditioning system.
- 14) Failure to report product defects within two weeks of detection to the Seller or the Voltgo Authorized Service Partner.
- 15) within two weeks of detection.
- 16) Expiration of the warranty period as initially specified.

#### 6. Fault Handling and Warranty Process

In cases of product failure, the Buyer is required to collaborate with the Seller to document comprehensive data about the faulty equipment. This process involves several steps:

1) Data Collection: The Buyer should provide detailed information including the faulty equipment's serial number, operating temperatures, usage patterns, energy storage inverter specifications (manufacturer/model), power consumption data, photovoltaic system configuration, observed fault phenomena, operating procedures, and battery operation logs.



- 2) Initial Replacement Approval: If both parties agree that the product's failure is covered under warranty, the Buyer may proceed with replacing the faulty equipment using spare parts. Before doing so, the Buyer must obtain written confirmation from the Seller and provide the serial numbers of both the faulty equipment and the spare parts.
- 3) Confirmation Before Replacement: Upon joint agreement of warranty coverage, the Buyer should confirm with the Seller in writing and provide the serial numbers of both the faulty equipment and the spare parts before proceeding with replacement.
- 4) Dispute Resolution and Testing:
  - If there is a disagreement over the warranty coverage of the faulty equipment, it can be tested jointly by methods agreed upon by both parties or sent to an independent third-party testing institution recognized by both.
  - Both parties may offer input on the testing methodology, standards, and interpretation of the results.
  - The Buyer is initially responsible for the testing fees. However, if the testing confirms the product is covered under warranty, the Seller will reimburse all related transportation and testing costs and take full responsibility for the warranty of the faulty equipment.

## 7. Warranty Claim Procedure

Voltgo reserves the right to reject any warranty claims that do not include sufficient documentation or relevant information. To initiate a warranty claim, notification must be provided to the Seller from whom the products were purchased, within two weeks of the defect's discovery.

The following documents and details are required to process a warranty claim effectively:

- Original proof of purchase.
- Detailed description of the defect, verified by an authorized service center.
- The products serial number and the date the warranty commenced.

If direct contact with the original Seller is not feasible, customers are encouraged to reach out to Master Instruments Pty Ltd directly via the following contact methods:

Website: www.master-instruments.com.au



#### 8. Applicable Law

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits under this warranty are in addition to other rights you may have at law.

# Appendix 1

#### 8.1 Usage and Transportation requirements

This product includes Lithium iron phosphate cells and the Accessory Components. Please adhere to the specified transportation and usage guidelines for full warranty coverage. Failure to follow these guidelines will void the warranty for any related damages or malfunctions.

# 8.1.1 Operating environment requirements

1) Working temperature: 0~50 °C

2) Working humidity: 5%~95% RH

3) Altitude: < 4000m

4) No conductive dust or corrosive gas

- 5) The ground is flat and level
- 6) There is no flammable or explosive materials near the installation.
- 7) Keep away from dust, water source and heat source, prevent equipment from entering water and overheating.

#### 8.1.2 Storage environment requirements

- (1) Short-term storage environment:
- (2) Within 3 months temperature range is -20~45°C, RH<85%. No corrosive gases.
- (3) More than 3 months long-term storage environment: temperature range for -10~40°C
- (4) RH <65% RH, No corrosive gases
- (5) If long-term storage is required, it should be recharged every 6 months, to no less than 80% of SOC.
- (6) Keep away from dust, water source and heat source, prevent equipment from entering water and overheating.



# 8.1.3 Transportation requirements

- (1) When shipping products individually, it is essential to use the Seller's original packaging. For extended distances, including maritime transport, supplemental packaging should be applied to enhance security. Additionally, products should not be stacked more than six layers high during transit.
- (2) If the original packaging materials provided by the Seller are not used for transportation, Buyer shall fully consider the risks of vibration, drop and collision in the transportation process, and adopt adequate product protection measures.

# 8.2 Equipment installation requirements

1	Visual inspection	<ol> <li>Check the appearance for damage and check the attachment variety and quantity according to the packing list.</li> <li>Verify that the device is off state via the on/off switch.</li> </ol>
2	Electrical specification confirmation	<ol> <li>The rated working voltage of the energy storage should be confirmed</li> <li>Confirm that the maximum charging and discharging current designed by the system meets the specification requirements of the battery.</li> <li>The external power supply should not generate a surge that causes damage to the battery or BMS.</li> </ol>
3	Connection	<ol> <li>When connecting the DC power Leads, pay attention to the positive and negative polarity, avoid reverse connection and short circuit.</li> <li>It is forbidden to connect the battery directly to ac power.</li> <li>The battery can be used in parallel connection. Once the use scenario of series-parallel connection specified in the user manual is exceeded, the scheme must be confirmed with Voltgo before use.</li> <li>Do not mix batteries with other factory batteries or other types of batteries.</li> <li>The battery should be reliable grounding, grounding</li> <li>resistance should be less than 1 Ω.</li> </ol>

# 8.3 Equipment Use

	Charging	1) The battery's long-term continuous charging current should be≤0.5C	
1		2) If the battery SOC is Zero, immediately, charge it within 48 hours or	
		the battery may be irreversibly damaged.	
	0		
2	Discharging	The long-term continuous discharge current of the battery should be ≤0.6C	
		This Warranty covers a capacity equivalent to 1 full cycle per day for ten years.	
3	Cycles	Full cycle: Discharge the usable capacity of a fully charged battery and fully	
		charge it afterwards. Micro cycles sum up to full cycles according to amount of	
	$\neg \land \land \lor$	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 fire, the best way is to use a large amount of water to extinguish the fire.