





LiFePO₄ Battery

Installation, Operation and Servicing Instructions

 A black rectangular LiFePO ₄ battery with a black handle on top. The front label features the CAMEC logo and the text "LiFePO ₄ BATTERY 12.8VOLT · 100AH".	 A black rectangular LiFePO ₄ battery with a black handle on top. The front label features the CAMEC logo and the text "LiFePO ₄ BATTERY 12.8VOLT · 200AH".
<p>Part No. 053175</p>	<p>Part No. 053177</p>

NOTE: Please read this manual carefully before installing and using this product.

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1. General Safety Instructions

It is important and necessary to read the user manual carefully before installing or using the battery. All battery installation must be carried out by a qualified person in accordance with AS/NZS 3001 Electrical Installations. Camec does not assume any liability for damages or injuries due to incorrect installation and/or improper use.

2. Safety Warnings

- **DO NOT** heat the battery or throw it into fire or water.
- **DO NOT** use sharp objects to pierce the battery.
- **DO NOT** disassemble the battery.
- **DO NOT** use batteries that are severely scratched or deformed.
- **DO NOT** use battery with other battery type, model and/or brand.
- **DO NOT** use metal conductors to touch the battery's positive and negative terminals. This will cause battery short circuit.
- **DO NOT** connect the positive and negative battery terminal in a reverse manner when installing the device.
- **DO NOT** use batteries if it becomes hot, emits an odor, discoloration, deformation or other abnormalities found during use, charge or storage.
- **DO NOT** use battery charger that are not suitable for charging LiFePo4 batteries.
- **DO NOT** exceed the battery temperature limit during use, charging and discharging.
- **DO NOT** connect the battery to the device when not in use for long time. The battery should be removed from the device and stored under the recommended storage conditions.
- **DO NOT** store or place any metal objects such as necklaces, hairpins, coins or screws on the battery.

- **DO NOT** allow for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety.

3. Installation Instructions

- Battery should be placed on a firm, flat surface. If necessary, a battery baffle should be used to ensure that it will not slip or fall during normal use.
- Battery has an ABS outer shell. There should be a minimum gap clearance of 15mm around the battery when installed.
- For maximum product performance and safety, it is recommended to use a torque wrench when installing the pole screw with the recommended tightening torque.

3.1. Before Installation

Check and inspect batteries before installation:

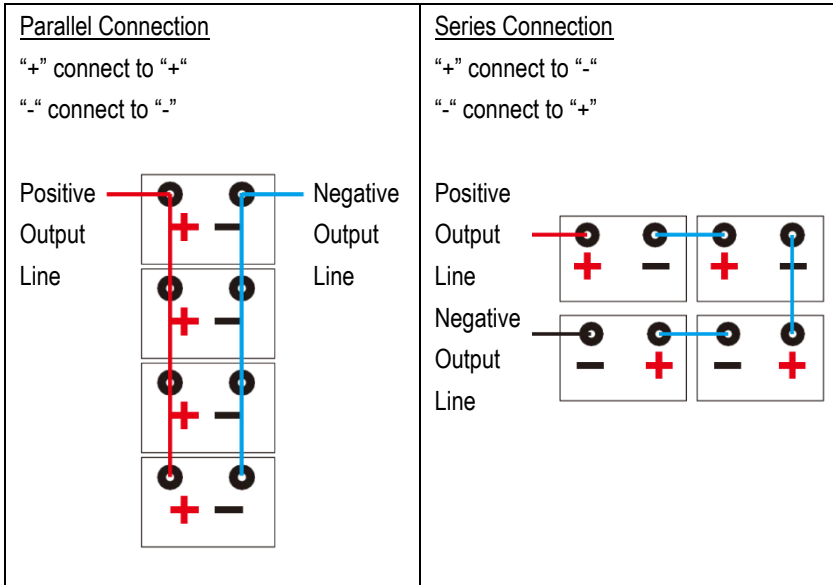
- Battery surface is clean and dry. Ensure that there are no physical defects on the battery e.g. outer shell is not damaged, pole is not rusted.
- Check the battery model is correct, as required.

3.2. Parallel or Series Connection

When connecting batteries in series or parallel, refer to below instructions:

- Ensure each battery is within range of 200mV (0.2V) after a full charge (before connection). This will minimise the chance of an imbalance between batteries. If voltage of any battery is >200mV (0.2V) from other batteries, charge the battery individually to rebalance.
- Batteries connected in series are best charged individually. Charging in series connection can lead to imbalances and reduced runtime, which will require individual charging to maintain balance.

- Maximum of 4 units batteries can be connected in series or parallel. Batteries needs to be in same batch in order to ensure consistency. Please contact Camec National Customer Support Team for assistance before installation.



4. Battery Storage

It is recommended to cycle the batteries at least every 3 months when store for long periods of time, to ensure the batteries are at 50%-100% state of charge (SOC).

Please note if the battery is not charged for a long period of time, the battery voltage will be lower than the BMS over-discharge protection voltage due to the prolonged self-discharging and will lead to battery failure.

5. Technical Data and Specifications

Electrical		
Nominal Voltage (V)	12.8	12.8
Nominal Capacity (Ah)	100	200
Charge Cut-off Voltage (V)	14.6	14.6
Discharge Cut-off Voltage (V)	10.0	10.0
Life Cycle @ 80% DoD (Cycle)	2,000	2,000
Standard Charge Current (A)	50	50
Max. Charge Current (A)	100	100
Continuous Discharge Current (A)	100	100
Maximum Discharge Current @ 10s (A)	200	200
Mechanical		
Dimensions (mm)	L307*W169*H215	L483*W170*H240
Weight (kg)	11	22
Terminal	M8	M8
Casing	ABS	ABS
Environment		
Working Temperature (°C)	Charge: 0 to 55 Discharge: -20 to 60	Charge: 0 to 55 Discharge: -20 to 60
Humidity Range (RH)	< 95%	< 95%
Storage Temperature (°C)	15 to 35	15 to 35
IP Protection Level	IP65	IP65

6. Warranty

This product is covered under a 36 months warranty period. Kindly refer to the warranty policy terms and conditions available on Camec website.