



Li-LV Battery Series

USER MANUAL



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To secure the full 10-year product warranty, be sure to install the Wattsonic Li-LV battery modules by qualified installers.

Warning: Read this entire document before installing or using Wattsonic Li-LV LiFePO4 battery modules. Failure to do so or to follow any of the instructions or warnings in this document can result in electrical shock, serious injury, or death, or can damage Wattsonic Li-LV LiFePO4 battery module, potentially rendering it inoperable.



PRODUCT SPECIFICATIONS

All specifications and descriptions contained in this document are verified to be accurate at the time of printing. However, because continuous improvement is a goal at Wattsonic, we reserve the right to make product modifications at any time.

The images provided in this document are for demonstration purposes only. Depending on product version and market region, details may appear slightly different.

ERRORS OR OMISSIONS

To communicate any inaccuracies or omissions in this manual, please send an email to : service@wattsonic.com



ELECTRONIC DEVICE: DO NOT THROW AWAY

Proper disposal of batteries is required. Refer to your local codes for disposal requirements (ie. EC N 1013/2006 among European Union).



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Important Safety Instructions

SAVE THESE IMPORTANT SAFETY INSTRUCTIONS. Wattsonic Li-LV LiFePO4 battery module installation and repair instructions assume knowledge of high voltage electricity and should only be performed by Wattsonic Certified Installers. Wattsonic assumes no liability for injury or property damage due to repairs attempted by unqualified individuals or a failure to properly follow these instructions. These warnings and cautions must be followed when using Wattsonic.

SYMBOLS IN THIS DOCUMENT

This manual uses the following symbols to highlight important information:

 Warning	WARNING indicates a hazardous situation which, if not avoided, could result in injury or death.
 Caution	CAUTION indicates a hazardous situation which, if not avoided, could result in damage to the equipment.
Note	NOTE indicates an important step or tip that leads to best results, but is not safety or damage related.

GENERAL INFORMATION

-  Warning: Read this entire document before installing or using Wattsonic Li-LV battery. Failure to do so or to follow any of the instructions or warnings in this document can result in electrical shock, serious injury, or death, or can damage Wattsonic Battery, potentially rendering it inoperable.
-  Warning: A battery can present a risk of electrical shock, fire, or explosion from vented gases. Observe proper precautions.
-  Warning: Wattsonic Li-LV Battery installation must be carried out only by Wattsonic Certified Installers, who have been trained in dealing with high voltage electricity.
-  Warning: Wattsonic Li-LV battery is heavy and challenging to lift.
-  Warning: Use Wattsonic Li-LV Battery only as directed.
-  Warning: Do not use Wattsonic Li-LV Battery if it is defective, appears cracked, broken, or otherwise damaged, or fails to operate.
-  Warning: Before beginning the wiring portion of the installation, first power off the inverter and then open the AC and DC disconnect switches (if applicable for the installation).
-  Warning: Do not attempt to open, disassemble, repair, tamper with, or modify Wattsonic Li-LV Battery. Wattsonic Li-LV Battery is not user serviceable. LiFePO4 battery Cells in Wattsonic Li-LV Battery are not replaceable. Contact the Wattsonic Authorized Reseller who sold the Wattsonic Li-LV Battery for any repairs.
-  Warning: Do not connect Wattsonic Li-LV Battery to alternating current(AC) carrying conductors. Wattsonic Li-LV Battery must be wired to either an inverter or a DC combiner panel that is then wired to an inverter. No other wiring configuration may be used.



Warning: Wattsonic Li-LV Battery contains components, such as switches and relays, that can produce arcs or sparks.



Warning: To protect Wattsonic Li-LV Battery and its components from damage when transporting, handle with care. Do not impact, pull, drag, or step on Wattsonic Li-LV Battery. Do not subject Wattsonic Li-LV Battery to any strong force. To help prevent damage, leave Wattsonic Li-LV Battery in its shipping packaging until it is ready to be installed.



Warning: Do not insert foreign objects into any part of Wattsonic Li-LV Battery.



Warning: Do not expose Wattsonic Li-LV Battery or its components to direct flame.



Warning: Do not install Wattsonic Li-LV Battery near heating equipment.



Warning: Do not immerse Wattsonic Li-LV Battery or its components in water or other fluids.



Caution: Do not use cleaning solvents to clean Wattsonic Li-LV Battery, or expose Wattsonic Li-LV Battery to flammable or harsh chemicals or vapors.



Caution: Do not use fluids, parts, or accessories other than those specified in this manual, including use of non-genuine Wattsonic Li-LV parts or accessories, or parts or accessories not purchased directly from Wattsonic or a Wattsonic-certified party.



Caution: Do not place Wattsonic Li-LV Battery in a storage condition for more than one (1) month, or permit the electrical feed on the Wattsonic Li-LV Battery to be severed for more than one (1) month, without placing Wattsonic Li-LV Battery into a storage condition in accordance with Wattsonic's storage specifications.



Caution: Do not paint any part of Soltaro LFP Battery, including any internal or external components such as the exterior shell or casing.



Caution: Do not connect Wattsonic Li-LV Battery directly to photovoltaic (PV) solar wiring.



Caution: When installing Wattsonic Li-LV Battery in a garage or near vehicles, keep it out of the driving path. If possible, install the Wattsonic Li-LV Battery on a side wall and/or above the height of vehicle bumpers.

ENVIRONMENTAL CONDITIONS



Warning: Install Wattsonic Li-LV Battery at a height that prevents damage from flooding.



Warning: Operating or storing Wattsonic Li-LV Battery in temperatures outside its specified range might cause damage to Wattsonic Li-LV Battery.



Warning: Do not expose the Wattsonic Li-LV Battery to ambient temperatures above 60°C (140°F) or below -30°C (-22°F).



Caution: Ensure that no water sources are above or near Wattsonic Li-LV Battery, including downspouts, sprinklers, or faucets.

Specifications



5kWh Wall Mounted/Free Stand LiFePO4 Battery Module

Total Energy [kWh]	5.0
Useable Energy [kWh]	4.5
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	100
Operating Voltage Range [V]	40~58.4
Nominal Charge Current [A]	100
Nominal Discharge Current [A]	100
Peak Discharge Current [A]	110
Calender Life [Year]	20 years @25°C, 15 years @35°C, 10 years @45°C
Depth of Discharge [%]	90
Data Communication	CAN/RS485
	0-45°C Charge, -20~55°C Discharge,
Temperature	-10~45°C Stock Storage
Enclosure Protection Rating	IP 65
DC Isolator	Integrated
Certificate	/ IEC60950/ IEC60068/ CE
Scalability Range/Mode	Max. 5 Modules Parallel
Installation Mode	Wall Mounted
Dimensions [W*H*D]	386.40*737*150.30mm
Weight	62KG
Warranty	10,000 cycles at 90% DOD, or 10 years(optional 6000 cycles)

* Compatible inverter brands: Wattsonic/ SMA SunnyIsland/ Victron/ Imeon/ Voltronic/ SolaX/ GoodWe/ SofarSolar/ Solis/ Studer.

* Wattsonic reserves the right to modify the technical datasheet and appearance of the product in the catalogue without prior advice to the users.

Standard Packing List



Li-LV LFP Battery



Battery Backsheet



Battery<->Inverter



Battery<->Inverter Rj45
Communication Cable



M6 Expansion Screws



COM Resistor

Mechanical Installation

Single battery installation



Step-1, Confirm the exact mounting position of battery backsheet.



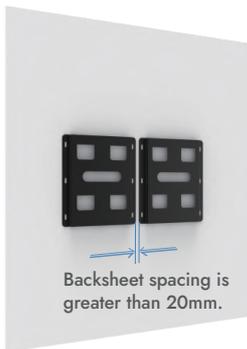
Please use **M6** expansion screws to fix the battery backsheet on the wall according to the fixed position.



Step-2, Hanging on the battery module to the mounted battery backsheet.



Multiple battery installation



Step-1, Confirm the exact mounting position of battery backsheet.



Please use **M6** expansion screws to fix the battery backsheet on the wall according to the fixed position.



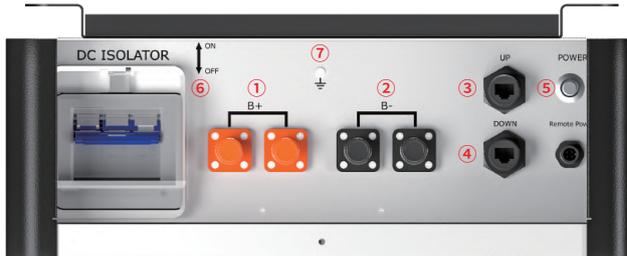
Step-2, Hanging on the battery module to the mounted battery backsheet.



Electric Connection

Top connection interface

- ① Battery<->Inverter Power Cables(+)
- ② Battery<->Inverter Power Cables(-)
- ③ Communication cables(up)
- ④ Communication cables(down)
- ⑤ Battery Reset Button
- ⑥ DC Isolator
- ⑦ Grounding Point



- ⑧ Communication cable

- ⑨ COM Resistor

1.Plug in COM Resistor

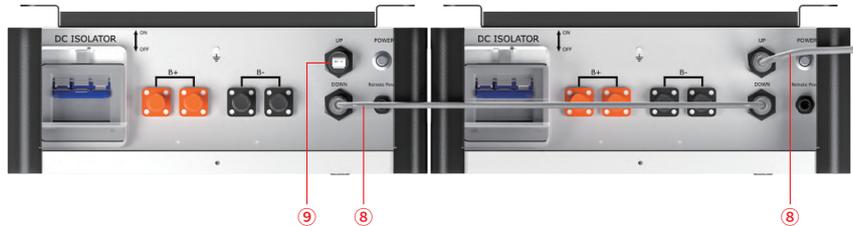


2.Put on a protective cap



Step-3, Cables Connection and COM Resistor

Connect battery power cables and communication cables as the pictures shown below. Then please plug in the COM resistor to the last communication interface, which is open. Please noted that no matter one single battery installation or multi batteries parallel connection, COM resistor is mandatory required to strength the CAN Bus signal.



- ⑩ Wattsonic standard parallel kits
Maximum withstand current is 100A.If you have a larger load demand, you can choose to configure the DC Combiner box.

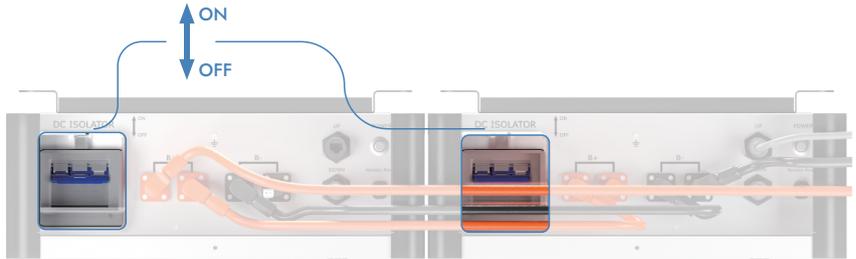


DC Combiner box



Start the Battery Array

Step-4, please pull on the DC Isolator



The indicator light is on, showing green, and the machine is on normally.



System Setting

NORMAL OPERATION

During normal operation, if Li-LV LFP Battery Module are installed correctly, the inverter and battery will start communication immediately, then begin to process power commands. See the inverter manual for further configuration instructions.



Warning: Do not operate Li-LV LFP Battery Module unless all covers are in place.



Warning: Do not disconnect anything from or add anything to Li-LV LFP Battery Module.



Caution: Do not try to communicate with Li-LV LFP Battery Module using third party tools or diagnostics Li-LV LFP Battery Module and the inverter.



Caution: Do not lean on, stack anything on top of, or hang anything from Li-LV LFP Battery Module or the conduit.

LI-LV LFP BATTERY MODULE CARE

Keep the top edge of Li-LV LFP Battery Module clear of articles to maintain optimal airflow.

To clean Li-LV LFP Battery Module, use a soft, lint-free cloth. The cloth can be dampened with only water if needed. It should not be dripping.



Caution: Do not use cleaning solvents to clean Li-LV LFP Battery Module.

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*Wattsonic reserves the right to modify the technical datasheet and appearance of the product in the user manual without prior advice to the users.