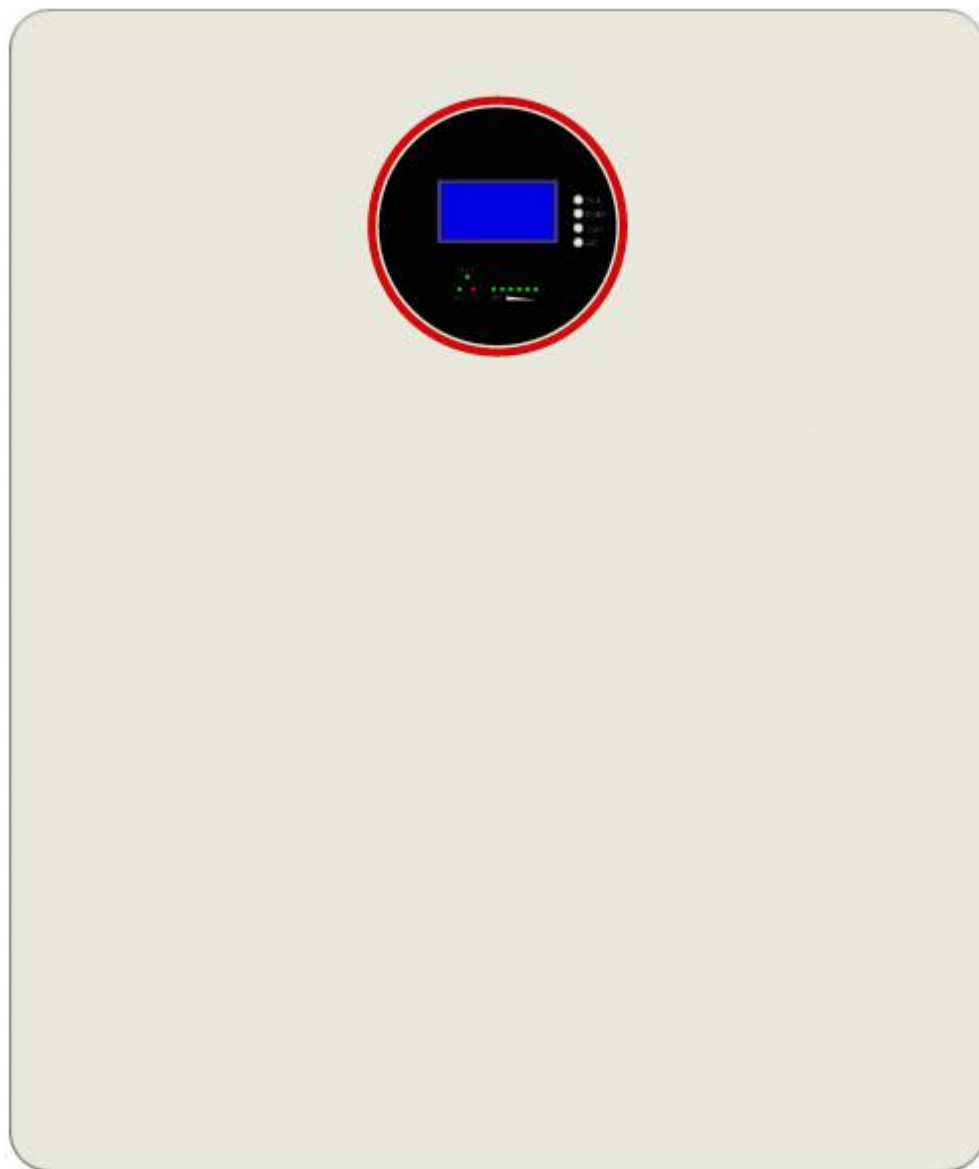




10 kWh vertical wall-mounted energy storage battery

-2nd Generation Simplified Version

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1. Scope

This specification applies to the 51.2V 200Ah 16S2P LiFePO4 rechargeable battery pack manufactured by UBETTER TECHNOLOGY COMPANY LIMITED.

2. Main Specifications

2.1 Battery cell specifications: TED

Cell	No.	project	General Parameter	remarks
	1	nominal capacity	100Ah	
	2	nominal voltage	3.2V	Average operating voltage
	3	Internal Impedance	$\leq 1.5 \text{ m}\Omega$	AC 1 KHz test (50% SOC)
	4	size	$(50.1 \pm 0.5) * (160 \pm 0.8)$ $*(118.5 \pm 0.5)$	Initial size
	5	weight	$1.985 \pm 0.1 \text{ Kg}$	make an appointment
	6	Charging cutoff voltage	3.65 V	Cell temperature $T > 0^\circ\text{C}$
	7	Discharge cutoff voltage	2.5 V	Battery temperature $T > 0^\circ\text{C}$ Cell temperature $T > 0^\circ\text{C}$
			2.0 V	Battery temperature $T \leq 0^\circ\text{C}$ Cell temperature $T \leq 0^\circ\text{C}$
	8	Charging Rate	Standard magnification: 0.2P	25 °C

	9	Discharge rate	Standard magnification: 0.2P 64W	25 °C
			Maximum continuous discharge rate: 1P 320W	25 °C
	10	storage temperature	Temperature: 0 °C to 35 °C, humidity ≤85%	
	11	Cycle Performance	25°C, 0.5°C/0.5°C, 5000 cycles 35°C, 0.5°C/0.5°C, 3500 cycles 45°C, 0.5°C/0.5°C, 2000 cycles	Capacity retention rate ≥80%

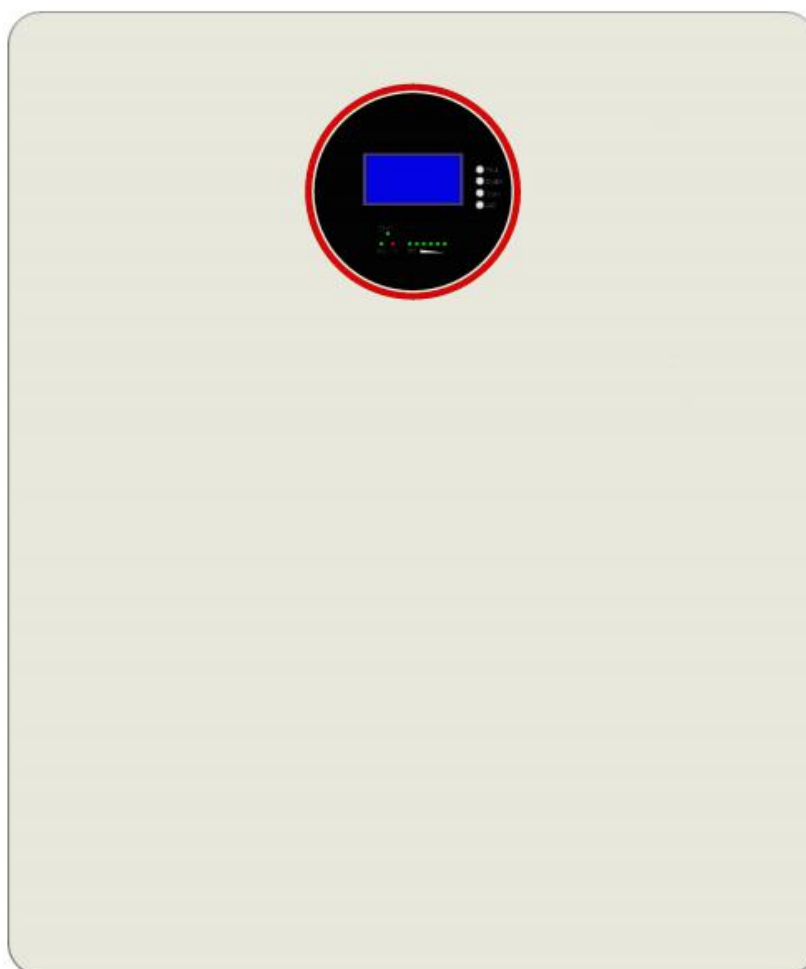
2.2 Battery Pack Specifications

battery pack	No.	project	General Parameter	remarks
	1	combinatorial method	16S2P	
	2	rated capacity	200Ah	Standard discharge followed by standard charging (packaging)
	3	working voltage	51.2V	Average operating voltage
	4	The voltage at the end of the discharge	40V	Discharge cutoff voltage
	5	charging voltage	58.4V	Charging cutoff voltage
	6	Internal Impedance	≤50mΩ	The internal resistance measured at 1 kHz AC frequency must be determined using new batteries that have been charged to 50% capacity, and these batteries must have been used within one week after shipment with fewer than five charge cycles.
	7	Standard Charging	Constant current: 40 A Constant voltage – see number 5 0.02CA As of	Charging time: approximately 5 hours
	8	Maximum continuous charging current	200A	
	9	Standard Discharge	Constant current: 40A The termination voltage is specified in number 4.	
	10	Maximum continuous discharge current	200A	
	11	operating temperature range	Charging temperature range: 0– 55°C	Relative humidity: 60±25%.
			Discharge: -20~65°C	

	12	Storage temperature range	Less than 12 months: -10 to 35°C	Relative humidity of 60±25% under transportation conditions.
			Less than 3 months: -10 to 35°C	
			Less than 7 days: -20 to 45°C	
	13	size	690*580*150mm	
	14	weight	Approximately: 90 kg	

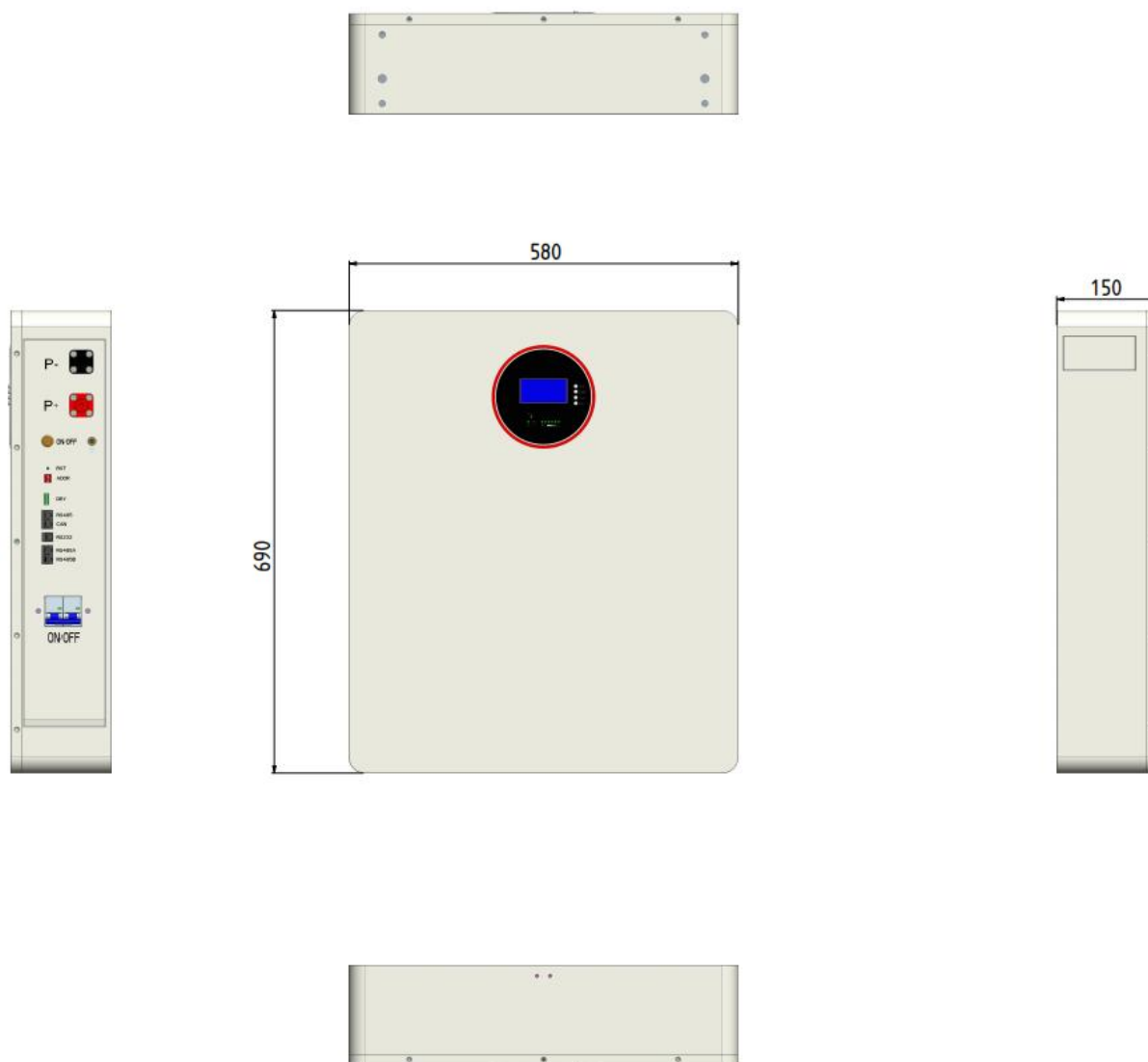
3. Appearance And Structural Dimensions

The connector must be free from scratches, burrs, or other mechanical damages, and should show no rust or contaminants. For structural details and dimensions, refer to the diagram provided with the battery.

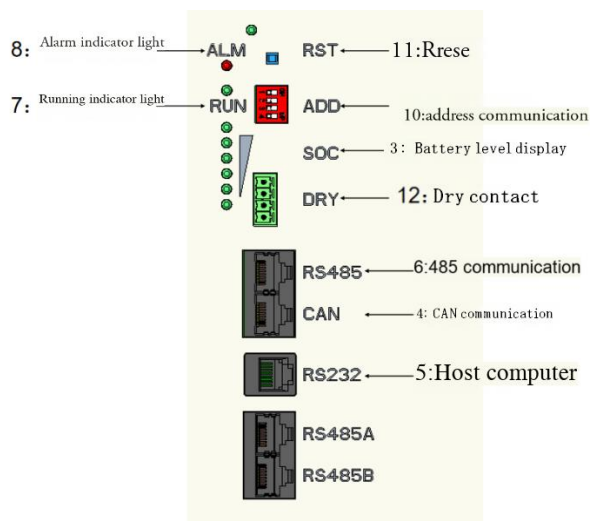
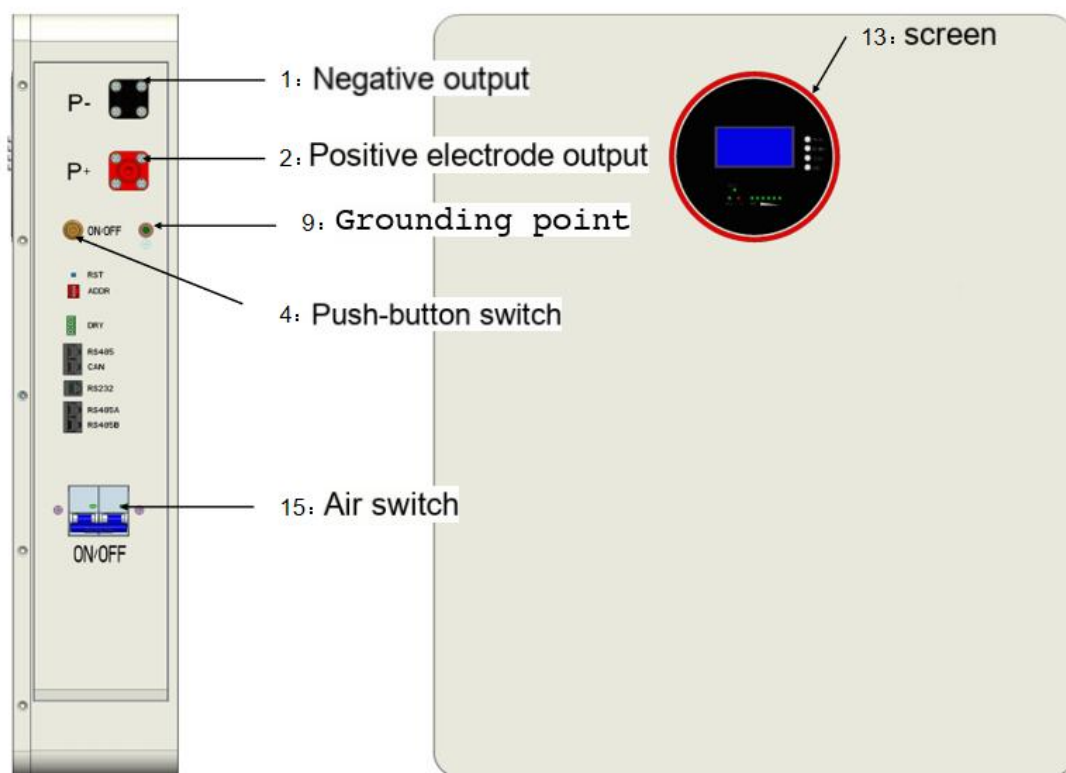


L (length)	690mm	W (width)	580mm	H (altitude)	150mm
weight	90kg	Maximum charging capacity	200A	Maximum discharge	200A
Unit(mm)					

51.2V-200Ah 10kWh LiFePO4 Product Dimension Diagram



4. Battery Case Structure Pack



No.	description	silk-screen	remarks
1	Anode Output	P-	Anode connector
2	Positive terminal output	P+	Positive terminal connector
3	battery status	SOC	Help users intuitively see their remaining battery level
4	push-key switch	ON/OFF	Turn power on/off
5	upper monitor	R232	Upper-level machine communication
6	485 Communication	RS485/RS485A/RS485B	Communication between battery modules and the inverter
7	Operation indicator light	RUN	Operating status indicator light
8	Alert indicator light	ALM	Fault Alarm Light
9	ground point		Grounding protection marking, used for indication Connection point of the protective grounding wire
10	Address Communication	ADD	Parallel Code Address
11	resetting	RST	Abnormal forced system reset when battery power is low
12	Dry contact	DRY	/
13	screen	/	/
14	CAN communication	CAN	Inverter Communication
15	air switch	/	crowbar

5. Battery Testing Equipment

5.1 Dimension Measurement Instruments

Dimension measurements should be performed using instruments with a precision of no less than 0.1 millimeters.

5.2 Voltmeter

The standard grade or a more sensitive category specified by the national standard shall be used, with an internal resistance of no less than 10 kilohms/volt.

5.3 Ammeter

The standard grade or a more sensitive category specified by national standards shall be used. The total external resistance, including the ammeter and wires, shall be less than 0.01 ohms.

5.4 Impedance Meter

The impedance should be measured using the sinusoidal AC method (AC 1 kHz LCR meter).

6. Standard Test Conditions

Testing shall be conducted within one month after the battery is shipped from our factory, and the battery cycle count prior to testing shall not exceed five cycles. Unless otherwise specified, testing and measurement shall be performed under conditions of a temperature of $23 \pm 2^{\circ}\text{C}$, relative humidity below 75%, and air pressure between 86 kPa and 106 kPa. Unless otherwise specified, a 30-minute rest period shall be observed after charging and another 30-minute rest period after discharging.

7. Storage and Other

7.1 Long-term Storage

For long-term storage (unused for more than three months), batteries should be kept in a dry and cool place. The storage voltage of the battery should be 51.2 V–52.8 V, and the battery should be stored at a temperature of $23 \pm 2^{\circ}\text{C}$ and humidity of 45%–75%. Batteries that have been unused for an extended period should be charged every three months to ensure their voltage remains within the specified range.

7.2 Others

Any matters not covered by these specifications shall be resolved through consultation between the client and U BETTER.

8. Revision of these specifications

This specification may be amended with prior notice from UBETTER.

9. Appendix

Precautions and Guidelines for Handling Lithium-ion Charging Batteries

Preface

This document, "Precautions and Guidelines for Handling Lithium-Ion Charging Batteries," applies to battery cells manufactured by UBETTER.

Note (1): If the customer requires to use other applications or operational conditions not described in this document, they should contact UBETTER in advance. Additional testing may be required to verify performance and safety under these conditions.

Note (2): If the battery is used outside the conditions described in this document, UBETTER shall not be liable for any accidents.

Note (3): If necessary, UBETTER will notify customers in writing of any improvements regarding the proper use and handling of batteries.

Warning Against Danger !

- Do not immerse the battery in water or expose it to moisture.
- Do not use or store batteries near heat sources such as open flames or heaters.
- Do not use any charger not recommended by UBETTER.
- Do not connect the positive (+) and negative (-) terminals in reverse.
- Do not connect the battery directly to a wall socket or car cigarette lighter socket.
- Do not place batteries in a fire or heat them directly.
- Do not short-circuit the battery by connecting wires or other metal objects to the positive (+) and negative (-) terminals.
- Do not pierce the battery casing with nails or other sharp objects, and do not open or step on it with a hammer.
- Do not tap, throw, or subject the battery to severe physical impact.
- Do not weld the battery terminals directly.

- Do not disassemble or modify the battery in any way.
- Do not place batteries in microwave ovens or pressurized containers.
- Do not use the battery in combination with primary batteries (such as dry batteries) or batteries of different capacities, types, or brands.
- Do not use the battery if it emits an unusual odor, generates heat, changes color or shape, or appears abnormal in any way. If the battery is in use or charging, remove it immediately from the device or charger and stop using it.

Warn !

Do not use or store batteries in environments with extremely high temperatures, such as areas under car windows exposed to direct sunlight during hot weather. Otherwise, the battery may overheat, which can reduce its performance and/or shorten its lifespan. If the battery leaks and the electrolyte enters your eyes, do not rub them. Instead, rinse immediately with clean running water and seek medical assistance promptly. Failure to address this situation may cause eye injury from the electrolyte.

Appendix :

date	2025.07.20	version number	V1.1
Prepare	Huang Yiji	Department in charge of compilation	Research and development department
examine and verify	Sun Jirui	ratify	Cai Xuefeng