Movable LiFePO4 Battery Pack

51.2V 300 / 392AH

Scope

This product is suitable for 51.2V product applications and can be used in conjunction with photovoltaics and inverters to supply power to household televisions, air conditioners, lighting fixtures, etc. This product has voltage, current, and temperature protection functions.



Product Specification

Testing Condition

Unless otherwise specified in the testing project, all tests in this specification shall be conducted under the following conditions:
Environmental temperature: 25 ± 2 ℃;
Relative humidity: 65% ± 20%

Test instrumentation & device characteristics

The accuracy of the voltage measuring instrument should not be lower than level 0.5, and the internal resistance should not be less than 10k Ω/V; The accuracy of the current measuring instrument should not be lower than level 0.5; The accuracy of the instrument used for measuring time shall not be less than ± 0.1%; The temperature measuring instrument should not be lower than ± 1 ℃; The voltage output and detection accuracy of the battery charge and discharge tester shall not be less than ± 0.5%; The current output and detection accuracy shall not be less than ± 0.1%;

Safety performance requirements

Item	Test Method	Require
Short Circuit	After being fully charged using the standard charging method at 25 ℃, short-circuit the positive and negative terminals of the battery pack's discharge port with wires (wire resistance 80 ± 20m Ω) for 1 hour.	The battery pack should not leak, ignite, or explode.
OverCharge	After charging with the standard charging method at 25 ℃, set the constant current source to 1.25 times the nominal voltage and 0.1I (A),	
Discharge	Discharge the battery pack to the termination voltage or battery pack protection, and then continue discharging for 5 hours at 0.1I (A).	
Constant Damp Heat Test	After charging using the standard charging method at 25 ℃, place it in a constant temperature and humidity chamber at (40 ± 2) ℃ and relative humidity of 90-95% for 48 hours; After 7 hours of storage, visually inspect.	Visually inspect the appearance and ensure that there is no leakage, smoke, fire, or explosion.
High and low temperature impact	After charging using the standard charging method at 25 ℃, place the battery pack in an environment with a temperature of 75 ℃± 2 ℃ for 6 hours, then move it to an environment with a temperature of -40 ℃ for 6 hours. The time interval between moving from the highest temperature to the lowest temperature should not exceed 3 minutes. Repeat the above steps, after 10 cycles, remove and let it sit for 24 hours, and visually inspect.	

Description



1	Touch Screen	2	ON/OFF(LED)	3	Reset	4	Positive
5	Negative	6	RUN(LED)	7	Alarm(LED)	8	ADS
9	Charge(LED)	10	Dry Contact	11	RS485	12	CAN
13	RS232	14	RS485-A	15	RS485-B	16	Switch

Parameters

Item		MB 512300	MB 512392	Remarks
General				
Nominal Capacity		300Ah	392Ah	0.5C charging, 1C discharging, 25 ℃
Rated Voltage		51.2V		16S
Discharge Cut-off Voltage		44V		
Charging Cut-off Voltage		58.4V		
Float charging voltage		56V		
Continuous charging maximum current		150A		
Maximum current for continuous discharge		200A		
Battery Energy		15360Wh	20000Wh	
Rated Output Power		10000W		
Communication Interface		RS485 RS232 CAN		
Discharge working temperature		-20℃ ~ 55℃		
Charging working temperature		-0℃ ~ 55℃		
Relative Humidity		5 ~ 90%		
Altitude		≤4000m		
Protection Grade		IP22		
Storage Time		Keep charging at least once every 3 months		
Net Weight (kg)		122	132.2	
Gross Weight (kg)		137	159.2	
Dimensions (mm)		500*320*900		
Carton (mm)		585*405*1045		
Number of cycles		≥8000 times		80% DOD 25℃
Main Parameters For BMS				
Overcharge Protection	Overcharge detection voltage (V)	Monomer 3.65 ± 0.05		
	Overcharge protection delay (S)	0.5		
Over Discharge Protection	Overdischarge detection voltage (V)	Monomer 2.7 ± 0.05		
	Overdischarge detection delay (S)	0.5		
Overcurrent Protection	Greater than rated current	1.1%		
Overcurrent Recovery	Disconnect Load	/		
Self Consumption Power	Working Current (mA)	≤10		
	Sleep Current (uA)	≤50		

Product Appearance Requirements

The edge sealing tape of the battery pack must be neatly applied and free of bubbles; The position of the anti vibration sponge attached to the outside of the battery pack is regular and neat; Clean appearance of battery pack;



Packing, Shipping & Storage Requirements

Product outer packaging box packaging requirements: Comply with the requirements of the product packaging schematic diagram.Product transportation requirements:

1.During transportation, batteries should be protected from severe vibration, impact, or compression, as well as exposure to sunlight and rain. They can be transported by vehicles such as cars, trains, ships, and airplanes;

2.During the loading and unloading process, batteries should be placed gently to prevent falling, rolling, and heavy pressure.

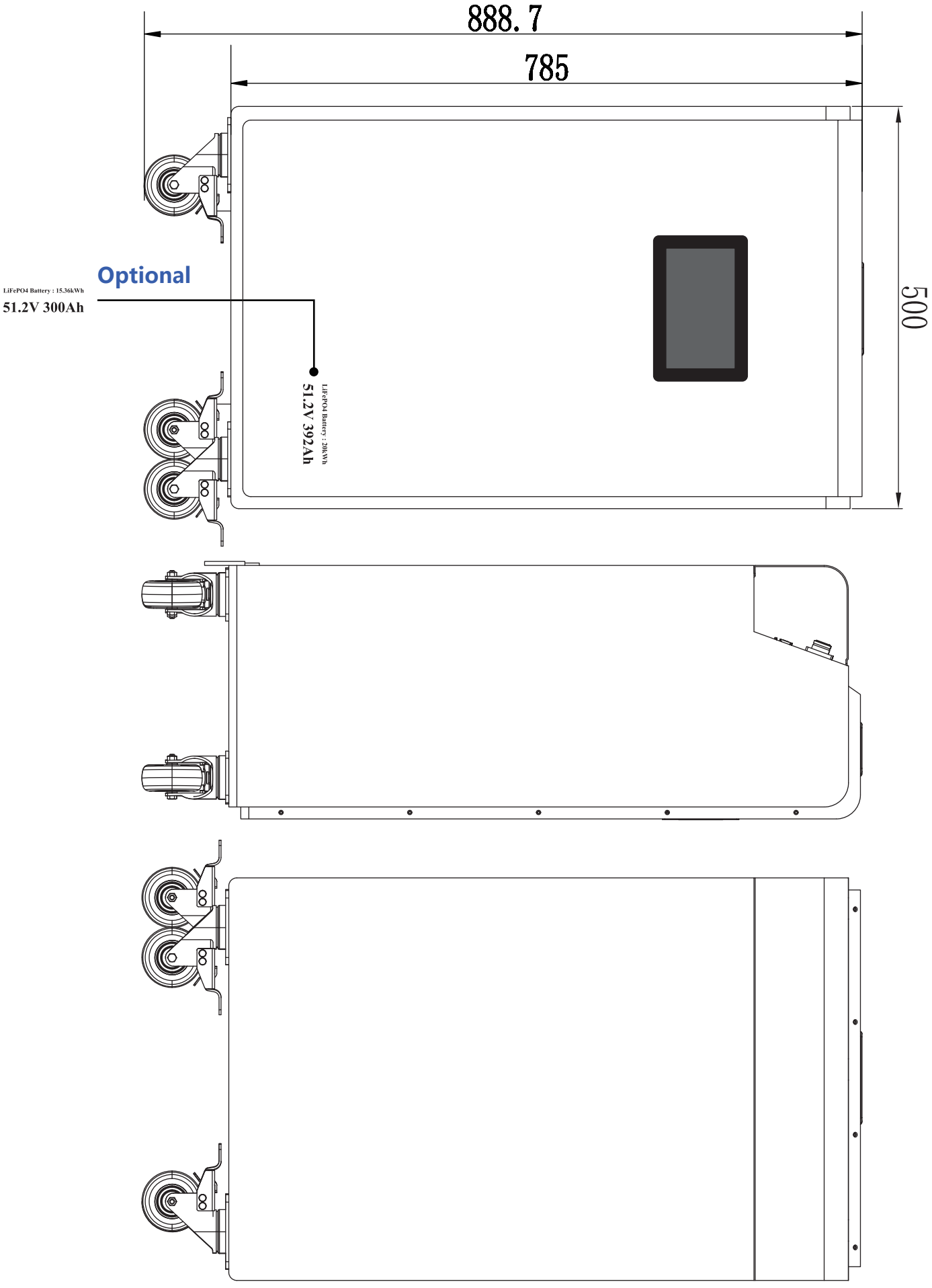
Product storage requirements:

1.The battery should be stored indoors in a clean, dry, and ventilated environment with an ambient temperature of -10 ℃ to 35 ℃ and a relative humidity of no more than 85%;

2. The battery should be kept away from corrosive substances and kept away from sources of fire and heat;

3. Battery storage SOC: 40% to 60%.

Dimensions


888.7
785
500
Optional
LiFePO4 Battery : 15.36kWh
51.2V 300Ah
LiFePO4 Battery : 20kWh
51.2V 392Ah