TOPBAND LiFePO4:TB12100F-M110A

Battery Specification（@ 25±5℃）

NO	Items		Characteristics
2.1	Normal capacity		100Ah
2.2	Nominal energy		1.28KWh
2.3	Nominal voltage		12.8V
2.4	Internal resistance		≤10mΩ @1kHz AC
2.5	Normal charge voltage		14.6~15.6V
2.6	Float charge voltage(for Standby use)		13.8±0.2V
2.7	Allowed MAX charge current		100A 30min@25±5℃
2.8	Recommended charge current		≤50A
2.9	Allowed MAX discharge current		100A 30min@25±5℃
	Pulse discharge current		350A/3.5S
2.10	End of discharge voltage		9.6~11.0V
2.11	Dimension		Length 318±2mm
			Width 165±2mm
			Height 235±2mm
2.12	Weight (No accessories)		About:11.7Kgs
2.13	Operation temperature	Charge	0～45℃
		Discharge	-20～55℃
2.14	Self-discharge rate	Residual capacity	≤3%/Month; ≤15%/ year
		Recover capacity	≤1.5%/Month; ≤8%/ year
2.15	Storage environment	≤1month	-20～+60℃、5～75%RH
		≥3month	-10～+45℃、5～75%RH
		Recommend environment	15～35℃、5～75%RH
2.16	Heating film	The heating function will automatically turn on below 0 degrees, and stop after heating to 5 degrees	
2.17	Bluetooth APP	**TOPBAND (TBEnergy) or Customized App**	
2.18	Series and Parallel	Support up to 4pcs connected in Series and 4pcs in Parallel	

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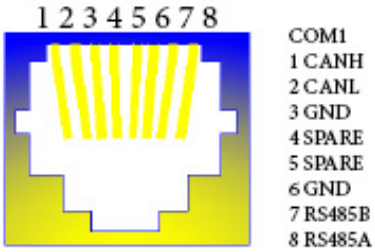
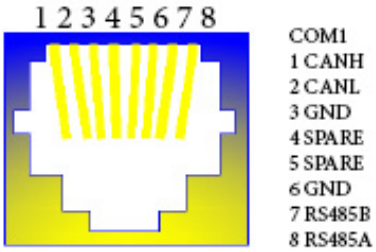
4. Circuit Protection

The batteries are supplied with a LiFePO4 Battery Management System (BMS)that can monitor and optimized each single prismatic cell during charge & discharge, to protect the battery pack overcharge, over discharge, short circuit. Overall, the BMS helps to ensure safe and accurate running.

No	Item	Content	Criterion
4.1	Over charge	Over-charge protection for each cell	3.75±0.03V
		Over-charge release for each cell	3.60±0.05V
		Over-charge release method	Under the release voltage
4.2	Over discharge	Over-discharge protection each cell	2.50±0.05V
		Over-discharge release for each cell	2.80±0.10V
		Over-discharge release method	Charging
4.3	Over current	Charge over current protection	110A±5A，delay time 23s~27s 150A±5A，delay time 2.5~3.5s
		Charge over current release	Discharge or auto release after 1min
		Discharge over current protection	110A±5A，delay time 23s~27s; 300A±20A，delay time 3s~4s
		Discharge over current release	Charge or auto release after 1min
		Short circuit protection	500A/500us
4.4	Temp.	Charge over temperature protection	Protect@65±5℃; Release@50±5℃;
		Charge under temperature protection	Protect@0±3℃; Release@5±3℃
		MOSFET over temperature protection	Protect@103±10℃; Release@65±10℃;
		Discharge over temperature protection	Protect@65±5℃; Release@50±5℃;
		Charge under temperature protection	Protect@-21±2℃; Release@-15±2℃

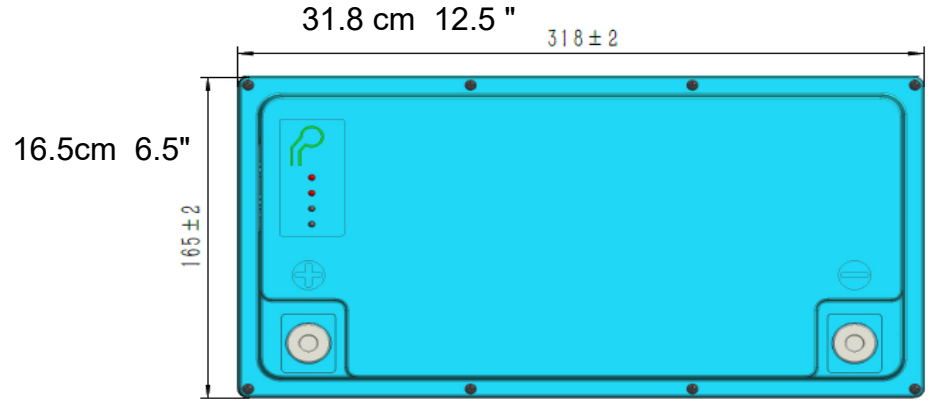
5. Communication

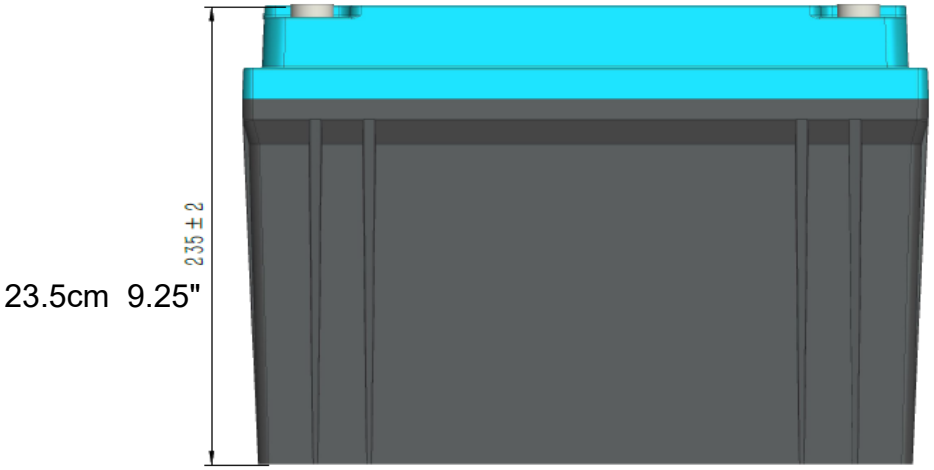




6. User guide

6.1 Product dimension





6.2 Transport & Storage

The battery needs to be charged every 6 months if unused.

Do not drop. Batteries must be stored top side up. Do not stack.

6.3 Precautions

Please read and follow the handling instructions before use. Improper use may cause heat, fire, rupture, damage or capacity deterioration of the battery. SHENZHEN TOPBAND BATTERY CO.,LTD. is not responsible for any accidents caused by the usage without following our handling instructions.

Warning

* Battery must be away from heat sources, high voltage, and must not exposed to sunshine for long time.
* Never throw the battery into water or fire;
* Never reverse two electrodes when using the battery;
* Never connect the positive and negative of battery with metal;
* Never knock, throw or trample the battery;
* Never disassemble the battery without manufacturer's permission and guidance.

Never use with other types of batteries;

Tips

* Keep the battery out of high temperature areas. Otherwise it will cause battery to overheat, and reduce functionality, and the life of the battery
* When the battery runs out of power, charge the battery within (≤15days).
* Please use the matched or suggested charger for this battery.
* If the battery leaks and get into the eyes or skin, do not wipe, instead, rinse it with clean water and see a doctor immediately.
* Please keep far away from children or pets.