Residential Storage Battery Specification
RS-S41050A

EAST LUX ENERGY TECHNOLOGY(SHENZHEN) CO.,LTD

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V00		First release	Lily Zhu

1. General Information

This specification defines the performance of rechargeable Residential Storage battery pack manufactured by EAST LUX ENERGY TECHNOLOGY(SHENZHEN) CO.,LTD describes the type, performance, technical characteristics, warning and caution of the battery pack.

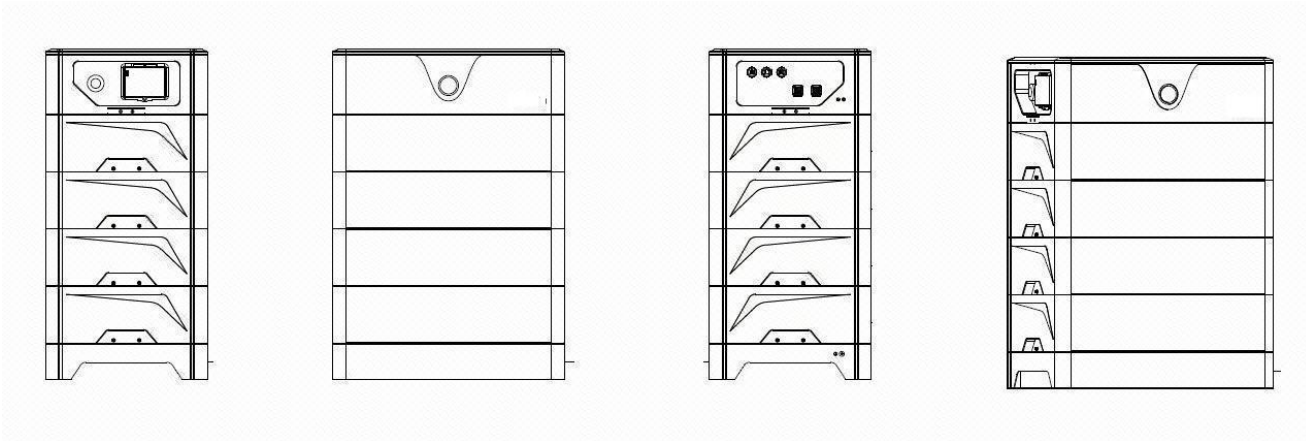
2. Specification(@Battery initial Temp25±5℃)

NO.	Items	Criteria		
1	Cell type	Lithium iron phosphate (LiFePO4)		
2	Manage battery capacity	50Ah		
3	Number of battery Modules	2	3	4
4	Manage battery energy	10.24KWh	15.36KWh	20.48KWh
5	Nominal voltage	204.8V	307.2V	409.6V
6	Operation voltage range	185.6V~233.6V	278.4V~350.4V	371.2V~467.2V
7	Max charge current	50A		
8	Max discharge current	50A		
9	Operating Temperature	Charging：0~50℃		
10		Discharging：-10~55℃		
11	Communication to inverter	CAN/RS485		
12	Display	LED indicator ,SOC status indicator		
13	WIFI	Support		
14	Module dimension(L*W*H)	630mm*440mm*590 mm	630mm*440mm*745 mm	630mm*440mm*900 mm
15	Battey module weight	~60KG		
16	Attitude	≤4000m		
17	Cycle life	6000 Cycles @25℃ @70%EOL @0.2C charge & 0.5C discharge, 90% DOD		
18	Relative humidity	5%～95%		

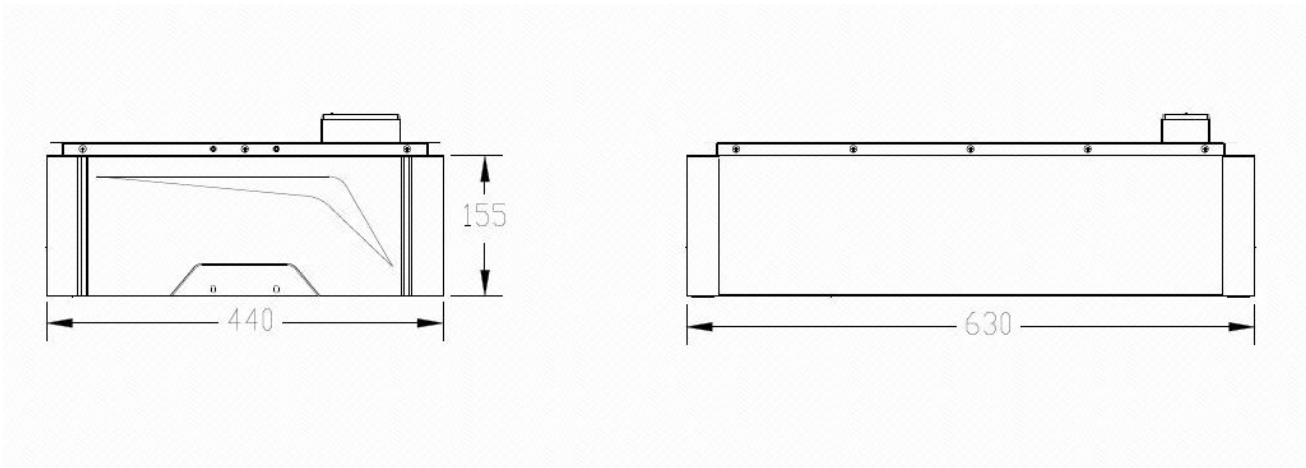
19	Protection rating	IP55
20	Design life	15years
21	Compatible inverters	SMA,FRONIUS,Goodwe,Solis,Growatt, Lux power,East Lux,INVT,SAJ
22	Certification	CE、IEC62619、UL1973、UL9540A、UN38.3

3. Product dimension

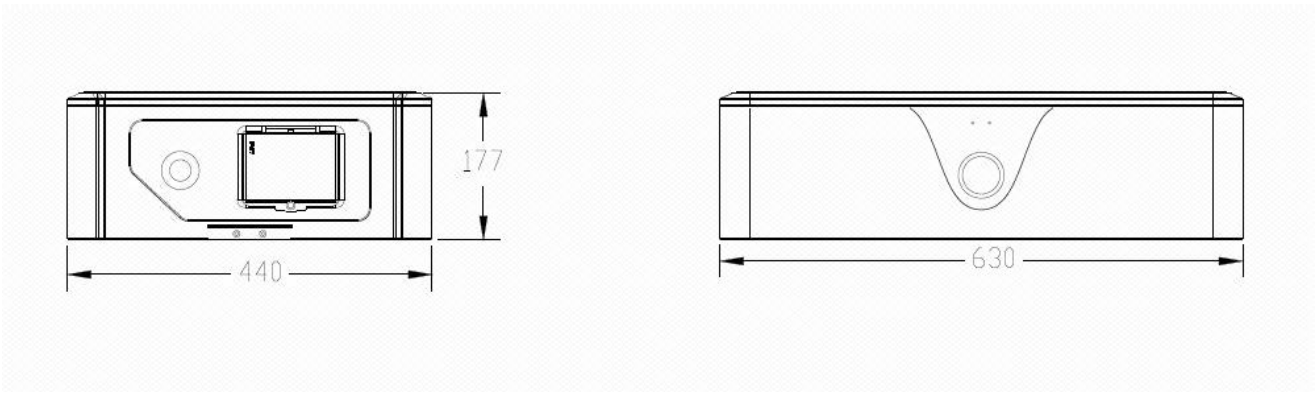
3.1 System



3.2 Battery module (Unit: mm)



3.3 BMS module (Unit: mm)



4. Protective circuit specification

The Battery Management System (BMS) 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	Items		Description
1	Over charge	Over-charge alarm for each cell	3.55±0.03V
		Over-charge protection for each cell	3.60±0.03V
		Over-charge release for each cell	3.34±0.03V
		Over-charge alarm for total voltage	3.6V per cell
		Over-charge protection for total voltage	3.65V per cell
		Over-charge release for total voltage	3.40V per cell
		Protection delay time	2s
		Over-charge release method	Under the release voltage
2	Over discharge	Over-discharge alarm for each cell	3.1±0.03V
		Over-discharge protection for each cell	2.90±0.03V
		Over-discharge release for each cell	3.15±0.03V
		Over-discharge alarm for total voltage	3.00V per cell
		Over-discharge protection for total voltage	2.70V per cell
		Over-discharge release for total voltage	3.15V per cell
		Protection delay time	2s
		Over-discharge release method	Charge to recovery
3	Over current	Charge over current alarm	55±5A
		Charge over current protection	60±5A
		Protection delay time	5±1s
		Charge over current release method	Auto release after 1min；

		Discharge over current alarm	55±5A
		Discharge over current protection	60±5A
		Protection delay time	5±1s
		Over current release method	Auto release after 1min
4	Charge over temperature	Alarm @50±3℃， Protect @55±3℃， Release @45±3℃	
		Protection delay time: 2s	
5	Discharge over temperature	Alarm @60±3℃， Protection @65±3℃， Release @55±3℃	
		Protection delay time: 2s	
6	Charge low temperature	Alarm @3±3℃， Protect @0±3℃， Release @5±3℃	
		Protection delay time: 2s	
7	Disharge low temperature	Alarm @-15±3℃， Protect @-20±3℃， Release @-10±3℃	
		Protection delay time: 2s	
8	SOC	LOW SOC Alarm	10%

5. Transport & Storage

- Do not violently shake, impact or squeeze, and prevent sun and rain during the transportation.
- Do light take and put and strictly prevent falling, rolling, and heavy pressure during loading and unloading.
- The battery should be placed in a dry, clean, dark, and well-ventilated indoor environment for long-term storage, and the recommended storage temperature range is 15~35℃.
- No harmful gases, flammable and explosive products and corrosive chemical substances in the storage location.
- The batteries should be stored and transported in close to 50% SOC.
- If do not use for a long time, the battery needs to be charged every 6 months according to the specs.
- No fall down, no pile up over 6 layers, and keep face up.

6. Warning & Tips.

Please read battery specification or manual carefully before use. Improper use may cause heat, fire, rupture, damage or capacity deterioration of the battery. EAST LUX ENERGY TECHNOLOGY(SHENZHEN) CO.,LTD will not be responsible for any accidents caused by the usage without following our handling instructions.

Warning

- Battery must be far away from heat source, high voltage, and direct exposed to sunshine.
- Never throw the battery into water or fire.

- Never reverse two terminals when using the battery.
- Never connect the positive and negative of battery with conductor.
- Never knock, throw or trample the battery.
- Never disassemble the battery without manufacturer's permission and guidance.
- Never mixed battery with different capacity and brand;

Tips

- It is suggested to fully charge the battery per month to correct the battery SOC.
- Please charge your battery timely (≤2day) when battery runs out of power.
- Please use the dedicated lithium battery charger to charge the battery.
- Stop using when battery emit peculiar smell, heating, distortion or appear any abnormity
- Please keep the battery far away from children or pets.
- If the battery pack leaks electrolyte, avoid contacting with the liquid or gas leakage if the electrolyte of battery pack leaks, please take these steps immediately:

  Gas Inhalation: Evacuate the people in the contaminated area and seek medical aid as soon as possible.

  Eye Contact: Flush your eye with clean and flowing water for 15 min, and seek medical aid as soon as possible.

  Skin Contact: Thoroughly rinse the exposed area with soap and water to be sure no chemical or soap is left on them, and seek medical aid as soon as possible.

  Swallowing: Try to induce vomiting, seeks medical aid as soon as possible immediately.

  Fire: Please use carbon dioxide fire extinguisher rather than liquid to put out fires.