

**LIT12.8-100(12.8V100Ah)  
LiFePO4 Battery Pack Specification**

REV : A3.0

PAGE: 1 of 8

DATE: 2025-12-15

# LiFePO4 Battery Pack Specification

Model No: LIT12.8-100(12.8V100Ah)

Designed	Checked	Approved

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REV : A3.0

PAGE: 2 of 8

DATE: 2025-12-15

**CONTENT**

1. Preface .....	3
2. Product and Model.....	3
3. Battery Pack Specifications .....	4
4. Standard Test Conditions .....	4
5. Characteristics.....	5
6. Characteristics Curve .....	5
7 BMS Specification .....	6
8 Cautions .....	7
9 Version History .....	8

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REV : A3.0

PAGE: 3 of 8

DATE: 2025-12-15

## 1. Preface

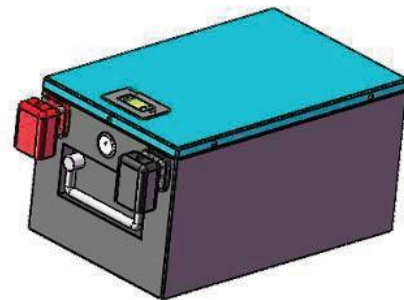
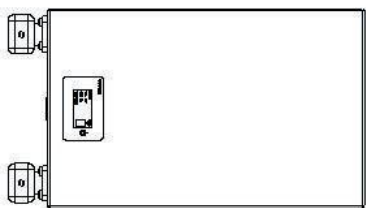
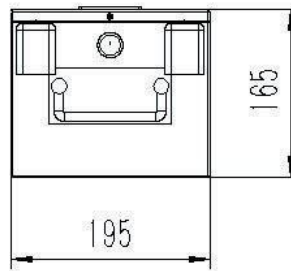
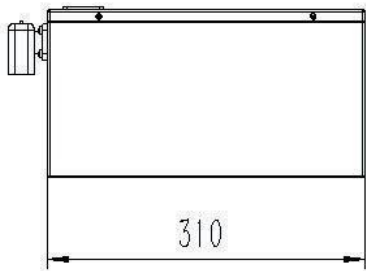
This specification describes the type and size, performance, technical characteristics, warning and caution of the LIT12.8-100(12.8V100Ah) LiFePO4 rechargeable battery pack. The specification only applies to LIT12.8-100(12.8V100Ah) LiFePO4 rechargeable battery pack supplied by ENDESAN IC VE DIS TICARET.

## 2. Product and Model

2.1 Product: LIT12.8-100(12.8V100Ah) LiFePO4 Battery Pack

2.2 System Configuration:

Standard Pack: LIT49174121-100Ah-3.2V-4S1P



Charge/Discharge	Positive	M8 Terminal
	Negative	M8 Terminal
Switch	Self-locking switch	
Display screen	LCD-03	

**LIT12.8-100(12.8V100Ah)  
LiFePO4 Battery Pack Specification**

REV :   A3.0  

PAGE:   4   of   8  

DATE:   2025-12-15  

**3. Battery Pack Specifications**

Items	Standard	Comments
Nominal Voltage	12.8V	4S
Typical Capacity	100Ah	At 0.2C discharge rate
Continuous Discharge Current	≤100A	
Discharge Cut-off Voltage	About 10V	
Charge Input Voltage	14.6±0.2V	Charge Mode: CC/CV. Use a constant current, constant voltage(CC/CV)
Charge Current	≤50A	
Operation Temperature Range	Charge/Discharge	0°C~+45°C/-20°C~+60°C
	Discharge	When the environment temperature is higher than 45°C, please pay attention to ventilation and heat rejection.
Storage Temperature Range	0°C~40°C (Capacity 80%)	Recommended long-term storage temperature is 15~25°C
Humidity	5%≤RH≤85%	
Cabinet Material	Metal Case	
Total Weight	Approx. 12.7kg±1kg	
Size	(310*195*165mm) ±2mm	
Protection Function	Over charge protection, Over discharge protection, Over current protection, Short circuit protection, Temperature protection.	
Function	Bluetooth!Display screen	

**4. Standard Test Conditions**

All test in this specification should be in standard atmospheric conditions:

Temperature: 25± 5?, Relative Humidity: 65±20%.

**LIT12.8-100(12.8V100Ah)  
LiFePO4 Battery Pack Specification**

REV :   A3.0    
PAGE:   5   of   8    
DATE:   2025-12-15  

**5. Characteristics**

**5.1 Standard Charge**

Charge the battery with the battery special test cabinet, supply 14.6 voltage, constant-current 0.2C(A) current until current down to 0.02C(A).

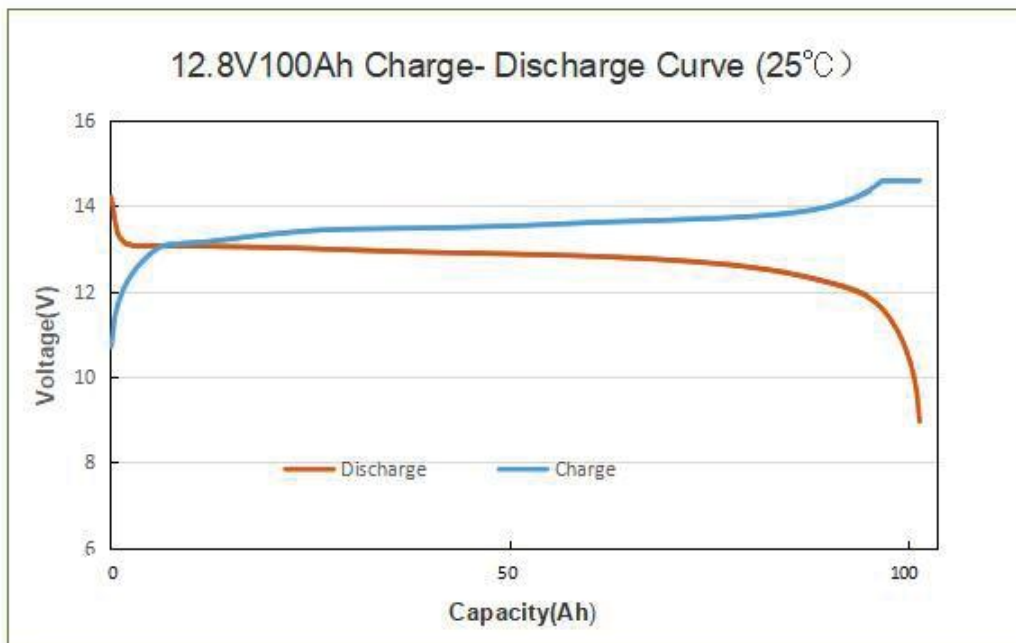
**5.2 Standard Discharge**

Discharge the battery at 0.2C(A) to 10V or battery cut off voltage.

**5.3 Electrical Performance**

Test Items	Test Methods	Test Standards
Capacity Retention Rate	After standard charge under 5.1 specified conditions, store the cells for 28 days, then discharge at 0.2C(A) to cut-off voltage.	Capacity retention rate≥80%
Cycle Life	1) Standard charge at 0.2C(A) 2) Rest 0.5~1 h 3) Discharge at 0.2C to cut off voltage 4) Capacity retention rate≥80%	>2000cycles @ 100% DOD; >3000cycles @ 90% DOD; >4000cycles @ 80% DOD;

**6. Characteristics Curve**



**LIT12.8-100(12.8V100Ah)  
LiFePO4 Battery Pack Specification**

REV :   A3.0    
PAGE:   6   of   8    
DATE:   2025-12-15  

**7. BMS Specification**

Item	Parameter	Remark
Charging Voltage	14.6V	
Charging Model	CC-CV	
Maximum Charging Current	≤100A	
Continuous Discharge Current	≤100A	

The following is the core protection function for cell:

	Minimum Value	Typical Value	Maximum	
Over charge detection voltage	3.65	3.70	3.75	V
Overcharge release voltage	3.35	3.40	3.45	V
Over discharge detection voltage	2.15	2.20	2.25	V
Over discharge release voltage	2.65	2.70	2.75	V
Over discharge current value	250	330	410	A
Overcharge detection delay time	1000	2000	3000	mS
Delay time of over voltage detection	1000	2000	3000	mS
Over current detection delay time	100	300	500	mS
Balance Voltage	3.27	3.3	3.33	V
Balance Current	150	200	250	mA
Self-Consumption	/	/	800	uA

**Temperature Protection**

	Typical Value	Tolerance Value	Delay	Remark
Protect the Temperature	55	±5		?
Recovery Temperature	50	±5		?
Low Temperature Protection	0	±5		?

**LIT12.8-100(12.8V100Ah)  
LiFePO4 Battery Pack Specification**

REV :   A3.0  

PAGE:   7   of   8  

DATE:   2025-12-15  

Cryogenic Release		5	±5		?
Protect the Temperature	Discharge	65	±5		?
Recovery Temperature		55	±5		?
Low Temperature Protection		-20	±5		?
Cryogenic Release		-15	±5		?

**8. Cautions**

- 8.1 Charging current should not be more than maximum charge current specified in the Product Specification, Charging current bigger than recommended current may damage the battery;
- 8.2 Discharging current should be no more than maximum discharge current specified in the Product Specification; Discharging current bigger than recommended discharge current may damage the battery;
- 8.3 It should be noted that the cell would be possible to be at a over-discharged state by its self-discharge characteristics in case the cell is not used for long time. In order to prevent over-discharging, the cell shall be charged periodically to maintain between 13.2V and 13.6V(Recommended 3 months one cycle).Over-discharging may causes loss of cell performance, characteristics, or battery functions;
- 8.4 Please charge the battery within 12 hours after use;
- 8.5 Battery storage environment follow the above conditions and in standard atmosphere, should be without strong magnet, no power, no static;
- 8.6 Do not reverse the polarity of the battery pack for any reason;
- 8.7 Do not short circuit the battery pack;
- 8.8 Do not reverse polarity charging;
- 8.9 Battery packs can be combined in series or in parallel according to the specification;
- 8.10 Do not immerse the battery pack in water or sea water, or get it wet;
- 8.11 Do not disassemble battery;
- 8.12 Do not expose the battery to extreme heat or flame;