EURONET

PRODUCT SPECIFICATION

LITHIUM BATTERY LiFePO4

EU-LIRack-100Ah 51.2V
V1.0

- Display battery information & 4 function Button
- BMS Real-time monitoring & BMS Parameter setting
- System support up to 64 modules in parallel
- With RS485/CAN Communication Function
- Led Indicator with Alarm function

Version No.: 20-202411

Battery Pack Specification

1. Overview

The EU-LIRack-100Ah 51.2V is Lithium Iron Phosphate (LiFePO4) battery module designed for energy storage power supply system applications. This battery module is integrated with an intelligent Battery Management System (BMS), offering significant advantages in terms of safety, cycle life, energy density, temperature range, and environmental protection.

This product specification outlines the type, size, structure, electrochemical performance, service life, and BMS characteristics of the battery. Please note, this specification applies exclusively to the battery module supplied by EURONET.

2. Advantages

The battery module consists of single LFP cells, wire, BMS and container.

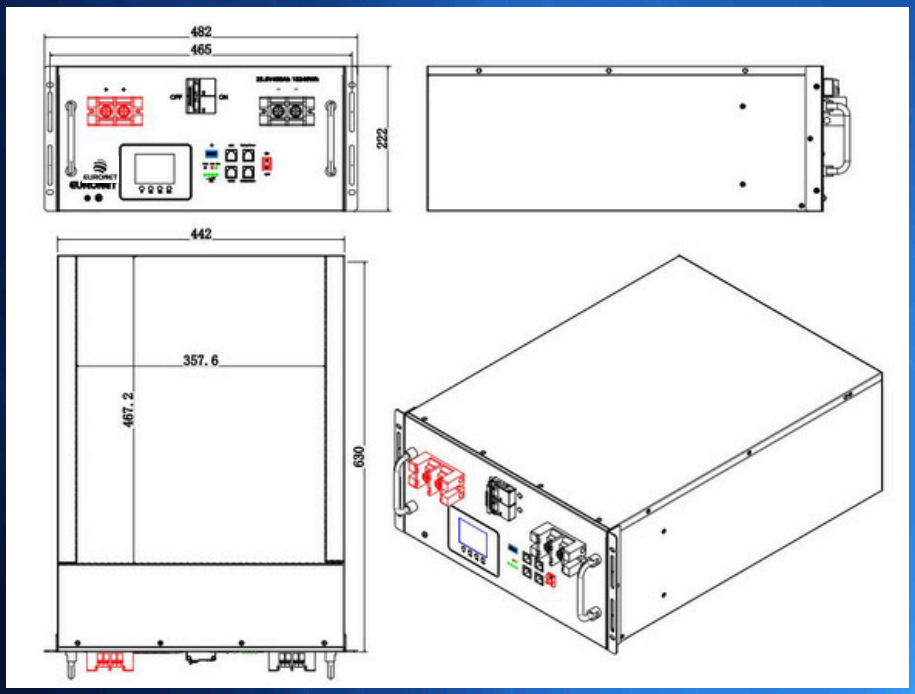
- Packed with high performance LFP single cell, long life, safety and wide temperature range
- High energy density, small size, light weight, no pollution
- Packing with single cell container, fire retardant wire and laser welding, stable and safe
- Built-in BMS, with battery voltage, current, temperature and health management
- LED indicate the battery SOC and operating status
- LCD Screen display the battery voltage, current, temp.,SOC detail information
- Support communicate with solar inverter bu CAN or RS485
- Update software by RS485 port
- Flexible customization of dimensions
- More than 15 years design life
- Stable performance, maintenance-free

3. ProductDrawing

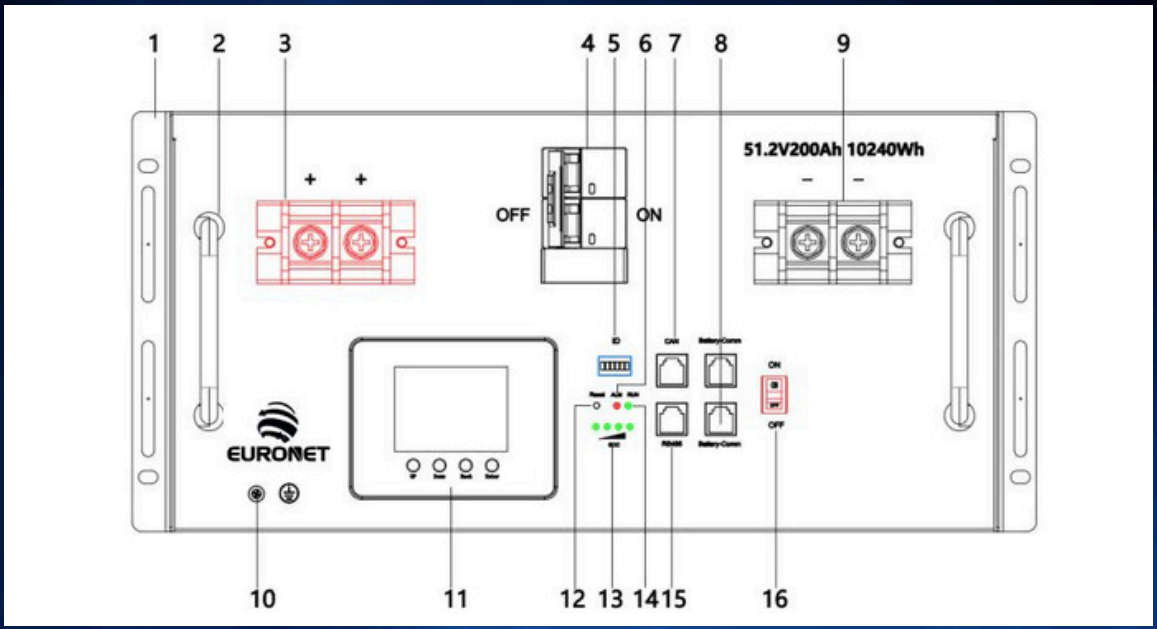
4. Battery module specification

Item		Specification	Conditions
Nominal	Voltage	51.2 V	25℃,0.2C
	Capacity	100Ah	
Module weight		45.0kg	±1kg
Dimensions(W*D*H), mm		442*470*154	±2mm
Operating parameters	Charging Voltage	56.0V~57.0V	
	DischargingVoltage	44.8V	
	Charging current	Max. constant charge: 100A	Recommended 100A
	Discharging current	Max. constant discharge: 100A	
Temperature	Charge range	0℃~50℃	
	Dischargerange	-20 ℃~5 5℃	
	Storage range	-20 ℃~5 5℃	
BMS	Built-inBMS	Voltage, current, temperature management & cell balance	RS485,CAN communication
Service life	Design life	>15 Years	25℃
	Cycle life	>6000 times, 0.5C, 80%DOD	

5. View Drawing



6. Panel Description



No.	Item	Function Description	Remarks
1	Rack Mount ear	For battery rack mounting	
2	Handle	For carrying handling	
3	Terminal	Positive	M8
4	Breaker	Output switch	
5	ID	Assign address of every model	
6	ALM	Alarming indicates LED	
7	CAN	CAN Communication interface	
8	Battery-Comm	Connect inverter communication port	Parallel communication
9	Terminals	Negative	M8
10	GND	GND point	
11	LCD	LCD display	
12	RESET	Emergency restart button	
13	SOC	The state of charge	4 nos green LED
14	RUN	Operating indicates LED	
15	RS485	RS485 Communication interface	
16	ON/OFF	Button Switch on/off the BMS	

7. BMS specification

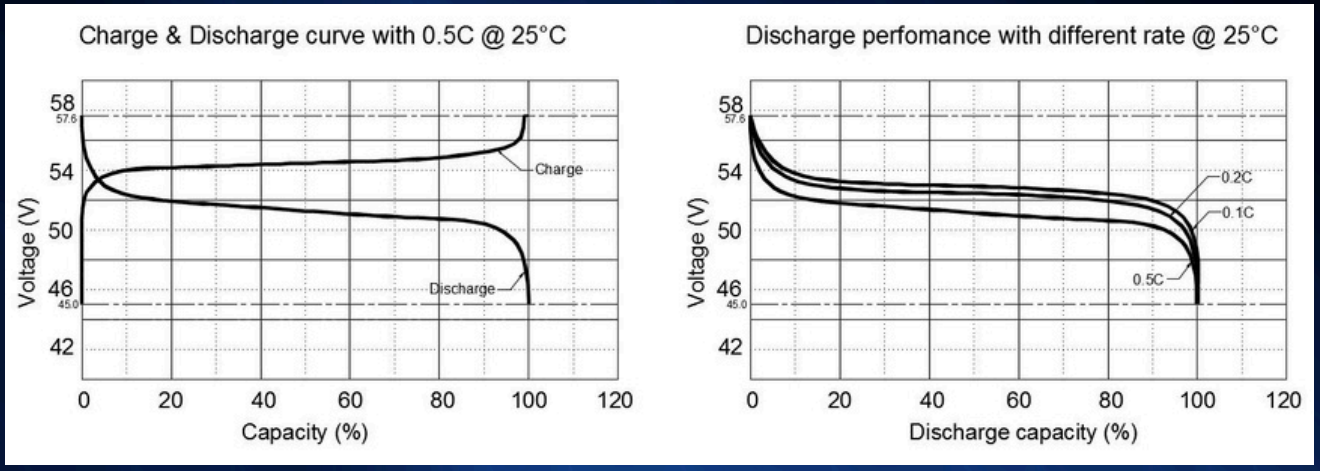
BMS provides complete management and protection for the battery.

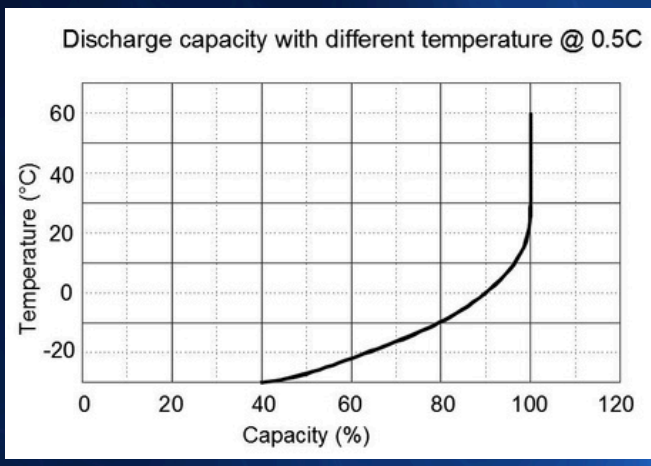
- Voltage warning and protection for module and each single cell.
- Current warning and protection, and the maximum operating current can be customized.
- Temperature warning and protection, 4 sensors for battery pack and 1 sensor for BMS.
- Battery module SOC and SOH calculation, display the accurate battery status.
- Communicate with inverter or PC monitor, report the battery data.
- Pre-charge and pre-discharge logic, make sure safety use in whole process.
- Switch-off mode, sleep mode, and operating mode, different mode for different condition.

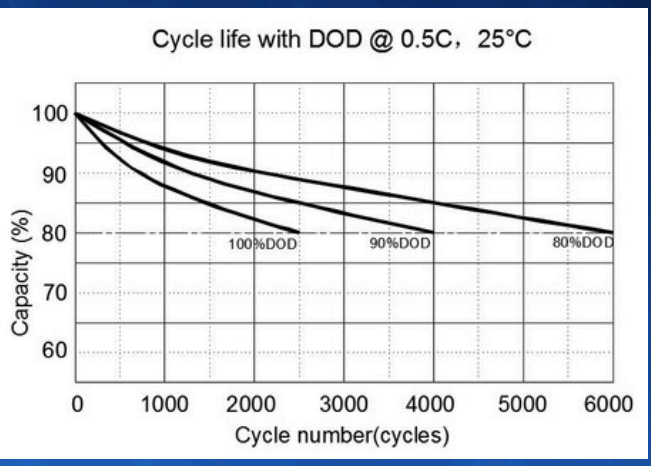
▶ BMS parameters.

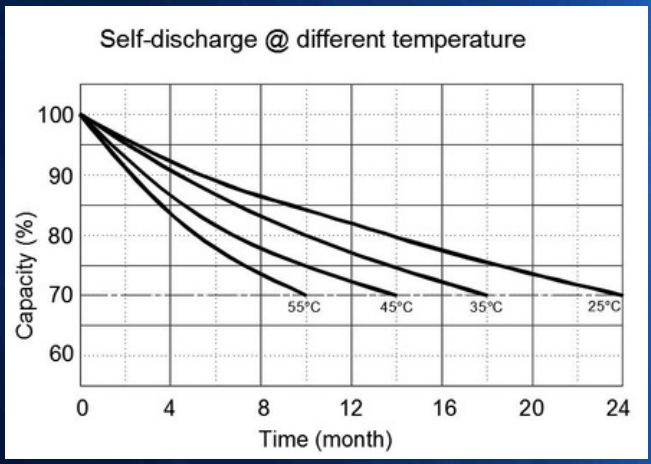
Item		Parameters		Condition
Charge	Cell voltage protection	3.8V	Delay 1s	Recovery at 3.45V
	Module voltage protection	60.0V	Delay 1s	Recovery at 55.2V
	Over charging current 1	>102A	Delay 20s	
	Over charging current 2	≥120A	Delay 3s	
	Temperature protection	<-5℃ or >70℃	Delay 1s	Recover when >0℃ or <60℃
Discharge	Cell voltage protection	2.3V	Delay 1s	Recovery at 3.1V
	Module voltage protection	44.8V	Delay 1s	Recovery at 48.0V
	Over discharging current 1	> 102A	Delay 30s	Recovery in 60s
	Over discharging current 2	> 150A	Delay 3s	Recovery in 60s
	Short circuit	>300A	< 0.1mS	
	Temperature protection	<-20℃ or >75℃	Delay 1s	Recover when >-10℃ or <65℃
BMS	PCB Temp protection	>105℃	Delay 1s	Recover when <80℃
	Cell balance	100mA	Passive balance	Cell voltage difference > 40mV
	Temperature accuracy	3%	Cycle measurement	Measuring range -40~100℃
	Voltage accuracy	0.5%	Cycle measurement	For cells and module
	Current accuracy	3%	Cycle measurement	Measuring range -200~+200
	SOC	5%		Integral calculation
	Power consumption with different condition	<300uA	Switch-off mode	Storage & transportation
		<14mA	Operating mode	Charging &discharging
	Communication ports	RS485/CAN		Can be customized

8. Battery module performance Curve









Disclaimer: the preceding values are measured by an internal laboratory of Smart Euronet in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.