

# Residential energy storage Battery (wall-mounted)

## LFELI-48100

### Product Introduction

LFELi-48100 is an energy storage module based on a home wall-mounted design. The system uses distributed photovoltaic and wind power generation to provide a household power supply solution. It can effectively realize energy transformation and storage, solve the imbalance between distributed generation and load, improve the stability and utilization rate of renewable energy generation, realize "spontaneous self-use" at the user end, and save electricity costs. The system uses high-efficiency and long-life lithium iron phosphate batteries, and the excellent battery management system can ensure its Design life of more than 15 years.

### Characteristics

- ◆ High energy density and conversion efficiency
- ◆ Intelligent software anti-theft design
- ◆ Compatible with many inverters
- ◆ Easy maintenance with SOC (charge status) and SOH (health status) detection



### Specification

|                           | Items                                       | Parameters   |
|---------------------------|---|--|
| basic parameter           | Specifications and models                   | LFELi-48100  |
|                           | Nominal voltage                             | 51.2V (43.2V-57.6V) [16Cells]  |
|                           | Nominal capacity                            | 100Ah(5120W) @ 0.5C, 25°C  |
|                           | Maximum continuous charge/discharge current | 100A/100A @ 25°C   |
|                           | Recommended charge setting                  | In the constant current stage, the charging voltage is cut off to 56.4V;<br>Float charge constant voltage stage, the voltage is set to 54.5V;<br>Cut-off voltage 56.4V, plus or minus 0.5V |
|                           | Weight                                      | 45.6kg   |
|                           | Dimensions(WxDxH) ( inch )                  | 460mmx520mmx165mm ( 18.11*20.47*6.50 )   |
|                           | Cycle life                                  | 5000 Cycles @ 25°C 0.5C,80% DOD ; 3500 Cycles @ 25°C 0.5C,100%DOD ;  |
|                           | Number of parallel connections supported    | 16   |
|                           | Self-discharge (month)@25°C                 | 3%   |
|                           | BMS communication types                     | RS485; RS232; CAN  |
|                           | Cooling Mode                                | Free cooling   |
|                           | IPClass                                     | IP30   |
|                           | Display Function                            | LCD display screen   |
|                           | Design Life                                 | 15 years   |
|                           | Shell Material                              | Q235A  |
| Certification ( Program ) | CE UN38.3 IEC                               |  |

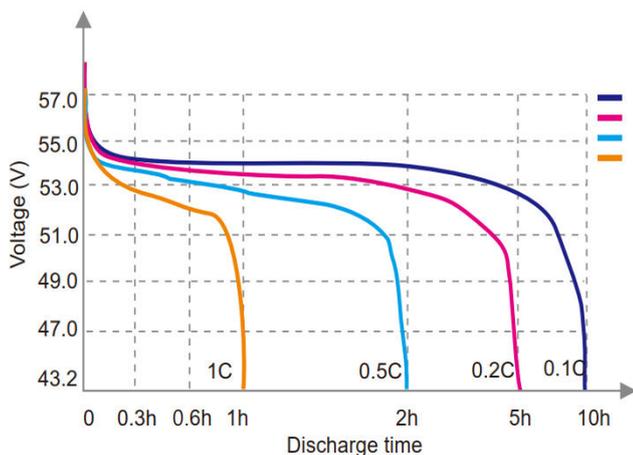
| Items       | Parameters            |  |
|-------------|-----------------------|--|
| Environment | Storage Temperature   | -40°C to 60°C  |
|             | Transport Temperature | -40°C to 60°C  |
|             | Operate Temperature   | charge:0°C to 45°C; discharge: -10°C to 55°C ( 45°C Load reduced ) |
|             | Relative Humidity     | 5% to 95%  |
|             | Working Pressure      | 76kPa~106kPa   |

Note: When the battery pack needs to be stored for a long time, please charge the battery pack to about 50% power, and cycle the standard charge/discharge current at least once every month, and every three months. The battery should be activated once every three months with a small current (0.1C). Environmental requirements: temperature 0°C~35°C, relative humidity 45%~85%, atmospheric pressure 70kPa~106kPa. Place in dry and ventilated place, avoid contact with corrosive substances, keep away from fire and heat source.

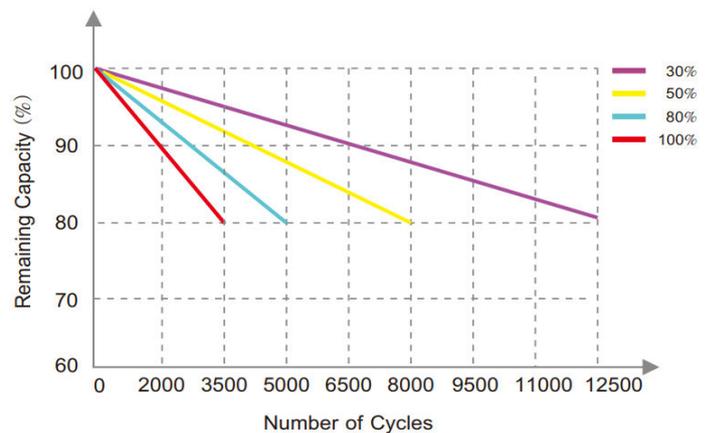
## Discharging Diagram

| Time (h)             | 1h    | 2h    | 3h    | 5h    | 10h  |
|----------------------|-------|-------|-------|-------|------|
| Constant Current (A) | 100A  | 50A   | 33A   | 20A   | 10A  |
| Constant Power (W)   | 5120W | 2560W | 1690W | 1024W | 512W |

Discharge time curves at different rates@ 25°C



Different DOD Discharge Cycle Life Curve (0.5C)



### Matching Inverters

| No. | Manufacture | Type   | COM       |
|-----|-------------|--|-----------|
| 1   | Deye        | Pylon RS485 LV-BPC V3.5-2019.08-07, Pylon CAN 2022.05-10           | RS485/CAN |
| 2   | Growatt     | Growatt RS485 Modbus V2.01-2019.02.13                              | RS485     |
| 3   | Voltronic   | Voltronic inverter and BMS 485 communication protocol20191220      | RS485     |
| 4   | Bluesun     | Pylon RS485 LV-BPC V3.5-2019.08-07                                 | RS485     |
| 5   | Luxpower    | Luxpowertek RS485 inverter V0.3-2020.07.06                         | RS485     |
| 6   | SMK         | (锂电协议GT版) A08 RS485 inverter V1.0-2022.12                          | RS485     |
| 7   | Srne        | WOW-protocol-V1.3-2017.06.27                                       | RS485     |
| 8   | SMA         | SMA CAN V2.0   | CAN       |
| 9   | Must        | Must CAN PV1800F   | CAN       |
| 10  | Schneider   | Schneider CAN 2019.07  | CAN       |
| 11  | Magarevo    | REVO series low voltage battery BMS communication protocol (V1.02) | CAN       |
| 12  | Goodwe      | Goodwe CAN inverter LV V1.7-2020.02.28                             | CAN       |
| 13  | Victron     | Victron CAN 2017.07.27   | CAN       |

### Installation options

