

# DYNESS

ENERGY STORAGE SYSTEM

## B4850 Battery Module, 2.4KWh

### Application

- The Dyness battery B4850 module is widely used in energy storage and electrical products. Household energy storage systems; Centralized power station energy storage system.

### Compact Design

- Practical pull ear design improves operation convenience

### Safe

- Safe lithium iron phosphate battery cell
- Compact size ultralight module

### Intelligent Management

- Dyness is equipped with intelligent BMS for each battery pack to manage modules effectively.
- Compared with the traditional module, B4850 can meet the capacity storage and greatly enhance the cycle life.

### Intelligent

- Each module is equipped with an independent BMS system

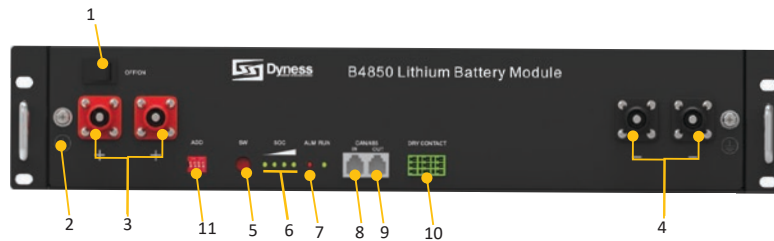


Product Code: FSBLD2.4

### Specifications

Basic Parameters	B4850
Type:	LifePO4
Nominal voltage (V):	48V
Nominal capacity (Ah):	50
Nominal capacity (Wh):	2400
Usable capacity (Wh):	2160
Dimension (mm):	480 x 360 x 90
Weight (Kg):	22
Discharge end - off voltage (V):	40,5
Charge cut - off voltage (V):	54,75
Charge float voltage (V):	54
Charge/discharge current:	25 (Recommended) 40 (Max with coms) 50 (Max without coms)
Communication port:	RS485/CAN/Dry contact
Single string quantity (pcs in parallel):	40
Charge temperature/0C:	0 - 50
Shelf temperature/0C:	-20 - 50
Protection level:	IP20
Altitude (m):	<2000
Humidity:	5% - 85%
Cycle life:	6000
Warranty:	10 Years / Cycle Life

Item	Name	Definition
1	Power switch	OFF/ON, must be in the "ON" state when in use
2	Ground connection point	Shell ground connection
3	Positive socket	Battery output positive or parallel positive line
4	Negative socket	Battery output negative or parallel negative line
5	SW	When the "OFF/ON" switch button is in the ON state, press and hold this button for 3 seconds to put the battery into the power-on or sleep state.
6	SOC	The number of green lights on shows the remaining battery power. See Table 2-3 for details.
7	ALM	Red light, the alarm is always on. After the condition of trigger protection is released, it can be automatically restored.
8	RUN	Green light, flashing during standby, always on when charging, flashing when discharging
9	CAN/485	Communication cascade port, support CAN/RS485 communication (factory default CAN communication)
10	DRY CONTACT	/
11	ADD	DIP switch



## Bracket Installation

- As shown in the figure, remove the hanging ear screws on both sides of the B4850 with a screwdriver and remove the mounting ears.

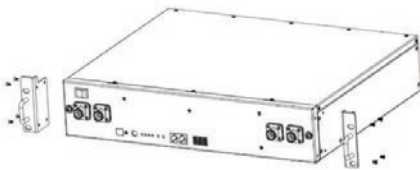


Figure3-4

- Place the two simple brackets oppositely, and get stuck with the B4850 that removes the hanging ears

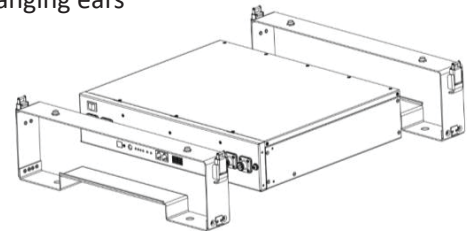


Figure 3-5

- After the completion of step 2, the effect is shown in Figure 3-6.

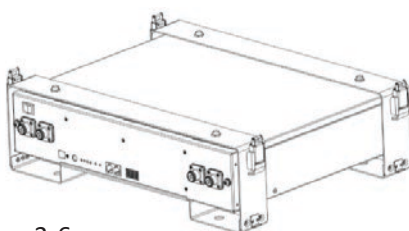


Figure3-6

- Stack the units completed in step 3 and fasten the buckles of the upper and lower simple brackets. The effect is shown in Figure 3-7

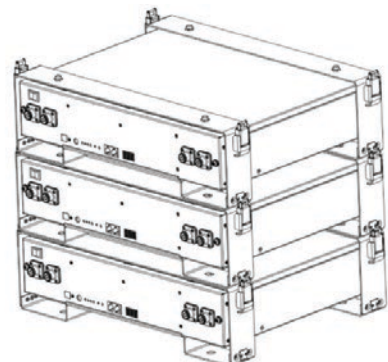


Figure3-7

## Overview

The B4850 lithium iron phosphate battery energy storage system can provide energy storage solutions for photovoltaic power generation users through series and parallel combination.

## Features and Benefits

- Anode materials are lithium iron phosphate (LiFePO4), safer with longer life span.
- Carries battery management system with better performance, possesses protection function like over-discharge, over-charge, over-current, abnormal temperature.
- Self-management on charging and discharging, Single core balancing function.
- Intelligent design configures integrated inspection module, with 3 remote functions (remote-measuring, remote-communicating and remote-controlling). Flexible configurations allow parallel of multi battery for longer standby time.
- Self-ventilation with lower system noise.
- Less battery self-discharge, then recharging period can be up to 10 months during the storage.
- No memory effect so that battery can be charged and discharged shallowly.
- With wide range of temperature for working environment, -20oC ~ +55 oC, circulation span and discharging performance are well under high temperature.
- Less volume, lighter weight.

Voltage:  $U > 60V$

It is better to add a circuit breaker between the inverter and the battery system.  
The selection of the circuit breaker requires:

$$\text{Current: } I = \frac{\text{Inverter power}}{45V}$$

The circuit breaker is installed between the battery module and the inverter, as shown in Figure 3-8:

