

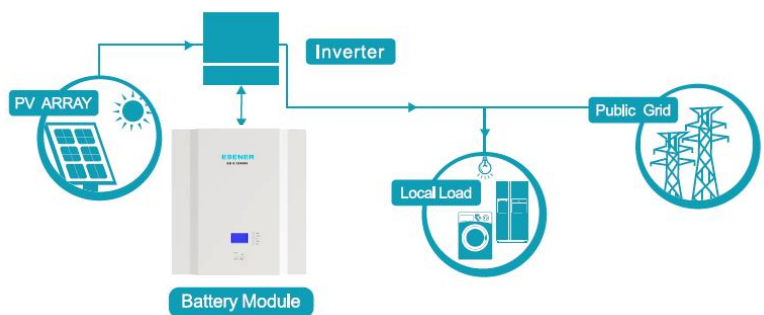


(ES-5.12) ESENER 51.2V100Ah Wall Mount Lithium Battery

EseNER to Sunsynk/Deye Communication

ES-5.12 Specifications

Nominal Voltage	5.12V
Rated Capacity (5HR)	100Ah
Float Voltage	54.4V
Discharge Cut off Voltage	45.6V
Equalized Charge Voltage	56.8V
Max. Continuous Charging Current	100A
Max. Continuous Discharging Current	100A
C Rating	1.0C
Cells	New Li-ion Prismatic cells
Cycle Life @ 1C	+/- 4 000 Cycles 100% DOD, Above 6000 cycles 80% DOD
Parallel	Parallel connection up to 15 Packs with full communication



Factory Battery Default Configuration

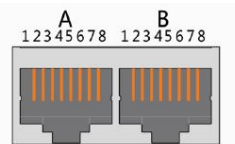
Number	Type / Brand	
	CAN Communication	RS485 Communication
1	Deye / Sunsynk	Voltronic Axpert / Kodak / RCT
2	EseNER	
3	Luxpower	
4	Sofar	
5	TBB	

EseNER to Sunsynk/Deye Communication

ESENER lithium battery CAN/RS485 Communication Cable Order (sequence) Instruction as below:

A	
Pin number	RS485 Port
Pin 1	RS485-B
Pin 2	RS485-A
Pin 3	RS485-GND
Pin 4	RS485-B
Pin 5	RS485-A
Pin 6	RS485-GND
Pin 7	NC(empty)
Pin 8	NC(empty)

ESENER Lithium Battery
RS485 port definition



X1(dual RJ45) Port

B	
pin number	CAN Port
pin 1	CANL
pin 2	CGND
pin 3	NC(empty)
pin 4	CANH
pin 5	CANL
pin 6	NC(empty)
pin 7	CGND
pin 8	CANH

ESENER Lithium Battery
CAN port definition

Packaging Contents



Deye / Sunsynk Cable Selection Process:

Step 1.

Use the CAN cable that accompanies the battery to connect the inverter and lithium battery, Choose the CAN inverter cable with label that corresponds with the inverter brand and has been marked on the label.

CAN/RS485 Communication Port on the Battery



Connecting to the Battery

Step 2.

Plug the end labeled battery into the CAN port on the 5.12kWh or 10.24kWh battery.

CAN/RS485 Communication Port on the Inverter



Connecting to the Inverter

Step 3.

Plug the end labeled inverter into the CAN port on the inverter.

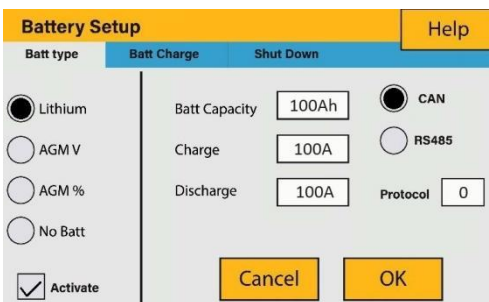
Powering on the Battery



Step 4.

Turn on the battery first from the On/Off button located on the side of the battery and then the inverter.

Setting Up a Lithium Battery

A screenshot of the 'Battery Setup' screen on a device. The screen has a yellow header with 'Battery Setup' and a 'Help' button. Below the header, there are three tabs: 'Batt type', 'Batt Charge', and 'Shut Down'. Under 'Batt type', there are radio buttons for 'Lithium' (selected), 'AGM V', 'AGM %', and 'No Batt'. There is also a checked 'Activate' checkbox. Under 'Batt Charge', there are input fields for 'Batt Capacity' (100Ah), 'Charge' (100A), and 'Discharge' (100A). Under 'Shut Down', there are radio buttons for 'CAN' (selected) and 'RS485', and a 'Protocol' field with the value '0'. At the bottom, there are 'Cancel' and 'OK' buttons.

To set up a Lithium battery click on the "Battery" icon on the display.

What this page displays:

- This will only display if you select the Lithium battery in the battery option.
- Type of communication protocol as per listed below.

After installing a lithium battery, check on the communications page by clicking on "Li BMS" icon to see if the BMS information is visible. If some information is not displayed correctly on the page as shown in the figures below, there may be a communication error.

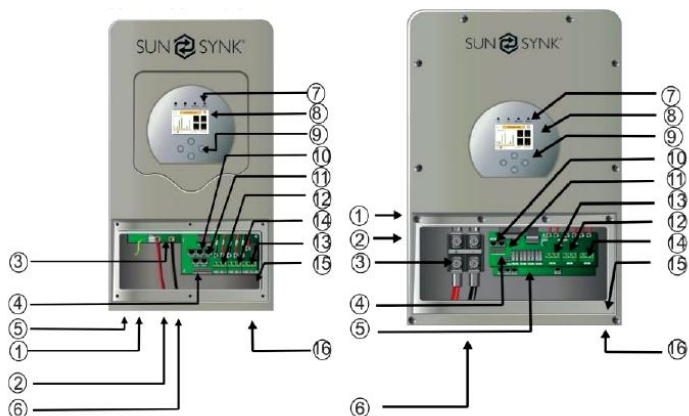
Li BMS		Help ?
Sum Data	Details Data	
Mean Voltage:50.34V	Charging Voltage :53.2V	
Total Current:55.00A	Discharging Voltage :47.0V	
Mean Temp :23.5C	Charging current :50A	
Total SOC :38%	Discharging current :25A	
Dump Energy:57Ah		

Li BMS		Help ?						
Sum Data	Details Data							
	Volt	Curr	Temp	SOC	Energy	Charge Volt	Charge Curr	Fault
1	50.38V	19.70A	30.6C	52.0%	26.0Ah	0.0V	0.0A	0 0 0
2	50.33V	19.10A	31.0C	51.0%	25.5Ah	53.2V	25.0A	0 0 0
3	50.30V	16.90A	30.2C	12.0%	6.0Ah	53.2V	25.0A	0 0 0
4	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
5	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
6	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
7	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
8	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
9	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
10	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
11	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
12	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
13	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
14	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0
15	0.00V	0.00A	0.0C	0.0%	0.0Ah	0.0V	0.0A	0 0 0

Inverter Overview / Setup

3.5kW and 5.5kW Inverter

8.8kW Inverter



1. PV Isolator
2. Power ON/OFF
3. Battery Input Connectors
4. I/O Ports
5. MPPT 1 and MPPT 2
6. Battery Cable Compression Gland
7. Inverter LED Indicators
8. LCD Display
9. Function Buttons
10. RS486 Port
11. Can Bus Port
12. Generator / Aux IN/OUT
13. On-grid Inverter
14. Load Off-grid Inverter
15. Ground Connection
16. Data Logger

Brand	Model	48V Storage Inverter	CAN or RS485	Inverter Setup	Notes
Esener	ES-5.12kWH 51.2V 100Ah Rack Mount Lithium Battery	✓	CAN	0	
			RS485	5	
	ES-5.12kWH 51.2V 100Ah Wall Mount Lithium Battery	✓	CAN	0	
			RS485	5	
	ES-10.24kWH 51.2V 200Ah Wall Mount Lithium Battery	✓	CAN	0	
			RS485	5	

Battery Charge / Discharge Page

Battery Setup Help

Batt type | **Batt Charge** | **Shut Down**

Amps: | | Float V:

Gen Charge | Grid Charge | Absorption V:

Gen Signal | Grid Signal | Equalization V:

Signal Island Model |

GEN MAX RUN TIME: |

GEN DOWN TIME: | |

To configure inverter battery settings click on the "Battery" icon.

Float Voltage: 54.4V
 Discharge Cut off Voltage: 45.6V
 Equalized Charge Voltage: 56.8V

Battery Setup		Help
Batt type	Batt Charge	Shut Down
Shutdown	<input type="text" value="45.6V"/>	
Low Batt	<input type="text" value="47V"/>	
Restart	<input type="text" value="54.4V"/>	
<input type="button" value="Cancel"/> <input type="button" value="OK"/>		

To configure inverter shutdown settings click on the “Battery” icon and then on “Shut Down”.

The following can be set:

- Inverter shut down the voltage as a voltage or % .
- Inverter low battery warning voltage or %.
- Restart voltage as a voltage or %.

