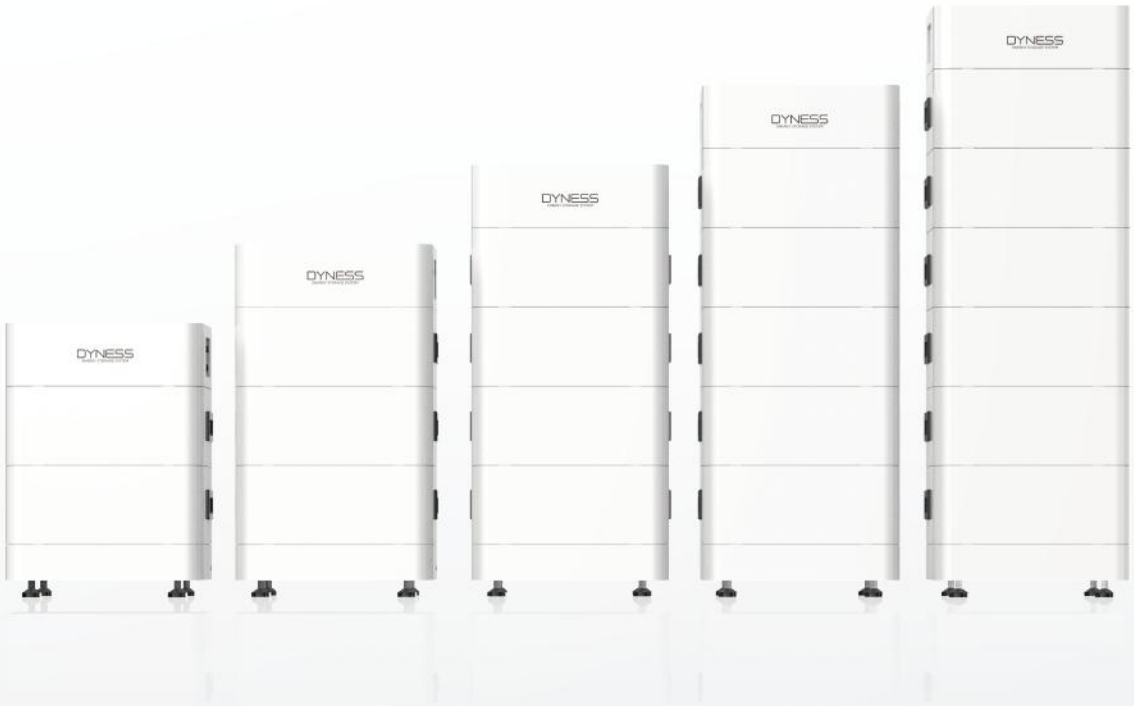
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DYNESS



Tower

USER MANUAL

HV Battery System
Tower-T7/T10/T14/T17/T21
192-576V

File version-20241105-V1-EN information might be subject to change without notice during product improving.

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Statement of Law

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Revision History

Revision No.	Revision Date	Revision Reason
V0	2019.09.11	First Published.
V1	2024.11.05	Parameters changed.

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Safety Handling Guide of Lithium Batteries

DANGER

Before installation or operation carefully read the “Tower ESS User Manual”.
The batteries will produce high voltage DC power and might cause lethal voltage and electric shock.
Only qualified persons are allowed to wire the batteries.

WARNING

This product is a high voltage DC system, and should be operated by authorized persons only.
Risk of battery system damage or personal injury.
DO NOT disconnect while the system is running!
Keep all power sources off and verify that they are de-energized.
Battery damage may result in electrolyte leakage. If the electrolyte is leaked, do not touch the leaked electrolyte or volatile gas, and contact the after-sales service team for help immediately. If leaked material was touched accidently, please follow the steps below:

- Inhalation of leaked material: Evacuate from contaminated area and seek medical assistance immediately.
- Eye contact: Flush with clean water for at least 15 minutes and seek medical assistance immediately.
- Skin contact: Wash the contact area thoroughly with soap and clean water and seek medical assistance immediately.
- Ingestion: Induce vomiting and seek immediate medical assistance.
- Do not move the battery system if it is connected with an external expansion module.

If you need to replace or add a battery, please contact the after-sales service center.

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CAUTION

Risk of battery system failure or life cycle reduction.

Before Connecting

Please check product and packing list after unpacking. If the product is damaged or parts are missing, please contact the local dealer.

Before installation, make sure that the grid is disconnected and the battery is switched off.

Do not invert the positive and negative cables and ensure there is no short circuit to the external device.

It is prohibited to connect the battery to AC power directly.

The battery system must be properly grounded and the resistance must be less than 1Ω.

Ensure that the electrical parameters of the battery system are compatible with the respective equipment.

Keep the battery away from water and fire.

During Use

If the battery system needs to be moved or repaired, the power must be disconnected and the battery must be switched off.

It is prohibited to connect different types of batteries.

It is prohibited to connect the battery to incompatible or faulty inverters.

It is prohibited to disassemble the battery (to avoid the warranty sticker to be removed or damaged).

In case of fire, only a dry powder fire extinguisher must be used, foam extinguishers are prohibited.

Please do not open, repair or disassemble batteries; this is reserved for Dyness staff or authorized personnel. We do not take any responsibility caused by violation of safety operation or equipment safety standards.

Maintenance

Please read the user manual carefully.

If batteries are stored for a long time, it is required to charge them every 10 months, and the SOC should be no less than 50%.

Do not expose cables outside.

All battery terminals must be disconnected for maintenance.

Please contact the supplier within 24 hours if there is something abnormal.

Warranty claims are excluded for direct or indirect damage due to items above.

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1 Introduction

1.1 Brief Introduction

Tower is a high voltage battery energy storage system based on lithium iron phosphate batteries, and it is one of the new products developed and produced by Dyness. They are used to provide reliable power for various types of equipment and systems. Tower is especially suitable for high power, limited installation space, restricted load-bearing and long cycle life.

1.2 Product Properties

The entire module is non-toxic, non-polluting and environment-friendly.
The anode material is made from LiFePO4 with high security and long cycle life.
The Battery Management System (BMS) comes with protective functions including over-discharge, over-charge, over-current and high/low temperature.
The system automatically manages charging and discharging and balances current and voltage of each cell.
Flexible configuration, multiple battery modules can be connected in series for expanding voltage and capacity.
The adopted self-cooling mode rapidly reduces the system noise.
The module has less self-consumption, does not need to be charged up to 10~12 months; no memory effect, excellent performance of shallow charging and discharging.
The operating temperature range is 0 to +50°C, with excellent discharging performance and cycle life.
Small size and light weight, easy installation and maintenance of standard module.

1.3 Symbol Definition

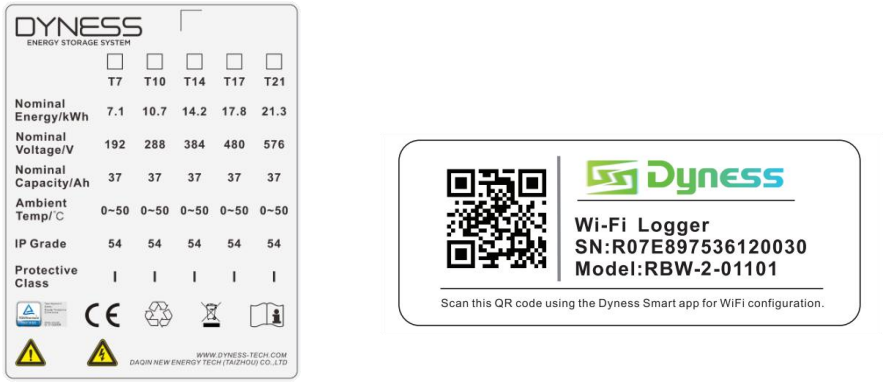


Figure 1-1 Battery energy storage system nameplate

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Table 1-1 Symbol Definition

	Battery voltage is higher than safe voltage. Be careful of electric shock.
	Be careful with your actions and be aware of the dangers.
	Read the user manual before use.
	Do not dispose of batteries with the household waste; it must be recycled environmentally-friendly.
	At the end of the life cycle, batteries can continue to be used after being recycled. Please do not discard illegally.
	This product meets European directive requirements.
	This product passed the TUV certification.

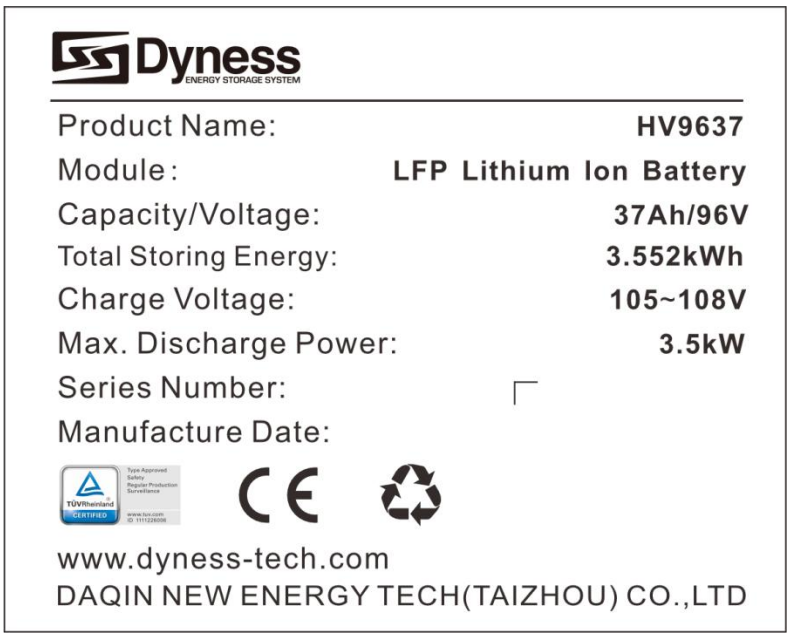


Figure 1-2 Battery module label

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1.4 Abbreviations in the Document

Table 1-2 Abbreviations in the document

Abbreviations in this document	Full name
BDU	Battery Disconnect Unit
BMS	Battery Management System
SOC	State Of Charge
PCS	Number of battery modules
DOD	Depth of discharge
NC	Normally closed

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2 Product Specifications

2.1 System Performance Parameter

Table 2-1 Tower system parameters

Model	T21	T17	T14	T10	T7
Cell technology	LFP	LFP	LFP	LFP	LFP
Total energy stored [kWh]	21.31	17.76	14.21	10.66	7.10
Usable energy [kWh]	20.245	16.872	13.499	10.127	6.745
Recommend depth of discharge	95%	95%	95%	95%	95%
Max depth of discharge	100%	100%	100%	100%	100%
Module configuration	6 series	5 series	4 series	3 series	2 series
Voltage range [V/DC]	504~648	420~540	336~432	252~324	168~216
Battery system voltage (V/DC)	576	480	384	288	192
Battery system capacity (Ah)	37	37	37	37	37
Battery system charge voltage (V/DC)	648	540	432	324	216
Battery system charge current [A] (standard)	7.4	7.4	7.4	7.4	7.4
Battery system charge current [A] (normal)	18.5	18.5	18.5	18.5	18.5
Battery system charge current [A] (peak)	37	37	37	37	37
Battery system discharge minimum voltage (V/DC)	504	420	336	252	168
Battery system discharge current [A] (standard)	7.4	7.4	7.4	7.4	7.4
Battery system discharge current [A] (normal)	18.5	18.5	18.5	18.5	18.5
Battery system discharge current [A] (max)	37	37	37	37	37

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Model	T21	T17	T14	T10	T7
Battery system max charge & discharge current [A] (in communication with inverter)	22.5	22.5	22.5	22.5	22.5
Discharge temperature [°C]	-10~50	-10~50	-10~50	-10~50	-10~50
Charge temperature [°C]	0~50	0~50	0~50	0~50	0~50
Max discharge power [kW]	21.31	17.76	14.21	10.66	7.1
Max charge & discharge power [kW] (in communication with inverter)	12.78	10.65	8.52	6.39	4.2
Short circuit current [kA]	1.5	1.5	1.5	1.5	1.5
IP protection class	IP54	IP54	IP54	IP54	IP54
Dimensions [mm]	504*1500 *380	504*1300 *380	504*1100* 380	504*900* 380	504*700 *380
Weight [kg]	269	228	187	146	105
Battery module name	HV9637	HV9637	HV9637	HV9637	HV9637
Number of battery modules (pcs)	6	5	4	3	2

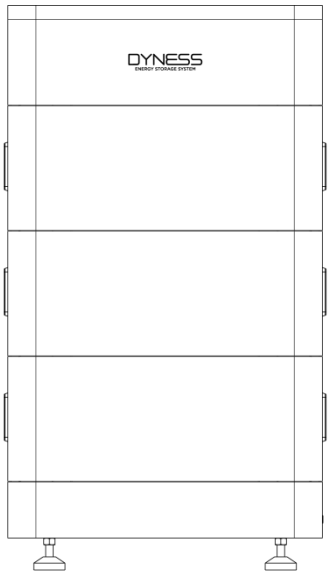


Figure 2-1 Tower T10

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2.2 Battery Module

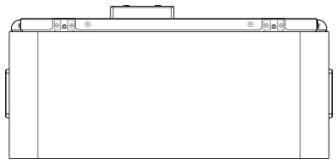


Figure 2-2 Battery module

Table 2-2 Product parameters

Module name	HV9637
Cell technology	Li-ion (LFP)
Battery module energy (kWh)	3.552
Battery module voltage (V/DC)	96
Battery module capacity (Ah)	37
Number of battery module cells (pcs)	30
Battery cell power (Wh)	118.4
Battery cell voltage (V/DC)	3.2
Battery cell capacity (Ah)	37
Number of battery module cells in series (pcs)	30
Battery module charge voltage (V/DC)	108
Battery module charge current (normal) [A]	18.5
Battery module charge current (peak) [A]	37
Battery module discharge minimum voltage (V/DC)	84
Battery system discharge current (standard) [A]	7.4
Battery module discharge current (normal) [A]	18.5
Battery module discharge current (max) [A]	37
Dimensions (W*D*H, mm)	380*504*240
Communication mode	CAN/RS485
Pollution degree (PD)	II
Operating temperature (°C)	0~50

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Module name	HV9637
IP protection class	IP54
Weight (kg)	41

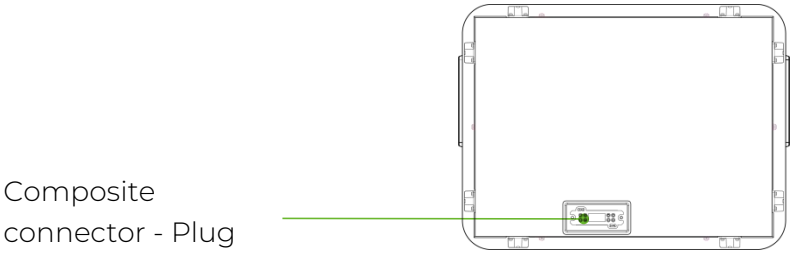


Figure 2-3 HV9637 connections on top

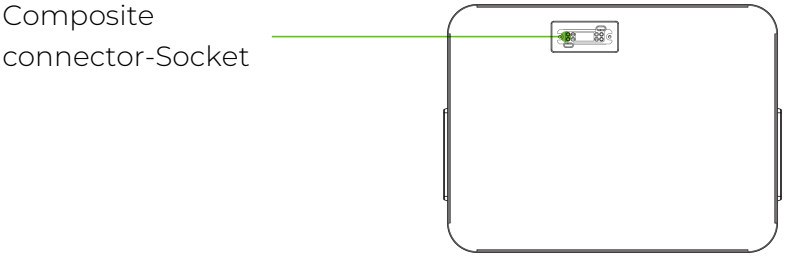


Figure 2-4 HV9637 connections at bottom

Table 2-3 Interface Definition

Name	Definition
Composite connector - Plug	Battery module output and communication interface
Composite connector - Socket	Battery module output and communication interface

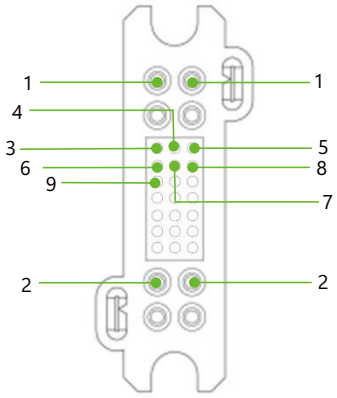


Figure 2-5 Composite Connector-Plug

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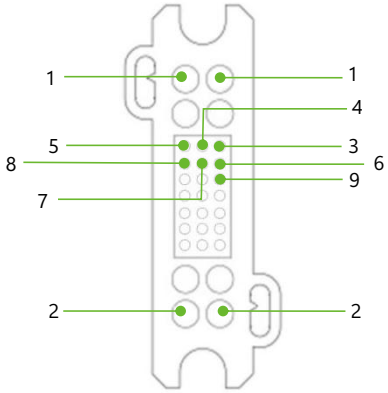


Figure 2-6 Composite Connector-Socket

Table 2-4 Port definition

No.	Composite connector - Plug	Composite connector - Socket
1	Negative output	Negative output
2	Module positive	Module negative
3	SWAKE	SWAKE
4	SCANSG	SCANSG
5	SCANL	SCANL
6	SCANH	SCANH
7	24V-	24V-
8	24V+	24V+
9	SCANIN	SCANOUT

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2.3 Battery Controller

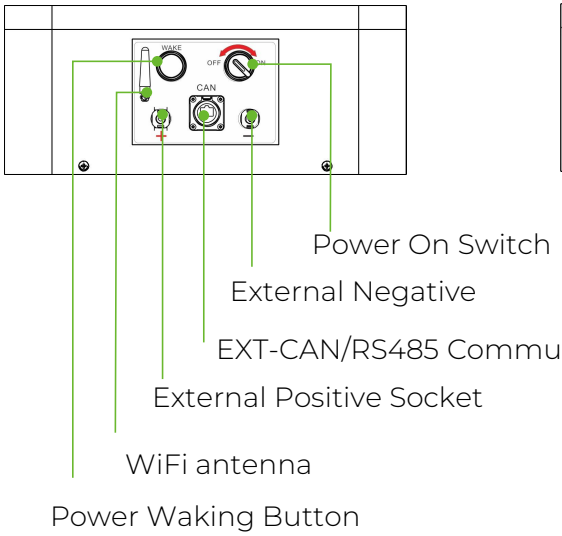


Figure 2-7 BDU right connections

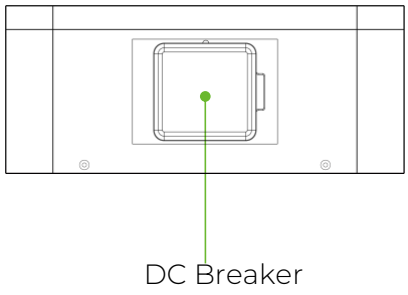


Figure 2-8 BDU left connections

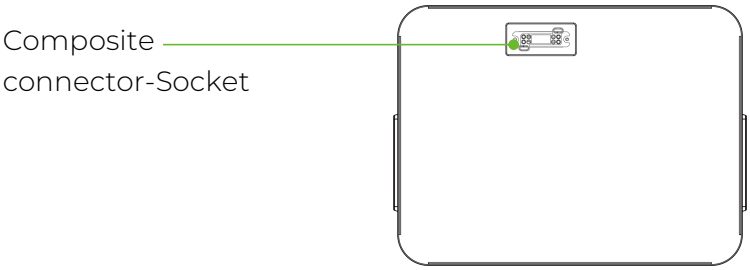


Figure 2-9 BDU bottom connections

Table 2-5 Interface Definition

Name	Description
WAKE button	Press and hold 10s to start the battery system
External positive socket	Connect battery system to inverter positive terminal
EXT-CAN/RS485 communication port	RJ45 communication port between battery system and inverter
External negative socket	Connect battery system to inverter negative terminal
ON/OFF switch	Switch on to start the BMS system
DC breaker	Master switch of the battery system: Switch on before switching ON/OFF and WAKE buttons on; short circuit protection.

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Name	Description
Composite connector - Socket	Battery module output and communication interface
WiFi antenna	Receiving and sending WiFi signals.

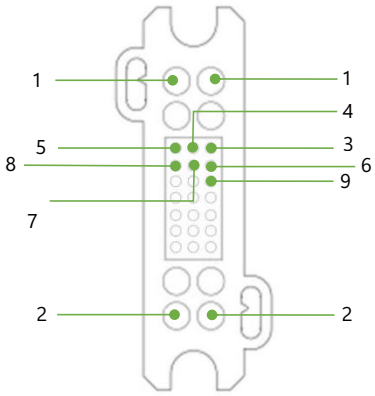


Figure 2-10 ON/OFF switch

CAUTION

DO NOT switch off during normal operation.

Table 2-6 Port definition

No.	Definition
1	Negative output
2	Positive output
3	SWAKE
4	SCANSG
5	SCANL
6	SCANH
7	24V-
8	24V+
9	SCANOUT

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DANGER

Ensure ON/OFF switch is turned on before waking up the battery. Otherwise it will affect the auto test process and cause danger.
DO NOT switch off the ON/OFF switch during normal operation, only in emergencies. Otherwise it will cause the battery current to surge.

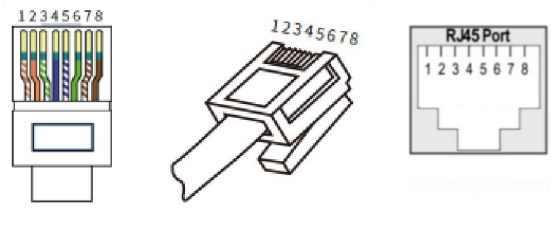


Figure 2-11 EXT-CAN/RS485 pin definition

CAUTION

If the DC breaker trips because of over-current or short circuit, you must wait for 30 minutes to switch it on again, otherwise it may cause damage to the breaker.

Table 2-7 EXT-CAN/RS485 pin definition

PIN	Color	Definition
PIN1	Orange/White	485_A
PIN2	Orange	485_B
PIN3	Green/White	Reserved
PIN4	Blue	CANH
PIN5	Blue/White	CANL
PIN6	Green	CANIN
PIN7	Brown/White	CANOUT
PIN8	Brown	NC

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3 Installation and Configuration

3.1 Environmental Requirements

DANGER

Cleanliness

The battery system has high voltage connectors. The environmental conditions will affect the isolation of the system.

Before installation and switch-on, dust and swarf must be removed to keep the system clean. The environment must be dust-proof to a certain extent.

Dust and humidity must be regularly checked during continuous operation of the system.

Fire Protection System

Rooms are recommended to be equipped with a fire protection system or fire extinguishers (dry powder fire extinguishers are recommended). The fire protection system should be regularly inspected to ensure normal operation. Local requirements are important to follow. Please refer to the local requirements for the use and maintenance of fire protection equipment. Recommended but not a must for Dyness warranty.

Grounding System

Make sure that the grounding point for the battery system is stable and reliable before installation. If the battery system is installed in an independent equipment cabin (e.g. container), make sure that the grounding of the cabin is stable and reliable.

The resistance of the grounding system must be ≤100mΩ.

CAUTION

Temperature

Tower system operating temperature range: 0°C to +50°C; Optimal temperature: 18°C to 30°C; Exceeding the working temperature range will cause over-temperature/under-temperature alarms or protection of the battery system which may lead to shortening the life cycle.

Cooling System

It is essential to equip a cooling system to keep the battery system in a relevant temperature range. Over-temperature/ under-temperature alarms or protection of the battery system may lead to shortening the life cycle.

Heating System

It is essential to equip a heating system to keep the battery system in a relevant temperature range. If the temperature is below 0°C, the system may shut down for protection. It is necessary to open the heating system first. Exceeding or falling below the operating temperature range will cause over-temperature/under-temperature alarms or protection of the battery system may lead to shortening the life cycle.

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Installation Location Precautions

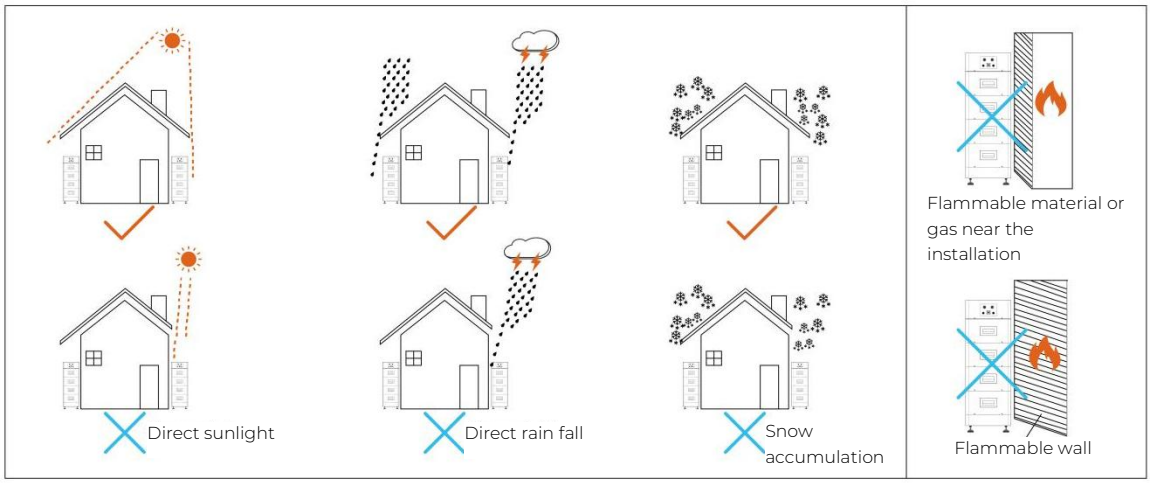


Figure 3-1 Installation location

3.2 Installation Spacing Requirements

DANGER

Please note that the battery should be installed with a minimum safe clearance from the surrounding equipment or battery. Please refer to the minimum clearance diagram below.

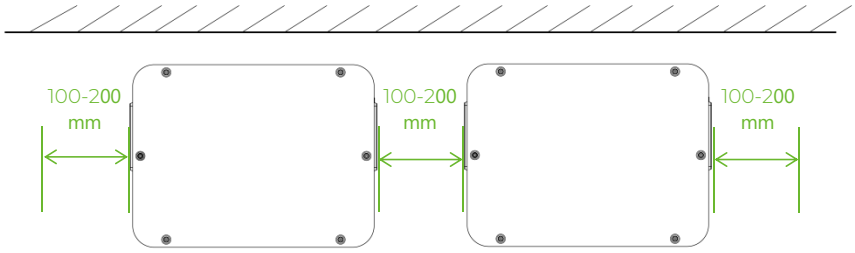


Figure 3-1 Minimum spacing

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3.3 Tools

The following tools are required to install the battery pack:

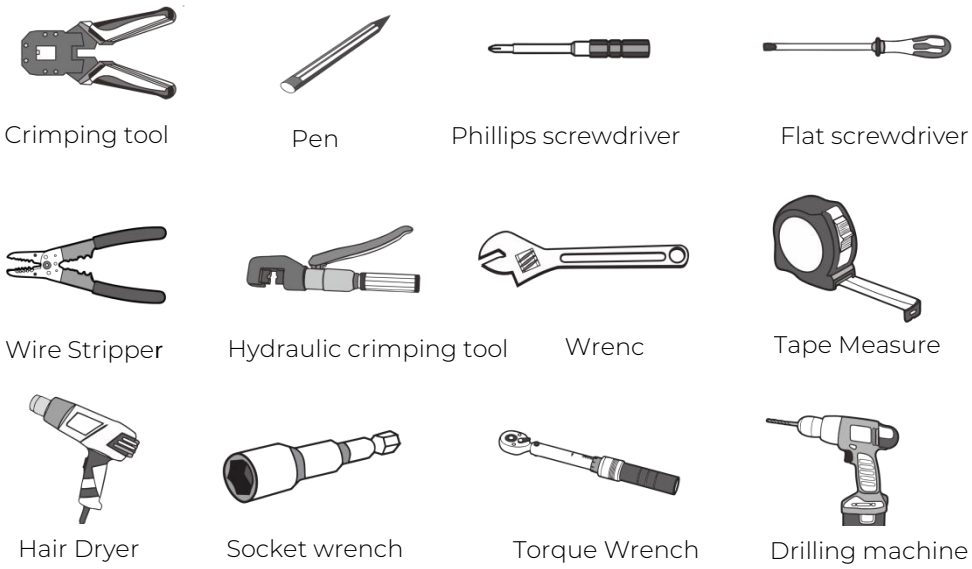


Figure 3-2 Installation tools

CAUTION

Use properly insulated tools to prevent electric shock or short circuit.

3.4 Safety Gear

We recommend wearing the following safety gear when working with batteries:

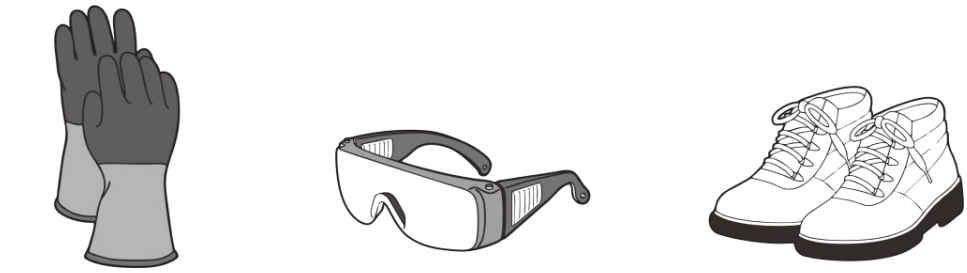


Figure 3-3 Safety gear

3.5 Unpacking

When the battery system is delivered at the installation site, unloading should be performed according to the rules and regulations, to prevent being exposed to direct sunlight. Batteries should not be installed in locations in direct sunlight. See Figure 3-2 Installation location precautions.

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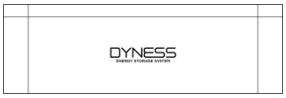
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Before unpacking, the total number of boxes must be reconciled according to the shipping list attached to each package, and the boxes must be checked for good condition.

Handle all items carefully and protect the surface coating of the items.

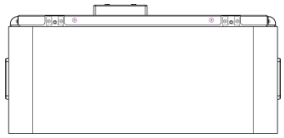
After opening the boxes, the installer should read the technical documentation, verify the list, ensure that the items are complete and undamaged according to the configuration table and packing list. If there is damage to the internal packaging, it should be checked and recorded in detail.

Table 3-1 Packing List

	Item	Specifications	Quantity	Image
A	BDU	Tower BDU	1	
	Communication cable to inverter	Standard, black /L 2000mm /RJ45 plug at both sides	1	
	Power cable-positive	Positive cable 6mm², red, 2m	1	
	Power cable-negative	Negative cable 6mm², black, 2m	1	
	Power cable connector	To positive battery pole	1	
	Power cable connector	To negative battery pole	1	
	Communication connector to BDU	RJ45 waterproof connector	1	
	screw	Cross Recessed Pan Head three combination Screw M6*14	1	
	screw	Countersunk head Phillips screws M4*12	4	

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	Terminal	OT4-6	2	
	User Manual	User Manual	1	
	Warranty card	/	1	
	Packing list	/	1	
B	Battery	HV9637 96V/37Ah	1	
	screw	Countersunk head Phillips screws M4*12	4	
	Packing list	/	1	

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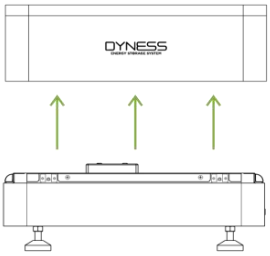
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3.6 Equipment Installation

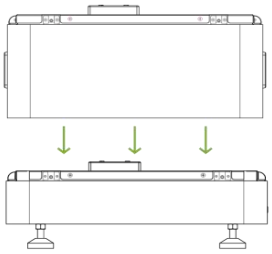
Installation Preparation

1. Make sure that the environment meets all technical requirements.
2. Prepare equipment and tools for installation.
3. Confirm that the DC breaker is in OFF position.

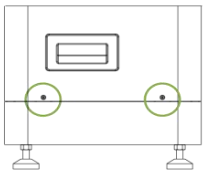
Mechanical Installation



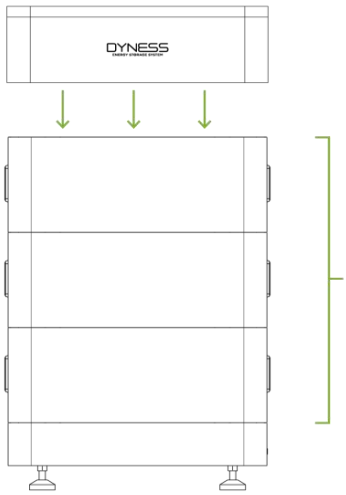
1. Determine Tower placement
2. Separate the BDU from the battery base

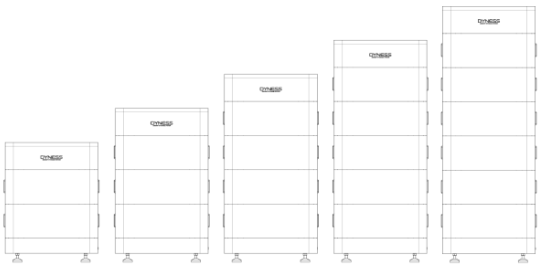


3. Place battery module on the battery base (The height of feet on the base can be adjusted.)



4. Fix each module with 4 screws





5. Place Tower BDU on battery module

Figure 3-4 Mechanical installation

DANGER

The battery system is a high voltage DC system. Ensure that the grounding surface of Tower is stable and reliable.
Please confirm that the battery system is switched off before connecting. Electric shock and damage to the inverter may be caused if the battery is connected directly without being switched off.
Otherwise, the system cannot work properly. The voltage of the battery is too high, please pay attention to self-protection during measurement.

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WARNING

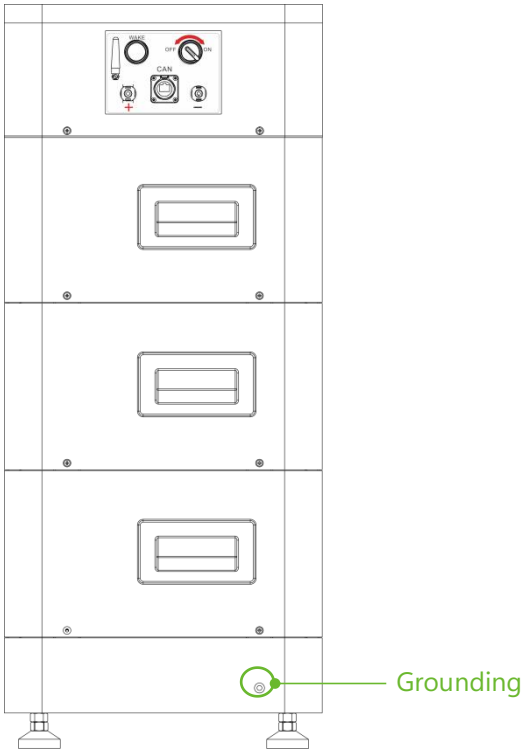
A single battery module weighs 41kg. It is necessary to install battery modules with helpers if no lifting equipment is available, even more so if the battery modules are installed higher up.
Double check all the power and communication cables. Make sure that the voltage of the inverter is at the same level as the battery system.

- Switch on the inverter, and make sure that all power equipment is working normally.
- Start the battery system. See Table 3-2 Battery system self-test step 2.

3.7 Battery system self-test

Step 1 Electrical installation

Battery system grounding
(After the HV9637 module is stacked, it is fixed with two screws each left and right. Then the shell surfaces of the upper and lower modules are screwed together. There is a special docking point at the bottom of the battery base. See bottom right.)

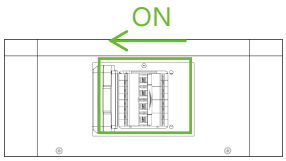


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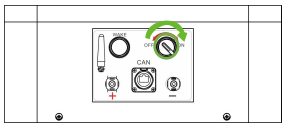
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Step 2 Battery system self-test

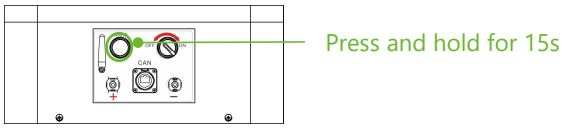
1. Switch the DC breaker of the BDU on.



2. Switch the ON/OFF switch on



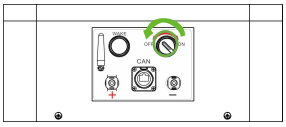
3. Press and hold the WAKE button for approx. 15s.



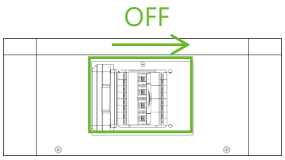
4. Check the system output voltage.

- Use a multimeter to measure the output voltage on the positive and negative ports of the BDU.
- The output voltage should be in the voltage range as shown in “Table 2-1 Tower system parameters”.

5. Switch the ON/OFF switch off.



6. Switch the BDU DC BREAKER to OFF position.



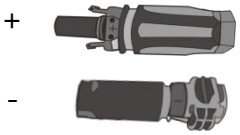
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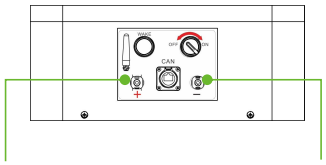
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3.8 Connecting inverter

Step 3 Connecting inverter

1. Connect the external power cable to the inverter
(If the 2m power cable is too short, please use a power cable with same specifications with max 3m length.)

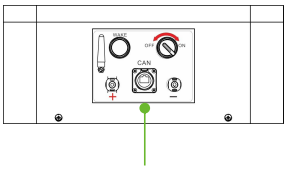




Connect to inverter DC+ terminal

Connect to inverter DC- terminal

2. Connect the EXT-CAN/RS485 communication cable to the inverter RJ45 CAN/RS485 port.



Connect to inverter RJ45 CAN/RS485 communication port

CAUTION

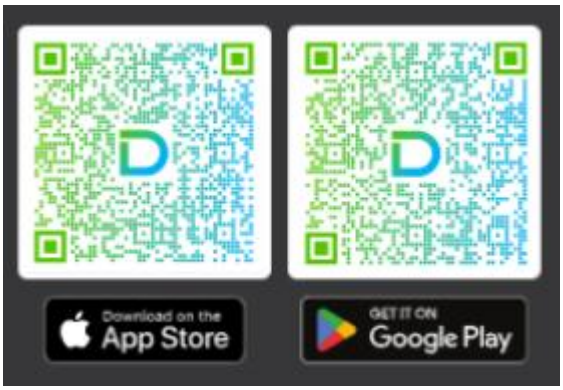
We recommend an external DC breaker operating both positive and negative conductors simultaneously between BDU and inverter. After waking up the BDU and ensuring that the BDU is pre-charged, it can be switched on.

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3.9 App Operation Instruction

- Download the 'Dyness' App to get full functionality of your battery from the App Store (iOS devices) or Google Play(Android devices) or scan below QR code.



- Registration & Login

Register after the APP is installed, click "Create an account", enter the registration page as below:

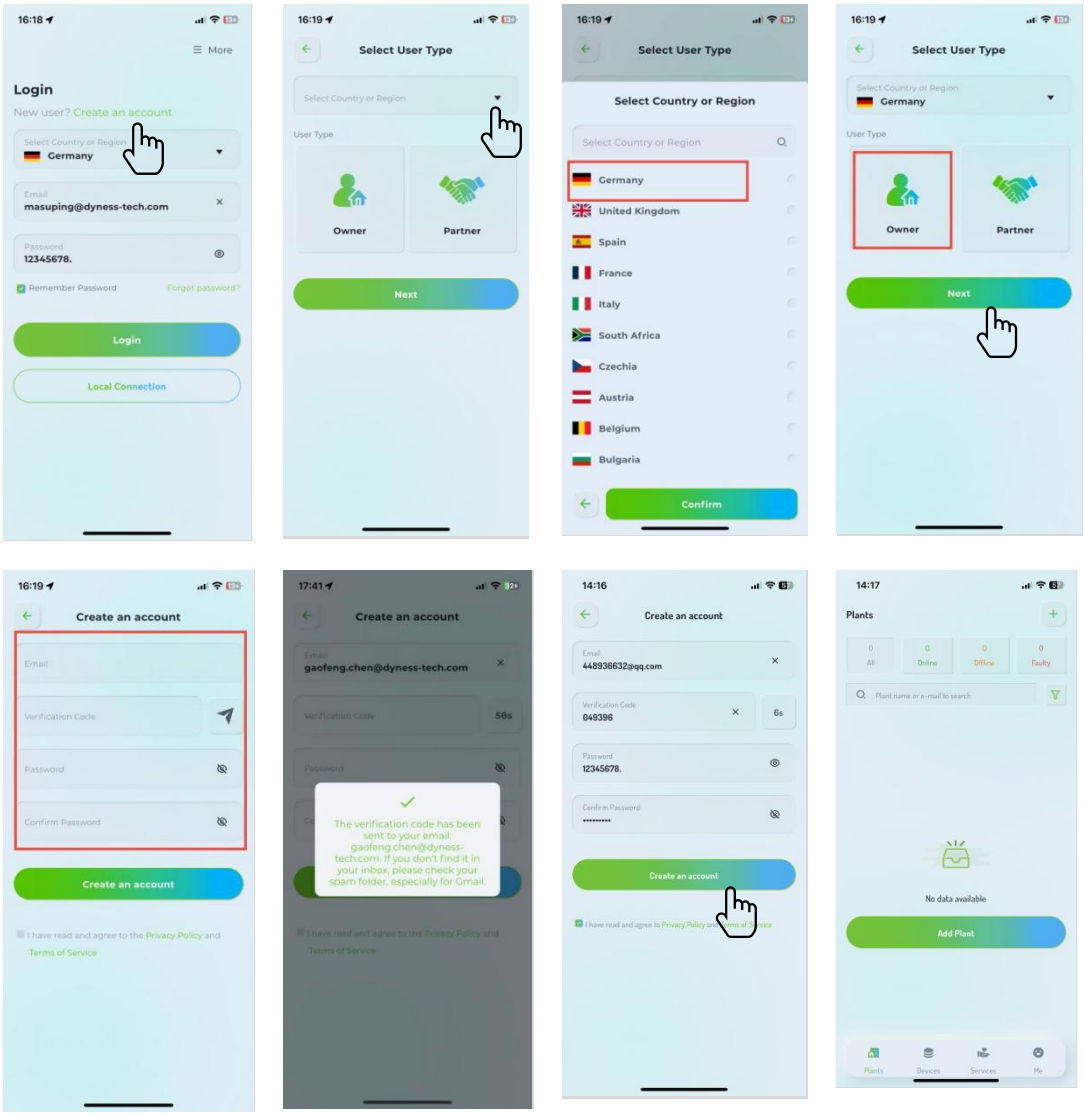
(1) Select "Create an account" on the Dyness App login interface.
(2) Select the current country or region.
(3) Select the identity "user type" for registering the account,Owner or Partner;

If you are a partner of Dyness, you can contact the platform business to obtain your exclusive invitation code to complete account registration.

(4) Click "Next"
(5) Follow the prompts on the "Create Account" interface to complete the account registration process.

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- Create Plants,Add Device and Connect the network

Please login account and Create Plant.
Click "Add Plant" to enter the device selection interface, and select the corresponding device type and model.

There are three Methods to add Device:
Method1 :Add via Bluetooth
a. Ensure that the phone is connected to WIFI and Bluetooth is turned on.
b. Bluetooth will automatically scan attachment devices for result display.
c. Select the device to be connected and click on the device name.

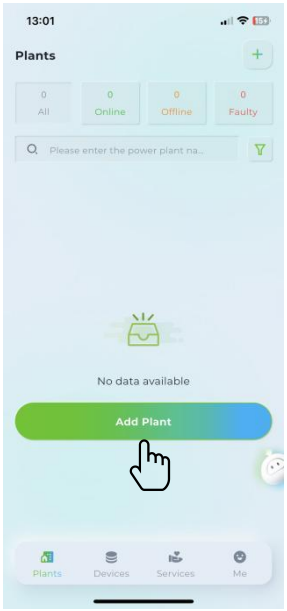
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Method 2: Add by scanning. This method supports devices with QR codes. If you do not have a QR code, please choose another method
a. Click on 'Scan'.
b. Align the device QR code with the mobile phone scan focus, and the results will be displayed in a list.
c. Select the device to be connected based on the result list, and click on the device name.

Method 3: Add by entering SN [If only one device is connected at a time, this method is recommended]
a. Click on 'Enter SN'.
b. Enter the device SN code.
c. After entering the device SN code, click "Next".

After adding, enter the distribution network,Enter WiFi account and password, Click "Start Provisioning".

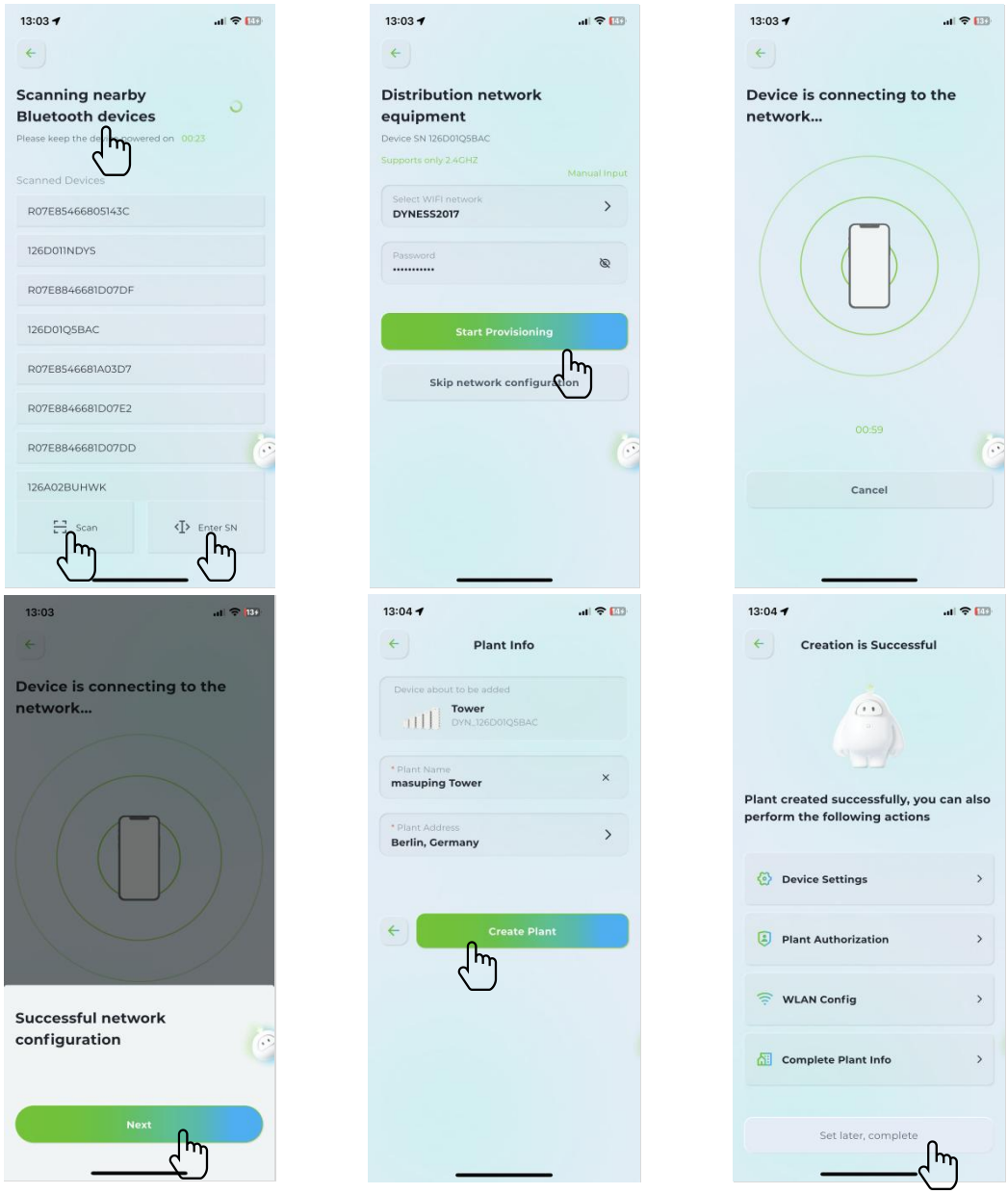






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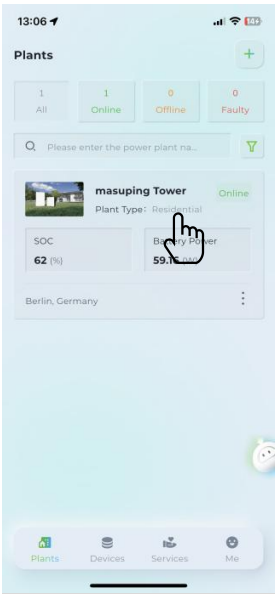


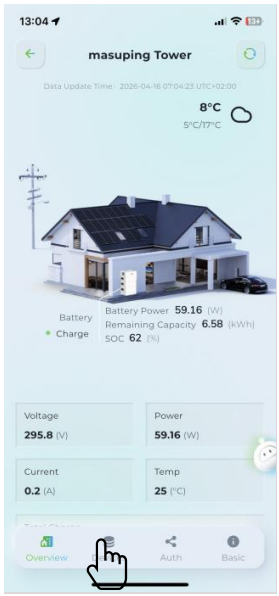
- View battery information

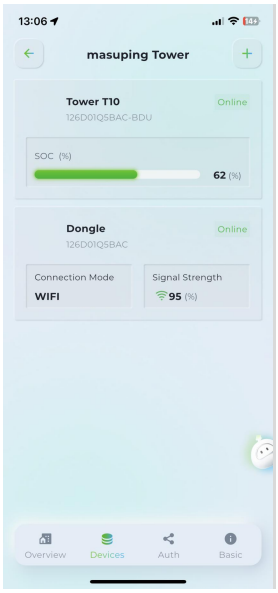
After successful network configuration， wait for 5~10 minutes, Click “Plants”. The default display of device real-time data is detailed, BMS information and historical data and basic information can be viewed by switching tabs

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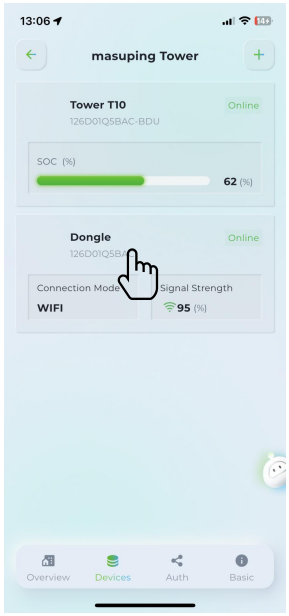
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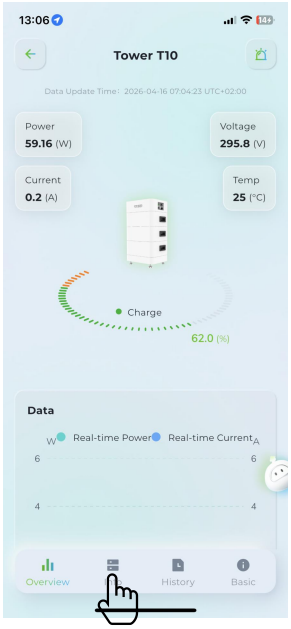


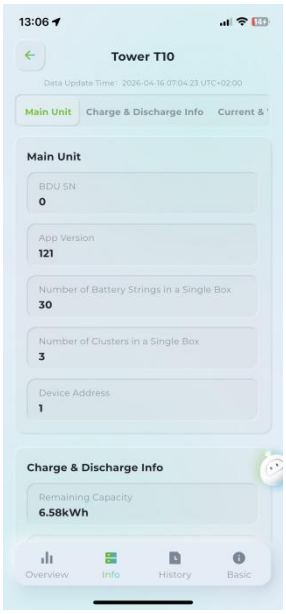




By switching tabs to enter the real-time data information page, you can view the data information of energy storage devices.



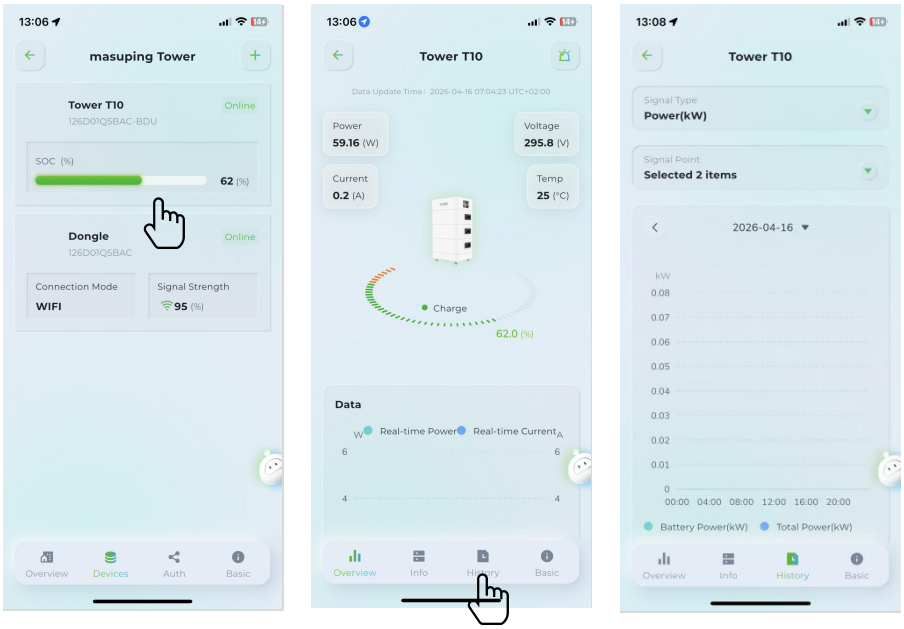




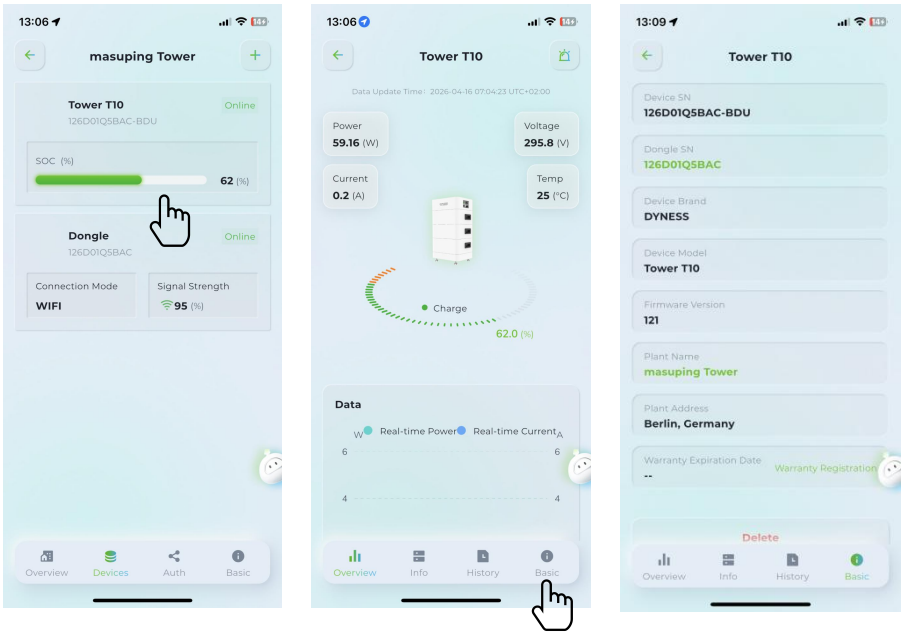
By switching tabs to enter the historical data page, you can view the historical data of energy storage devices.

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By switching tabs to enter the basic information page, you can view the basic information of the energy storage device.



WiFi status indicators:

- If the yellow light flashing, it indicates that the distribution network has failed or not been distributed.
- If the yellow light remains on, it indicates successful network distribution and communication is currently being connected.
- If the green light remains on, it indicates successful network distribution and normal communication between BMS and WiFi.

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4 Maintenance

4.1 Trouble shooting

DANGER

The battery system is a high voltage DC system. Must make sure that the grounding surface of Tower is stable and reliable.
Please confirm that the battery system is switched off before connecting. Electric shock and damage to the inverter may be caused if the battery is connected to the inverter directly without being powered off.
Otherwise, the system cannot operate properly. The voltage of the battery is too high, please pay attention to self-protection during measurement.

No.	Problem	Possible Reason	Solution
1	The battery has no voltage output, and “POWER ON”/ “POWER WAKE” LEDs are off.	The BDU DC breaker is not switched on.	Switch the BDU DC breaker on.
		The ON/OFF switch of the BDU is not switched on.	Switch the ON/OFF switch on.
		Battery is in sleep mode.	Press and hold the WAKE button for approx. 10s.
		The fuse in the BDU is faulty.	Replace the fuse.
		Battery changes into over-discharged protection.	Charge the battery to leave protection mode.
2	Battery has no voltage output, but “POWER ON”/“POWER WAKE” LEDs are on.	The BDU relay is faulty.	Replace BDU.
3	When the battery is connected to the inverter, the DC breaker trips Instantly.	Short circuit between battery and inverter.	Check whether there is a short circuit between battery and inverter; Check if the inverter is faulty.
4	Communication failure between battery and inverter.	Wrong battery type is selected in the inverter settings.	Select the correct battery type in the inverter settings.

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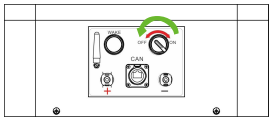
4.2 Replacement of Main Components

Replacing the Battery Controller (BDU)

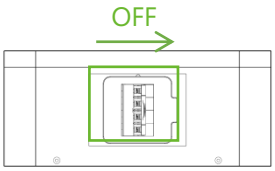
WARNING

Turn off the entire battery system. Ensure that the negative and positive terminals are de-energized.

1. Switch the ON/OFF switch off.



2. Switch the BDU DC BREAKER to OFF position.



- Disconnect the connecting cable.
- Remove the four screws on the BDU and remove the BDU from the system.

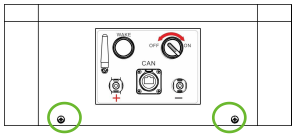


Figure 4-1 BDU right connections

- Exchange BDU. Then fix it with four screws.
- After replacing the new BDU, the battery self-test needs to be performed again (see Table 3-2 Battery system self-test).

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4.3 Battery Maintenance

DANGER

Battery maintenance should only be carried out by professional and authorized persons.
Switch off the battery system before maintenance.

Voltage check:

[Periodical maintenance] Check the voltage of the battery system with the monitoring software. Check whether the system voltage is normal. For example: Check whether the single cell voltage is out of range.

Voltage check:

[Periodical maintenance] Check the SOC of the battery system with the monitoring software. Check whether the SOC of the batteries is normal.

Cable check:

[Periodical maintenance] Visually inspect all cables of the battery system. Check whether the cables are broken, aging or loose.

Balancing:

[Periodical maintenance] The battery system will become unbalanced if it has not been charged fully for a long time. Solution: Perform balancing maintenance (fully charge) every 3 month. Generally this maintenance progress needs to be completed when external devices such as the monitoring software and battery and inverter have proper communication.

Output relay check:

[Periodical maintenance] Under low load (low current), check the output relay OFF and ON condition; listen if the relay clicks, which means that it switches off and on normally.

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5 Storage Recommendations

For long-term storage (more than 3 months), the battery cells should be stored in following environment: temperature range 5 to 45°C, relative humidity <65% and no corrosive gases.
The battery module should be placed in temperature range 5 to 45°C, dry, clean and well ventilated environment. The battery should be charged to 50 - 55% SOC before storage.
We recommend activating the battery system (discharge and charge) every 10~12 months, Corresponding to the battery system that has been installed and used normally, it is necessary to regularly fully charge the battery to calibrate the SOC. It is recommended to fully charge and calibrate at least once every 2 weeks.

CAUTION

The lifespan of the battery will be greatly reduced if you do not follow above instructions to store the battery for a long term.

6 Shipment

The battery module is pre-charged to 50% SOC or according to customer requirements before shipment. The remaining capacity of battery cells is determined by the storage time and condition after shipment.
The battery modules meet UN38.3 certificate standard.
In particular, special rules for the carriage of goods on the road and the current dangerous goods law, especially ADR (European Convention on the International Carriage of Dangerous Goods by Road), as amended, must be observed.

7 Download

For other relevant user manual guidelines, please scan the corresponding QR code bel ow for download.

User Manual-DE

Quick Installation Guide-DE

WIFI Connection Guide-DE

Parallel Connection Guide-DE

Quick Installation Guide-EN

WIFI Connection Guide-EN

Parallel Connection Guide-EN

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EU Declaration of Conformity

within the scope of the EU directives

- Radio Equipment Directive 2014/53/EU (22.5.2014 L 153/62) (RED)
- Restriction of the use of certain hazardous substances 2011/65/EU (L174/88, June 8, 2011) and 2015/863/EU (L 137/10,March 31, 2015) (ROHS)

Dyness Digital Energy Technology Co., LTD confirms herewith that the products described in this document are in compliance with the fundamental redquirements and other relevant provisions of the aforementioned directives. More information con the availability of the entire declaration of conformity can befound at https://dyness.com/declarations-of-conformity

Ratings	25.6-1000VDC, 30-300A
Frequency Range	2400MHz-2483.5MHz
Network Interface	802.11b/g/n, BLE 5.

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