Dyness Battery System

QUICK INSTALLATION GUIDE

Tower series T7 T10 T14 T17 T21

File version-20240223-V2-EN information might be subject to change without notice during product improving.

V2.0

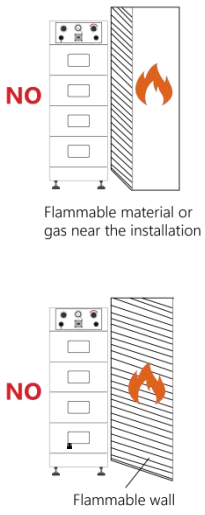
Target Group

Skilled personnel

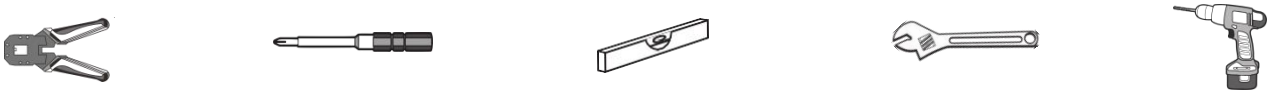
This manual and the tasks and procedures described herein are intended for use by skilled electricians only. A skilled electrician is defined as a trained and qualified electrician or installer who has all of the following skills and experience:

- Knowledge of the functional principles and operation of on-grid systems.
- Knowledge of the dangers and risks associated with installing and using electrical devices and acceptable mitigation methods.
- Knowledge of the installation of electrical devices.
- Knowledge of and adherence to this manual and all safety precautions and best practices.
- Please note that this is the quick reference guide only. It is a shortened assistance for the installation of the Battery HV and does not replace the original installation manual. The original installation manual must be read and understood completely before installation. Please download and view the installation manuals on this website: www.Dyness.com (Downloads).
- In order to ensure the normal operation of Tower, please be sure to update the firmware to the latest version and finish the configuration on the Tower webpage in accordance with this document.
- The system must be switched off before installation.
- Please make sure the system is switched off in case the system is not working. It should be repaired within one week, avoiding deep discharge and other problems happen.
- Please do not stack up batteries without protective package when storing or handling batteries, unless during installation.

Installation Environment

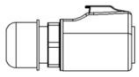


Tools



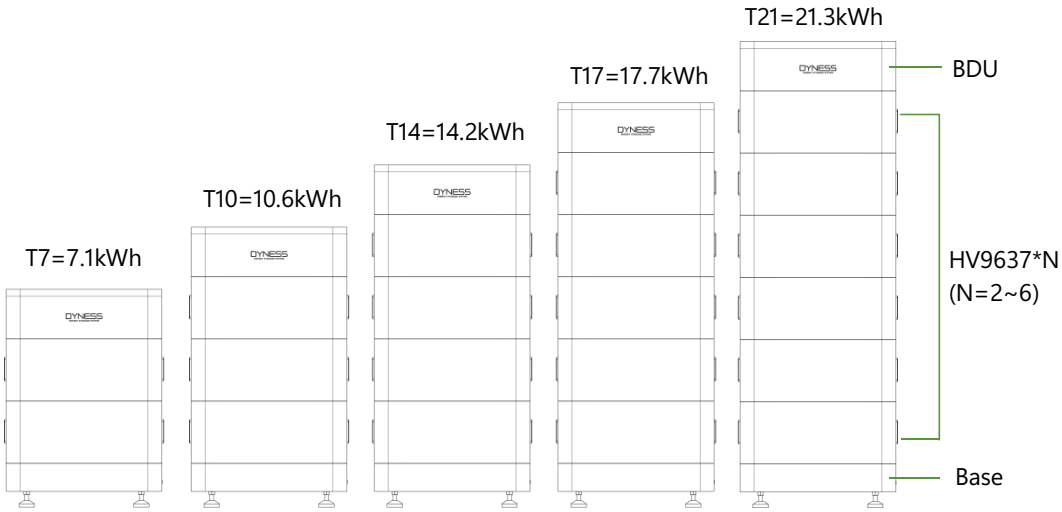
Crimping | Phillips Screwdriver | Spirit level | Wrench | Electric drilling machine

Packing list

Item	Specification	Quantity	Figure
Communication Cable to Inverter	Standard, Black /L2000mm /RJ45 plug at both sides	1 PCS	
Communication Connector to BDU	RJ45 Waterproof connector	1 PCS	
M4 12pcs	M4*10	20PCS	
M6 3 Sets of Combined Screws	M6*14	1 PCS	
OT terminal for Ground	OT4-6	2 PCS	
Power Cable Connector	To positive pole of battery	1 PCS	
Power Cable Connector	To negative pole of battery	1PCS	
Power Cable	Positive cable 6mm²,red,2m	1 PCS	
Power Cable	Negative cable 6mm²,black,2m	1PCS	

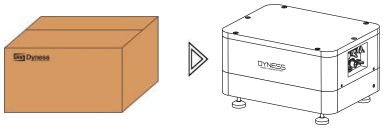
Overall Design

- Limited to the voltage interval of the inverter, the number of HV9637 modules used by the Tower series is 2.
- Limited to the conversion conditions of the BDU internal DC, the maximum number of HV9637 modules in the Tower series of products is 6.

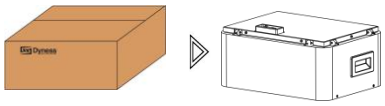


1 Unpacking

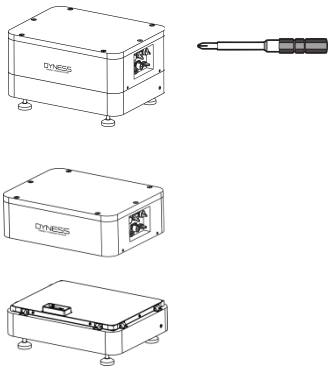
BDU+Base

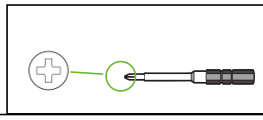


HV9637

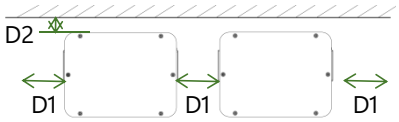


2 Separate the BDU and Base

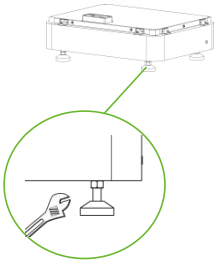




3 Spacing

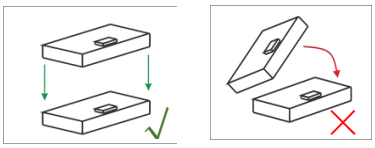


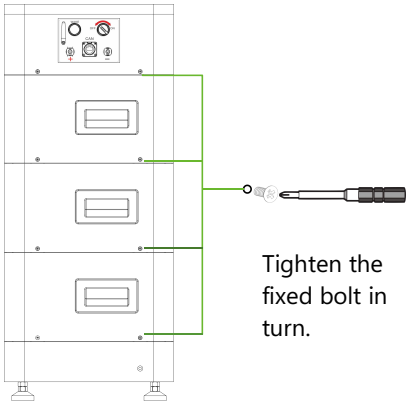
D1=500mm
D2=300mm



4 Stacking and locking

Note: When assembling the BDU, ensure that the BDU circuit breaker is in "OFF" position.

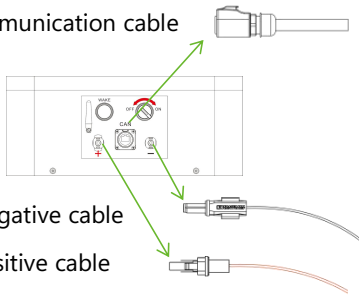




Tighten the fixed bolt in turn.

5 Connecting the cables

Communication cable

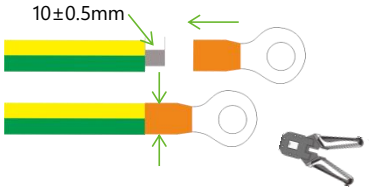


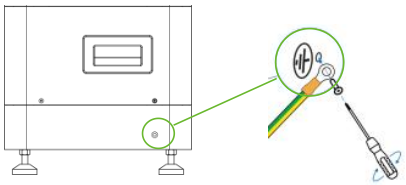
Negative cable

Positive cable

Note: We recommend that a circuit breaker is installed between the battery and the inverter to prevent the battery or the inverter being damaged when a short circuit occurs.

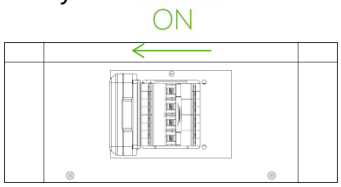
6 Earth connection

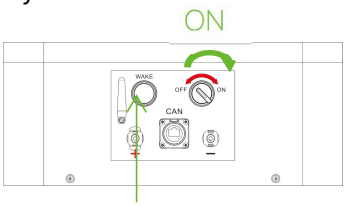




7 Switching the battery system on

1. First, set the BDU circuit breaker to “ON” position.
2. Set the ON/OFF switch to “ON”, press and hold the “WAKE” button for 10s. Release the button and the green light will stay on; the battery has been turned on successfully.

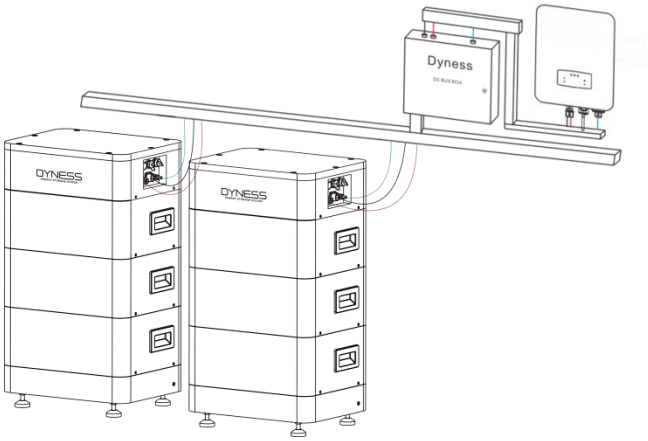




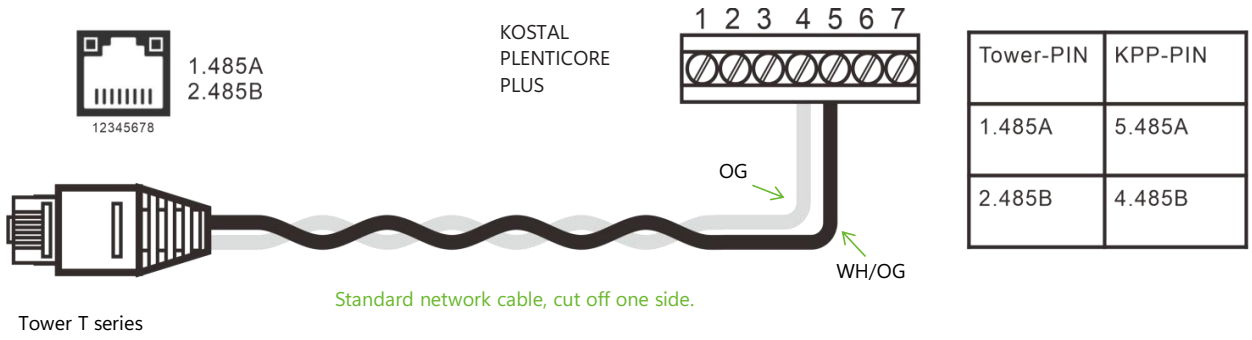
Press and hold the “WAKE” button for 10s.

8 Parallel connection

Dyness supports a maximum of 4 clusters and a dedicated Combiner box (DCB-TW) must be configured.
Single cluster installation is the same as stand-alone. For others, please consult Dyness.



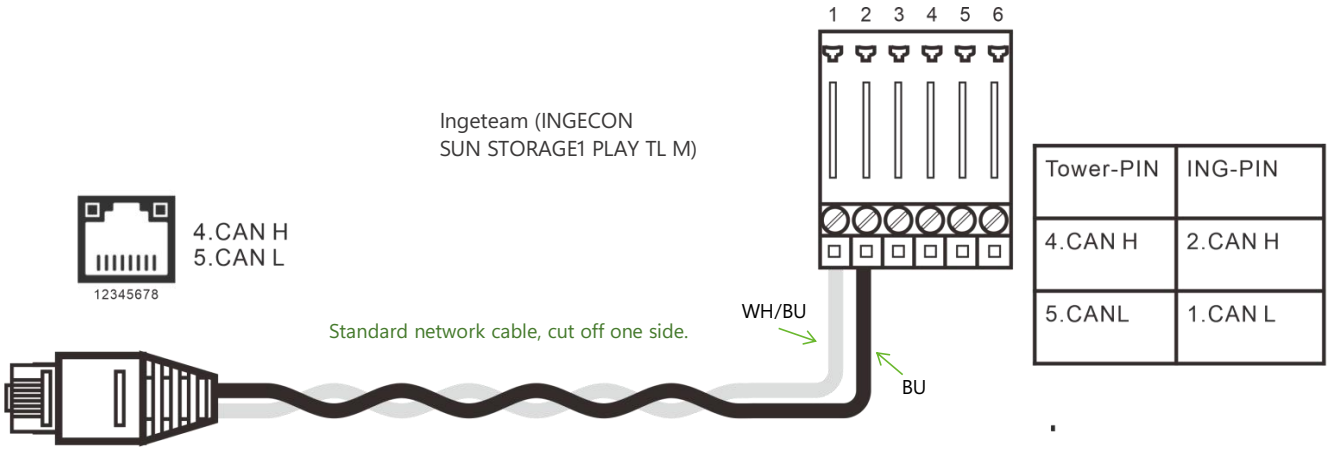
9 KOSTAL PLENTICORE PLUS



Tower-PIN	KPP-PIN
1.485A	5.485A
2.485B	4.485B

Communication Cable Connection

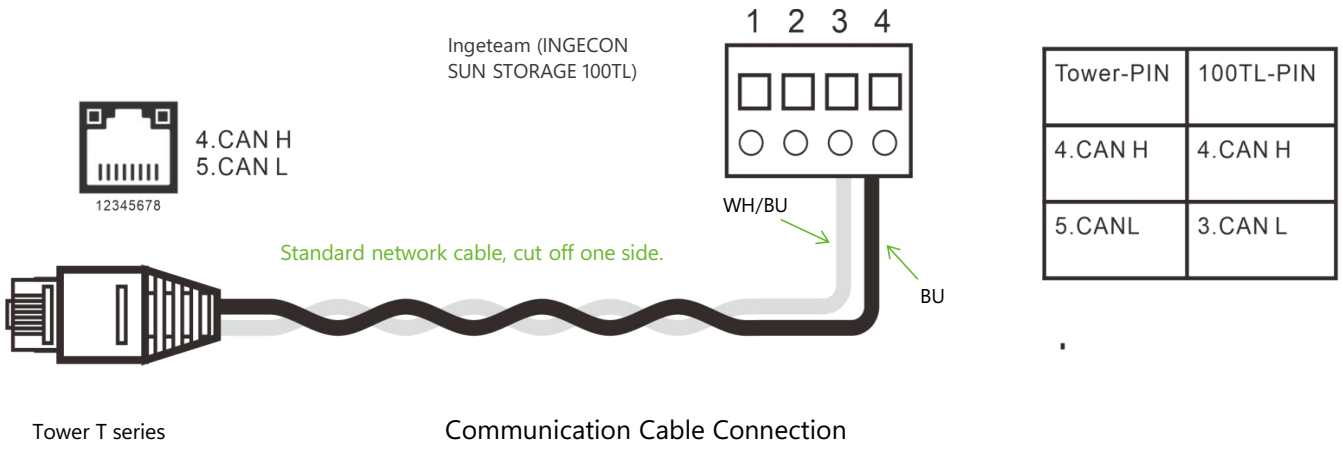
10a Ingeteam (INGECON SUN STORAGE1 PLAY TL M)



Tower-PIN	ING-PIN
4.CAN H	2.CAN H
5.CANL	1.CAN L

Communication Cable Connection

10b Ingeteam (INGECON SUN STORAGE 100TL)



Tower-PIN	100TL-PIN
4.CAN H	4.CAN H
5.CANL	3.CAN L

Communication Cable Connection

11 Goodwe ET Inverter

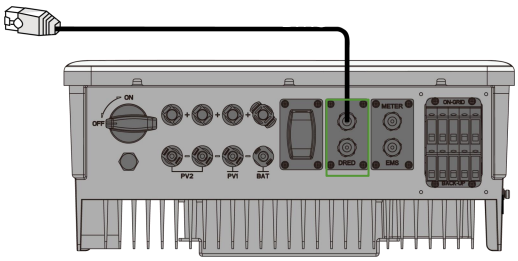
Dyness has a standard communication network cable. It is recommended to use the GW configuration network cable and directly connect to the CAN port of the battery BDU.

Note: PV Master selects the TOWER PRO version, to ensure that the inverter is version 22 or later.

4.CAN H
5.CAN L

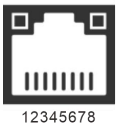
Tower T series

The 2 terminals are the Ethernet cable of the RJ45 terminal.



12 Solis RHI Series Hybrid Inverter

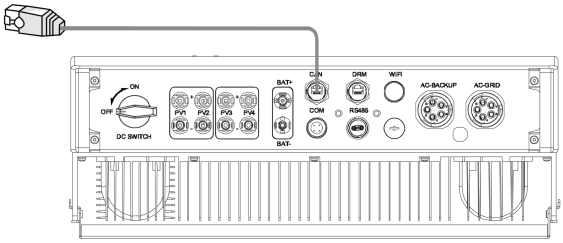
Use the configuration standard network cable.



4.CAN H
5.CAN L

Tower T series

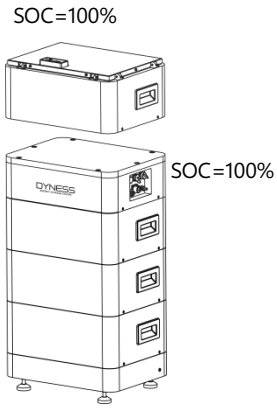
The 2 terminals are the Ethernet cable of the RJ45 terminal.

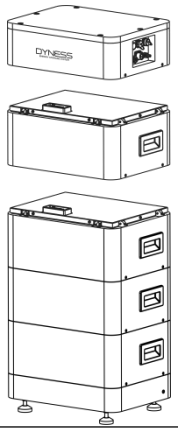


TOWER System Expansion

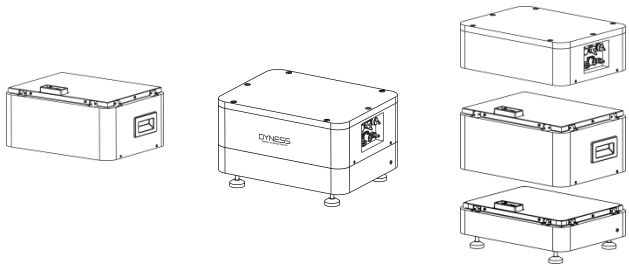
13 Module expansion

It is necessary to ensure that the power of the added module is 100%, and the power of the expanded system is also 100%. (The dealer is required to provide SOC 100% module. If you operate by yourself, please follow the following steps.)

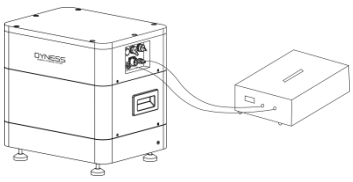




13a Add the module to be charged between BDU and Base.



13b Charge it with DC power supply until BDU is cut off, indicating that SOC is 100%.



Note: If you do not have the respective equipment, please ask the dealer to charge the module

Dyness

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Official Website

Digital version access

Dyness Digital Energy Technology Co., LTD.

www.dyness.com