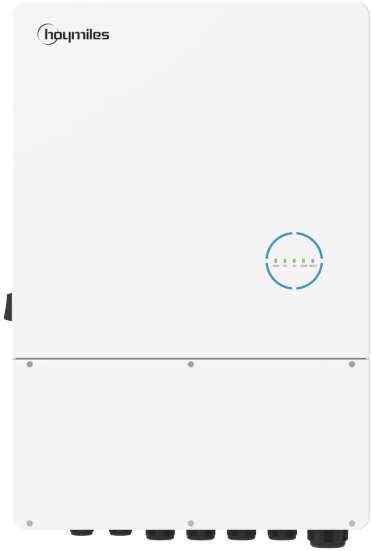
Open Energy for All



Single-phase Hybrid Inverter

Quick Installation Guide

HYS-8.0LV-EUG2
HYS-10.0LV-EUG2
HYS-12.0LV-EUG2

1 General Declaration

• The information in this quick installation guide is subject to change due to product updates or other reasons.

• This guide cannot replace the product labels or the safety precautions in the user manual unless otherwise specified. All descriptions here are for guidance only.

• Before installations, read through the quick installation guide and the user manual to learn about the product and the precautions.

• All installations should be performed by trained and knowledgeable technicians who are familiar with local standards and safety regulations.

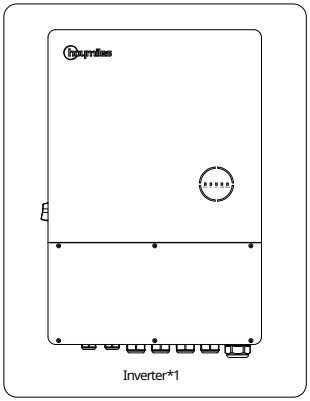
• Check the deliverables for correct model, complete contents, and intact appearance. Contact the manufacturer if any damage is found or any component is missing.

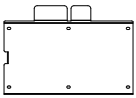
• Use insulating tools and wear personal protective equipment when operating the equipment to ensure personal safety. Wear anti-static gloves, clothes, and wrist strip when touching electron devices to protect the inverter from damage. The manufacturer shall not be liable for any damage caused by static electricity.

• Strictly follow the installation, operation, and configuration instructions in this guide and user manual. The manufacturer shall not be liable for equipment damage or personal injury if you do not follow the instructions.

• All cables in this article are copper cables.

2 Packing List


Inverter*1


Bracket*1

Document*1

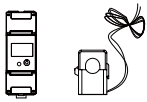

Expansion Screw M6*6
Sleeve*6


Ground Terminal*1


Screw M4*2


DTS Connecting Line*1

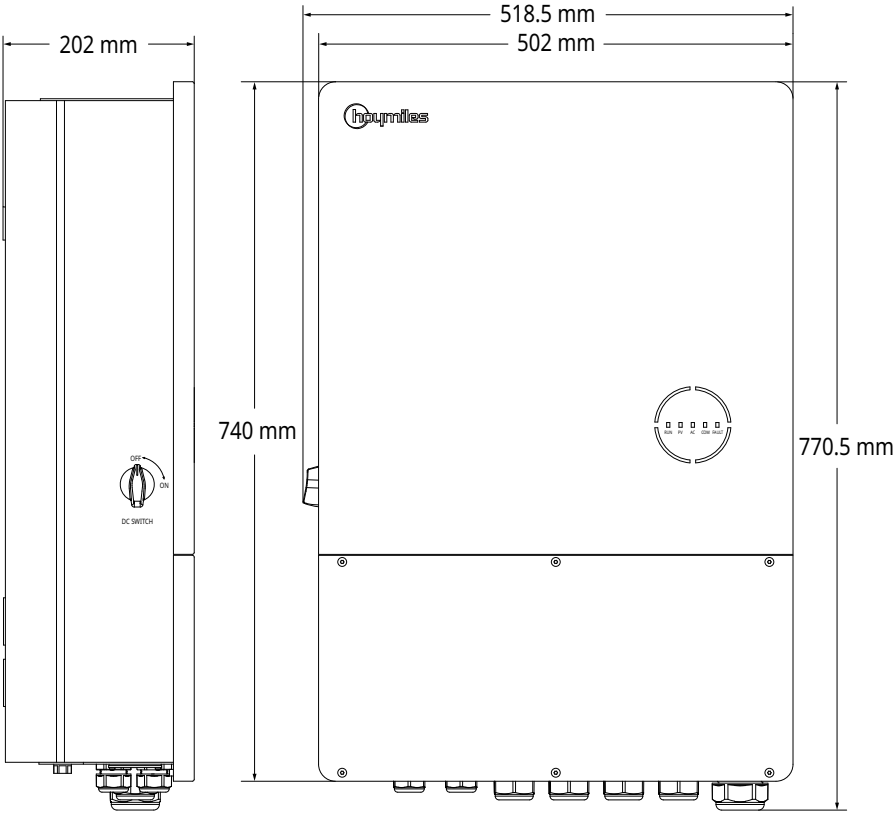
Accessories Packing List

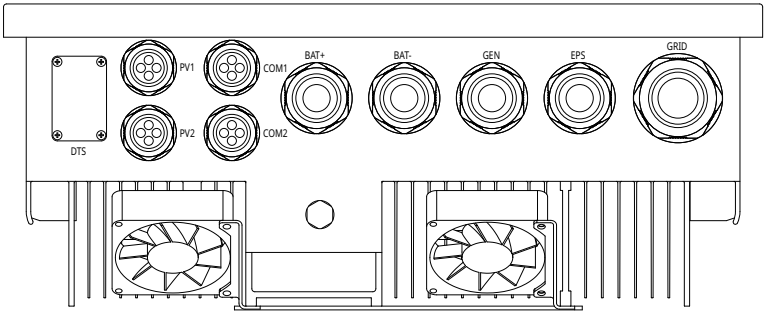

Smart Meter*1 CT*1


DTS*1
Optional (Wi-Fi, Ethernet, 4G)

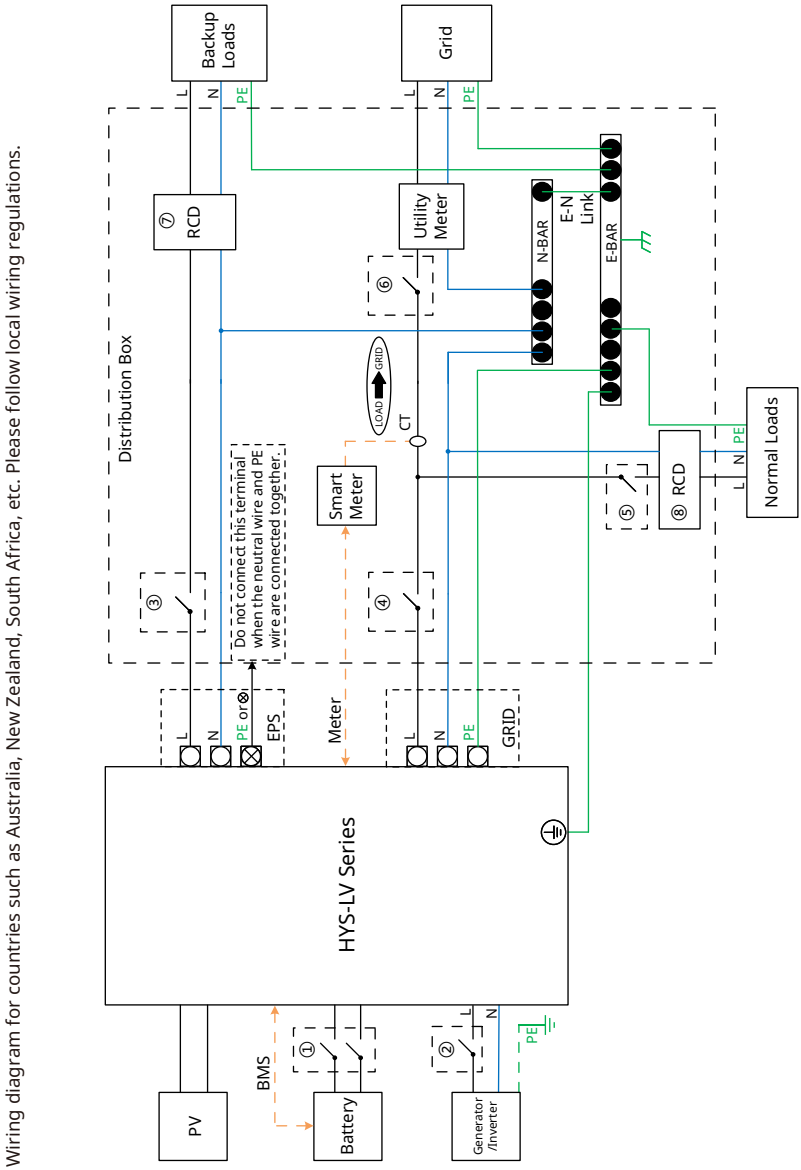

Battery Temperature Sensor*1

3 Product Dimensions





4 Wiring Diagram



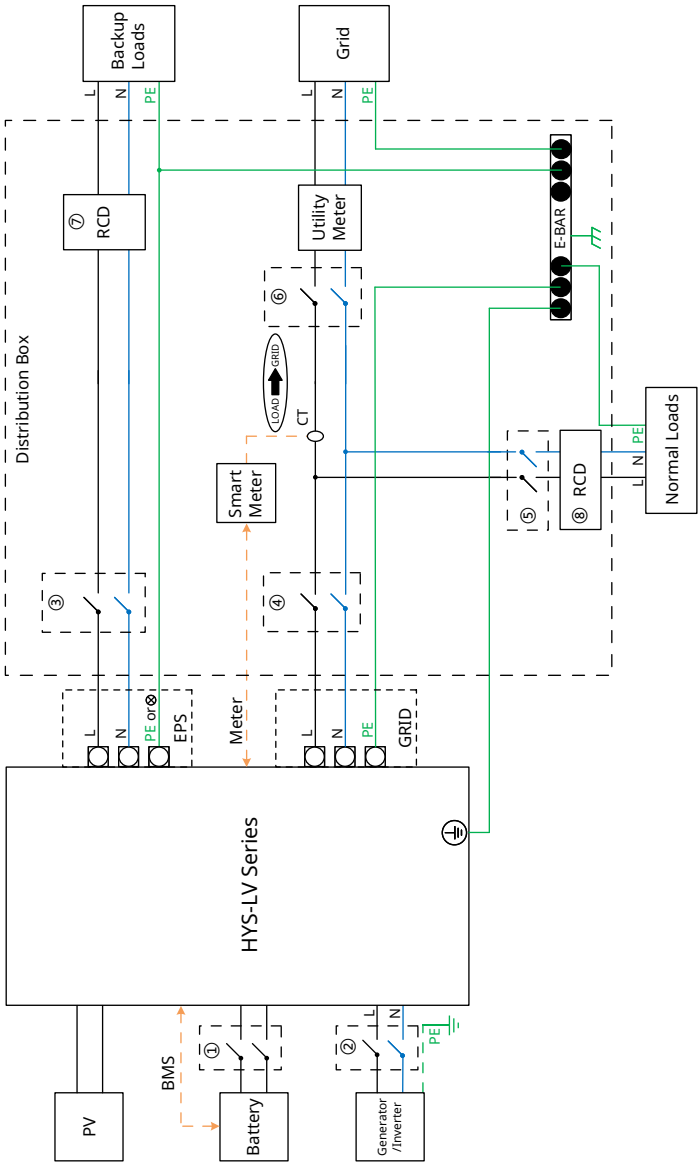
Wiring diagram for countries such as Australia, New Zealand, South Africa, etc. Please follow local wiring regulations.

Model	①	②	③	④	⑤	⑥	⑦⑧
HYS-8.0LV-EUG2	200 A/60 V DC Fuse	50 A/230 V AC Breaker	50 A/230 V AC Breaker	125 A/230 V AC Breaker	Depends on Loads	Main Breaker	30 mA RCD
HYS-10.0LV-EUG2	250 A/60 V DC Fuse	63 A/230 V AC Breaker	63 A/230 V AC Breaker	125 A/230 V AC Breaker			
HYS-12.0LV-EUG2	300 A/60 V DC Fuse	80 A/230 V AC Breaker	80 A/230 V AC Breaker	125 A/230 V AC Breaker			

Note:

- If the battery has integrated a readily accessible internal DC breaker or fuse, then no additional ① DC breaker or fuse is required.
- If the generator has integrated a readily accessible internal AC breaker, then no additional ② AC breaker is required.
- The use of ⑦⑧ 30 mA RCD is recommended but not mandatory; please comply with local regulations for the system installation.

Wiring diagram for other countries. Please follow local wiring regulations.



Model	①	②	③	④	⑤	⑥	⑦⑧
HYS-8.0LV-EUG2	200 A/60 V DC Fuse	50 A/230 V AC Breaker	50 A/230 V AC Breaker	125 A/230 V AC Breaker	Depends on Loads	Main Breaker	30 mA RCD
HYS-10.0LV-EUG2	250 A/60 V DC Fuse	63 A/230 V AC Breaker	63 A/230 V AC Breaker	125 A/230 V AC Breaker			
HYS-12.0LV-EUG2	300 A/60 V DC Fuse	80 A/230 V AC Breaker	80 A/230 V AC Breaker	125 A/230 V AC Breaker			

Note:

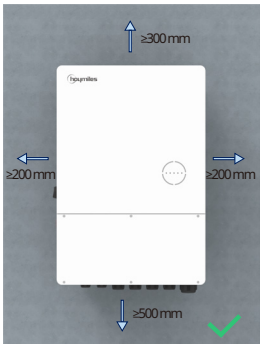
- If the battery has integrated a readily accessible internal DC breaker or fuse, then no additional ① DC breaker or fuse is required.
- If the generator has integrated a readily accessible internal AC breaker, then no additional ② AC breaker is required.
- The use of ⑦⑧ 30 mA RCD is recommended but not mandatory; please comply with local regulations for the system installation.

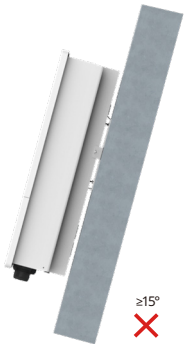
5 Recommended Cable List

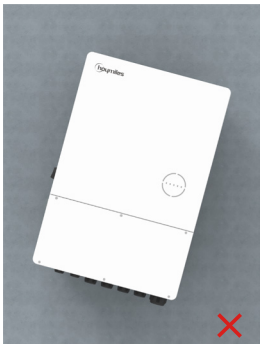
This data is the cable specification recommended by Hoymiles, and for proper cable specification, please refer to local laws and regulations and actual installation.

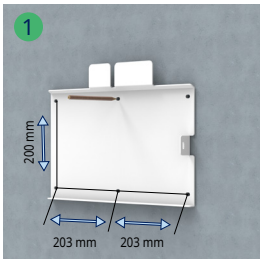
Cable	Specification			Stripping Length
(90°C, Copper)	HYS-8.0LV-EUG2	HYS-10.0LV-EUG2	HYS-12.0LV-EUG2	HYS-8.0/10.0/12.0LV-EUG2
Ground Cable	4 AWG (25 mm^2)	4 AWG (25 mm^2)	4 AWG (25 mm^2)	12-14 mm
PV Cable	10-8 AWG (6-10 mm^2)	10-8 AWG (6-10 mm^2)	10-8 AWG (6-10 mm^2)	13-14 mm
Battery Cable	1/0-2/0 (50-70 mm^2)	2/0-3/0 (70-95 mm^2)	3/0-4/0 (95-120 mm^2)	20-23 mm
GRID L/N Cable	4-2 AWG (25-35 mm^2)	4-2 AWG (25-35 mm^2)	4-2 AWG (25-35 mm^2)	17-18 mm
GRID PE Cable	6 AWG (16 mm^2)	6 AWG (16 mm^2)	6 AWG (16 mm^2)	10-12 mm
EPS L/N/PE Cable	10-8 AWG (6-10 mm^2)	8-6 AWG (10-16 mm^2)	8-6 AWG (10-16 mm^2)	17-18 mm
GEN L/N/PE Cable	10-8 AWG (6-10 mm^2)	8-6 AWG (10-16 mm^2)	8-6 AWG (10-16 mm^2)	17-18 mm
Communication Cable	24 AWG (0.2 mm^2)	24 AWG (0.2 mm^2)	24 AWG (0.2 mm^2)	8 mm

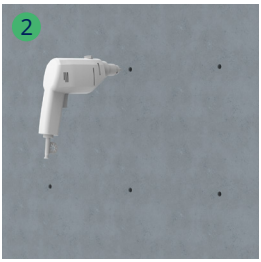
6 Wall Mounting Steps

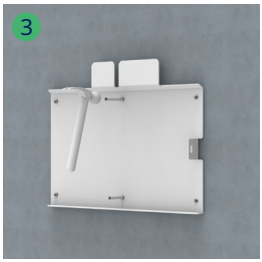


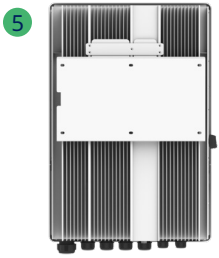






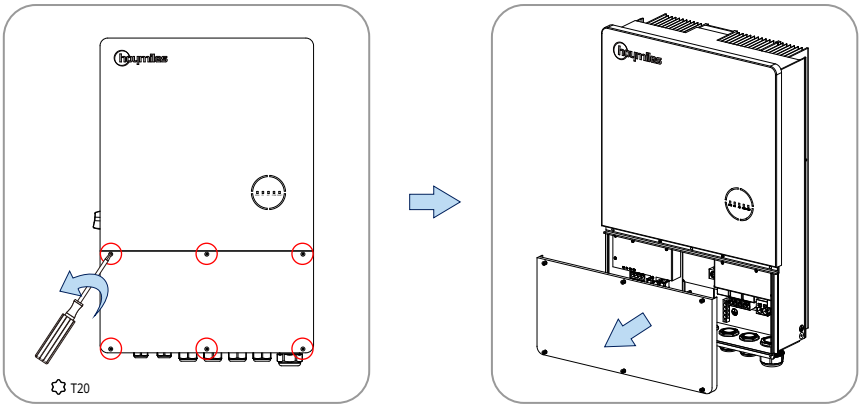




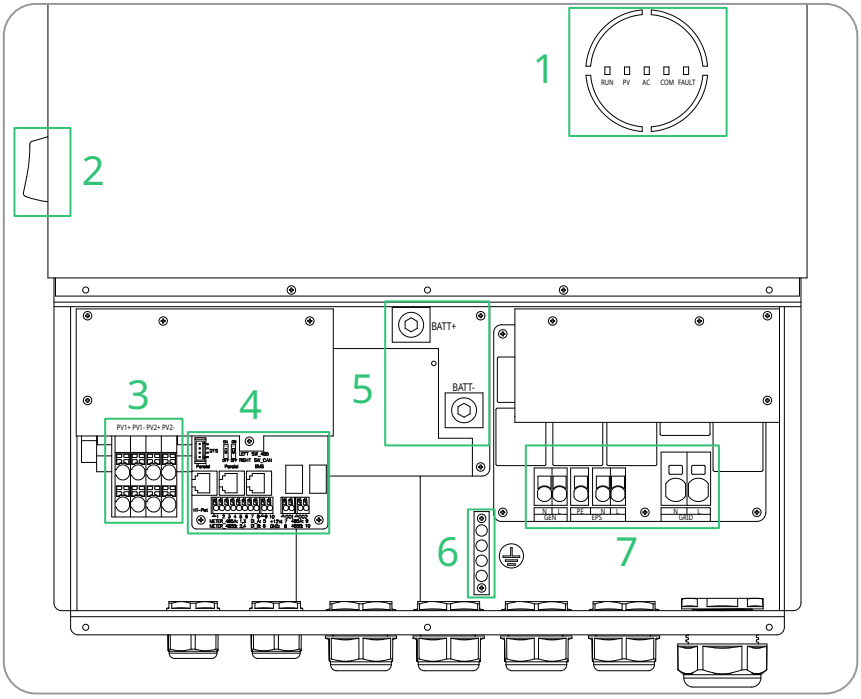


7 Electrical Connection

Step 1 Opening the Wiring Box Cover

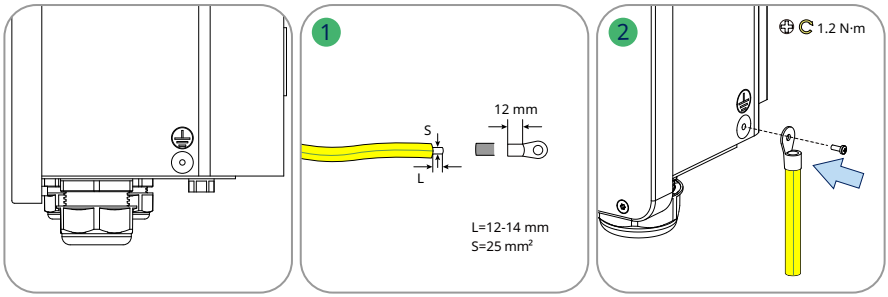


Product Overview

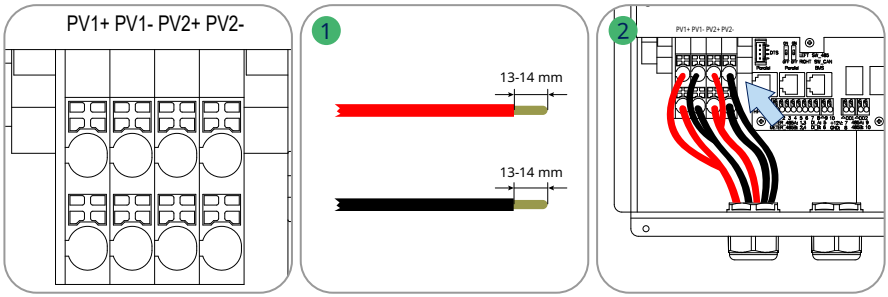


1. LED Indicators
2. DC Switch
3. PV Terminals
4. Communication Port
5. Battery Terminals
6. Grounding Bar
7. AC Terminals

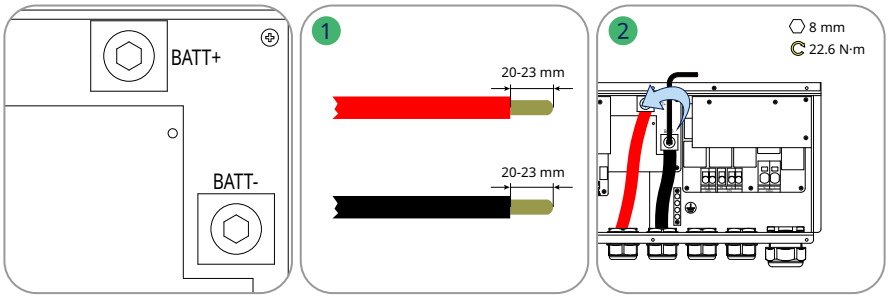
Step 2 Ground Cable Connection



Step 3 PV Cable Connection

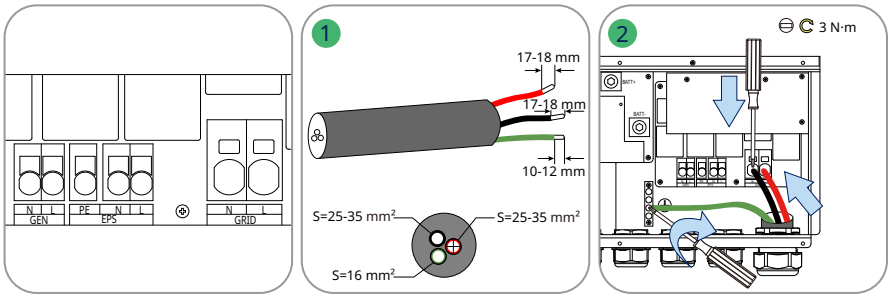


Step 4 Battery Cable Connection

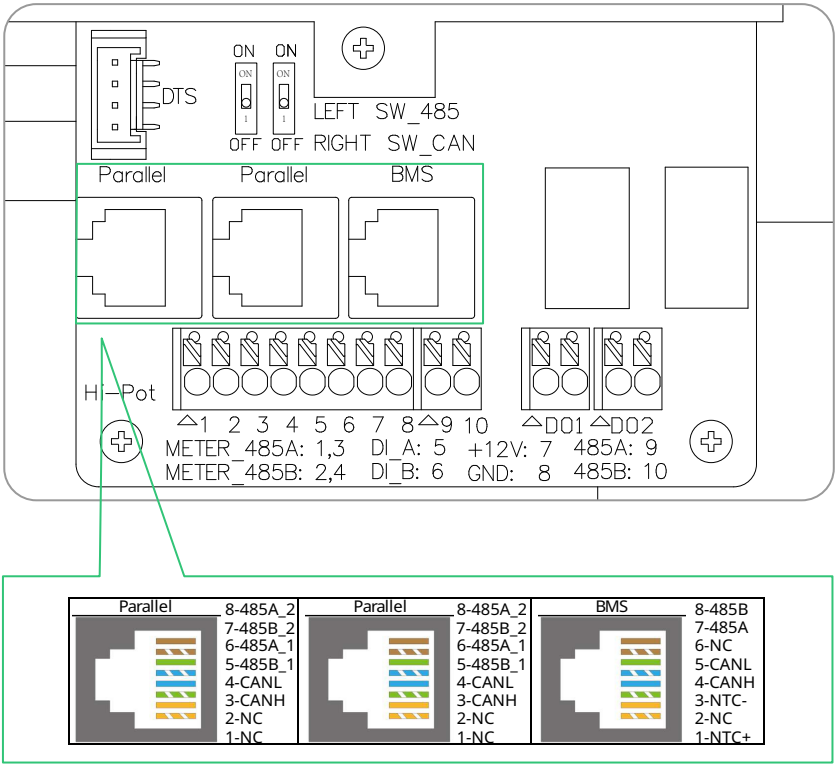


Step 5 AC Cable Connection

The following diagrams are examples of connecting grid cables. The GEN and EPS connection methods are similar to the grid connection, and note that EPS has its own PE terminal beside L/N. For recommended cable specifications of EPS and GEN, please refer to the recommended cable list mentioned above.

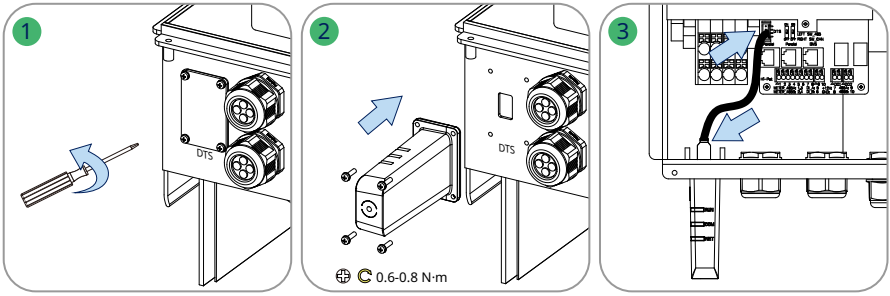


Step 6 Communication Cable Connection

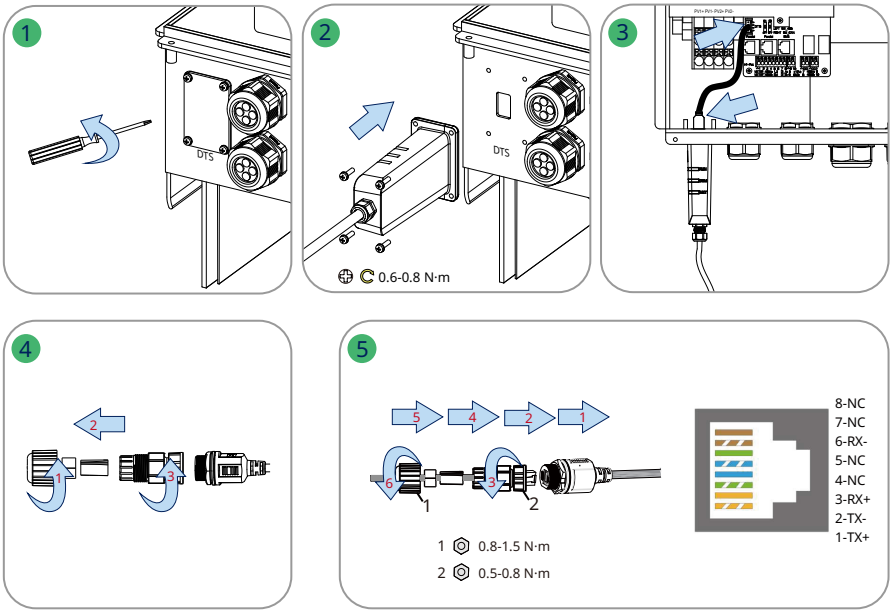


Label	Description
Parallel (CANH, CANL, 485B_1, 485A_1, 485B_2, 485A_2)	For parallel operation.
BMS (NTC+, NTC-, CANH, CANL, 485A, 485B)	For Li-ion battery, communication is via CAN or RS-485. For lead-acid battery, temperature is monitored via sensor through NTC+ and NTC-.
SW_485 (ON, OFF)	120 Ohm termination resistor for parallel operation.
SW_CAN (ON, OFF)	120 Ohm termination resistor for parallel operation.
Meter (485A1, 485B1, 485A2, 485B2)	For the Smart Meter. One is connected to the grid side, and the other is connected to the third-party inverter.
DI (DI_A, DI_B)	Dry contact input of external bypass contactor.
+12V / GND	Reserved
DO1 (NO1, COM1)	Dry contact output. The DO1 can be set to one of the functions as follows: Earth Fault Alarm, Load Control and Generator Control.
DO2 (NO2, COM2)	Dry contact output. The DO2 will control the bypass contactor under certain logic.

4G and Wi-Fi Connection

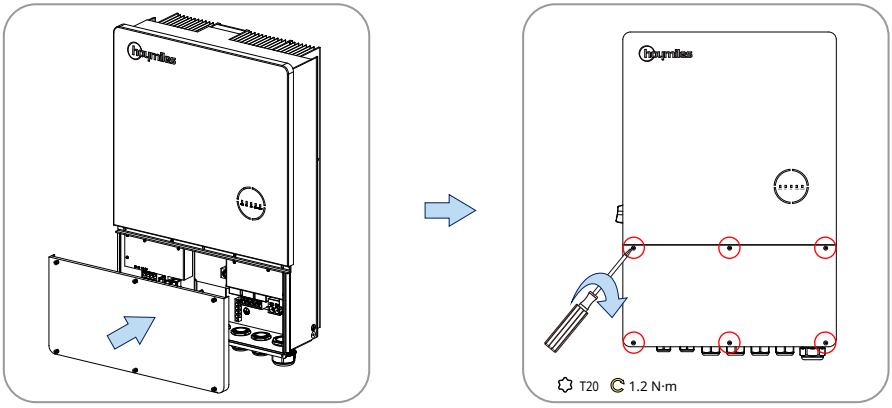


Ethernet Connection



Step 7 Installing the Wiring Box Cover

After the cables are firmly and correctly connected, install the wiring box cover.

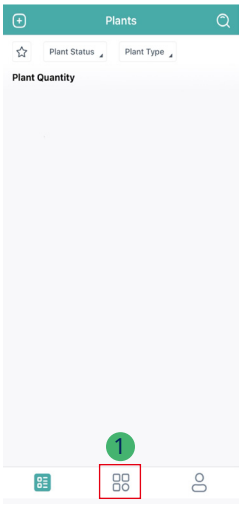


8 DTS Online Setting

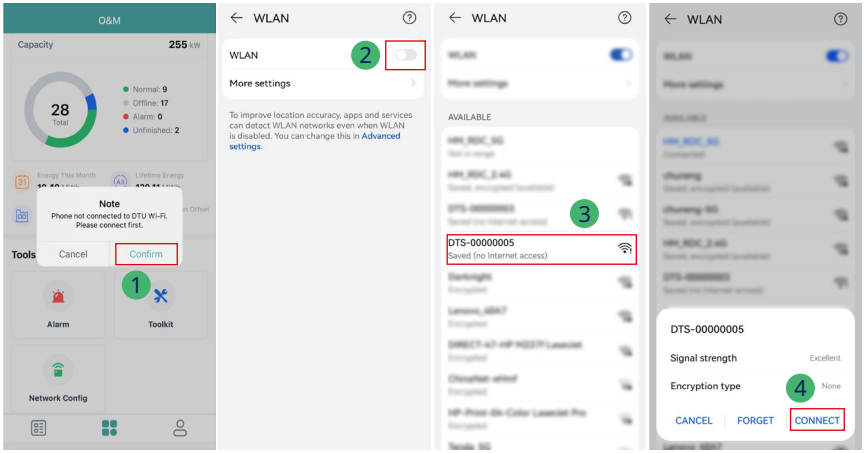
1. Search “Hoymiles” in the App Store (iOS) or the Play Store (Android), or scan the QR code to download the Hoymiles Installer App.

2. Open the App and log in with your installer account and password. For new Hoymiles installers, please apply for an installer account from your distributor in advance.

3. Use the App to connect to the DTS.
   (a) Open the Installer App on smartphone/tablet and log in. Click on “O&M” at the bottom of the page, and then click “Network Config”.



(b) Select the DTS's wireless network and click on "Connect". (The network name of the DTS consists of DTS and product serial number, and the default password is **ESS12345**.)

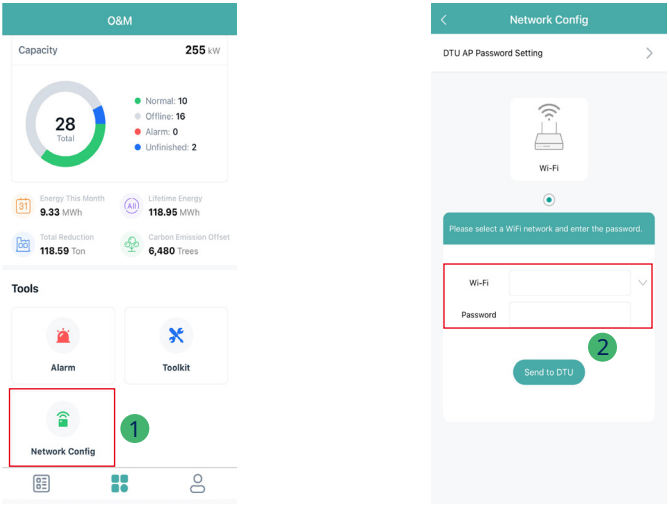


4. Network configuration.

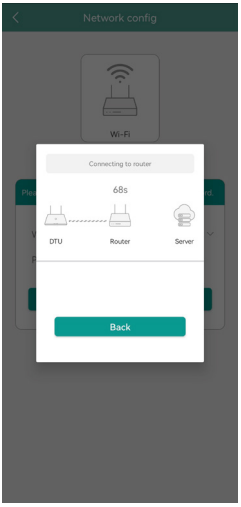
(a) Upon successful connection, click on "Network Config" again and access the Network Configuration page.

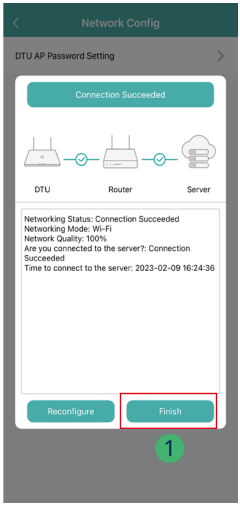
(b) Select the router Wi-Fi and enter the password.

(c) Click on "Send to DTU".



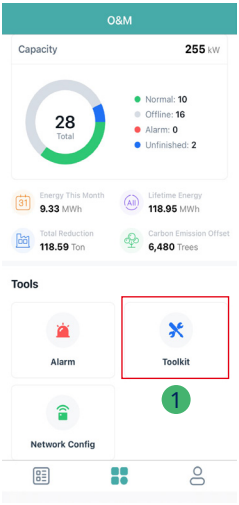
5. Check the DTS indicator for a solid blue light, which signifies a successful connection.
   The network configuration takes about 1 minute, please be patient. If the network is not connected, please check the internet as instructed.

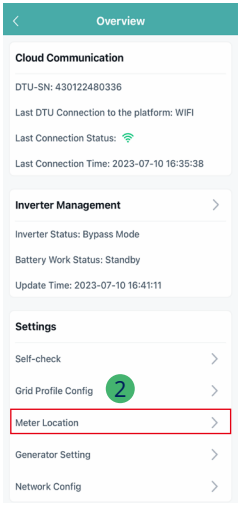


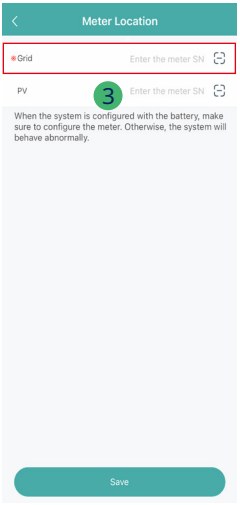


9 System Commissioning of Wireless Access Point (AP) Connection

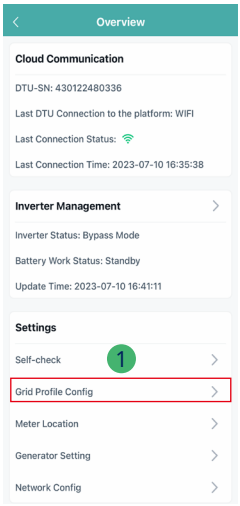
1. Connect the wireless network of DTU. Open the App, click “Toolkit → Meter Location“ to configure the grid side meter. The serial number (SN) can be entered manually or identified through scanning the QR code.

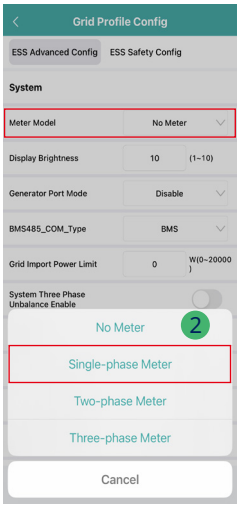




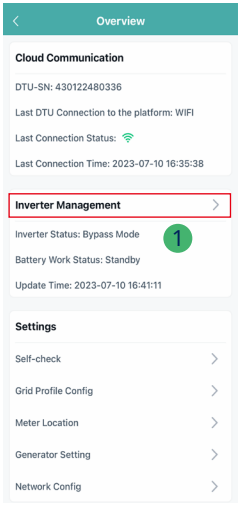


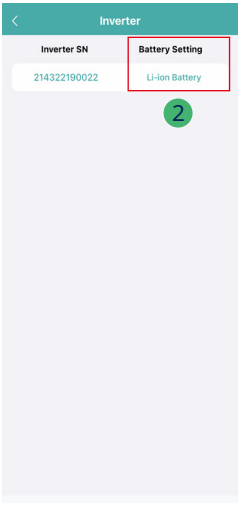
2. Click “Grid Profile Config → ESS Advanced Config → Meter Model” to choose “Single-phase Meter”, and click “Save”.

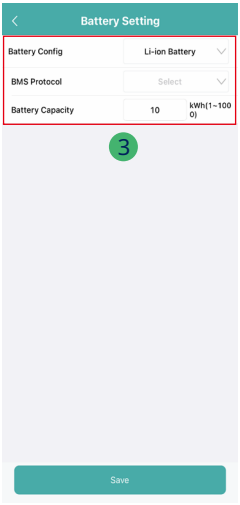




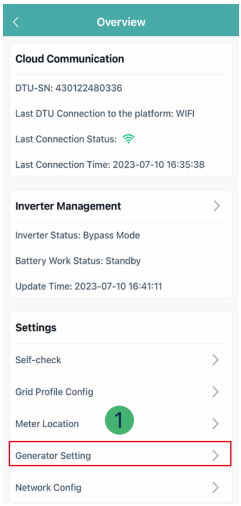
3. Click “Inverter Management → Battery Setting” to set battery type, BMS protocol and battery capacity, and click “Save”. (The default setting is “No battery”.)

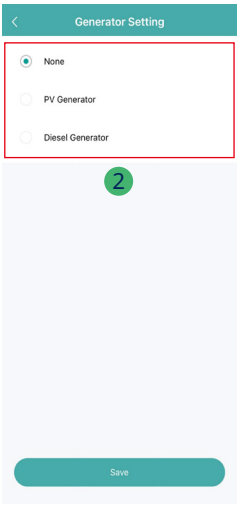




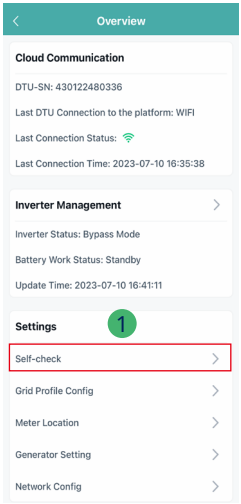


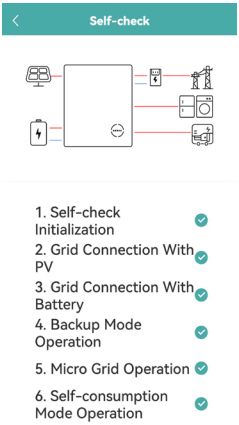
4. Click “Generator Setting”, choose the corresponding button according to whether the device connected to the GEN port is “PV Generator” or “Diesel Generator”, and click “Save”. (The default option is “None”.)





5. Make sure that all cables including DC cables, AC cables and communication cables are properly connected, and all DC and AC switches are turned on, and then click “Self-check”.





User Manual in the QR code or at
www.hoymiles.com/resources/download/

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www.hoymiles.com

AP040871