| REV. | ECN NO. | DESCRIPTION | DATE | SIGNATURE |
|---|---|---|---|---|
| 00 | / | Release spec. | 2021/09/08 | 徐承宏 |
| 01 | / | 将USB修改为航插头，更新快装 | 2022/03/31 | 徐承宏 |
| | | | | |

技术要求：

1. 成品页面尺寸：A4；
2. 105g双铜纸双面彩色打印；
3. 未注尺寸按±1.5mm；
4. 图面、字体印刷清晰，无乱码、无偏移、无毛边、不起边、油墨不脱落；
5. 符合RoHS；

HYPONTECH

| SIZE | FIRST ANGLE PROJECTION | UNIT |
|---|---|---|
| A3 | | mm |

GENERAL TOLERANCES

FOR HOLES : ±0.05 FOR ANGLES : ±0.5°

FOR LINEAR DIMENSION

| ( )DECIMALS | |
|---|---|
| X | ±0.3 |
| X.X | ±0.2 |
| X.XX | ±0.1 |
| X.XXX | ±0.05 |

| ( )RANGE | |
|---|---|
| 0-50 | ±0.1 |
| >50-200 | ±0.2 |
| >200-400 | ±0.3 |
| >400-600 | ±0.4 |
| >600-800 | ±0.5 |
| >800-1000 | ±0.6 |
| >1000 | ±1.0 |

GB/T1804(ISO2768-1):
( )f ( )m ( )c

FOR CABLES

| | |
|---|---|
| 0-200 | +10/-0 |
| >200-500 | +20/-0 |
| >500-1000 | +30/-0 |
| >1000 | +50/-0 |

FOR PACKING MATL.

| | |
|---|---|
| 0-30 | ±1 |
| >30-100 | ±2 |
| >100-300 | ±3 |
| >300-500 | ±3.5 |
| >500-1000 | ±4 |
| >1000 | ±5 |

| | |
|---|---|
| DESIGNED BY | 徐承宏 |
| CHECKED BY | 张道伟 |
| APPROVED BY | |
| SCALE | 1:1 |
| SHEET | 1 OF 1 |

| | |
|---|---|
| DESCRIPTION | HHS3-6K Quick Installation Guide |
| USED ON | HHS3-6K |
| DRAWING NO./FILE NO. | |
| PART NO. | H838-00036-01 |
| REV. | 01 |

FRAME NO.:J-FR-RD005-A2

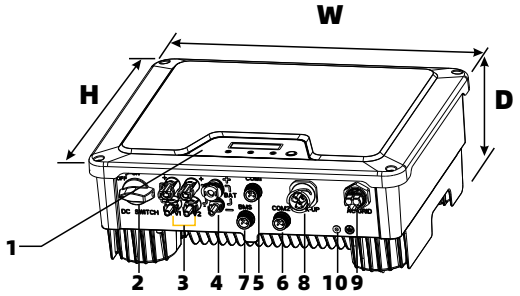
# HYPONTECH Quick Installation Guide EN

HHS-3000 / HHS-3680 / HHS-5000 / HHS-6000

H838-00036-01

## 1. Product Overview

1. LCD&LED or LED
2. DC switch (optional)
3. PV Terminal (s)
4. Battery Terminal (s)
5. COM1: Wi-Fi / GPRS Stick(optional)
6. COM2: DRED / CT Terminal
7. BMS: CAN Terminal
8. BACK-UP Terminal
9. AC Terminal
10. Second PE Terminal




Dimension:W×H×D=425 x 351 x 160mm

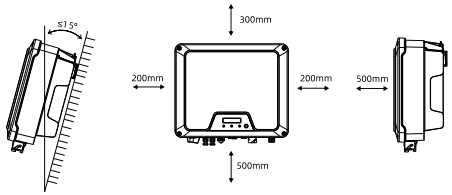
## 2. Packing List

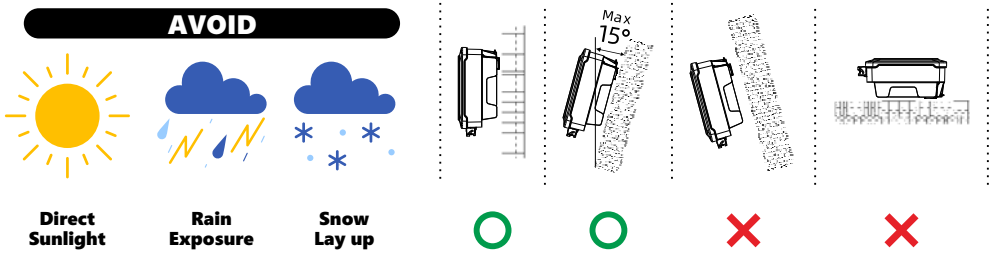
| Inverter | Mounting Bracket | Mounting Accessories | PV Plugs MC4 or D4 (optional) | Battery Plugs (SUNCLIX) | BACK-UP Connector | AC-GRID Connector | Meter Plug (optional) | Wi-Fi stick (optional) | Documents |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 |

## 3. Installing

**Installation Requirements**

1. Please install the inverter(s) in places that can avoid inadvertent contact.
2. Please install the inverter on solid/smooth surfaces.
3. The inverter(s) should not be installed near inflammable or explosive objects.




### 3.1 Mounting

3.1.1 Use the mounting paper guide to mark holes on the wall,
Drill three holes in the marked position of 10mm diameter and 70mm depth

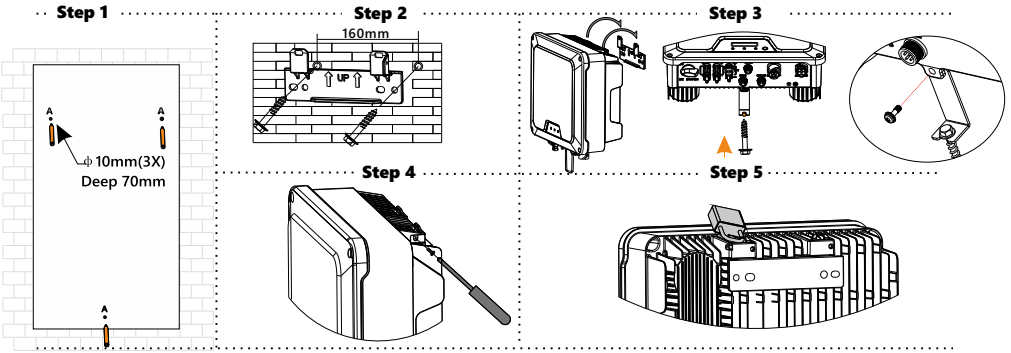
3.1.2 Fix the expansion bolts and mount the main bracket with the screws in mounting accessories

3.1.3 Attach the inverter to the mounting bracket. Mount the supporting bracket at the bottom of the inverter

3.1.4 Check both sides of heat sink and ensure the inverter is stably attached

3.1.5 Use M5 screw ( torque:2.5Nm ) to attach the heat sink fins to the munting bracket

3.1.6 It is recommended to attach an anti-theft lock to the inverter

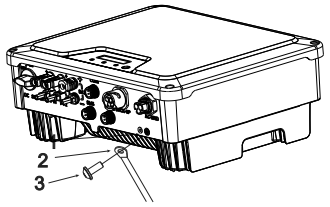



### 3.2 Installing the PE Cable

A second PE terminal is equipped at the bottom of the inverter.
PE Conductor cross-section: 10mm²
Ensure the PE terminal is reliably grounded and the grounding resistance is less than 10 Ohm.

| Object | Description |
|---|---|
| 1 | Housing |
| 2 | M5 terminal lug with protective conductor |
| 3 | M5×13 pan head screw |

Tighten it firmly into the housing (T25 screwdriver, torque: 2.5Nm).




**⚠ NOTICE**

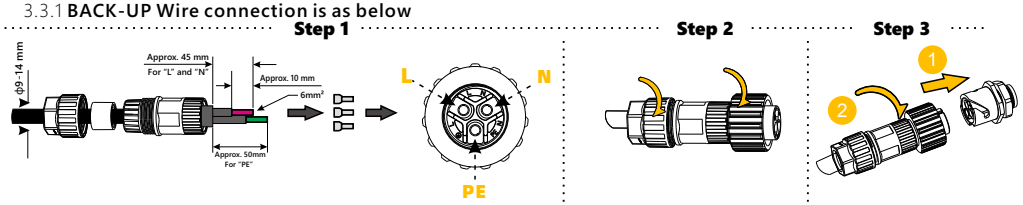
Proper grounding connection of the second PE terminal and the AC terminal is mandatory. NOT properly connecting both PE will void all product warranty.

### 3.3 AC-GRID & BACK-UP Wire Assembly and Connection

**⚠ DANGER**

**Danger to Life due to High Voltages in the Inverter**
Before connecting any electrical wires and components, please ensure the DC switch & AC circuit breaker are switched OFF and cannot be reactivated.

3.3.1 BACK-UP Wire connection is as below



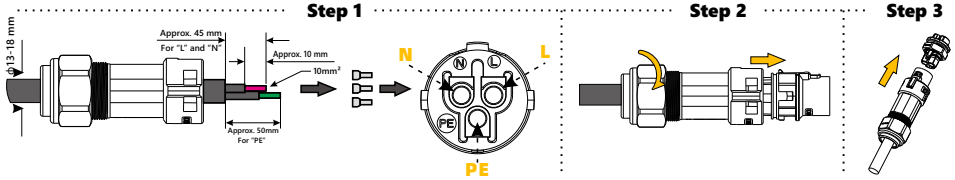

Insert the conductor into a suitable ferrule acc. to DIN 46228-4 and crimp

Insert the crimped conductors L, N and PE into corresponding terminals and tighten the screws (torque 1.4N·m)

Assemble the locking cap, threaded sleeve and swivel nut together

Screw the AC connector firmly into the socket

3.3.2 AC-GRID Wire connection is as below




**Note: Please ensure that the connector has been correctly installed! In scenarios where the Backup and/or AC port is not used, you shall install the connectors to the port(s) to prevent safety risks.**

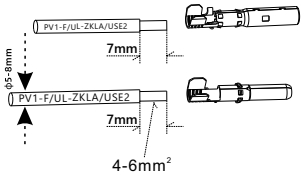
## 3.4 **PV Wire Assembly and Connection**

**Meeting the following requirements is mandatory. All warranty rights will otherwise be invalid.**

3.4.1 Maximum open voltage of each string is less than 600V.
3.4.2 Maximum short circuit current of each PV input is less than inverter allowable limit.
3.4.3 The string is well insulated to ground in all cases.
3.4.4 Make sure that the DC connectors have the correct polarity.
3.4.5 If the PV connectors are not assembled properly and locked into place, arc or overheat may be induced.

**Step 1**

Strip off the insulation

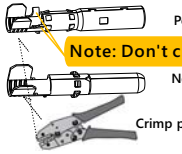



**Step 2**

Assemble the MC4 cable ends

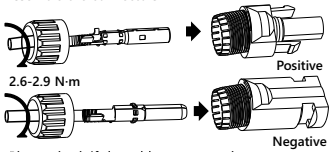

Assemble the D4 cable ends

**NOTICE**



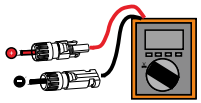

**Step 3**

Assemble the connectors




Please check if the cables are securely installed by pulling outwards

**Step 4**

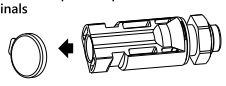


Check the polarities of the PV strings

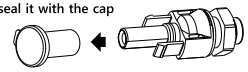
Check the open-circuit voltage is less than inverter input limit 600V

**Step 5**

Remove the waterproof caps from PV terminals

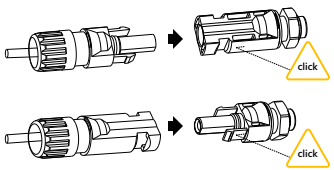


If there is an unused terminal, please seal it with the cap



**Step 6**

Insert the connectors into the terminal till you hear an audible click.



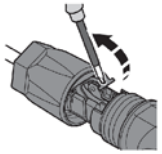

## 3.5 **Battery Wire Assembly and Connection**

**Meeting the following requirements is mandatory. All warranty rights will otherwise be invalid.**

3.5.1 Make sure there is an external DC breaker (≥40A) connected for battery without built-in DC breaker.
3.5.2 Please ensure the battery model is enlisted in the suggested list in the user manual. Provent reverse polarity connection!
3.5.3 If the Battery connectors are not assembled properly and locked into place, arc or overheat may be induced.

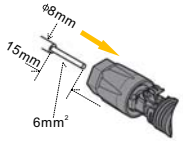
**Step 1**

Open the spring using a blade screwdriver



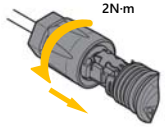
**Step 2**

Insert the stripped wire with twisted wires. The wire ends have to be visible in the spring. Make sure the spring is closed firmly.



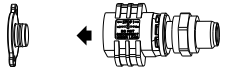

**Step 3**

Use a suitable and calibrated torque wrench,size 15.Use an open-jaw wrench,size 16, to hold the connector in place.

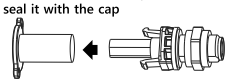



**Step 4**

Remove the waterproof caps from battery terminals

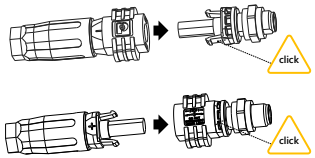


If there is an unused terminal, please seal it with the cap



**Step 5**

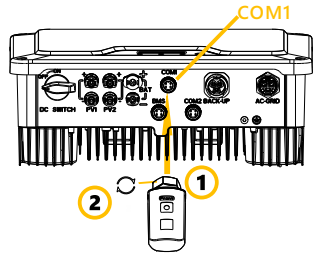
Insert the connectors into the terminal till you hear an audible click.




## 3.6 **Wi-Fi/GPRS Connection** (Optional)

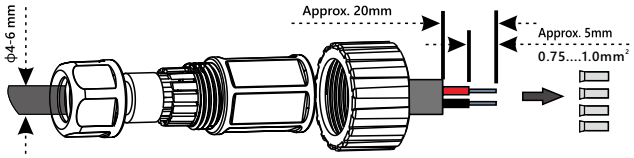
**The stick is included in the scope of delivery as an option.**

3.6.1 Tighten the stick into the COM1 port. Make sure the stick is securely connected. Otherwise the communication cannot be built.
3.6.2 For the connection and configuration of the Wi-Fi stick please refer to <HED-WF stick User manual> .




## 3.7 **RS485/CT and DRED Connection**

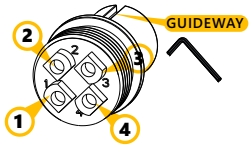
**Step 1**




Insert the wires into suitable ferrules (DIN 46228) and crimp.

**Step 2**

Insert the crimped conductors accordingly into their corresponding terminals and tighten the screws.

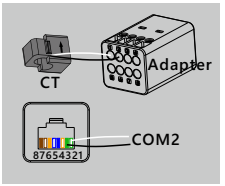



| RS485 FOR COM1 | |
|---|---|
| Power+ | PIN1 |
| Power- | PIN2 |
| RS485A | PIN3 |
| RS485B | PIN4 |

| CAN FOR BMS | |
|---|---|
| CANH | PIN1 |
| CANL | PIN4 |

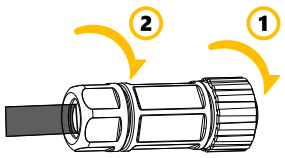
| DRED/CT FOR COM2 | |
|---|---|
| REF GEN/0 | PIN2 |
| COMLOAD/0 | PIN3 |
| (White wire)CT+ | PIN1 |
| (Black wire)CT - | PIN4 |

Connect the CT to an adapter if the wire is not long enough. CT wire polarity (+/-) must align when connected.



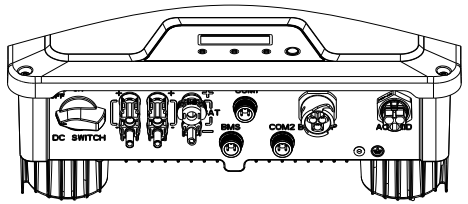

**Step 3**

Assemble the locking cap, threaded sleeve and swivel nut together.




**Step 4**

Screw the connector into the corresponding socket and tighten firmly.



**NOTICE** For AS/NZS 4777, DRM0 is supported.
Make sure the cover and the communication cable gland has been mounted properly and adequately

## 4. **Commissioning**

**Please check if**

1. The inverter and mounting bracket have been correctly installed. 2. The inverter's exposed metal surface has a ground connection. 3. The resistance between PV arrays and ground is greater than 1Mohm. 4. For any unused DC terminals, there are DC connectors inserted to the terminal and sealed with waterproof caps. 5. The grid voltage at the point of connection of the inverter is within the permitted range. 6. The AC circuit breaker must be correctly rated and wired. 7. The cable communication connectors have been correctly wired and tightened.

**Startup**

Switch on the DC switch after finishing the above checks, then switch on the AC circuit breaker. When there is sufficient DC power applied and the grid conditions are met, the inverter will start to operate automatically.

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Service Contact: service@hypontech.com
Address: No.588 Wutaishan Road, SND, Suzhou , China

For more information, please download the user manual and other technical documents at **www.hypontech.com**