

Q.HOME+ ESS HYB-G2

Hybrid PCS Installation Quick Guide

Manual Download (Refer to Installation Manual)
<https://www.q-cells.de/service-support/downloadbereich.html>

IP65

CAUTION

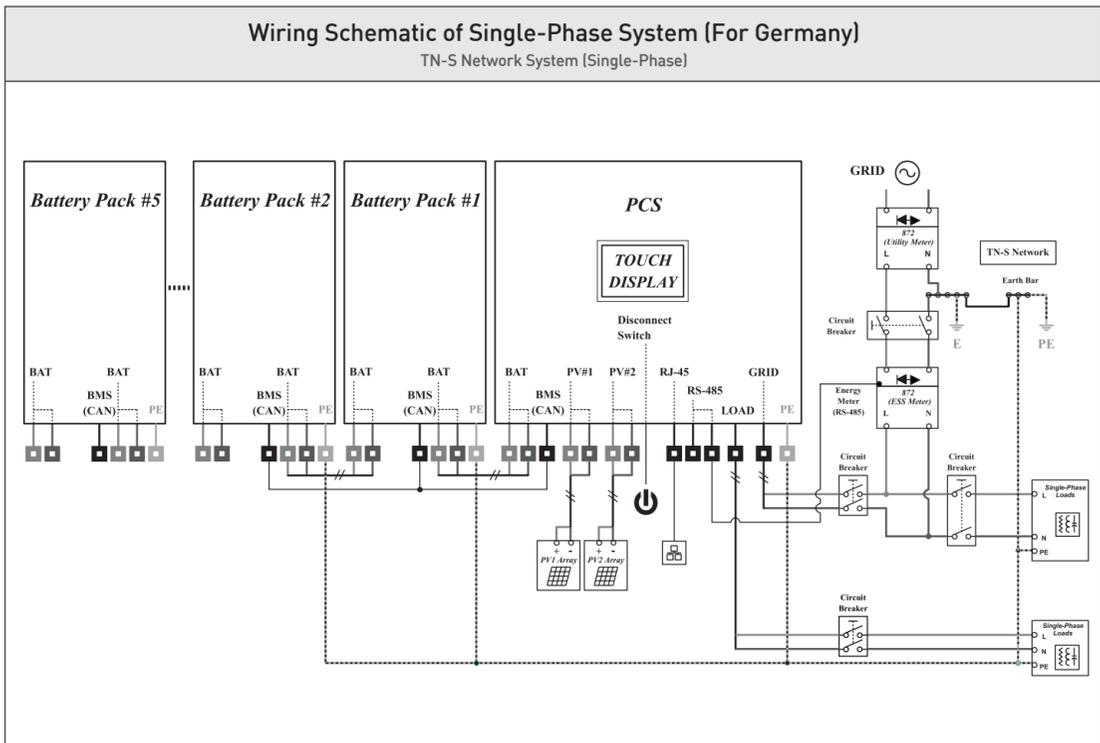
HSHP-4601 is a hybrid PCS based on the INVERTER and Battery. The weight of the PCS is about 35kg, and the Battery is about 55kg. Therefore, special care is required when handling. At least two people have to deliver and take it out.

- Do not operate with other components not approved by Q.HOME+ESS HYB-G2.
- [Connecting other products in parallel to Hansol Technics's products may result in abnormal operation.]
- The internet connection is required to use all functions of Q.HOME+ESS HYB-G2.
- If you have a problem, please contact the installer.
- The Specifications of the product may be modified without prior notice to improve product quality.

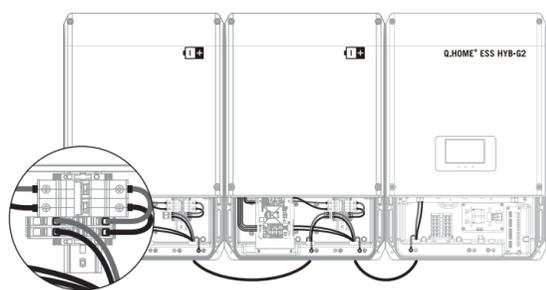
CAUTION

This warranty does not apply to the batteries that

- are not operated in accordance with the operating manuals for their intended purposes.
- have been incorrectly installed or commissioned.
- have been modified, altered or operated with other components not approved by Hansol Technics.
- have been physically damaged (e.g. damage from falls or transportation).
- have been damaged by force majeure (e.g. flash of lightning, overvoltage, storm, fire).
- have been treated improperly or negligently in an inappropriate way (including the use in non-recommended ambient conditions).

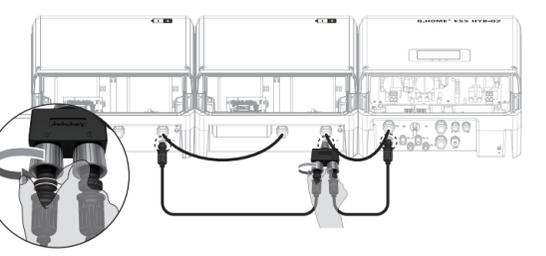
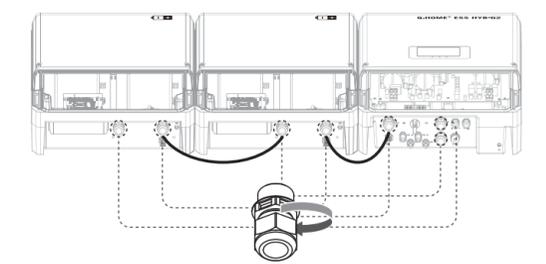


3. Connect the (+) and (-) wire (PCS) to the marked terminal (Battery). And then connect the ground terminal. (See Chapter 5.8.4)



5. Connect Battery communication cable. If you use more than one Battery (8kwh or more), use the adaptor (Amphenol) for Battery communication. (EX. If you use 3 Battery, you need 2 adaptor for BMS communication.) When using the adaptor, hold the communication cable and fasten the silver color of the adaptor to anticlockwise.

4. Turn the cable gland clockwise to check the tightness.



Energy Meter Wiring & Setting (EM24 RS485 Type)

[EM 24 Meter Setting]

- Application : F
- SYS : 3P.n
- P int.ti : 1
- ModBus Address : 1 (default value)
- Baudrate : 9600 (default value)

INVERTER	Energy Meter
RS485-A	42
RS485-B	41

1. Battery Connections

CAUTION

- Make sure the AC circuit breaker, PV switch and DC circuit breaker of the Battery are disconnected before starting electrical cable connections.
- Battery replacement can only be carried out by qualified personnel. If the Battery needs to be changed, it should be placed with a product which meets the manufacturer's specifications.
- Do not mismatch the connection of the electric poles (+) to (-) and (-) to (+) when installing. It may cause electric shock or the product may permanently be damaged.
- Incorrect Battery polarity connection will damage the product seriously. This damage is not covered by the warranty.
- All other connections should be done before Battery assembly and the Battery interrupter must be off.

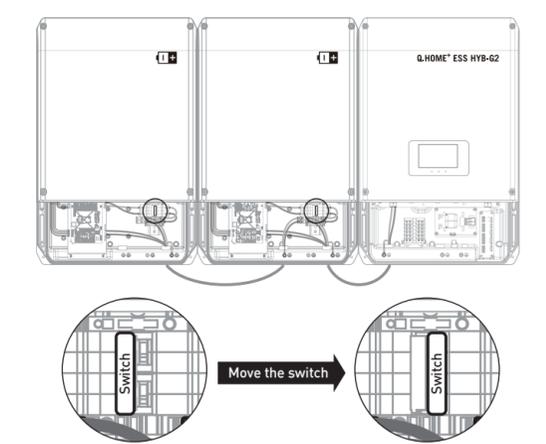
The order for assembling the INVERTER and Battery. Please follow the following steps.

1. Open the bottom cover of INVERTER and Battery case.

2. Check inner circuit breaker and terminal in Battery case.

(A) Screw	(B) Screw
L 75mm	L 35mm

6. Change the switch on.



7. Close the bottom cover of INVERTER and Battery case.



2. Connect PV, AC Grid, and Energy meter (See Chapter 5)

3. Installer Account : Use On-line / Internet connection

[Germany] HSHP-4601

- 1) Open your mobile browser.
- 2) Input the URL : <https://myess.hansoltechnics.com>
- 3) After connection is made, click the "Go to Installer" icon.
- 4) Enter your ID and password in the login window.
If you have no account, please join as a member.
- 5) Click the "Join Membership" link. Membership acquisition and completion.
- 6) After login, the main installer page appears select Product → Installation.
- 7) Enter the product information and customer information.
(When you select a country at Product Info, it is automatically set to the country-specific default setting.)

CAUTION

- PIN Code is a temporary password that has a 4-digit number created by the installer.
- This pin code must be delivered for user registration.

- 8) If it is saved successfully, you can see the success message.
It may take 5 to 10 minutes.
- 9) In order to check operation status, perform the product test. For this purpose, select Remote → Remote Monitoring. (shown in Figure 3-2)
- 10) When the installed product is in "Run," click the product serial number.
- 11) On the product information page, click the "Detailed Product Information" button.
- 12) On the "Product Details" page, click the "Product Operation Test" button.

Remote Monitoring

Remote	Product	User	Maintenance	Statistics
Remote Monitoring Screen history	Product List Installation PV Calculator	Account Management VOC Management	Maintenance History Activity List	Operational Statistics

*example "HSHP4607Z100000001" test

[Figure 3-2 : Remote monitoring test]

Installation

01. Product Info. 02. Installation Info. 03. Setup Info. 04. Rates Info

* If not agreed to the terms, you may not use the services.

- Serial No. HSHP4601Z100000001 **a**

- PIN Code 1234 **b**

- Device Type RES

- Inverter Power 8 kW

- Model Name HSHP4601 **c**

- Country United Kingdom **d**

- User Telephone 012-3456-7890 **e**

- Battery1 B62842642684D682464

- Battery2 B62842642684D682465

- Battery3

- Battery4

- Battery5

f

Refresh Next

- Product Info -
a) Input Product S/N
b) Input random PIN Code (Delivered for user registration)
c) Select Country
(Automatically set to the country-specific default setting)
d) Input user's Telephone number
e) Input Battery S/N (Enter the number of installed boxes)
f) If the entered value is correct, click the Next button

[Figure 3-1 : Product Information Entry Screen in Step 1]

Battery Installation Process 2

Install BMS Setting Menu

Count of Battery RACKs : - 2 - ENTER

Rack	ID	Configure ID !!!	Status	Done
Rack 1	ID = 0X2			
Rack 2	ID = 0X1			NOP

BMS Test

BMS CAN ID	COUNT
0X1 3020000	1

SAVE BMS ID

- 1) If you need to continue installing the battery, the Additional Settings button appears as shown picture.
- 2) Repeat steps "Battery Installation Process 1".

Install BMS Setting Menu

Count of Battery RACKs : - 2 - ENTER

Rack	ID	Configure ID !!!	Status	Done
Rack 1	ID = 0X2			
Rack 2	ID = 0X1			NOP

BMS Test

BMS CAN ID	COUNT
0X1 3020000	1

SAVE BMS ID

- 1) Conversely, if the Battery installation is completed, the following screen will appear.
- 2) Then press the following button to complete the Battery installation.

4. Installing

[Germany] HSHP-4601

Battery Install

Install BMS Setting Menu

Count of Battery RACKs : - 1 - ENTER

- 1) Click here.
- 2) Select the number of batteries you want to install.

Battery Installation Process 1

Install BMS Setting Menu

Count of Battery RACKs : - 1 - ENTER

Rack	ID	Configure ID !!!	Status	Connecting
Rack 1	ID = 0X1			

- 1) Click here.
- 2) Wait for the battery to connect.

Setting Installation Process

Country / Region Information

S/N : HSHP4601Z100000001

Country : Germany Region : Berlin

Country / Region Config

Product Information

Installed PV-1 Power : 3300 [W]
* Range : 1000 - 3300W
* "0" : the PV 1 is not installed

Installed PV-2 Power : 3300 [W]
* Range : 1000 - 3300W
* "0" : the PV 2 is not installed

Installed PV-3 Power : 42 [%]
* Range : 0 - 100 [%]
* 100[%] means "No-Limit Feedin"
* 0[%] means "No Feedin"

Automatic Operation type Smart Mode Basic Mode
(* The "Smart" type is more advanced Algorithm.)

Sleep-Mode Enable Disable

Battery Count : 1

PMS External Mode Enable Enable Disable

Backup Mode Enable Disable

Islanding Mode Enable Disable

Feed In Relay Setting

Feed In Relay Enable Disable

Relay 1 Attach Level : 1000 [W]
(* Range : 0 - 6000W)

Relay 1 Detach Level : 1500 [W]
(* Range : 0 - 6000W)

Relay 2 Attach Level : 2000 [W]
(* Range : 0 - 6000W)

Relay 2 Detach Level : 2500 [W]
(* Range : 0 - 6000W)

Relay 3 Attach Level : 3000 [W]
(* Range : 0 - 6000W)

Relay 3 Detach Level : 3500 [W]
(* Range : 0 - 6000W)

- 1) Click here.
- 2) Select a Country and Region.
- 3) Click here.
- 4) For the max power per string.
- 5) Select a Feed in Limit percentage.
- 6) Select the number of installed batteries.
- 7) Select 3rd Party Connect Enable / Disable.
(Like as : KIWIGRID, Solar-log)
- 8) Enable when the Battery is need to emergency Charging mode (Use Jumper as much as).
- 9) Select Enable Independent Operation Function.
- 10) Enter the value for the Feed in Relay setting.

[Figure 4-1 : Initial setup page block 1]

Install Setting Menu

Fault Lock Setting

Fault_Lock Enable Disable

Fault Lock Value : 50 [Count]
(* Range : 0 - 100)

Time Level : 500 [minute]
(* Range : 0 - 1000)

Server's IP-address and port IP : 14.34.15.211 Port : 80

Smart Meter Selection

Meter Type : RS485

DO - Meter Model Selection

DO-Bi/Feed-In [5EM24-DIN-A19-3.X-15.X(Gavazzi)]

- 1) Enter the value for the Fault Lock setting.
- 2) Select Smart Meter.

[Figure 4-2 : Initial setup page block 2]

Date / Time Setting

Year/Month/Day 2018 / 7 / 6

Hour : Minute : Second 6 : 44 : 30

SAVE and ReSTART

* You can view this page after setting Active / Reactive Power Control.

- 1) Set the current local time and date.
- 2) After clicking "SAVE and RESTART" on the top of the window a message saying "Wait for 2 Minute and press F5" will appear → follow the message.
- 3) Click "Operating Test".

[Figure 4-3 : Initial setup page block 3~4]

* SIM (System Install Manager) Connection : Use Off-line & Not an internet connection

- 1) Set on your laptop [shown in Figure 4-4].
ControlPanel → Network and Sharing Center → Change adapter settings → Local Area Connector → Properties → Internet Protocol Version 4 (TCP/IPv4)

CAUTION

- Turn off Wifi.
- Only turn on Local Area Connection.

IP address : 17 . 91 . 23 . 1
Subnet mask : 255 . 255 . 224 . 0
Default gateway : 17 . 91 . 1 . 2

Eigenschaften von Internetprotokoll Version 4 (TCP/IP...)

IP-Einstellungen können automatisch zugewiesen werden, wenn das Netzwerk diese Funktion unterstützt. Wählen Sie sich alternativ ein den Netzwerkadministrator, um die geeigneten IP-Einstellungen zu beziehen.

IP-Adresse automatisch beziehen

Folgende IP-Adresse verwenden:

IP-Adresse: 17 . 91 . 23 . 1
Subnetzmaske: 255 . 255 . 224 . 0
Standardgateway: 17 . 91 . 1 . 2

[Figure 4-4 : Setting Laptop IP]

- 2) Connect the jumper to the connector. (* Install Jumper is required, as shown in Figure 4-5.)
- 3) Connect the LAN cable between Q.HOME+ESS HYB-G2 and Laptop.
- 4) Turn the power On (AC Grid On) and PV S/W On.
- 5) Access to SIM (System Install Manager) <http://17.91.23.196:8000>
- 6) Turn the power Off (AC Grid Off) and PV S/W Off. Remove Jumper Wire.
- 7) Connect Internet LAN Cable.
- 8) Turn the power On (AC Grid On) and PV S/W On.

Short Bar

[Figure 4-5 : Connecting Short Bar]

5. User Account (Refer to User Guide)

- Input the URL : <https://myess.hansoltechnics.com>