

# Quick Installation Guide

Hybrid inverter



358-S030004-00

## Disclaimer

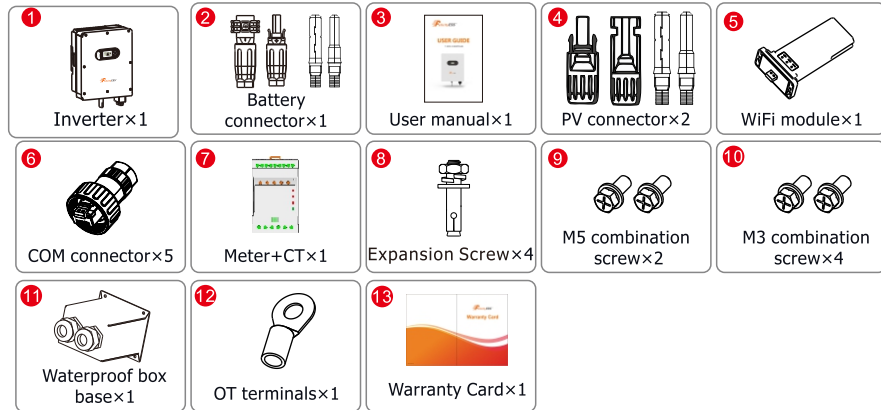
- Please read the user's manual carefully before performing all operations; this installation guide does not supersede the use of the product's user's manual;
- Product information is subject to change without notice. This manual is frequently updated, please contact your salesperson for the latest version.
- After unpacking, please check the product for damages and missing parts.
- Do not open the battery to repair or disassemble. Only FelicityESS is allowed to carry out any such repairs. Only qualified personnel can install this device with battery.
- In case of fire, use only dry powder fire extinguisher. Liquid extinguishers should not be used.
- Before using the inverter, please read the instructions and warning signs of the battery and corresponding sections in the instruction manual. Improper reassembly may result in electric shock or fire.
- To reduce risk of electric shock, disconnect all wires before attempting any maintenance or cleaning. Turning off the unit will not reduce this risk.
- Never charge a frozen battery.
- Never cause AC output and DC input short circuited. Do not connect to the mains when DC input short circuits.

## Installation Video

You can watch the installation video by scanning the QR code to the right



## Packing List



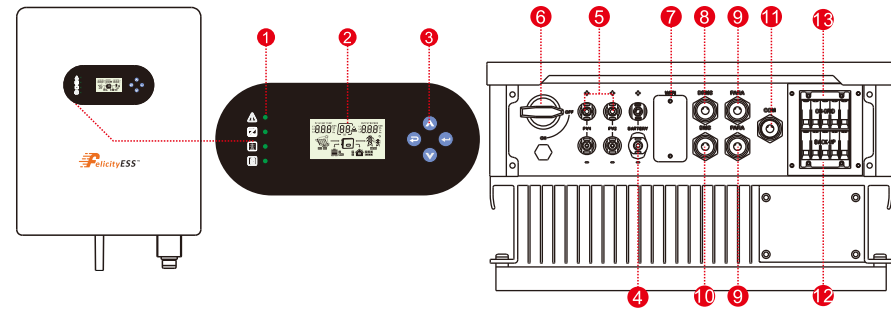
| NO. | Name               | Description                                          | Quantity |
|-----|--------------------|------------------------------------------------------|----------|
| 1   | Inverter           | Inverter                                             | 1        |
| 2   | Battery Connector  | Connection ports for batteries and inverter Bat Port | 1 pair   |
| 3   | User Manual        | User manual                                          | 1        |
| 4   | PV Connector       | PV Port Connectors                                   | 2 pairs  |
| 5   | WiFi Module        | For installing the WIFI module                       | 1        |
| 6   | COM Connector      | Communication Port Connector                         | 5        |
| 7   | Meter+CT(Optional) | Meters and anti backflow                             | 1        |

|    |                      |                                            |   |
|----|----------------------|--------------------------------------------|---|
| 8  | Expansion Screw      | Used for securing the product's wall mount | 4 |
| 9  | M5 Combination Screw | Fixed wall mounts and inverter             | 2 |
| 10 | M3 Combination Screw | Used to install the tamper-proof box       | 4 |
| 11 | Waterproof Box Base  | Waterproof AC terminals                    | 1 |
| 12 | OT Terminals         | For external ground connection             | 1 |
| 13 | Warranty Card        | Warranty Card                              | 1 |

## Explanation of the Symbols

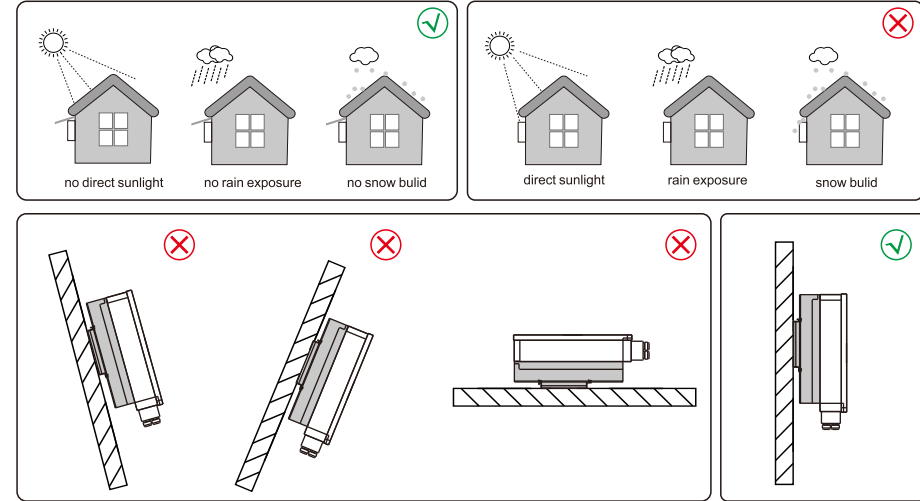
|                                                                                     |                                                                                                                                     |                                                                                     |                                                                                             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
|  | Danger: Serious physical injury or even death may occur if not follow the relative requirements                                     |  | Instruction manual: Read the instruction manual before starting installation and operation. |
|  | Warning: Physical injury or damage to the devices may occur if not follow the relative requirements                                 |  | EU WEEE mark: Product should not be disposed as household waste.                            |
|  | Hot surface: Sides of the device may become hot. Do not touch!                                                                      | <b>NOTE</b>                                                                         | Note: The procedures taken for ensuring proper operation.                                   |
|  | Electrostatic sensitive: Damage may occur if not follow the relative requirements                                                   |  | CE mark: The inverter complies with the CE directive.                                       |
|  | Directive on the restriction of the use of certain hazardous components in electrical and electronic equipment                      |  | Earth terminal: The inverter must be reliably grounded.                                     |
|  | Caution: Ensure that DC and AC side circuit breakers have been disconnected and wait at least 5 minutes before wiring and checking. |                                                                                     |                                                                                             |

## Product Overview



- |                             |                            |                      |
|-----------------------------|----------------------------|----------------------|
| 1. Inverter Indicators      | 6. DC switch               | 10. BMS port         |
| 2. LCD display              | 7. WIFI Communication port | 11. COM port         |
| 3. Button                   | 8. DRMS port               | 12. Back-up terminal |
| 4. Battery connection port  | 9. PARA port               | 13. On-grid terminal |
| 5. PV input connection port |                            |                      |

## Installation Environment



## LCD Display Icons

| Function Key  | Icon                                                                                  | Description                                                                                                                                                          |
|---------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ESC           |    | Hold on the "ESC" button last for 3S to turn off the inveter                                                                                                         |
| UP            |    | To go to previous selection                                                                                                                                          |
| DOWN          |    | To go to next selection                                                                                                                                              |
| ENTER         |   | Hold on the "ENTER" button last for 3S to turn on the inveter                                                                                                        |
| LED Indicator | Icon                                                                                  | Description                                                                                                                                                          |
| Battery       |  | Charging the battery, the LED light flash. If battery is full, the LED light will always-on. The battery is not charged, the LED light will go out.                  |
| Utility       |  | Inverter running in utility mode, the LED will always-on. Inverter is not running in utility mode, the LED will go out.                                              |
| Inverter      |  | Inverter running in off-grid mode, the LED light will always-on. Inverter is not running in off-grid mode, the LED light will go out.                                |
| Fault         |  | If inverter in fault event, the LED light will always-on. If inverter in warning event, the LED light will flash. Inverter work normally, the LED light will go out. |

| Buzzer Information |                                                                                                                                                                                                                                                                                                                                            |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Buzzer beep        | Turn on/off the inverter, the buzzer will last for 2.5s. Press any button, the buzzer will last for 0.1s. Hold on the "ENTER" button, the buzzer will last for 3s. If in fault event, the buzzer will keep going. If in warning event, the buzzer will beep discontinuous (Check more information on the chapter of "Warning Code Table"). |

Installation Procedure

The inverter is suitable for mounting on concrete or other non-combustible surface only.

01

02

03

04

05

06

07

08

External Grounding Connection

M5

2N.m

PV Connection

01

02

03

| Wire Size | Cable |
|-----------|-------|
| 10~12AWG  | 7mm   |

Battery Connection

Please be careful about any electric shock or chemical hazard. Make sure there is an external DC breaker (150A) connected to the battery without build-in DC breaker.

| Inverter Model  | Wire Size | Strip length |
|-----------------|-----------|--------------|
| T-REX-10KHP3G01 | 10AWG     | 10mm         |

01

02

03

| Wire Size | Cable |
|-----------|-------|
| 10AWG     | 10mm  |

The polarity of battery cannot be connected reversely, otherwise the inverter could be damaged.

On-Grid & Back-Up Connection

Make sure the inverter is totally isolated from any DC or AC power before connecting AC cable.

An external AC breaker is needed for on-grid connection to isolate from grid when necessary. Recommended AC circuit breaker parameters are 40A/230V.

| Grade | Description            | Value    |
|-------|------------------------|----------|
| A     | Outside diameter       | 13-18 mm |
| B     | Separated wire length  | 20-25 mm |
| C     | Conductor wire length  | 7-9 mm   |
| D     | Conductor core section | 2.5-4 mm |

01

02

03

M3

1.2N.m

Smart Meter & CT Connection

| Position | Function | Note                       |
|----------|----------|----------------------------|
| 1        | 485_A2   | RS485-2 For Meter          |
| 2        | 485_B2   |                            |
| 3        | 485_A3   | RS485-3 For Remote Monitor |
| 4        | 485_B3   |                            |
| 5        | 485_B3   |                            |
| 6        | 485_A3   |                            |
| 7        | RY_4     | Dry Signal                 |
| 8        | RY_5     |                            |

| STATUS      | OFF                                 | ON                            | Blinking                                 |
|-------------|-------------------------------------|-------------------------------|------------------------------------------|
| Run (Green) | The instrument is not running       | /                             | The instrument is running normally       |
| Com (Red)   | The instrument is not communicating | /                             | The instrument is incommunication status |
| R-P (Red)   | Positive power                      | Negative power                | /                                        |
| — (Red)     | /                                   | Negative value indicator lamp | /                                        |

BMS Cable Connection

| Position | Function | Note                          |
|----------|----------|-------------------------------|
| 1        | /        | /                             |
| 2        | /        |                               |
| 3        | +VCC     | Power Supply                  |
| 4        | COM-GND  |                               |
| 5        | CANH1    | /                             |
| 6        | CANL1    |                               |
| 7        | RS485-A1 | Lithium Battery Communication |
| 8        | RS485-B1 |                               |

Installation of Wifi module

For detailed instructions on how to install WIFI Module, you can scan the QR code to the right to view the WiFi Module installation instructions.

User Manual

User Manual in the OR code or at <https://www.felicityess.com/>