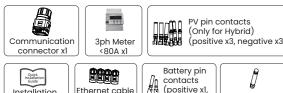
# **Quick Installation Guide**

5-15kW Three Phase Storage Inverte

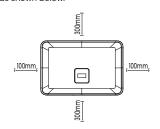








distance as shown below.



We recommand to use the original Bat-Inverter power cable and

communication cable from Battery's accessory bag. If require a

longer cable, please contact our sales representative to purchase.

Connect the power line and communication line between the BMS

Connect the grounding cable to ensure that all batteries are grounded.

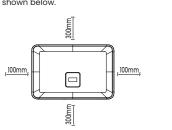
The connection between BMS and inverter should be less than 10m.

The number of battery packs cannot be less than 3 pcs.

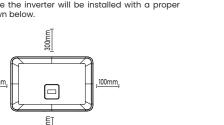
Wiring shall be connected in the sequence as shown in below.

Prepare BAT wire.

and the inverter.



Please make sure the inverter will be installed with a proper



# Match the inverter with wall bracket.

Antenna xl

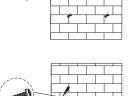






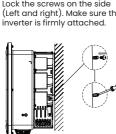
### Installing the Bracket Select the installation location Screw the expansion bolts. place the bracket on the wall, and mark the hole positions.

TOP



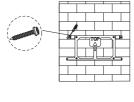


Lock the screws on the side



### Drill the 6 holes with a \$\pi 8\$ drill bit. Depth: at least 50mm.

Hammer the expansion tubes



5-core copper wire





Cable is a five-core cable with a diameter less than 9~16 mm.

Cross-sectional area of wire is shown in the following table.

4.0mm<sup>2</sup> 4.0mm<sup>2</sup>

20A

odell (kW) 5.0 6.0 8.0 10.0 12.0 15.0

Clockwise sequence Step 4:

A. Ø18: The recommended outer diameter of the cable is 17.5-18.5mm. B. Ø21: The recommended outer diameter of the cable is 19-21mm. C. Ø6: When the four wire system is used, the special hole for the ground wire is recommended to be applicable to the outer diameter of the cable. (5~6mm)

The machine has three RJ45 terminals, which are meter, Ethernet,

PIN 1 2 3 4 5 6 7 8

PIN 1 2 3 4 5 6 7

Ethernet TX+ TX- RX+ / / RX- /

PIN 1 2 3 4 5 6 7

DRM +3.3V DRMI DRM2 DRM3 DRM4 DRM0 GND GND

The definition of meter port pin is as follows

The definition of Ethernet port pin is as follows

The definition of DRM port pin is as follows

part 1. When 4-core wire is used, Ø6 holes are ground wire

## Installation steps for 5-core wire



65-72mm 16-17mm 4-core copper wire+

Cable (GRID)

Micro-Breaker

→ 16-17mm

65-72mm



Single-core copper wire

6.0mm<sup>2</sup> 6.0mm<sup>2</sup>

25A 32A

# Counterclockwise sequence

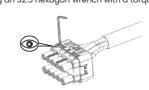
Seal accessory option

If the outer diameter of the cable is greater than 18mm, remove

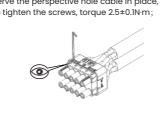
Thread the stripped wire into the lock nut and the main body in turn. (the flexible wire needs to be riveted to the insulated terminal)



First, insert the EPS end cable into the EPS end of the rubber core. After the cable is in place through the perspective hole, tighten the



Insert the GRID end-core wire into the GRID end of the rubber core, observe the perspective hole cable in place, use \$2.5 hex wrench to tighten the screws, torque 2.5±0.1N·m;



· Installation Procedure of the RJ45 Connector

through the gap on the sealing side.

the matched RJ45 panel mount

Insert the sealing plug into

end connector.

the main body of RJ45 cable

connector.

Insert the network cable into the wire-locking nut, sealing plug and

Insert the network cable plug into Tighten the connector mainbody by

Stuck into the network cable

through the gap on the sealing side

an open-ended wrench into the RJ45

panel mount connector with a torque

Tighten the connector's nut by an

open-ended wrench with a torque

mainbody in turn. The sealing plug is stuck into the network cable

CT-Meter Type

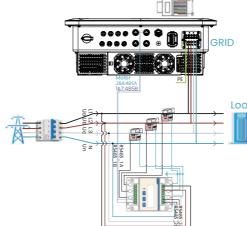
Insert L1/L2/L3/N wires, CT and RS485A/B cable into the meter. Please refer

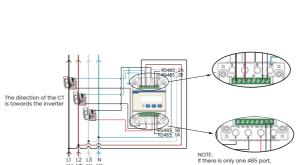
Insert the main body into the rubber core and hear the

Seal plugin to main body.

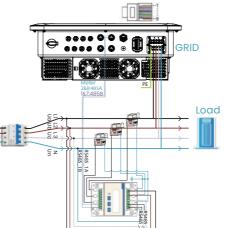
Tighten the nut with an open-ended wrench.

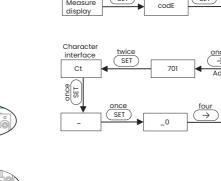
(torque 10.0±0.1N·m, Complete the installation)





RS 485B to pin 1/7 of the inverter METER/RS485 port. Please use twisted to the meter wiring diagram on side of meter itself. During CT use, the direction of the CT arrow faces the inverter.





7

## Introduction to Ethernet port:

**EPS** wiring diagram

For countries such as **China, Germany, the Czech Republic, Italy, etc,** please follow local wiring regulations.

This diagram is an example for an application in which neutral is separated from the PE in the distribution box.

For countries such as **Australia**, **New Zealand**, **South Africa**, **etc**, please follow local wiring regulations. According to Australian safety requirements, **the N cables of the GIRD side and EPS side must be connected together**. Otherwise, the EPS function will not surely see the connected together.

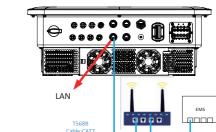
The network port is mainly used for communication, transmitting data from the inverter to the network for detecting the daily operation status of the machine, and can control the inverter's wake-up through EMS.

through standard format hostnames in the same LAN environment: 1. Service identification format:

(e.g., mDNS \_ 12345678), and SN is the unique serial number of the device. (see fuselage nameplate label) Protocol Type: TCP Open port: 502 (default for Modbus TCP industrial communication protocol)

2. Precautions: Please make sure the device is on the same subnet as the client; Please close the firewall or release UDP 5353 (mDNS) and TCP 502 ports; Please refer to the SN number of the equipment for serial number.  $\label{eq:continuous}$ 

Ethernet connection Diagram



## DRM port

The prerequisite for the use of this function is the selection of the German grid connection regulation VDE 4105 and Austria code the use of the RCR function.

## The ripple control function is described below:

Switching state	Output active power (%Pn)
No contact closed	100%
Several contacts closed	100%
Contact DRM 1 to +3.3V	60%
Contact DRM 2 to +3.3V	30%
Contact DRM 3 to +3.3V	0%
Contact DRM 4 to +3.3V	Immediate OFF
Contact Drm0 to 3.3V	AC Max.Chr power limit to 4.2kw under Vde4105 Saftv

Introduction to COM port:

PV Wiring (For Hybrid Only)

Strip lengt

Separate the PV connector as below.

tension 2310N.

Prepare PV wire. Choose 2.5mm² wire to connect the PV module.

D+ 🗀 🗀 🗀

To insert terminal. Press the wire and terminal tightly with a wire

clamp. Rivet terminal. Ensure the conce-ntricity of metal parts

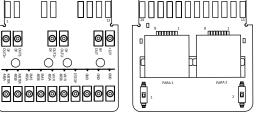
and cable at same levelcrimped metal parts and cable pull

Insert pin into the male or female plug. Until hear a "click".

Tighten the nut on the terminal.

The COM port mainly includes EMS485, Meter485, WIFI485, Estop port, two relay output ports, two parallel ports and a toggle switch, +12V and corresponding relay output signals.

The ripple control function is described below



## EMS 485:

Supports Modbus485 communication, which can be used to read and control machines. The specific protocol is provided by the manufacturer Meter 485:

Similar to the Meter485 interface, this interface is designed to be redundant.

For internal testing.

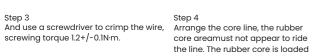
DY OUT: The machine has two DY OUT interfaces, with two internal contacts of relays hat can drive loads of 230VAC1A/50VDC0.5A, and can be used

PARA port RJ45: Used for parallel communication, it is necessary to set the DIP switch

# 24PIN Wiring

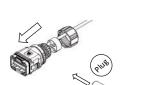
Installation Procedure

Remove the plug inside the plug and thread the terminal according to the sequence shown in the illustration.











Insert the wires into the

Grounding Wiring Prepare ground wire. To insert Earth terminal. Press the wire and terminal tightly with a wire clamp. Step 3: screw the ground screw

with screwdriver as

shown below.

# Please prepare a PC and an U-Disk.

Please contact our service support to get the update files, and extract it into

NOTE Vx.xx is version number.

### Step 2: Unscrew the waterproof lid and insert U-disk into the "USB" port at the bottom

The LCD will show the selection menu. Then press up and down to select the one that you want to upgrade and press "OK" to confirm to upgrade.

Please refer to the following steps to start up the inverter.

6. Make sure the BMS buttons and battery switch are on.

7. Ensure accurate installation of the monitoring module to the

inverter. (Refer to the installation of the monitoring module)

8. Turn on the PV/DC switch (for Hybrid version only), AC breaker, EPS

9. Check whether each voltage is normal and within the operating range of the machine through the screen on the machine 10. If the main page shows "switch off", please long press "  $\surd$  " bottom to quickly go to the START/STOP page and set it to start. Enter the settings page, default password is '0000').

When starting inverter for the first time, the country code will be set by default to the local settings. Check if the country code Set the time on the inverter using the button or by using the APP.

2. Make sure GRID and EPS wirings are completed. 3. Make sure the PV wirings is connected well. 4. Make sure the meter is connected well. 5. Make sure the battery is connected well.

1. Ensure the inverter fixed well.

breaker and battery breaker.

After the upgrade is finished, pull out the U-disk. Screw the waterproof lid.

Please ensure the inverter is powered on with steady PV/BAT and AC power. Please note the U-Disk shall be less than 32GB and its formats is fat16 or fat 32. Please DO NOT apply USB3.0 U-Disk on USB port, the inverter USB port only support for USB2.0 U-disk.

your U-Disk as follow: update/master/ H3\_G2\_Smart\_Master\_Vx.xx.bin

update/slave/H3 G2 Smart Slave Vx.xx.bin

update/manager/H3\_G2\_Smart\_Manager\_Vx.xx.bin

1 WiFi Stick Installation

Scan the QR Code below to download and install the FoxCloud APP on your smartphone, refer to the "APP2.0 QUICK GUIDE" page for WIFI distribution network



Contains app download path, configuration process, etc.

Alarm: The collector can only be plugged into the inverter, not any other device.

antenna is installed correctly.



Power on the inverter (in accordance with the start-up procedure detailed in the inverter installation manual).



6

Please scan the QR Code and follow the steps below to download our latest multi-language User Manual/Quick Installation Guide: Scan the QR Code → Select your Language → Choose to

download User Manual or Quick Installation Guide  $\rightarrow$ 



Connect RS485A to pin 2/8 of the inverter METER/RS485 port. Connect

Open the latch

press the lock.

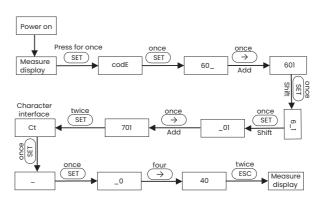
Align the female end with the male end in the anti-stay position.

After the male and female insert the card point into the tracks lot,

Tighten the screws with the S2.5 hexagon wrench with a torque of

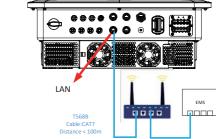
2.5±0.1Nm. Installation completed.

The transformation ratio setting of a CT meter needs to be consistent with the transformation ratio of a CT meter. The transformation ratio setting method for a CT meter is as follows:



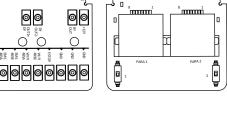
The device supports zero configuration network discovery through the mDNS (Multicast DNS) protocol. Users can directly access device services

The device will broadcast the mDNS service in mDNS  $\_$  < SN > format



DRM is mainly used to implement the Ripple Control function.

Switching state	Output active power (%Pn)
No contact closed	100%
Several contacts closed	100%
Contact DRM 1 to +3.3V	60%
Contact DRM 2 to +3.3V	30%
Contact DRM 3 to +3.3V	0%
Contact DRM 4 to +3.3V	Immediate OFF
Contact Drm0 to 3.3V	AC Max.Chr power limit to 4.2kw unde Vde4105 Safty



Wifi 485:

Estop port: When short circuiting ESTOP and GND, the machine will stop working.

## for powering on and starting heat pumps.

to the ON state during parallel operation. +12V and RY-Out are used to control external relay switches and cannot be used for other functions.

