Quick Installation Guide

X3-FORTH 40kW-150kW

SolaX POWER

I Packing list

Inverter x1

Bracket x1

M10xL40 Bolt combination x4

Communication connector x1

M8 Bolt x2

Positive DC connector x24
Negative DC connectors x24

Positive DC pin contact x24
Negative DC pin contact x24

Allen key x1

Documents

Wi-Fi dongle (Optional)

*For the optional accessories, please be subject to the actual delivery.
*Note: The allen key in the accessory box is used to remove the screws on the front cover of the inverter. Keep it in a safe place.

II Mounting the inverter on the wall

❶ - Use the bracket as a template for marking the position of holes with a level and marker.

❷ - Drill the four holes with a Φ13 drill.
- Depth: at least 65 mm.

❸ - Hammer the M10x80 expansion bolt into four holes.
- Screw in the nut firmly with socket wrench.

Expansion bolt
Bracket
Nut

*Note: Screws used for installation on the wall are not in the accessory box. Please prepare them in advance.

❹ - Lift up the inverter.
- Two methods are available by four installers or lifting ring

❺ -Hang it onto the bracket.

❻ - Fix it on the wall bracket with M8 bolts.
(Torque: 7.0-8.5 N·m)

III Mounting the inverter on the stand

❶ Use a bracket as a template for marking the position of the holes with a level and marker.

❷ - Drill the four holes with a Φ12 drill.

❸ Screw in the M10x40 bolt into holes.
Tighten it firmly with corresponding socket wrench.

Bracket
M10x40 bolt

❹ - Lift up the inverter.
- Two methods are available by four installers or lifting right

❺ - Hang it onto the bracket.

❻ - Fix it on the stand with M8 bolts.
(Torque: 7.0-8.5 N·m)

IV Grounding connection

❶ - Select 35-70 mm² ground conductor and OT copper terminal
- Strip the insulation end of cable with proper length

A=B+(2~3mm)
B

❷ - Pull the heat-shrink tubing over grounding cable

C=A+2 cm
Heat-shrink tubing

❸ - Insert the stripped section into OT terminal. And crimp with crimping tool

L3 < 2 mm
L4 < 1.5 mm

❹ - Pull the heat-shrink tubing onto crimped section of OT terminal
- The tubing must be at below stripped cable section
- Use hot-air blower to shrink it so that they are in firm contact with OT terminal

L3 < 2 mm
L4 < 1.5 mm

❺ - Connect the grounding cable to grounding point on the inverter
- Tighten it with torque 7.0-8.5 N·m

V Grid connection

❶ - Select the appropriate OT terminal and 70~240 mm² copper cable
- Use wire stripper to strip the insulation layer of the AC cable end.
- The stripped insulation layer shall be 2-3mm longer than "D" part of OT terminal as shown below.

40 kW-70 kW / 80 kW-125 kW inverter

A
B
L1
L2
L3
N
PE
D+(2~3) mm

A≤260 mm
B≤150 mm

L1 / L2 / L3 / N
a
b
D
a≤45 mm
12.5≤b≤15 mm

136 kW-150 kW inverter

A
B
L1
L2
L3
PE
D+(2~3) mm

A≤260 mm
B≤150 mm

L1 / L2 / L3 / N
a
b
D
a≤45 mm
12.5≤b≤15 mm

*Note: The "Delta Grid" in "Setting"-"Grid Protection"- "FunctionChoose" is set as "Enable" in default.
In this condition, the Neutral wire is not required to be connected.
Please set "Delta Grid" to "Disable" before connecting the Neutral wire for 40 kW-70 kW / 80 kW-125 kW inverter.

❷ - Pull the heat-shrink tubing over AC cable.
- Insert the stripped section into OT terminal and crimp with crimping tool.
- Pull the heat-shrink tubing over the crimped section of OT terminal.
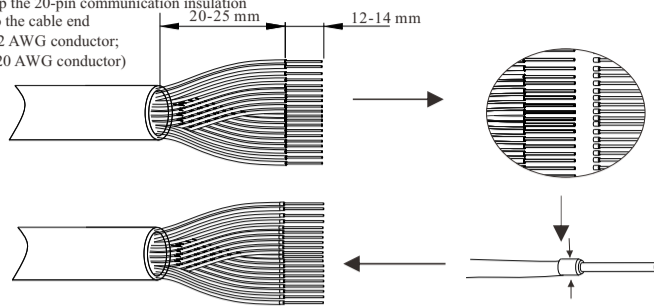- Use hot air blower to shrink it so that they are in firm contact with OT terminal.

40 kW-70 kW / 80 kW-125 kW inverter

136 kW-150 kW inverter

❸ -Un-install the screws on the cover to open the cover of the wiring box.
-Use utility knife to cut out the pagoda type protection ring in accordance with the whole cable size.
-Put the AC cable through the pagoda protection ring, and connect it to the AC terminals L1, L2, L3 and N in turn, and tighten it with torque wrench (with the torque of 25-30 N·m).
-Re-install the cover of wiring box with the torque of 5~7 N·m.

40 kW-70 kW / 80 kW-125 kW inverter

136 kW / 150 kW inverter

Separate PE cable   Multi-core cable

Separate PE cable   Multi-core cable

VI PV connection

❶ - Disassemble the DC connector

Positive DC connector   Positive pin contact   Positive terminal   Fastening head

Negative DC connector   Negative pin contact   Negative terminal   Fastening head

❷ - Strip the PV cable insulation
6 mm

Cable size: 4-6mm2

❸ Positive DC PV pin contact   Positive terminal

Negative DC PV pin contact   Negative terminal

Clamp pin   (Torque: 3-4 N·m)   Tighten the fastening head

❹ - Connect the PV cable to the corresponding PV port

PV 2   PV 4
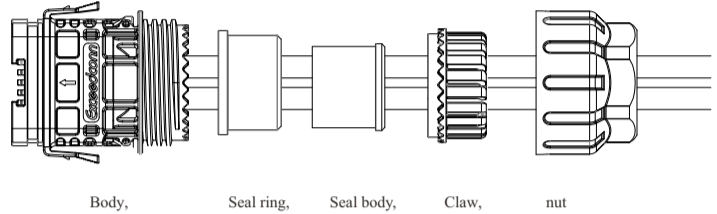
- Select 0.5~0.75 mm² twisted-pair and strip the 20-pin communication insulation
- Insert the insulated cord end terminal into the cable end
  (ENY0512 nylon terminal for 0.5 mm²/22 AWG conductor;
  ENY7512 nylon terminal for 0.75 mm²/20 AWG conductor)
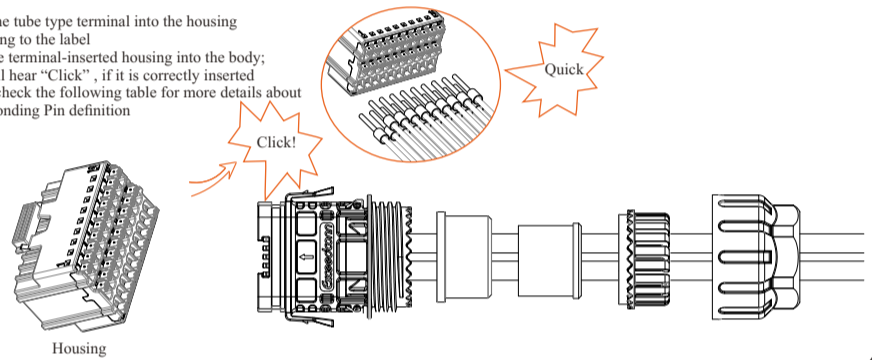- Clamp with terminals press clamp

20-25 mm   12-14 mm

❶

- Disassemble the communication terminal
- Set the nut, claw, seal body, seal ring and body on the cable

❷   Body,   Seal ring,   Seal body,   Claw,   nut

- Insert the tube type terminal into the housing
  according to the label
- Push the terminal-inserted housing into the body;
  you will hear "Click" , if it is correctly inserted
- Please check the following table for more details about
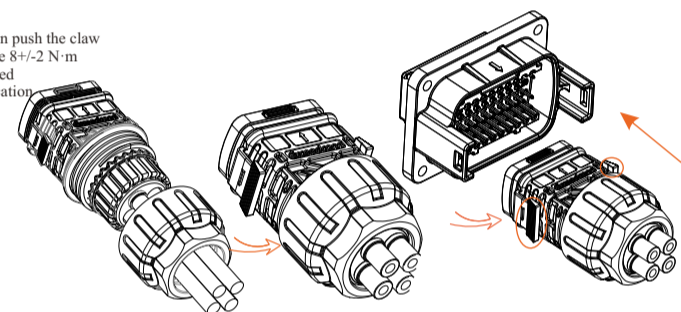 corresponding Pin definition

Quick

Click!

❸   Housing

Port	Pin	Definition	Remark
RS-485-1	1	RS485A IN+	Inverter RS485 networking or connect the data collector
	2	RS485B IN-	
	3	RS485 IN-GND	
	4	RS485A OUT+	
	5	RS485B OUT-	
	6	RS485 OUT-GND	
RS-485-2	7	RS485A METER	Connect the RS485 meter or other devices
	8	RS485B METER	
	9	V+5V	
	10	COM_GND	
DRM	11	DRM1/5	Reserved for DRM
	12	DRM2/6	
	13	DRM3/7	
	14	DRM4/8	
	15	RG/0	
	16	CL/0	
DI	21	Digital IN+	Input digital signal
	22	Digital IN-	
DO	29	Digital OUT+	Output digital signal
	30	Digital OUT-	

- Push the seal body into seal ring, then push the claw
  Clockwise tighten the nut with torque 8+/-2 N·m
- Keep the buttons on both sides pressed
  and then connect it to the communication
  port on the inverter. You will hear
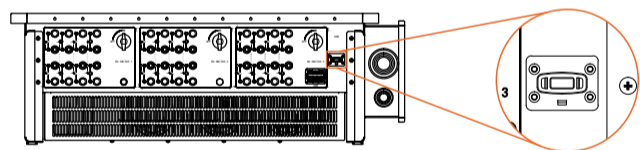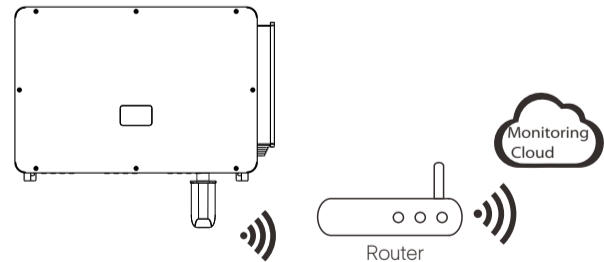 "Click" if it is correctly connected

❹

Monitoring Cloud is an application that can communicate with the inverter via Wi-Fi/LAN/4G. It can realize alarm query, parameter configuration, daily maintenance and other functions. This is a convenient maintenance platform.

Plug Dongle into "USB" port at the bottom of the inverter. After the DC side or AC side is powered on, the APP and inverter can be connected. Please refer to the corresponding manual for details.
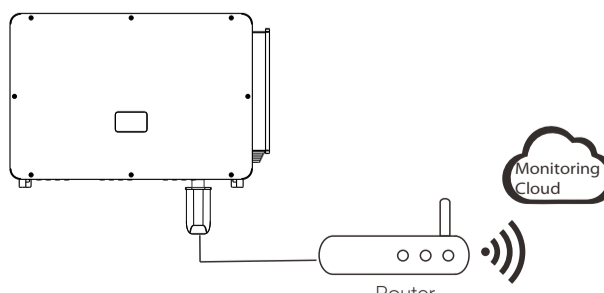
➢   Wi-Fi connection

WiFi dongle connects to a local network within 50 m of the installation to enable access to the Monitoring Cloud platform.

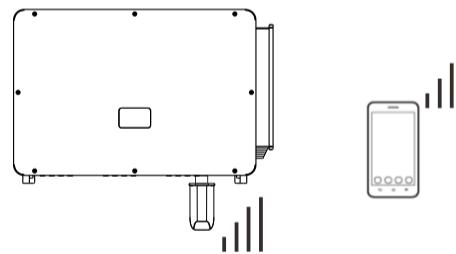Monitoring Cloud

Router

➢   LAN connection

If Wi-Fi isn't suitable, the LAN dongle enables users to connect to the network via an ethernet cable. Ethernet allows for a much more stable connection with less interference.

Monitoring Cloud

Router

➢   4G connection

4G dongle allows you to use a 4G connection to monitor your system without the option of connecting to a local network. (This product is not available in the UK)

➢   Basic setting

Basic settings can set the time, date and language.

➢   Advanced setting

Advanced settings can set "Satety", "System Switch", "PVConnection", "Active Power Control", "Export Control", "Reactive Power Control", "Grid Voltage Parameters" "Grid Frequency Parameters", "Grid Through Parameters", "Check Parameters", "Reset", "Communication Parameters" and "New Password".

Basic

Date Time

2021-12-29 17:04   Save

Language

Language

English   Save

Advanced

Safety
System Switch
PvConnection
Active Power Control
Export Control
Reactive Power Control
Grid Voltage Parameters
Grid Frequency Parameters
Grid Through Parameters
Check Parameters
Reset
Communication Parameters
New Password