CHINT POWER

3-Phase Grid-tied PV Inverter
SCA6/10/15/20/25K-T-EU

Quick Installation Guide

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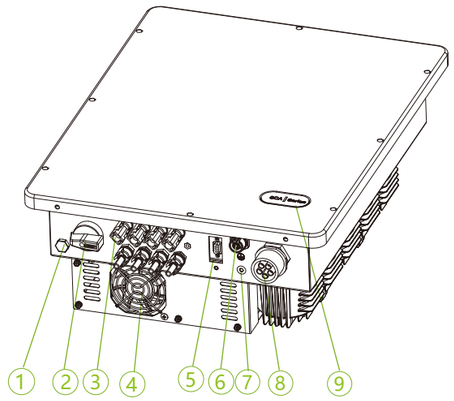
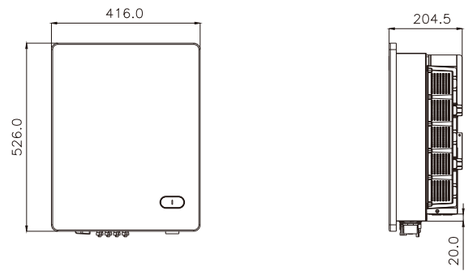
1 Product Components and Dimensions

1.1 Product Components



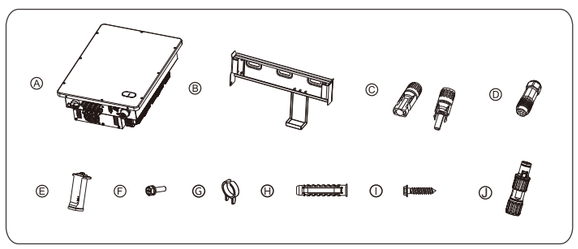
1. Ventilation valve 2. DC disconnect switch 3. MPPT DC interface
4. Fan 5. Communication module interface 6. RS485 intetrface
7. GND point 8. AC output terminal 9. LED indicator

1.2 Product Dimensions



2 Mechanical Installation

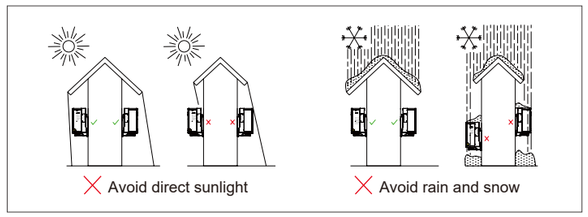
2.1 Scope of Delivery



No.	Accessories	Amt	Remark
A	PV Inverter	1	
B	Mounting Bracket	1	Hang inverter
C	DC Input Connector	4 /8	PV DC quick connector 6-15kw: 2 (+) & 2 (-) 20-25kw: 4 (+) & 4 (-)
D	AC Output Connector	1	Connect AC cable
E	WIFI Dongle	1	For communication and monitoring
F	Screw M5X12	1	For fastening inverter on mounting bracket
G	Unlock tool for DC connector	1	To unlock DC input connectors
H	Nylon Expansion Bolt	3	For attaching mounting bracket to wall
I	Screw ST6.3X55	3	
J	RS485 Connector	1	Connect RS485 cable
	Documents	2	Quick guide, warranty card

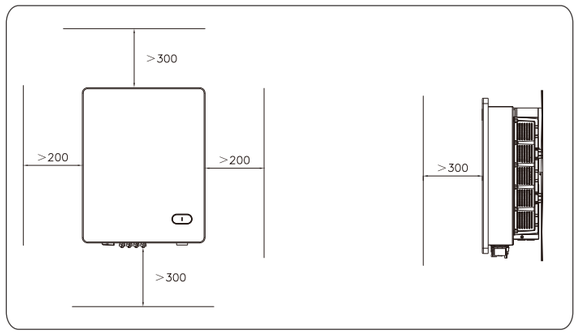
2.2 Installation Location Selection

In order to reduce power derating and extend service life, avoid direct sunlight, rain and snow wherever possible. It is recommended that inverter is installed under a roof or sunshade as below.
However, outdoor installation is also acceptable, which does not diminish your warranty rights.

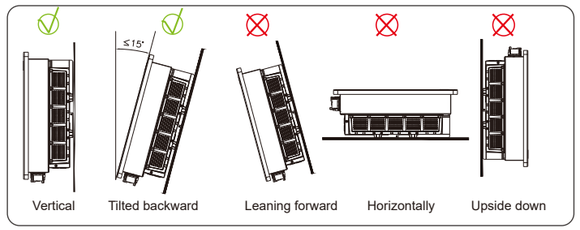


2.3 Space Requirements

To have a good heat dissipation condition: When the inverter is installed, you have to ensure there is space with more than 200mm on both right and left sides. If the multiple inverters are used, the objects affecting the heat dissipation must not be put in between.

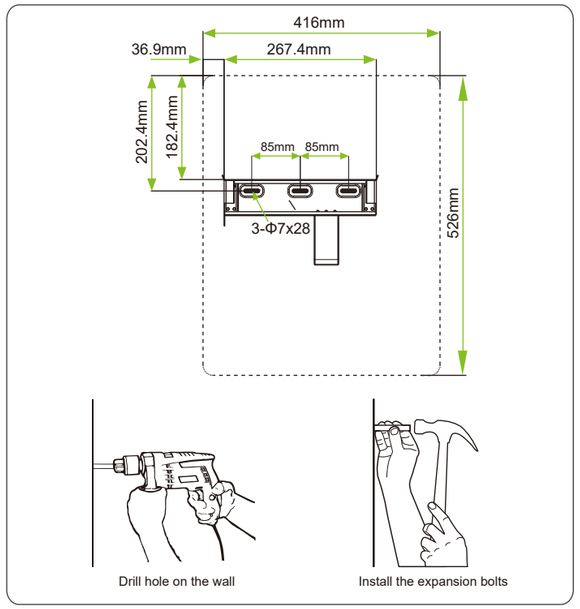


2.4 Installation Modes

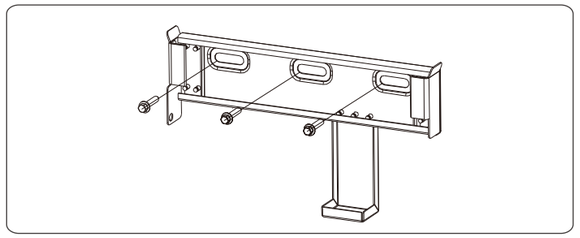


2.5 Installation Procedures

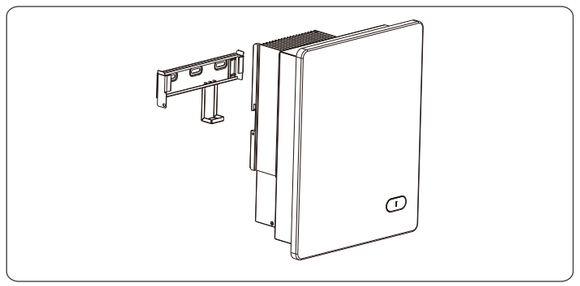
1.Mark the positions of the mounting holes on the installation structure (shelter, steel rack, etc.). Drill 3 holes with a depth of 70mm with a Φ10mm drill at the marked position and then knock three nylon expansion bolts into mounting holes, as shown below.



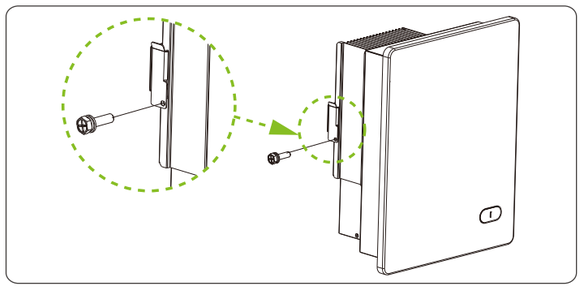
2.Insert three screws (ST6.3x55) through reserved holes of the mounting bracket and then lock them into the expansion bolts with a torque value of 11.3N.m.



3.Hang the inverter onto the mounting bracket.



4.Use M5 screws to fasten inverter on mounting bracket.
Tools required: PH2 screw driver, torque: 2.5N.m.



2.6 Installation Check

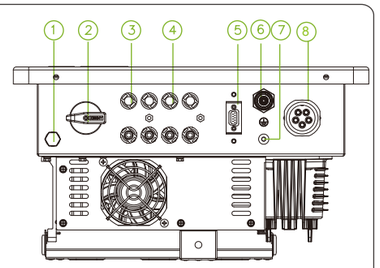
1. Ensure that the three supporting points (on the rear side of the inverter) align with the three holes of the mounting bracket.
2. Ensure that the inverter is well fixed.
3. Ensure that the inverter is locked on the mounting bracket and an antitheft lock is installed.

3 Electrical Connection

DANGER	Before making the electrical connections, you have to ensure that the AC and DC connections are de-energized. Otherwise there is a risk of electric shock.

3.1 Cable interface

1. Ventilation valve
2. DC disconnect switch
3. MPPT1 DC interface
4. MPPT2 DC interface
5. COM module interface
6. RS485 interface
7. GND point
8. AC output terminal

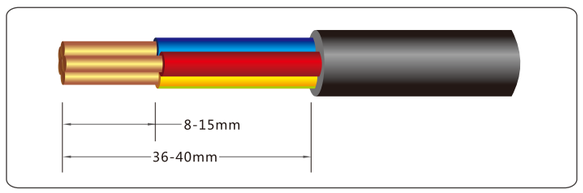


3.2 Cable Specification

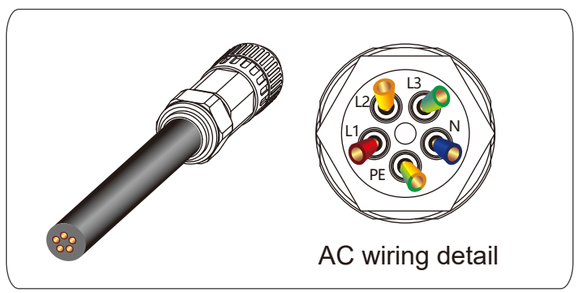
Cable	Type	Conductor CSA (mm2)		OD (mm)
		Range	Recommended	Range
DC	Industry common PV cables (Type: PV1-F)	4--6	4	6--7
AC	Multi-core cables specialized for outdoor	6--16	6-15kw: 10 20-25kw: 12	13--21
PE	Cables specialized for outdoor	6--12	12	NA
RS485	4-core cables specialized for outdoor	0.21-0.32	0.21	5-6mm

3.3 Cable Connection

1. Remove an appropriate length of the jacket and insulation layer from the cable.

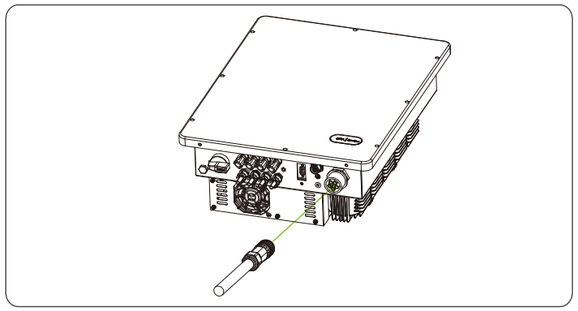


2. Connect AC cable to AC connector: Connect grounding wire to PE terminal, neutral wire to N terminal, and live wire to L1, L2, L3 terminal.



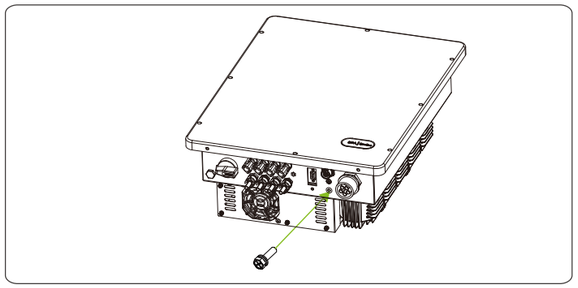
NOTICE	Connect grounding wire to PE, neutral wire to N and live wires to L1/L2/L3 terminals correspondingly. If connect them incorrectly, the inverter may operate abnormally.

3.Insert the AC connector to AC port and make sure it is inserted firmly. Tool: No. 17 socket wrench, torque: 22.6N.m.

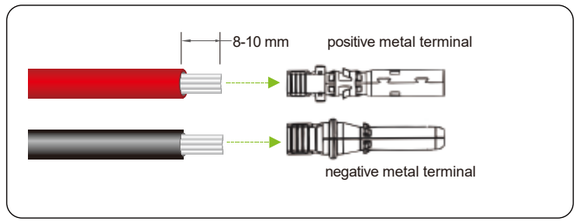


NOTICE	The connection of the secondary protection ground wire cannot be replaced by that of PE terminal among the AC connection. Both shall be grounded correctly. CHINT will not bear any responsibility for the possible consequences caused by the omission.

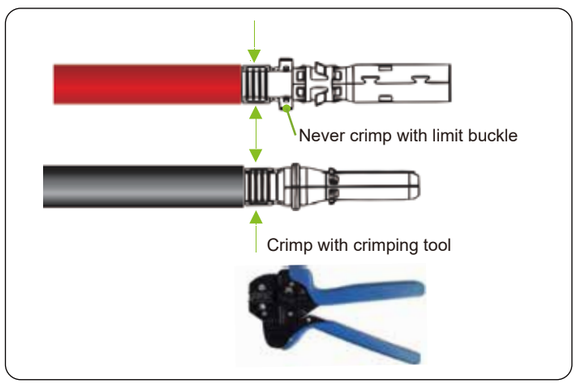
4.Use one M5 screw to connect and tighten the secondary protection ground wire. Tool: No. 10 socket wrench, torque: 5.9 N.m.



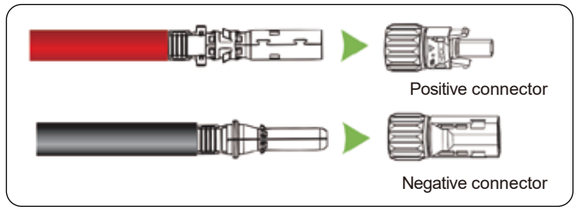
5.Remove an appropriate length of the jacket and insulation layer from the DC input cable of PV strings.



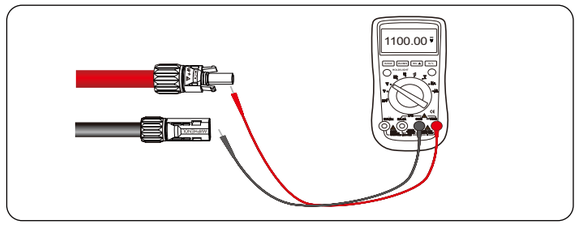
6.Insert the exposed areas of positive and negative power cables into the metal terminals of positive and negative connectors respectively. Crimp the metal terminals using Amphenol H4TC0002 or Devalan D4ZCY001 crimping tool.



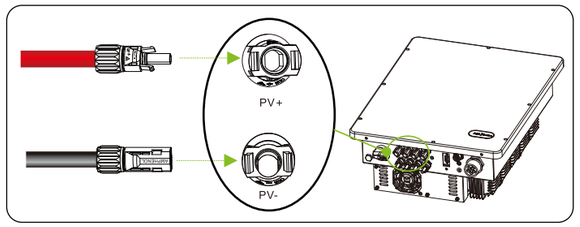
7.Insert the crimped positive and negative power cables into corresponding positive and negative connectors until a "click" sound is heard. Tighten the locking nuts of the positive and negative connectors.



8. Measure the cable ends of PV strings using a multimeter. Ensure that the polarities of the DC input power cables are correct.



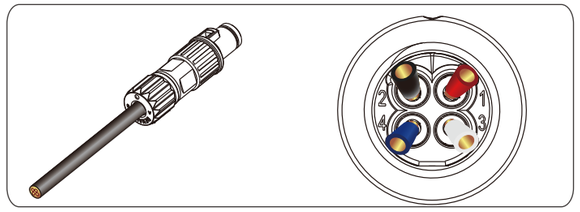
9.Insert the positive and negative connectors into their corresponding terminals of the inverter until a "click" sound is heard.



3.4 Communication Connection

1. Strip off RS485 wire by referring to AC cable stripping.

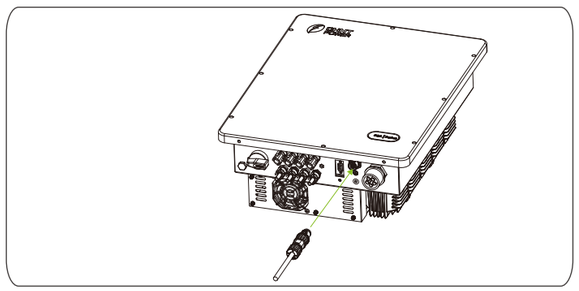
2-1. For single inverter: lead one 4-core RS485 COM cable through RS485 connector, connect +12V wire to port 1, GND wire to port 2, RS485+ wire to port 3, and RS485- wire to port 4.



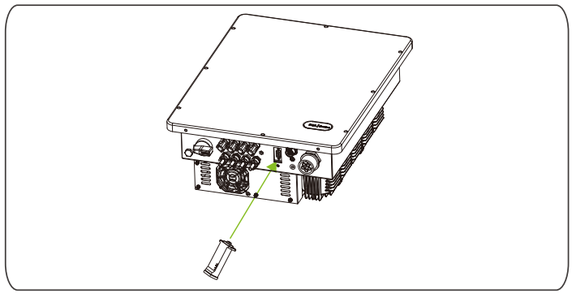
2-2. For multiple inverters: when multiple inverters connect in daisy-chain, lead RS485 COM cables through RS485 connector. Strip 60mm cable insulation layer, connect two RS485+ wires to port 3, and two RS485- wires to port 4.

NOTICE	If connecting to incorrect port, the inverter may operate abnormally.

3. Fasten RS485 connector onto RS485 interface. Tool: PH00 Philips driver, torque value: 0.2N.m.



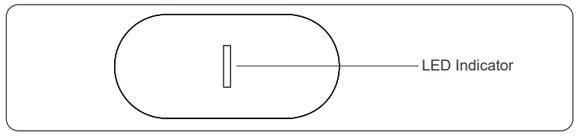
4.Install WIFI Dongle onto the communication interface and fasten WIFI Dongle firmly with the No.2 philps screwdriver, torque value: 1.0 N.m.



IMPORTANT	In order to improve protection performance, it is recommended that after installation of secondary ground wire, AC terminal, and communication interface is completed, silicone or fireproof putty is applied onto the exterior of the interface or terminal for protection.

4 Display

4.1 LED Indicators



4.2 Description of LED Indicators

1. Red Led=Malfunction

State Definition	LED State
Warning	Red led flashes slowly (light on 0.5s, light off 2s)
General failure (recoverable)	Red led flashes quickly (light on 0.5s, light off 0.5s)
Permanent failure (unrecoverable)	Red light is always on
Runs properly	Red light is off

2. Green Led=Operation

State Definition	LED State
(Derate) Power Generation	Green led flashes (light on 0.5s, light off 1.6s)
Regular (rated) operating power generation	Green light is always on
Standby	Green led flashes (light on 2s, light off 2s)

3. Software Upgrade State

State Definition	LED State
Software Upgrade	Green led flashes quickly (light on 0.05s, light off 0.3s)

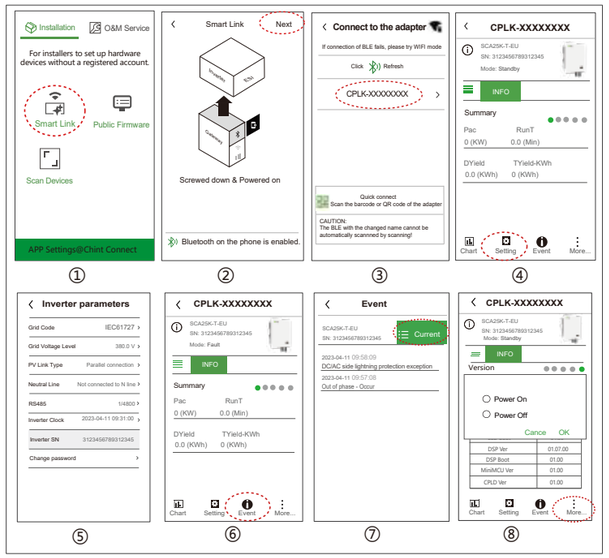
5 Commissioning

WARNING	Please follow the guidelines below before performing any on-grid operation to eliminate possible dangers.

1. Set the inverter DC switch to the "ON" position. When the solar array produces enough power, the inverter LED POWER indicator will be lit, and the inverter will enter the self-check state in turn.

2. Users can download iOS version "Chint Connect" APP in Apple store or Android version in Google store, or scan the QR code to download it. (Support Android 4.4 and IOS 11.0 system or higher version system).

3. Open Bluetooth function on your mobile phone, operate Chint Connect APP as follows:
Note: All the inverter types have the same APP setting procedures, we herein take SCA 25K-T-EU and iOS version APP interface as instance.
APP interfaces may varies slightly depending on APP versions.



(1) Touch “Smart Link” icon to enter smart link interface.
Note: You can click “APP Settings” in the bottom green bar to set language & APP platform, synchronize cloud data or check its version.
(2) Touch "Next" to enter "Connect to the adapter" interface.
(3) Touch wireless network named CPLK-XXXXXXX (XXXXXXX can be found on the LINKIT label) shown in Bluetooth List, or touch the green QR to scan LINKIT bar code, to connect network and enter main interface.
(4) Touch "Setting" icon and input password "1111", it goes to "inverter parameter" page.
(5) Set or change inverter parameters if necessary, such as Grid Code, PV Link Type, RS485 etc.
(6) When the RUN indicator lights up, it indicates that the device is running normally. You can browse through the real-time data in the APP by sliding the interface left and right. If the inverter cannot run normally, FAULT indicator lights up. Click "Event" icon to see fault information.
(7) Touch the top-right icon to check detailed current and history fault information. Troubleshoot related problems and restart. Contact service personnel if there are still some faults.
(8) Touch "More" icon and input password "1111" to turn on/off device.

4. Set the DC switch to OFF to stop the device.

WARNING	Please power down for 10 minutes before operating the inverter to prevent electric shock and burns.

6 Maintenance

Please check and clean the dust and other objects for external heat sink regularly to ensure good heat dissipation conditions of inverter.

Common Issue

Once the product does not work properly, please refer to the following table for solving the problems. If the problem persists, you can contact the dealers.

Common Issue	Solutions
No display	1. Check if the DC switch is in ON or OFF position. 2. If there is PV combiner box, check the fuses and wire connections.
No feed-in power	1. Check if AC breaker is on. 2. Wait for strong sunlight. 3. Check if the number of PV strings is correct. 4. Operate as required by the inverter.
Inverter abnormal	1. Disconnect both AC and DC breakers. 2. Wait at least 10 minutes, then switch on AC and DC breakers. 3. Check if inverter is working properly.
Less feed-in power	1. Check if the inverter is exposed to direct sunlight or in an environment with poor ventilation. 2. Check if there is enough installation distance between inverters.