SOLAX



X3-ULTRA

15 kW / 19.9 kW / 20 kW / 25 kW / 30 kW
10K-GLV / 15K-GLV

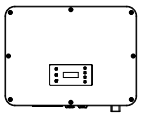
Installation Manual

Version 5.0

www.solaxpower.com

eManual in the QR code or at www.solaxpower.com

Packing List / Packliste / Liste du matériel livré / Lista de piezas / Lista da embalagem / Paklijst / Contenuto della confezione / Zawartość opakowania / Seznam balení / Packlista / Listă de ambalare / **Опаковъчен лист** / Pakkeliste / **Λίστα συσκευασίας** / Pakkeleht / Pakkausluettelo / Popis pakiranja / Csomaglista / Pakuotės turinys / Iepakojuma saraksts / Zoznam položiek balenia / Seznam pakiranja / kutu listesi / lista de embalagem



Inverter × 1



Bracket × 1

A B C



Positive PV connector × 6[1]
Positive PV pin contact × 6[1]
Cable fixture × 1

D E



Negative PV connector × 6[1]
Negative PV pin contact × 6[1]

F G H



OT terminal × 2[2]
Expansion screw × 5
M5 screw × 2

I



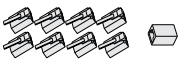
Positive battery connector × 2

J



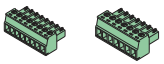
Negative battery connector × 2

K L



RJ45 terminal × 8
RJ45 connector × 1

M N



8-pin terminal block × 1
7-pin terminal block × 1

O



Document

P Q



Handle × 2
Removal tool × 1

R



CT × 1

S T U



AC connector (black) × 1[3]
Allen key × 1[4]
Removal tool × 1

V W X



AC connector (grey) × 1[3]
Allen key × 1[4]
Removal tool × 1

Y Z



Positive PV dustproof buckle × 6[1]
Negative PV dustproof buckle × 6[1]

A1



Communication connector × 2

A2



63 A manual changeover switch × 1[5]

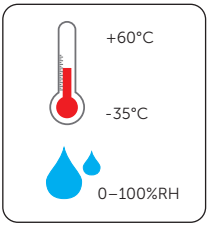


Dongle (optional) × 1[6]

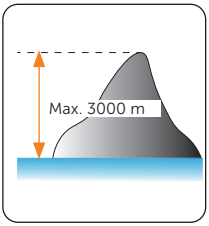
Note:

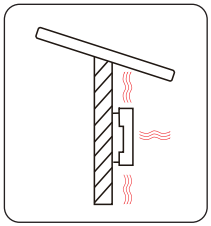
- Refer to the actual delivery for the optional accessories.
- "[1]": 4 pcs for X3-ULT-15K, 19.9K, 20K and 10K-GLV models; 6 pcs for X3-ULT-15KP, 20KP, 25K, 25KW, 30K, and 15K-GLV models.
- "[2]": 1 pcs for 10 mm^2 wire, 1 pcs for 16 mm^2 wire.
- "[3]": Supports a minimum wire diameter of 4 mm^2.
- "[4]": The included Allen key (part T and W) is for temporary use only. It is recommended to use a professional hex tool and a torque wrench to achieve the specified torque. Failure to apply correct torque may damage the AC terminals.
- "[5]": For Australia and New Zealand only.
- "[6]": This section uses a specific dongle model as an example. Please refer to your actual dongle. For dongle installation, see its documentation.

Mounting Location / Montageort / Emplacement de montage / Ubicación de montaje / Localização de montagem / Bevestigingslocatie / Posizione di montaggio / Lokalizacja miejsca montażu / Montážní místo / Monterings plats / Locație de montare / **Място за монтаж** / Monteringssted / **Τοποθεσία στερέωσης** / Paigalduskoht / Asennuspaikka / Mjesto postavljanja / Rögzítési hely / Montavimo vieta / Montāžas vieta / Miesto inštalácie / Mesto namestitve / Montaj Konumu / Local de montagem

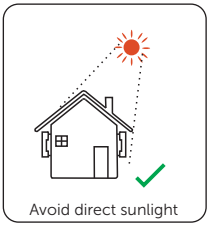






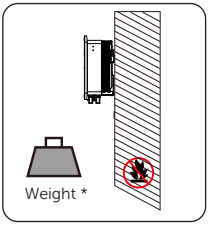


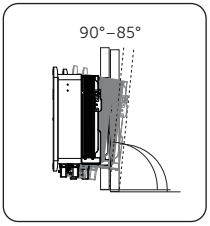


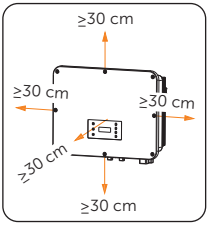




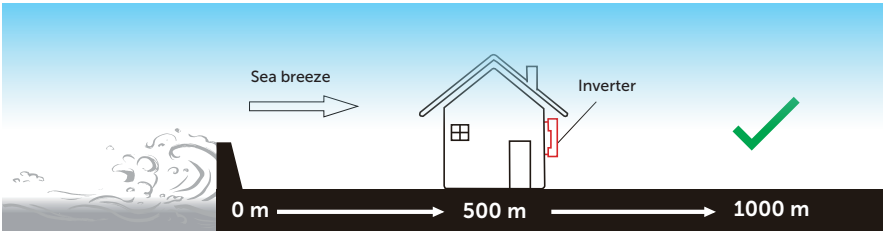








*46±1.5 kg for X3-ULT-15K, 19.9K, 20K, 10K-GLV and 15K-GLV models; 47.5±1.5 kg for X3-ULT-15KP and 20KP models; 48.5±1.5 kg for X3-ULT-25K, 25KW, and 30K models.

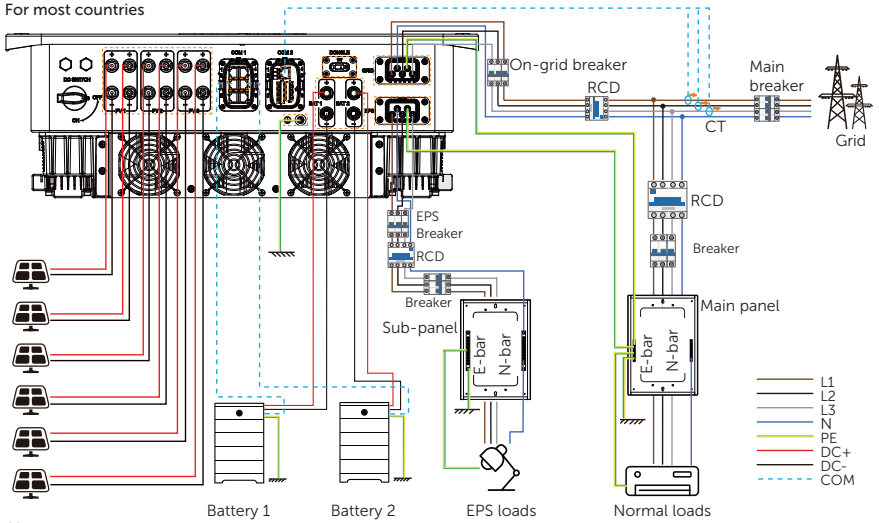


NOTICE!

- For outdoor installation, precautions against direct sunlight, rain exposure and snow accumulation are recommended.
- Exposure to direct sunlight raises the temperature inside the device. This temperature rise poses no safety risks, but may impact the device performance.

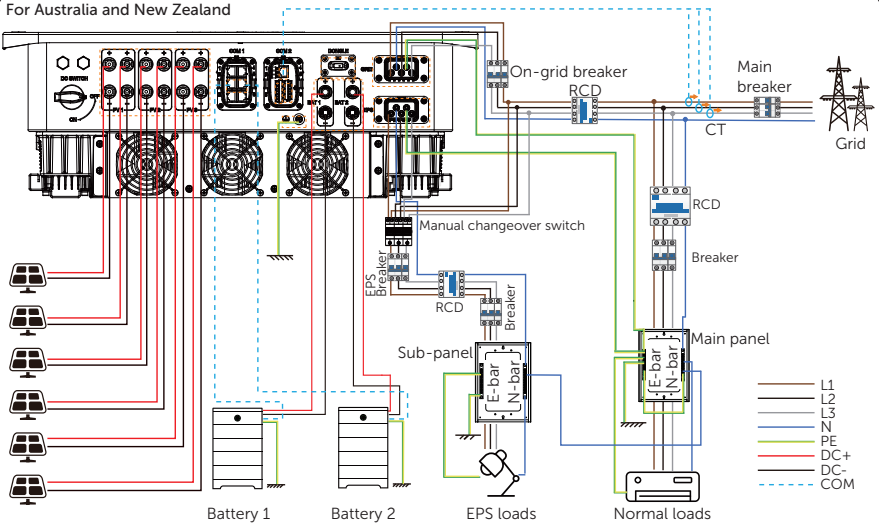
Wiring Diagram / Schaltplan / Schéma de câblage / Diagrama de cableado / Diagrama de ligação / Bedradingsschema / Schema elettrico / Schemat połączeń / Schéma zapojení / Kopplingsschema / Schemă de conexiuni / **Схема на свързване** / Ledningsdiagram / **Διάγραμμα συνδεσμολογίας** / Ühendusskeem / Kytkentäkaavio / Dijagram ožičenja / Kapcsolási rajz / Elektros laidų montavimo schema / Elektroinstalācijas shēma / Schéma zapojenia / Električna shema / Bağlantı Şeması / Diagrama de fiação

For most countries



Note:
The -GLV models do not support the N wire.

For Australia and New Zealand



Note:
When no external EPS box is installed, disable **External ATS** setting before testing backup circuits. The EPS box is required only for paralleling more than three X3-ULTRA units.

Note:

- Breaker recommended for grid connection (with EPS)

Model	X3-ULT-15KP X3-ULT-15K X3-ULT-10K-GLV	X3-ULT-19.9K X3-ULT-20K X3-ULT-20KP	X3-ULT-25K X3-ULT-30K X3-ULT-25KW X3-ULT-15K-GLV
On-grid Breaker	63 A	63 A	63 A

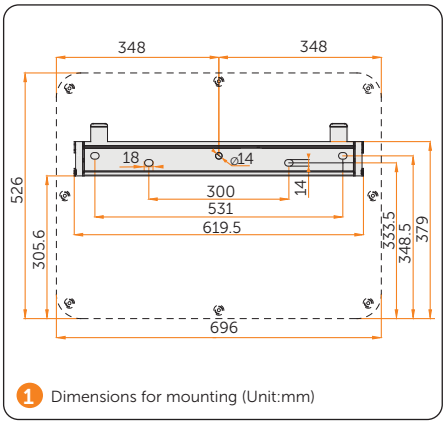
- Breaker recommended for grid connection (without EPS)

Model	X3-ULT-15KP X3-ULT-15K X3-ULT-10K-GLV	X3-ULT-19.9K X3-ULT-20K X3-ULT-20KP	X3-ULT-25K X3-ULT-30K X3-ULT-25KW X3-ULT-15K-GLV
On-grid Breaker	32 A	40 A	63 A

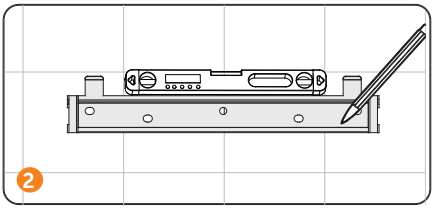
- Breaker recommended for off-grid connection (only EPS)

Model	X3-ULT-15KP X3-ULT-15K X3-ULT-10K-GLV	X3-ULT-19.9K X3-ULT-20K X3-ULT-20KP	X3-ULT-25K X3-ULT-30K X3-ULT-25KW X3-ULT-15K-GLV
EPS Breaker	32 A	40 A	63 A

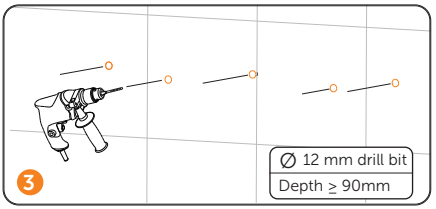
Mechanical Installation / Mechanische Installation / Installation mécanique / Instalación mecánica / Instalação mecânica / Mechanische installatie / Installazione meccanica / Instalacja mechaniczna / Mechanická instalace / Mekanisk installation /Instalare mecanică / **Механичен монтаж** / Mekanisk installation / **Μηχανική εγκατάσταση** / Mehaaniline paigaldus / Mekaaninen asennus / Mehanička ugradnja / Mechanikai telepítés / Mechaninis montavimas / Mehāniskā uzstādīšana / Mechanická inštalácia / Mehanska namestitev / mekanik kurulum / instalação mecânica



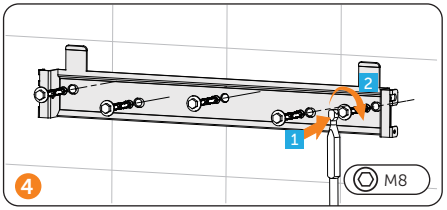
1 Dimensions for mounting (Unit:mm)



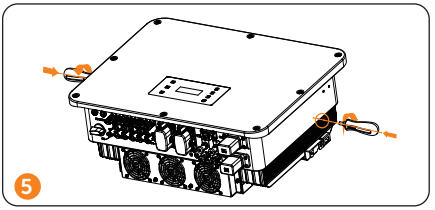
2



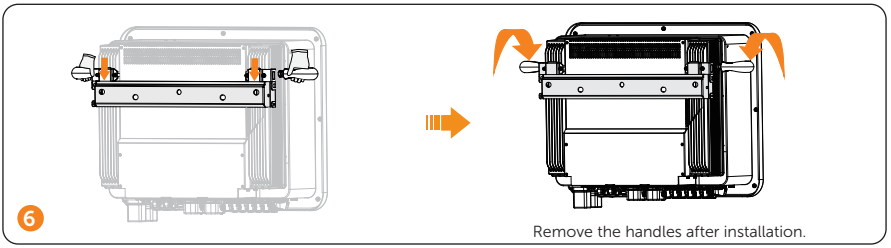
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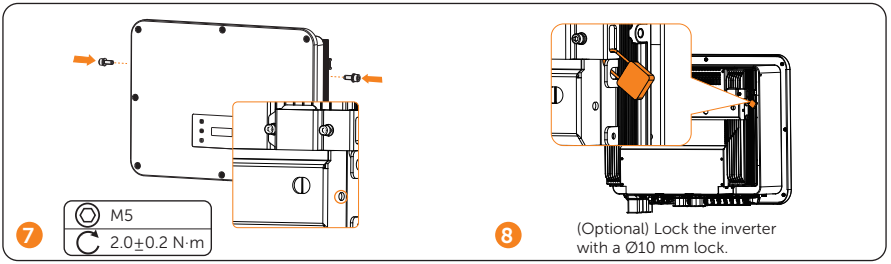
4



5

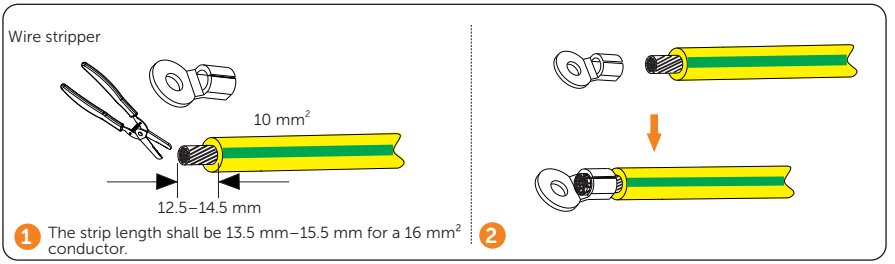


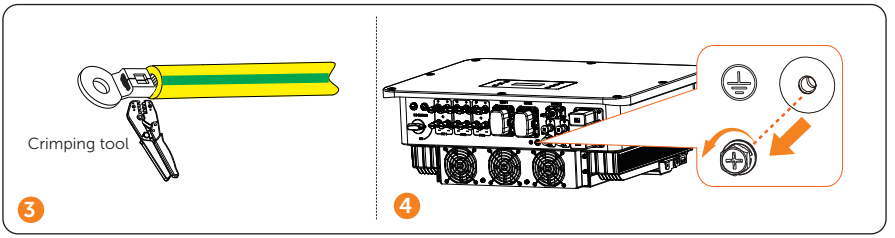
6

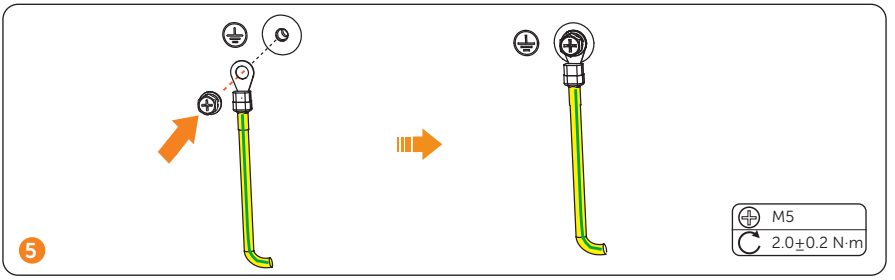


7 8

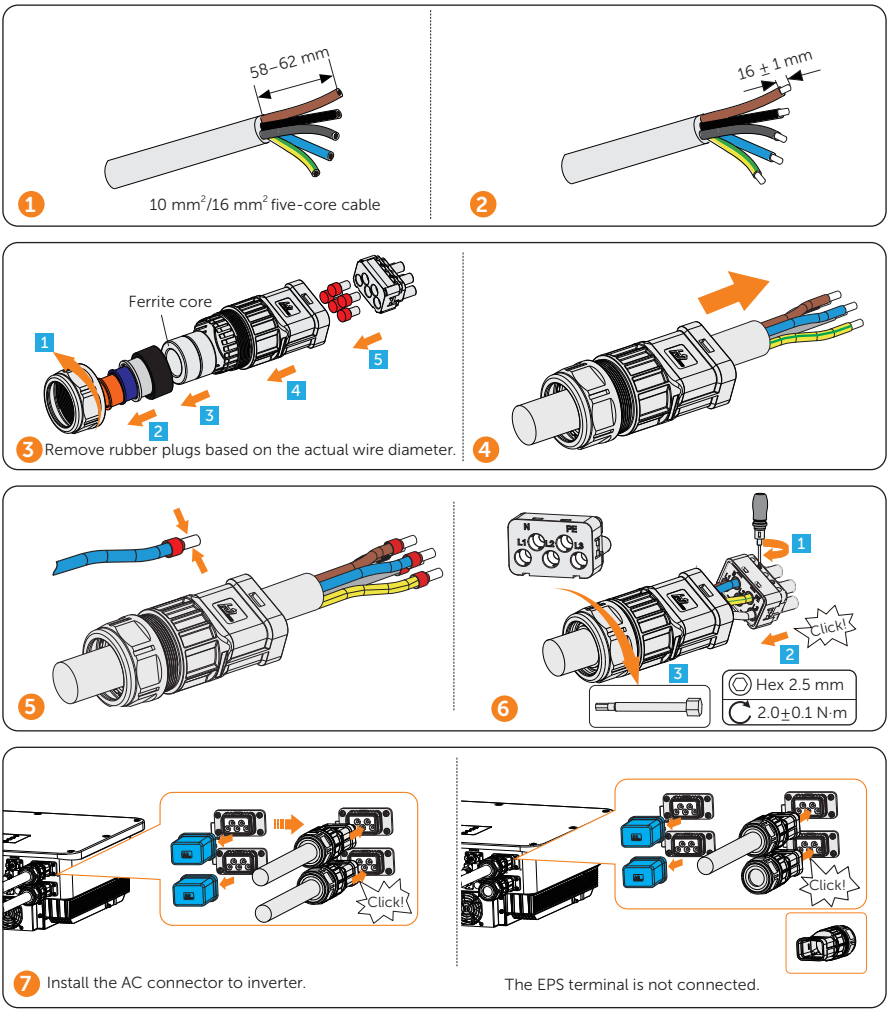
PE Connection / Schutzerdungs-Anschluss / Connexion PE / Conexión PE / Ligação à Terra / PE-aansluiting / Collegamento PE / Połączenie PE / PE připojení / PE-anslutning / Conexiune PE / PE **връзка (земя)** / Jordforbindelse / **Σύνδεση** PE / PE ühendus / PE-yhteys / PE priključak / PE bekötés / PE (apsauginio įžeminimo) kontaktas / PE savienojums / Pripojenie ochranného vodiča / PE povezava / PE Bağlantısı / Conexão PE







Grid and EPS Connection / Netz- und EPS-Verbindung / Branchement Réseau et EPS / Conexión de red y EPS / Ligação à Rede e Off-grid / Aansluiting op het net en EPS / Collegamento GRID e EPS / Połączenie z siecią i EPS / Připojení k síti a EPS / Elnäts- och EPS-anslutning / Conectare la rețea și EPS / **Връзка с мрежата и аварийното захранване** / Elnet- og EPS-tilslutning / **Σύνδεση στο δίκτυο και σε Σύστημα ηλεκτρικής ενέργειας** (EPS) / Võrgu- ja EPS-ühendus / Verkon ja EPS:n liitäntä / Priključak mreže i EPS priključak / Rácsos és EPS bekötés / Tinklo ir EPS jungtis / Tīkla un EPS savienojums / Pripojenie do siete a k núdzovému napájaniu EPS / Povezava z omrežjem in EPS zasilno napajanje / Şebeke ve EPS Bağlantı / Conexão de Rede e EPS

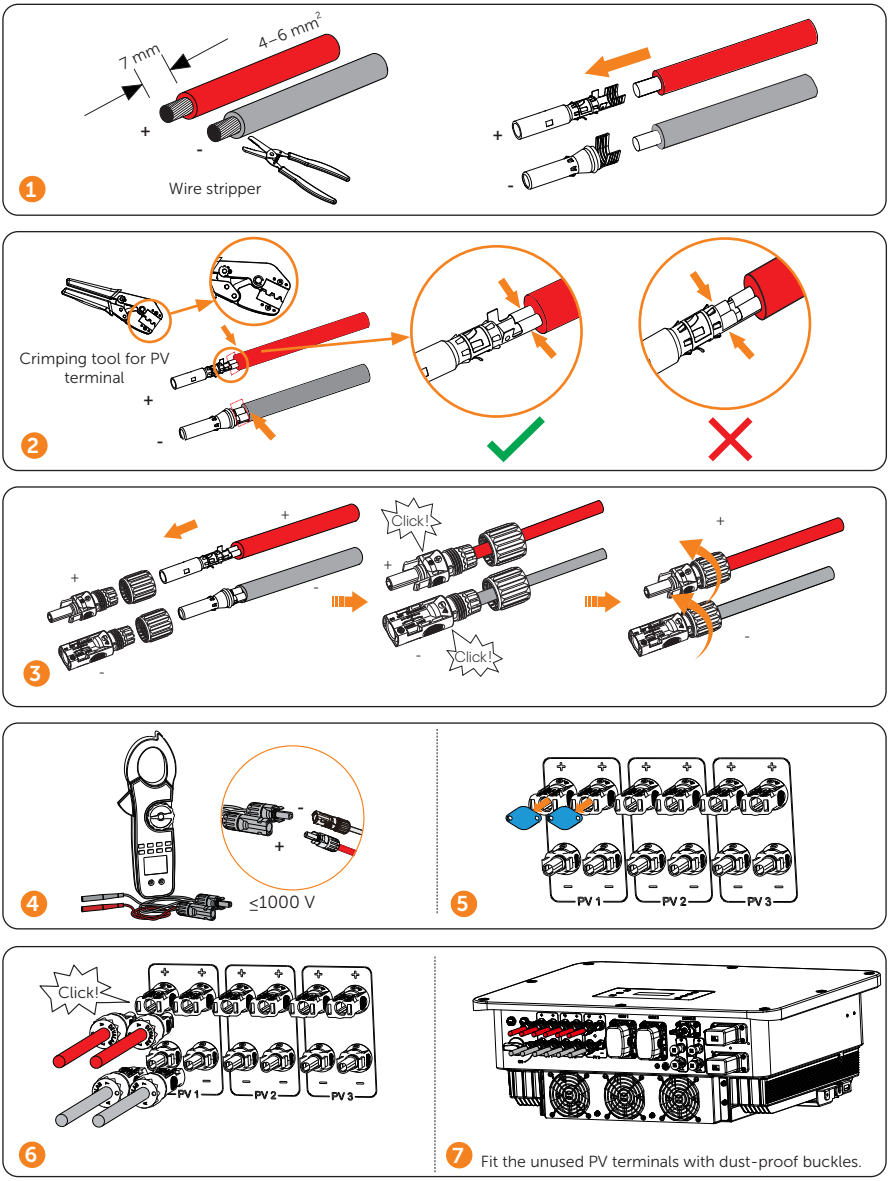


*Before powering on the inverter, make sure the AC connectors are properly installed on the Grid and the EPS terminal. Even if the EPS terminal is not wired, it is still necessary to install the AC connectors correctly. Otherwise, electrical shock may be caused by high voltage, resulting in serious personal injury or death.

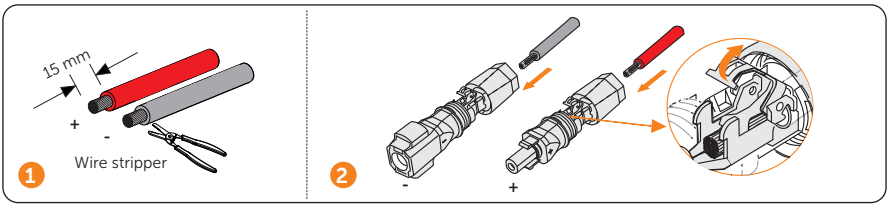
*Step 6: It is recommended to use an H2.5 hex driver bit with a screwdriver to achieve the specified torque. Ensure that the bit's shaft diameter does not exceed 3.5 mm within the first 25 mm from the tip.

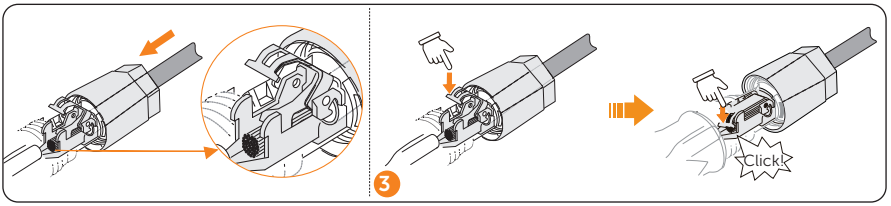
***The X3-ULT-10K-GLV and X3-ULT-15K-GLV do not connect to the N wire.**

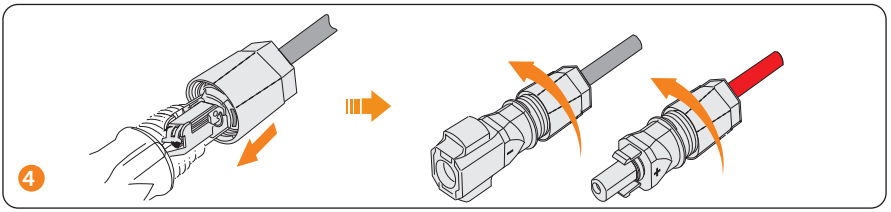
PV Connection / PV-Anschluss / Connexion PV / Conexión FV / Ligação PV (Fotovoltaica) / PV-aansluiting / Collegamento PV / Połączenie PV / Připojení FV / Anslutning av solcellsanläggning / Conexiune PV / **Връзка с** PV / PV-tilslutning / **Σύνδεση φωτοβολταϊκού** / PV-ühendus / PV-liitäntä / Fotonaponski priključak / PV bekötés / Fotovoltinė jungtis / PV savienojums / Pripojenie fotovoltaiky (FV) / Povezava fotonapetostnega kabla (PV) / PV Bağlantısı / Conexão PV

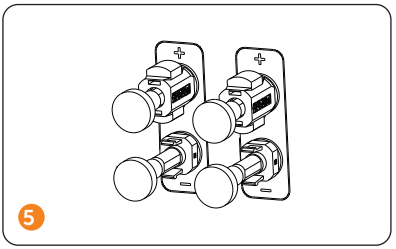


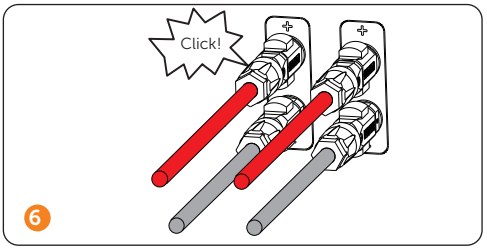
Battery Connection / Batterieanschluss / Branchement de la batterie / Conexión de la batería / Ligação da bateria / Batterij-aansluiting / Collegamento della batteria / Połączenie akumulatora / Připojení baterie / Batterianslutning / Conectare baterie / **Връзка с батерията** / Batteritilslutning / **Σύνδεση μπαταρίας** / Akuühendus / Akun liitäntä / Priključak za bateriju / Akkumulátor bekötés / Akumuliatoriaus jungtis / Akumulatora savienojums / Pripojenie batérie / Povezava baterije / Akü Bağlantısı / Conexão da Bateria

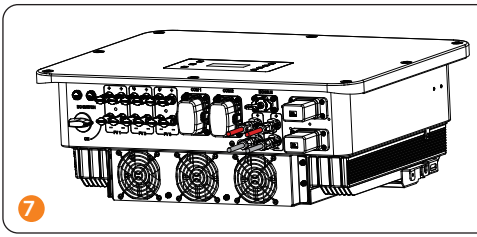








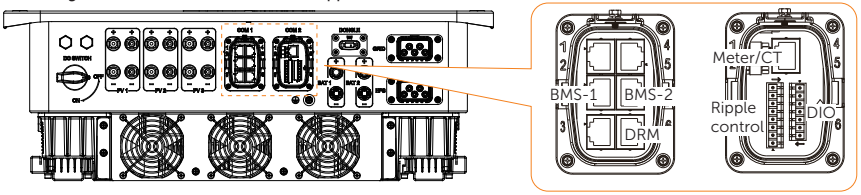




* For specific compatible models, refer to the user manual of the X3-ULTRA series product.
* For battery side connections, refer to the documentation of the battery.

Communication Connection / Kommunikations-Anschluss / Branchement de communication / Conexión de comunicación / Ligação à Comunicação / Communicatie-aansluiting / Collegamento comunicazione / Połączenie komunikacyjne / Komunikační připojení / Kommunikationsanslutning / Conexiune de comunicare / **Комуникационна връзка** / Kommunikationsforbindelse / **Σύνδεση επικοινωνίας** / Sideühendus / Tiedonsiirtoliitäntä / Priključak za komunikaciju / Kommunikációs bekötés / Duomenų ryšys / Sakaru savienojums / Pripojenie komunikácie / Komunikacijska povezava / İletişim Bağlantısı / Conexão de Comunicação

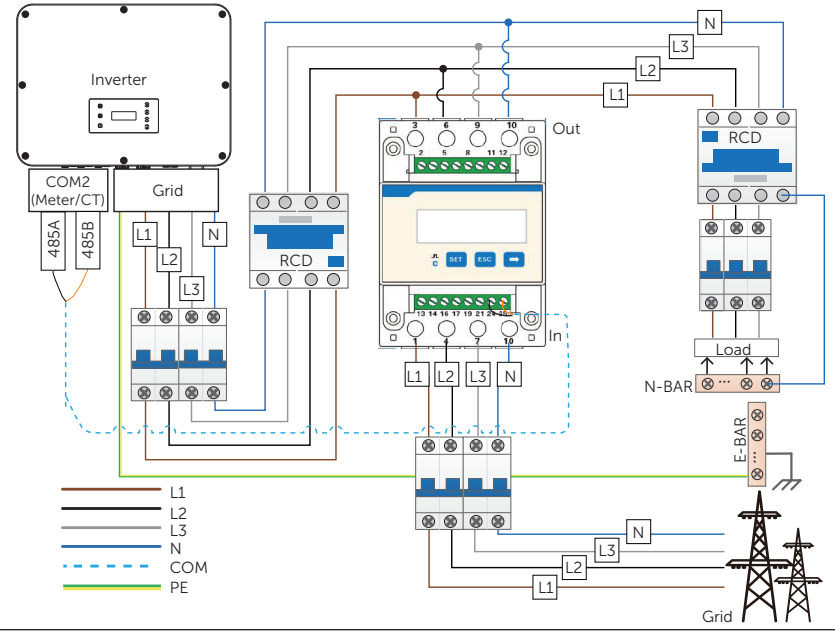
Pin assignment of BMS, DRM, Meter/CT, Ripple control and DIO



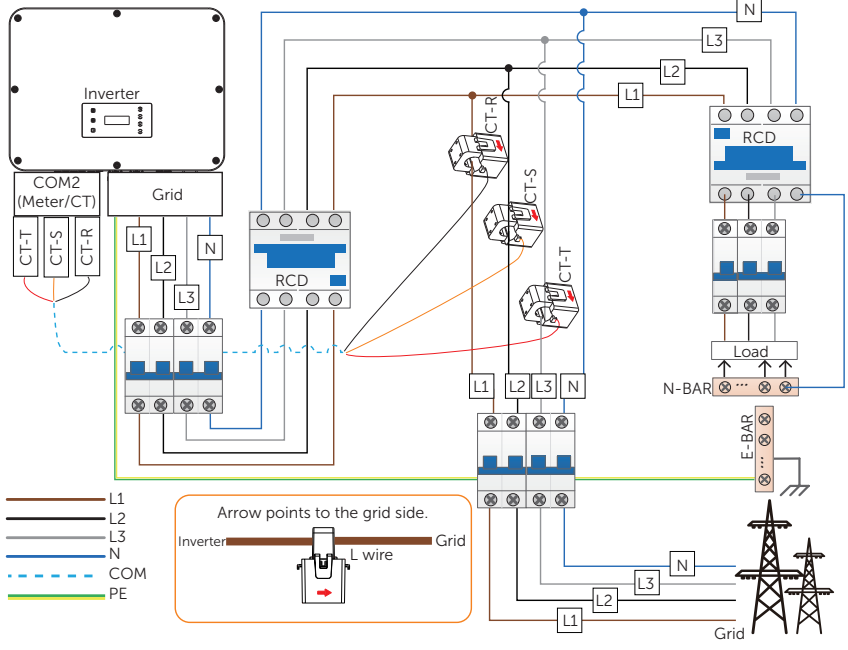
Assignment	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
BMS	+3.3V_ COM	GND_ COM	GND_ COM	BMS_CANH_ CON	BMS_CANL_ CON	GND_ COM	BMS_485A_ CON	BMS_485B_ CON
DRM	DRM1/5	DRM2/6	DRM3/7	DRM4/8	+3.3V_COM	COM/ DRM0	GND_COM	GND_COM
Meter/CT	CT_R1_ CON	CT_S1_ CON	CT_T1_ CON	METER_485A	METER_485B	CT_T2_ CON	CT_S2_CON	CT_R2_CON
Ripple control	RP_K4	GND_ COM	RP_K3	GND_COM	RP_K2	GND_ COM	RP_K1	GND_COM
DIO	DO_1	DO_2	DI_1+	DI_1-	DI_2+	DI_2-	GND_COM	-

*For pin assignment of other communication ports, refer to the user manual.

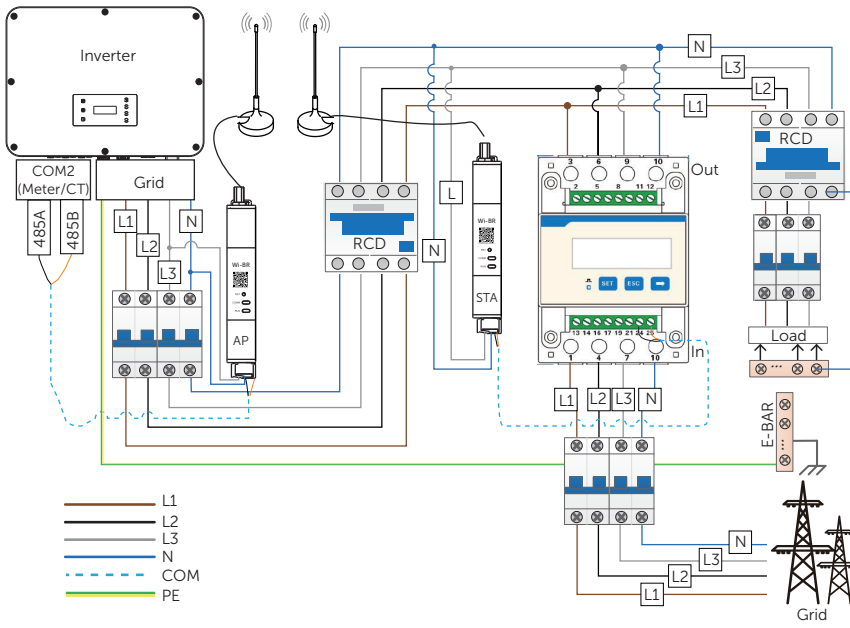
Wiring diagram of connecting a direct-connected meter



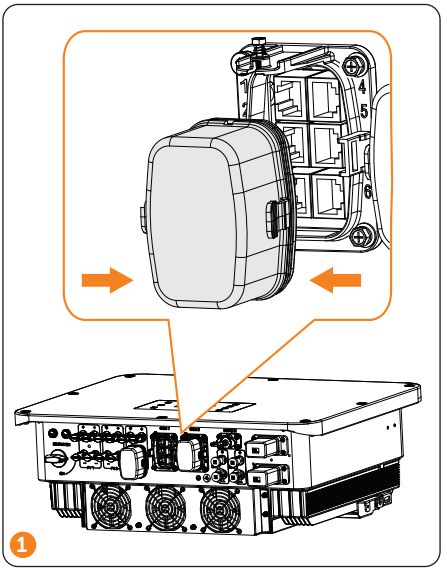
Wiring diagram of connecting a batch of CTs

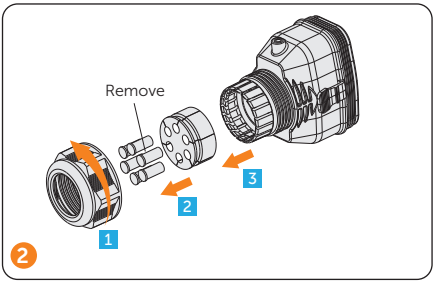


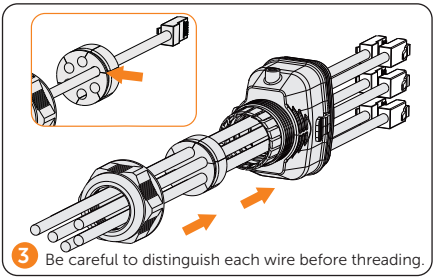
Wiring diagram of connecting wireless meter

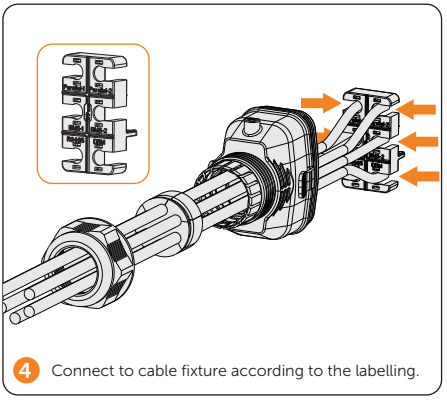


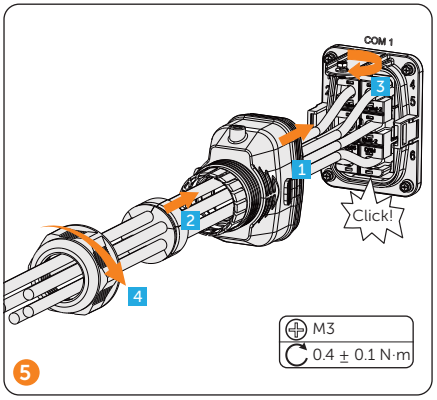
* For other communication connections, refer to the user manual.

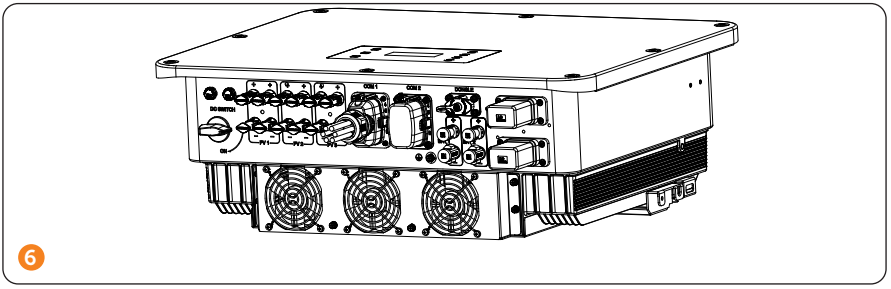


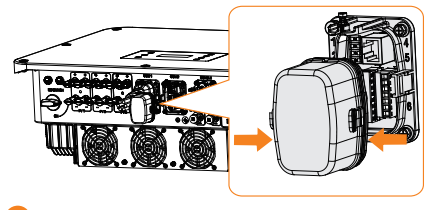

Remove
1
2
3


3 Be careful to distinguish each wire before threading.

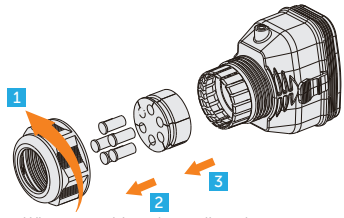

4 Connect to cable fixture according to the labelling.


COM 1
1
2
3
4
Click!
M3
0.4 ± 0.1 N·m
5

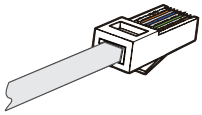

6



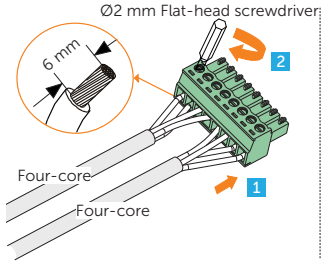
1



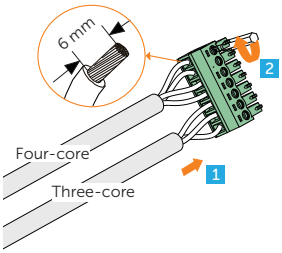
2 When not wiring, the sealing plug should be retained.



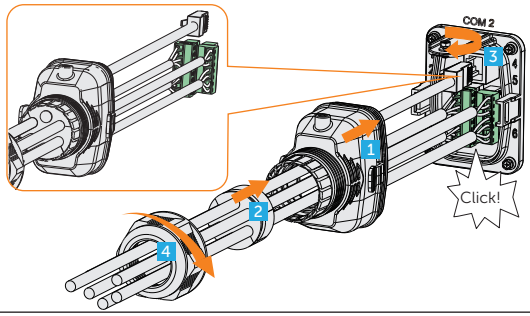
3 For Meter/CT



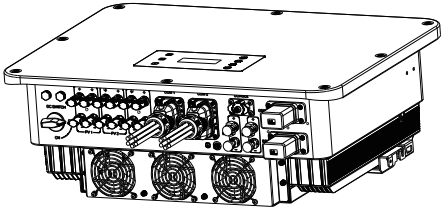
4 For Ripple Control



5 For DIO

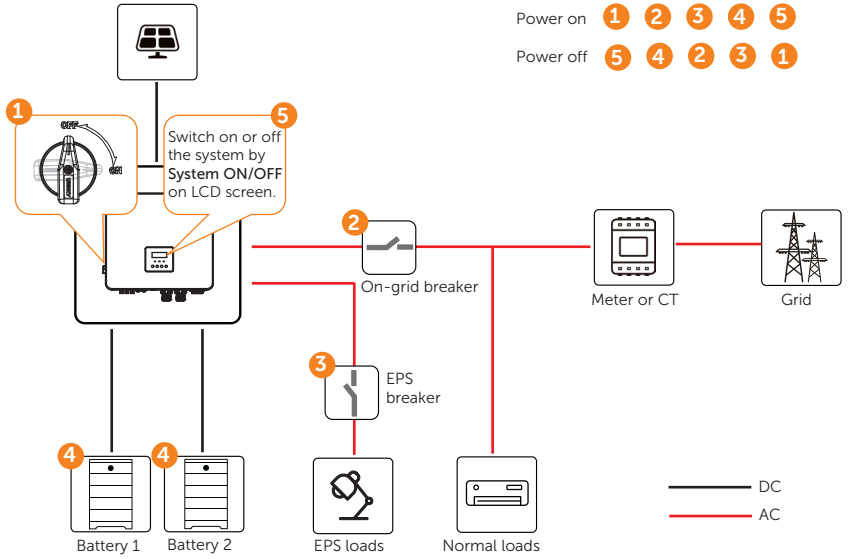


6



7

Power On/Off / Einschalten/Ausschalten / Marche/Arrêt / Encendido/apagado / Ligar/Desligar / In-/uitschakelen / Accensione/Spegnimento / Włączanie/wyłączanie zasilania / ZAP/VYP / Ström på/av / Pornire/Oprire / **Включване/изключване** / Strøm til/fra / **Ενεργοποίηση/Απενεργοποίηση** / Toide sisse/välja / Virta päälle/pois / Uključivanje/isključivanje napajanja / Be-/kikapcsolás / Maitinimo įjungimas / išjungimas / Barošanas ieslēgšana/izslēgšana / Napájanie zapnuté/vypnuté / Vklop/izklop / Güç Açık/Kapalı / Ligar/Desligar

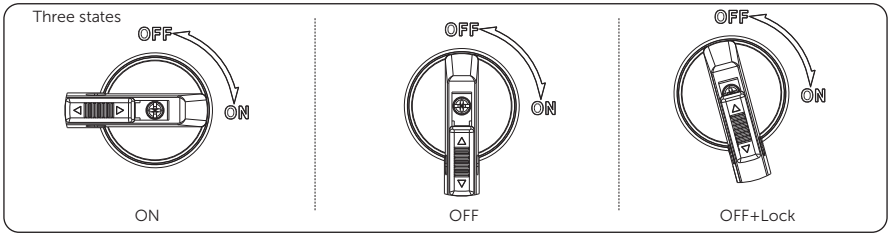


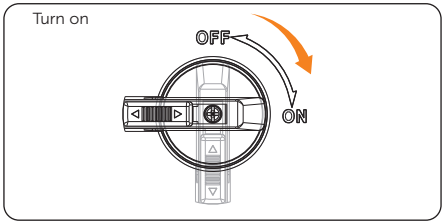
For instructions on how to start the battery, refer to the documentation of the battery.

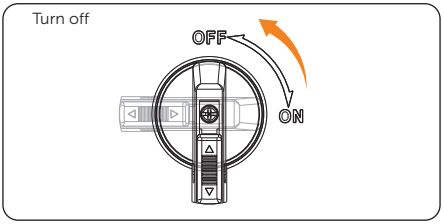
Check the LCD screen and perform **Forced Discharge** and **Forced Charge** through the setting path **Menu** > **Mode Select** > **Manual** to verify if the charging and discharging of battery is normal.

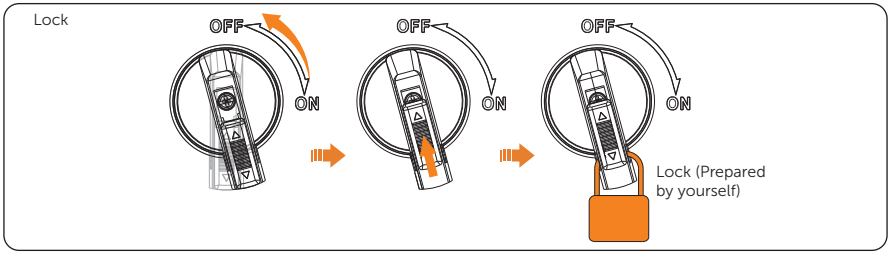
After the installation is complete, cut off the on-grid breaker and then switch on all the EPS loads to ensure that the system work properly. Repeat the above operations each time the load on the EPS terminal increases.

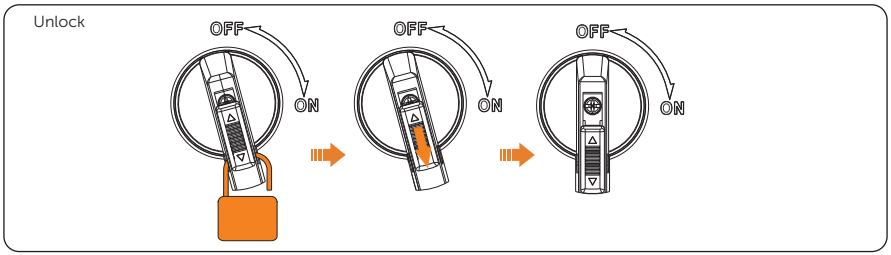
Lockable DC Switch / Abschließbarer DC-Schalter / Interrupteur CC verrouillable / Interruptor de CC con bloqueo / Interruptor CC Bloqueável / Vergrendelbare DC-schakelaar / Interruttore CC bloccabile / Blokowany przełącznik prądu stałego / Uzamykatelný DC vypínač / Låsbar DC-brytare / Comutator DC blocabil / **Заключващ се превключвател за постоянен ток** / Låsbar DC-afbryder / **Διακόπτης DC με δυνατότητα κλειδώματος** / Lukustatav alalisvoolu-lüliti / Lukittava DC-kytkin / Prekidač istosmjerne struje (DC) koji se može blokirati / Zárható DC kapcsoló / Užrakinamas nuolatinės srovės jungiklis / Bloķējams līdzstrāvas slēdzis / Uzamykateľný spínač jednosmerného prúdu / DC stikalo z možnostjo zaklepanja / Kilitlenebilir DC Anahtarı / Interruptor CC bloqueável





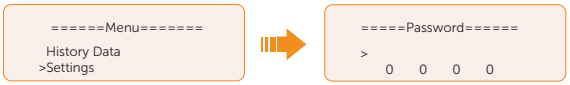






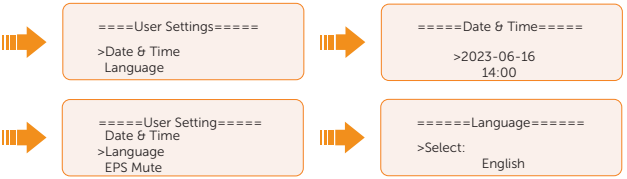
General Setting / Allgemeine Einstellungen / Paramètres généraux / Configuración general / Definição Geral / Algemene instelling / Impostazione generale / Ustawienia ogólne / Obecné nastavení / Generell inställning / Setare general / **Обща настройка** /Generel indstilling / **Γενική τοποθέτηση** / Üldine seadistus / Yleisasetus / Opće postavke / Általános beállítás / Bendrasis nustatymas / Vispārīgs iestatījums / Všeobecné nastavenie / Splošna nastavitev / Genel Ayar / Configuração Geral

1 User Settings

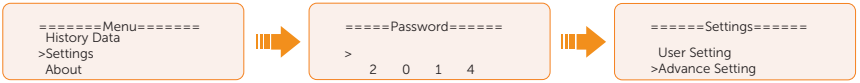


The initial password is 0 0 0 0 which should be changed for the consideration of account security.

- Data&Time,Language

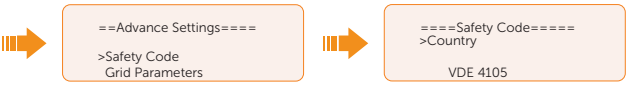


2 Advance Settings



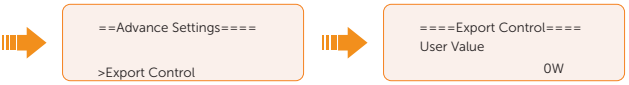
The initial password is 2014 which should be changed for the consideration of account security.

- Safety Code



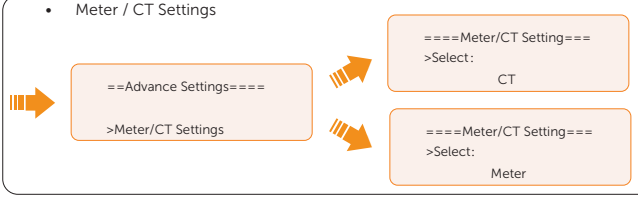
Set the corresponding safety standards according to different countries

- Export Control

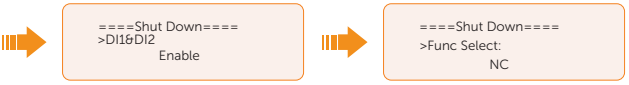


Set the control power to 0 for the countries with zero export control limit

- Meter / CT Settings



- Shut Down



The areas connected to the NS protection device need to be set.

Wi-Fi Configuration / WLAN-Konfiguration / Configuration Wi-Fi / Configuración de wifi / Configuração de Wi-Fi/Wi-Fi-configuratie / Configurazione del Wi-Fi / Konfiguracja Wi-Fi / Konfigurace Wi-Fi / Wi-Fi-konfiguration / Configurare Wi-Fi / Wi-Fi **конфигурация** / WiFi-konfiguration / **Ρυθμίσεις παραμέτρων** Wi-Fi / Wi-Fi konfiguratsioon / Wi-Fi-kokoonpano / Konfiguracija Wi-Fi mreže / Wi-Fi konfiguráció / "Wi-Fi" konfigūracija / Wi-Fi konfigurācija / Konfigurácia Wi-Fi / Konfiguracija Wi-Fi / Wi-Fi Yapılandırması / Configuração Wi-Fi



Scan the QR code to download the SolaXCloud app. Follow the tutorial or online documents on the SolaXCloud app to complete the configuration.

Warranty Registration

Please visit the website: https://www.solaxcloud.com/user-center/ to complete the warranty registration. For more detailed warranty terms, please visit SolaX official website: www.solaxpower.com.

SolaX Power Network Technology (Zhejiang) Co., Ltd.

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E-mail: info@solaxpower.com

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