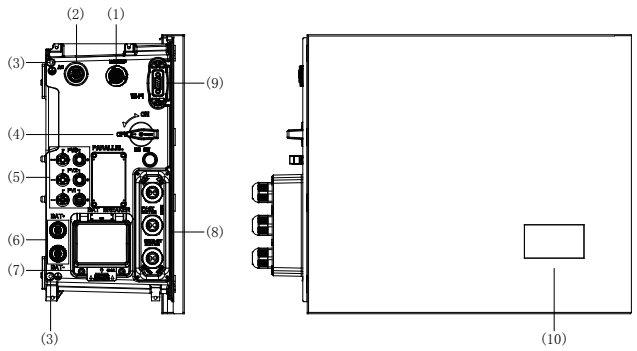
EN

QUICK INSTALLATION GUIDE

SMILE-G3-T5-INV / SMILE-G3-T10-INV

01 Product Overview

(1) Backup Connector
(2) Grid Connector
(3) Grounding Point
(4) PV Switch
(5) PV + Connectors / PV - Connectors
(6) BAT + Connector / BAT - Connector
(7) Battery Circuit Breaker
(8) Communication Ports
(9) Wi-Fi Port
(10) LED Display



02 Accessories and Installation Tools

2.1 Scope of Delivery

Inverter (×1)	Top Cover (×1)	Right Cover (×1)	Cable Cover (×1)	Left Support Foot (×1)	Right Support Foot (×1)
PV+ & PV- Connectors & covers(×3)	Grid Connector (×1)	Backup Connector (×1)	Wi-Fi Module (×1)	6 Pin AUX Terminal Block (×2)	Grounding Cable (×1)
Screws and Terminals Set (×1)	Documents (×2)	PV Connector Disassembling Tool (×1)	BAT Removal Tool (×1)		

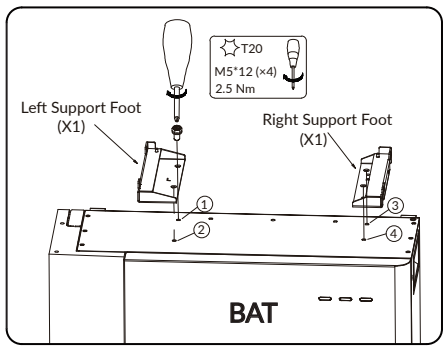
2.3 Installation Tools

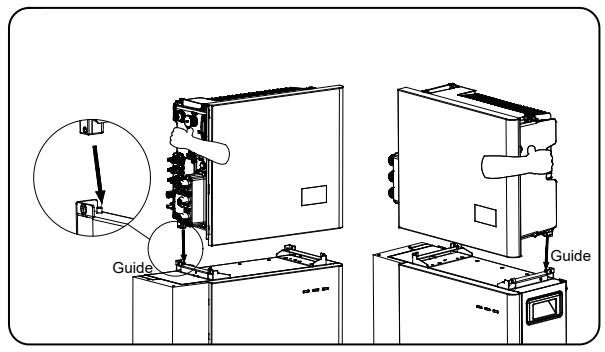
T20 Torx Screwdriver	Spirit Level	Blade Width: 1.2/2.5 mm Flat-Head Screwdriver	SW8 Socket Wrench	Wire Stripper	Network Plug Clamp
Cord End Terminal Crimper	Crimping Pliers (Model: PV-CZM-22100)	Tape Measure	Hammer Drill, Bit Ø10	Multimeter	Current Clamp

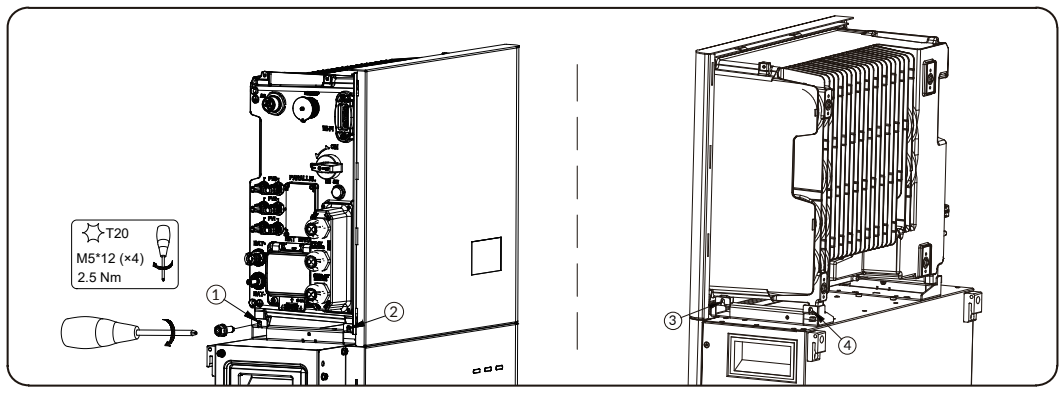
03 Installing the Inverter

3.1 Installing the Inverter Standing on the Battery

Before installing the inverter, please ensure that the battery has been installed properly.







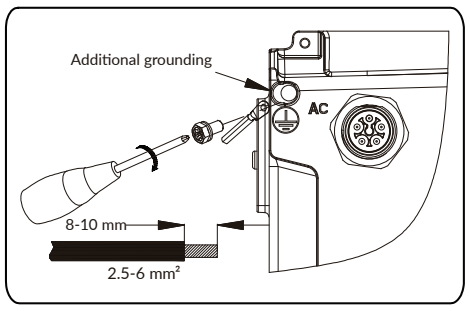
04 Electrical Connection

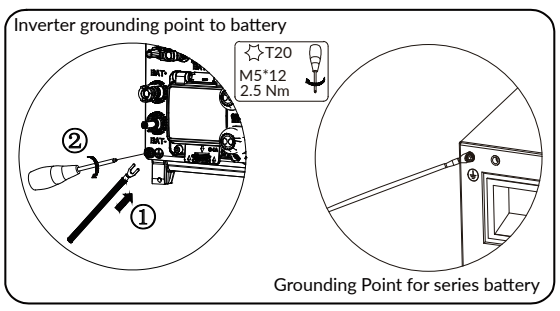
DANGER
You must protect each inverter with an individual grid/backup circuit breaker in order to ensure that the inverter can be disconnected safely.

WARNING
Before doing electrical connection, please ensure the PV switch & all AC and BAT circuit breakers are switched OFF and cannot be reactivated.

NOTE Please refer to the System Wiring Diagram for detailed wiring.

4.1 Grounding Connection





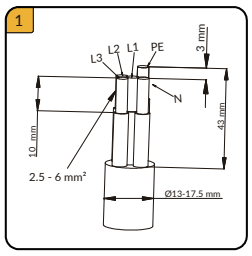
4.2 Grid/Backup Connection

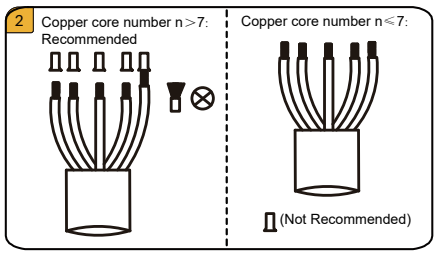
AC connection recommendation for T5-INV

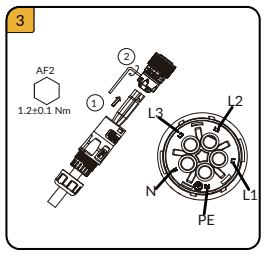
Description	Max. Current	AC Circuit Breaker Type	Recommended Cable Cross-Section
Grid Side	14.5 A	16 A	2.5~6 mm²
Backup Side	7.3 A	16 A	2.5~6 mm²

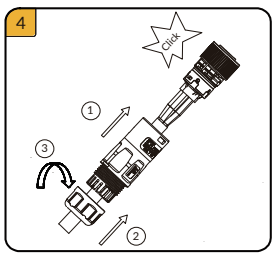
AC connection recommendation for T10-INV

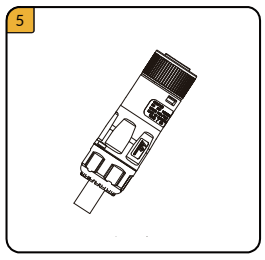
Description	Max. Current	AC Circuit Breaker Type	Recommended Cable Cross-Section
Grid Side	21.7 A	32 A	6~10 mm²
Backup Side	14.5 A	16 A	2.5~6 mm²

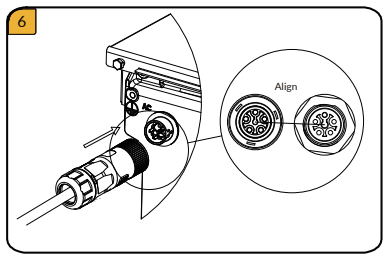




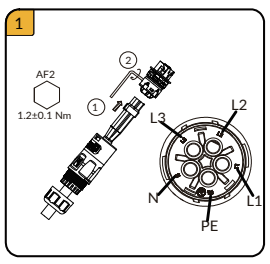


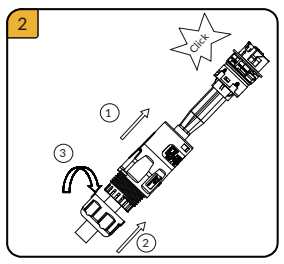


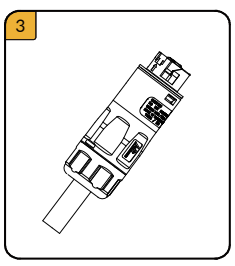


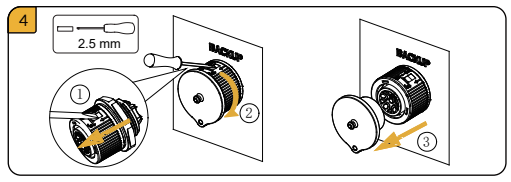


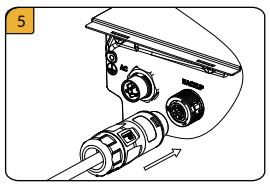
The steps for backup connection are similar to grid connection.



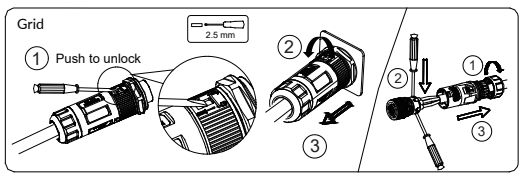


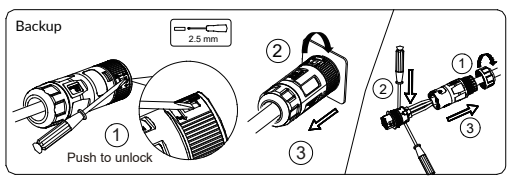




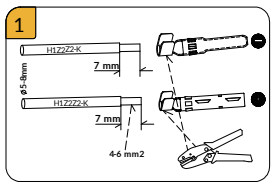


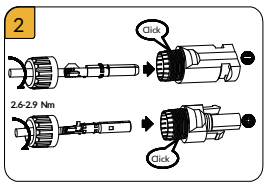
Disassembling connector

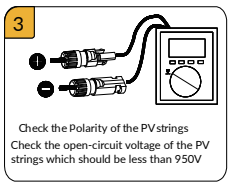


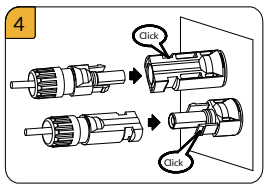


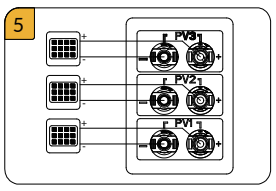
4.3 PV Connection



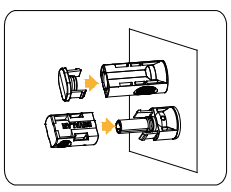


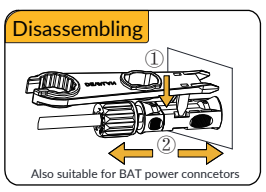






If there are PV connectors unused, please use the PV covers to seal the PV connectors.

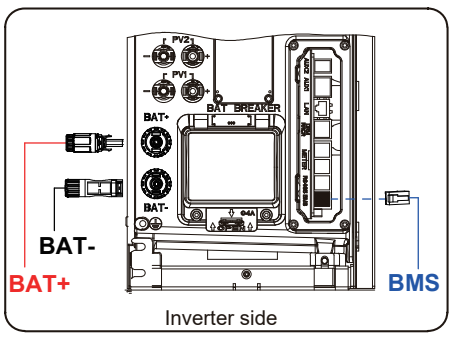


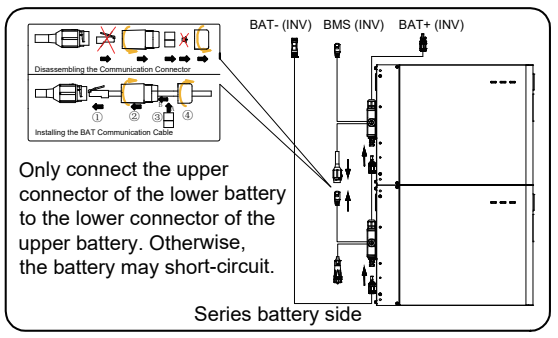


4.4 Connecting the Battery to the Inverter

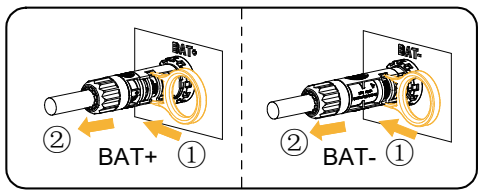
DANGER
Danger to life due to burns caused by electric arcs through short-circuit currents.
Short-circuit currents in the battery can cause heat build-up and electric arcs. Heat build-up and electric arcs may result in lethal injuries due to burns.
- Disconnect the battery from all voltages sources prior to performing any work on the battery.
- Disconnect the inverter from all voltages sources prior to performing any work on the inverter.
- DO NOT short-circuit the battery terminals.
- Observe the battery safety information provided in the Installation & Operation & Maintenance Manual.

BAT connection for inverter and series battery





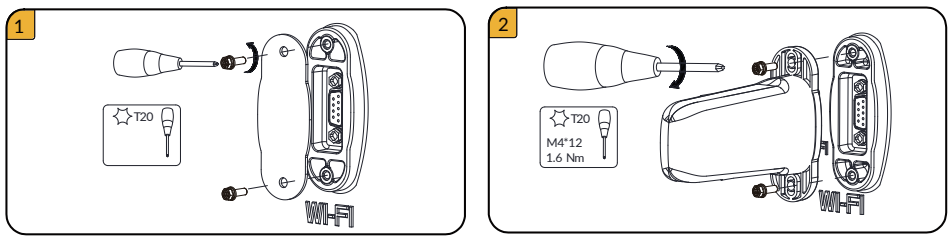
The BAT Connectors Disassembling



For more detailed wiring instructions between inverters and multiple columns of batteries，please refer to the relative quick installation guide of battery.

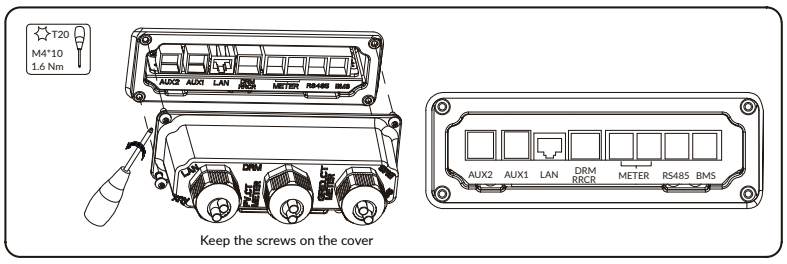
05 Communication Connection

5.1 Wi-Fi Connection

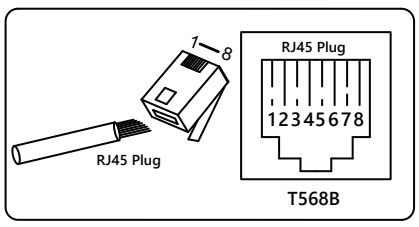


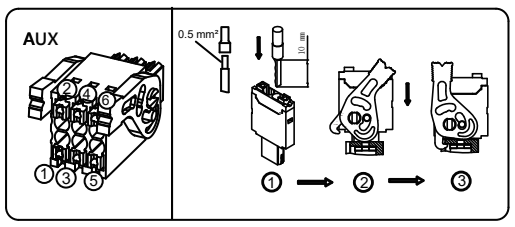
5.2 Other Communication Connection

AUX / LAN / DRM&RRCR / METER / RS485 / BMS Connection

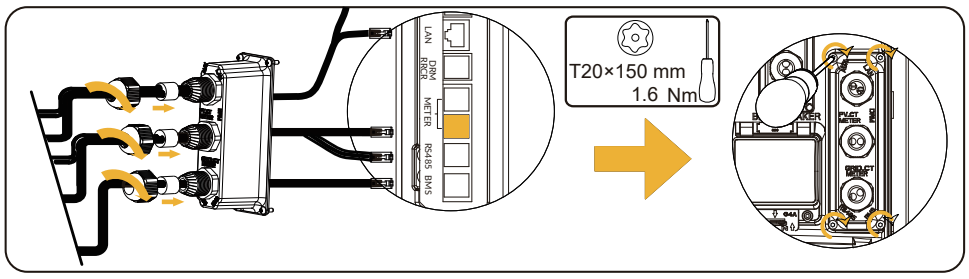


Item / No.	1	2	3	4	5	6	7	8
BMS	NC	RS485_A4	NC	CAN1_H	CAN1_L	NC	RS485_B4	NC
RS485	12V	NC	GND	RS485_B5	RS485_A5	NC	NC	NC
METER	NC	NC	RS485_A7	NC	NC	RS485_B7	NC	NC
METER	NC	NC	RS485_A7	NC	NC	RS485_B7	NC	NC
RRCR	K1	K2	K3	K4	5V	NC		
DRM	DRED1/5	DRED2/6	DRED3/7	DRED4/8	REF GEN/0	COM LOAD/0	GND	
AUX1	DO1_NO	DO1_COM	DO1_NC	DI_NEGATIVE	DI_POSITIVE	GND		
AUX2	DO2_NO	DO2_COM	DO2_NC	DI_NEGATIVE	DI_POSITIVE	GND		





Wiring the Communication Cables to the Inverter



06 Commissioning

WARNING

Never power on the energy storage system without the correct and reliable installation and electrical connection.

Follow the steps in the COMMISSIONING GUIDE AND REPORT to download the AlphaESS APP, register your account, power on the system, configure Wi-Fi port, set system parameter and operate the system.
After completing the commissioning, please submit the commissioning report.

07 Power ON / OFF the Energy Storage System Procedure

Procedure for Powering ON the System
1) Switch on the battery circuit breaker at the left middle of the inverter.
2) Switch on the battery circuit breakers of all batteries.
3) Switch on the AC circuit breaker between the grid port of the inverter and the grid.
4) Switch on the AC circuit breaker between the backup port of the inverter and the loads.
5) Switch on the PV switch between the PV strings and the inverter if there is any.
6) Switch on the PV switch in the middle left of the inverter.

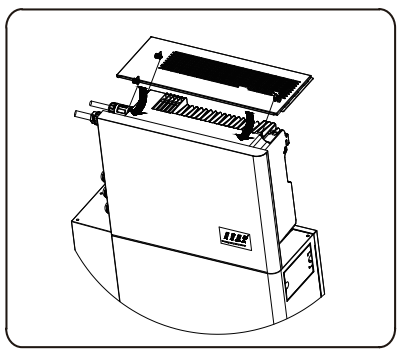
Procedure for Powering OFF the System
1) Switch off the AC circuit breaker between the backup port of the inverter and the loads.
2) Switch off the AC circuit breaker between the grid port of the inverter and the grid.
3) Switch off the PV switch between the PV strings and the inverter if there is any.
4) Switch off the PV switch in the middle left side of the inverter.
5) Switch off the battery circuit breakers of all the batteries.
6) Switch off the battery circuit breaker at the lower left of the inverter.

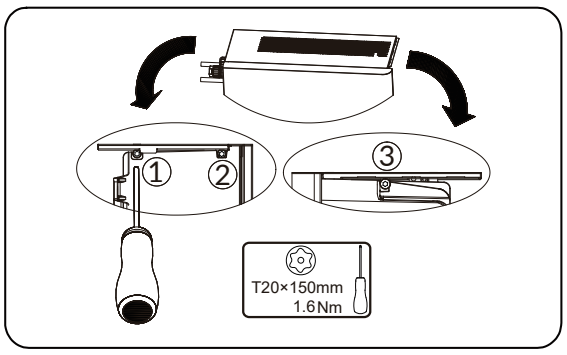
08 Mounting the Covers of the Inverter

WARNING

Make sure all the wiring has been done and the energy storage system works normally, then mount the covers of the inverter.

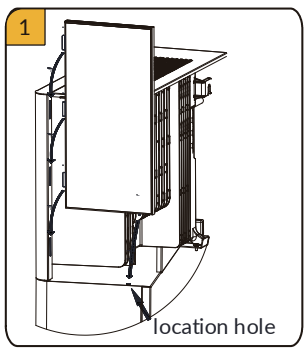
8.1 Mounting the Top Cover



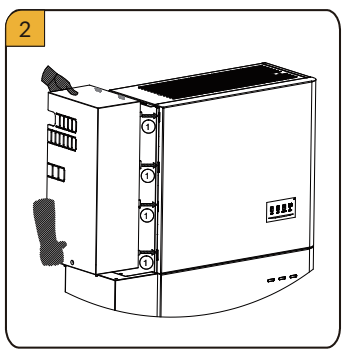


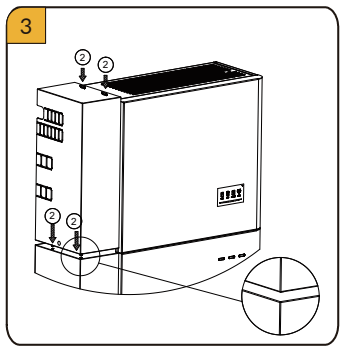
8.2 Mounting other Covers when Inverter Standing on the Battery

Mounting the Right Cover

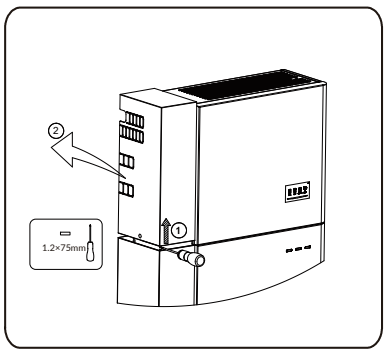


Mounting the Cable Cover





8.3 Disassembling the Cable Cover when Inverter Standing on the Battery



For more information, please download the user manual and other technical documents.

Commissioning Guide | System Installation Manual | App Manual (Installer) | AlphaCloud Manual (Installer) | App Manual (End User) | AlphaCloud Manual (End User) | System Datasheet