



Quick Installation Guide Version 1.0

S6-EH3P(8-18)K02-NV-YD-L
S6-EH3P(7-10)K02-LV-YD-L



Ginlong Technologies Co., Ltd.

Note: Installation Manual Download

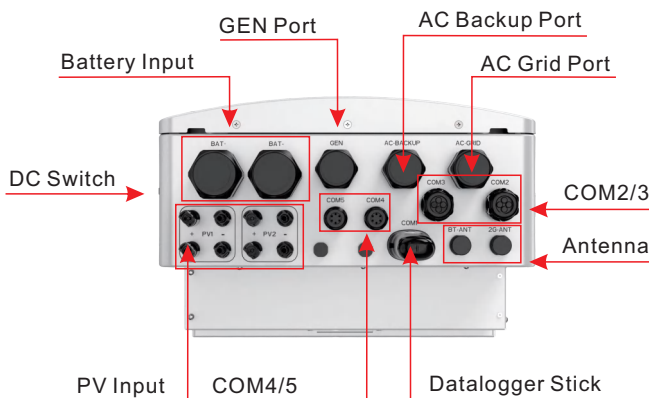
For access to the manual please scan the QR code below or you can go the URL <https://www.solisinverters.com/global/downloadcenter.html>

After entering the page, you can click " " icon to change to preferred language.



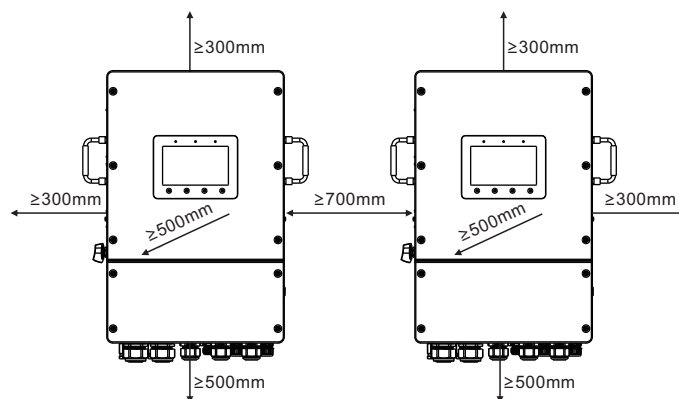
1 Product Description

The Solis S6 Series is designed for residential hybrid systems, which can work with batteries to optimize self-consumption. The unit can operate in both off- and on-grid modes.



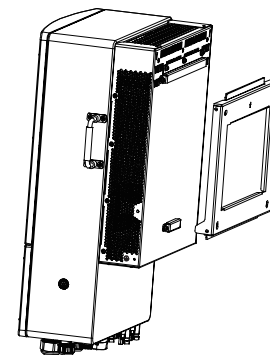
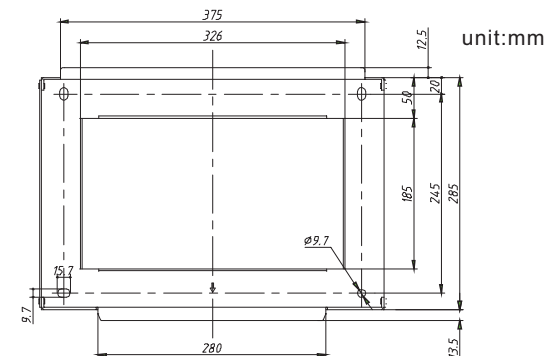
2 Installation Clearance

Minimum clearance is required.



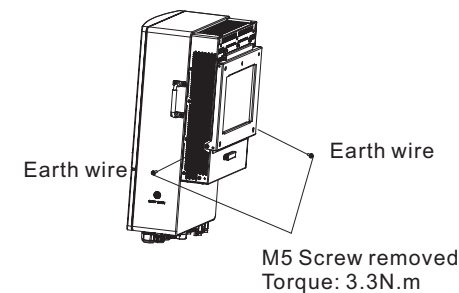
3 Mounting Hole Size

Dimensions of mounting bracket.



4 PE Cable Installation

An external ground connection is provided at the right side of inverter. Prepare OT terminals: M5.

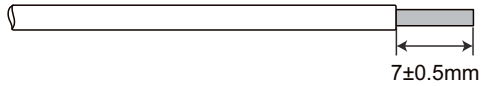


5 PV Input Cable Installation

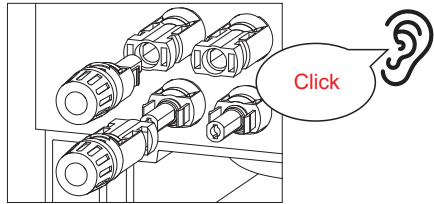
The connector is MC4.

Please make sure the PV array open circuit voltage is within the limit of the inverter.

Please make sure the polarity of the output voltage of PV array matches the "DC+" and "DC-" symbols.



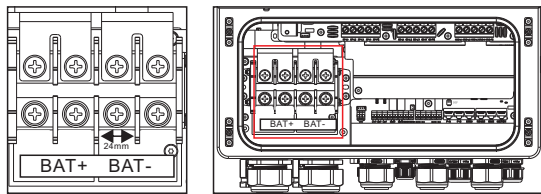
Cable type	Cross section (mm ²)	
	Range	Recommended value
Industry generic PV cable (model: PV1-F)	4.0~6.0 (12~10AWG)	4.0 (12AWG)



6 Battery Cable installation

Please make sure that the battery is turned off.

Use a multimeter to verify that the battery voltage is 0Vdc before proceeding. Consult the battery product manual for instructions on how to turn it off.



Terminal: M8 screws*4

(8-18)K Recommended cable diameter: 1AWG*4(42.41mm²*4)

(7-10)K Recommended cable diameter: 2AWG*4(33.62mm²*4)

The BAT+ terminal provides 2 inputs, each with a maximum of 175A.

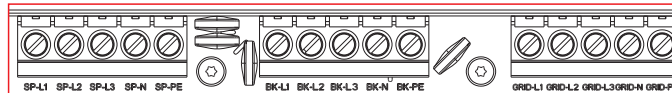
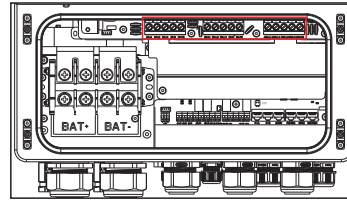
The BAT- terminal provides 2 inputs, each with a maximum of 175A.

7 AC Wring

Before installing the AC cables, be sure that the OCPDs (breakers) are turned off.

Use a multimeter to verify that the AC voltages are 0Vac before proceeding.

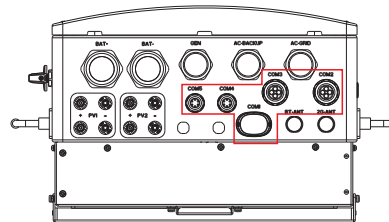
There are three sets of AC output terminals and the installation steps for both are the same.



Model	AC Grid	AC Backup/AC Gen	PE
Torque	4~5N.m	4~5N.m	4~5N.m
Recommend cross section	8~6AWG (6~10mm ²)	10~6AWG (4~10mm ²)	6AWG (10mm ²)

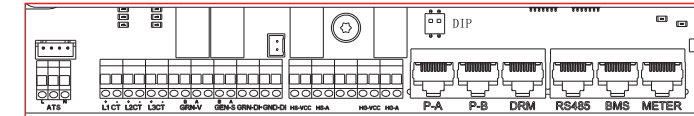
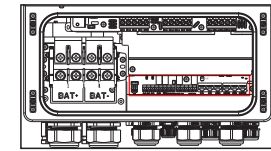
8 Communication

8.1 Communication Ports



Port	Port Type	Description
COM1	USB	Used for Solis data logger connection
COM2/3	4 hole watertight cable gland	Used for RJ45 connection inside wiring box
COM4/5	6 hole watertight cable gland	Used for 16 PIN terminal block connection inside wiring box

8.2 Communication Terminals



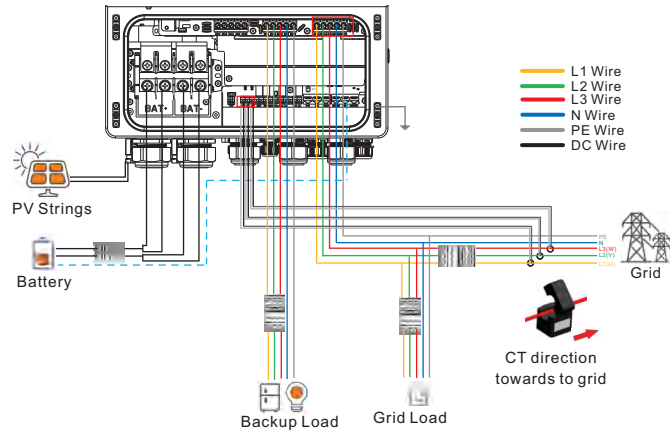
Terminal	Type	Description
Meter	RJ45	(Optional) Used for RS485 communication between inverter and the smart meter.
BMS		Used for CAN communication between inverter and Lithium battery BMS.
RS485		Third-party external devices.
DRM		(Optional) To realize Demand Response or Logic Interface function, this function may be required in UK and Australia.
Parallel B/Parallel A	Terminal Block	(Optional) Parallel operation communication port.
HS-VCC/HS-A/HG-VCC/HG-A		Reserve(Heat pump).
GND-DI/GEN-DI		Reserve(GEN signal).
GEN-S		Reserve.
GEN-V		Connect to GEN.
L1CT/L2CT/L3CT		Connect to CTs.
ATS		Reserve.
DIP Switch	-	In parallel: Turn the DIP switch of the first and last inverter to: ON, and the other machines to OFF.

9 CT or Meter Connection

9.1 CT Installation

The CT provided in the product box is compulsory for hybrid system installation. It can be used to detect the grid current direction and provide the system operating condition to hybrid inverter.

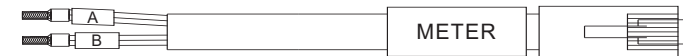
CT Model: ESCT-TA16-100A/50mA



9.2 Meter Terminal Connection (Optional)

If a smart meter is preferred to be installed other than the provided CT, please contact Solis sales rep to order the smart meter and corresponding meter CT.

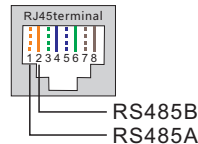
Please lead the Meter RS485 cable through the COM1 or COM2 port of the inverter and connect to the Meter terminal with RJ45 connector.



Pin definition of the Meter Terminal is following EIA/TIA 568B.

RS485A on Pin 1: Orange/white

RS485B on Pin 2: Orange



Meter Configuration: 40mA Meter+120A/40mA CT;

MODEL: SDM630MCT+ESCT-TA16

Separate Kit: 5A Meter+300A/5A

CT MODEL: SDM630MCT V2+ESCT-T50.

10 BMS Terminal Connection

CAN communication is supported between inverter and compatible battery models. Please lead the CAN cable through the COM1 or COM2 port of the inverter and connect to the BMS terminal with RJ45 connector.

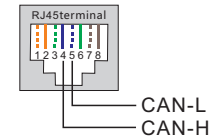


Before connecting CAN cable with the battery, please check whether the communication pin sequence of the inverter and the battery match; If it does not match, you need to cut off the RJ45 connector at one end of the CAN cable and adjust the pin sequence according to the pin definitions of both inverter and battery.

Pin definition of the inverter BMS Port is following EIA/TIA 568B.

CAN-H on Pin 4: Blue

CAN-L on Pin 5: Blue/White



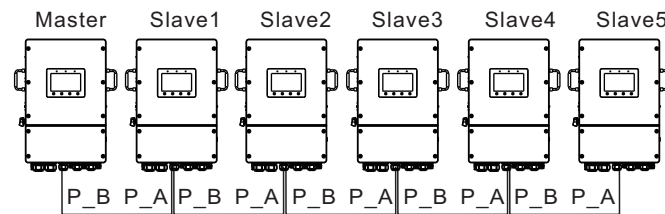
11 Parallel inverter connection (Optional)

Up to 6 units of the inverter can be connected in parallel.

Please connect the paralleled inverters by using P-A and P-B terminals.

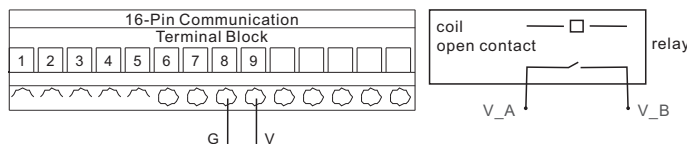
Turn the DIP switch of the first and last inverter to: ON, and the other machines to :OFF.

Standard CAT5 (≤5m, between two inverter) with shielding layers internet cable can be used.

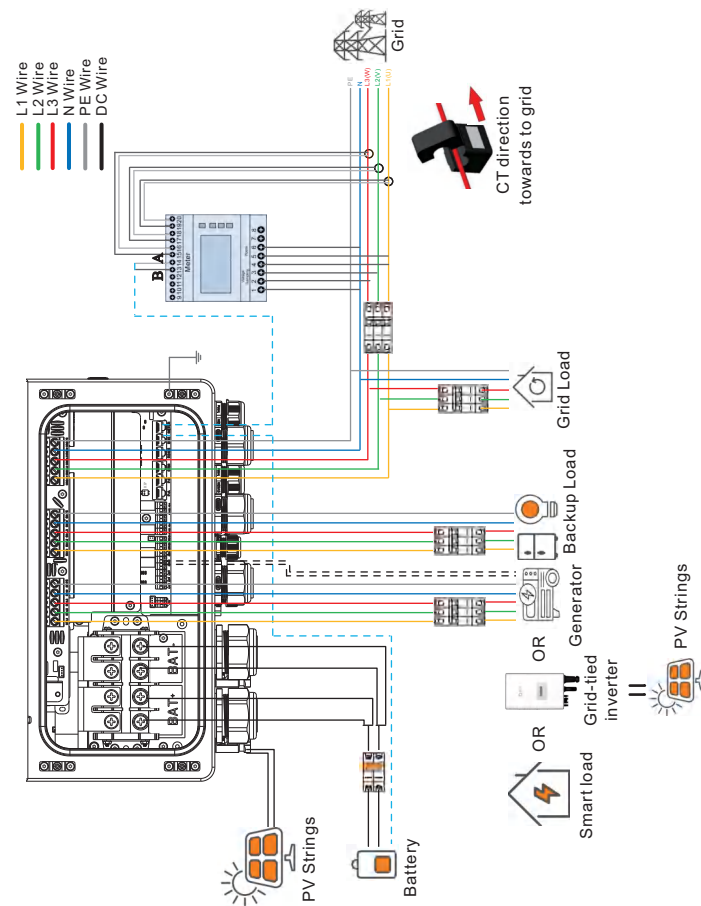


12 G-V Terminal Connection

The G-V terminal is a voltage-free dry contact signal for connecting with generator's NO relay to start up the generator when necessary.



13 Inverter Overall Wiring Diagram



14 APP Quick Setup

There are three ways to download and install the latest APP.

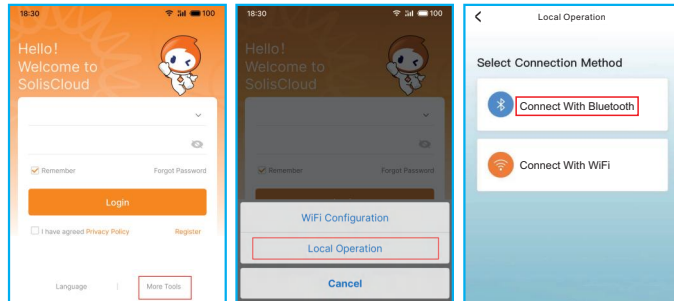
- 1.You can visit www.soliscloud.com.
- 2.You can search "Soliscloud" in Google Play or APP Store.
- 3.You can scan this QR code to download Soliscloud.



Step 1: Connect with Bluetooth.

Turn on Bluetooth switch on your mobile phone and then open the SolisCloud APP.

Click "More Tools"->"Local Operation"->"Connect with Bluetooth"

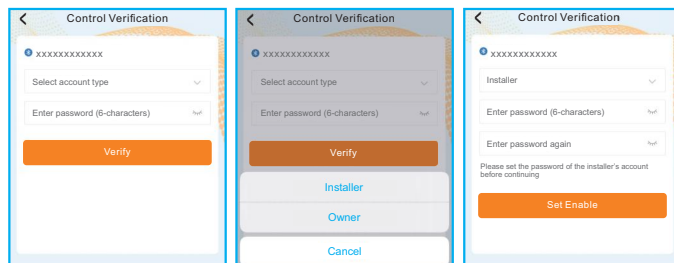


Step 2: Select the Bluetooth signal from the inverter.
(Bluetooth Name: Inverter SN)



Step 3: Login account.

If you are the installer, please select the account type as Installer.
If you are the plant owner, please select the account type as Owner.
Then set your own initial password for control verification.
(The first log-in must be finished by an installer in order to do the initial set up)



Step 4: After the log in for the first time, initial settings are required.

Step 4.1: Set the inverter date and time.

You can set to follow the time on your mobile phone.

Step 4.2: Set the battery model.

It must be based on the battery model that is actually connected to the inverter.

If there is no battery connected for the moment, please select "No Battery" to avoid alarms.

The default setting for battery over discharge SOC is 20%, force charge SOC is 10%.

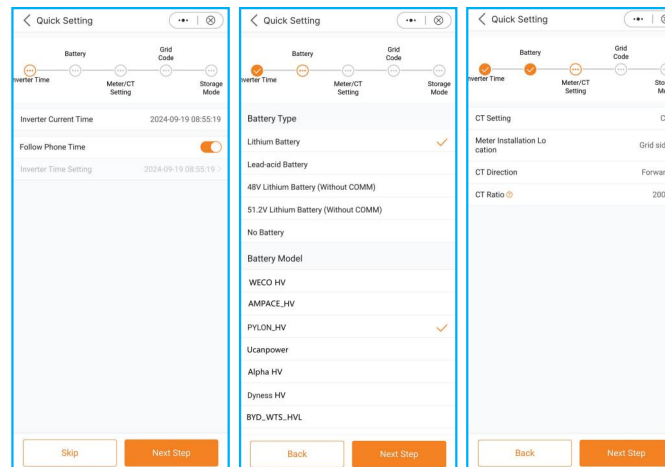
Step 4.3: Set the meter setting.

It must be based on the meter type that is actually connected to the inverter.

If the grid does not need to be connected to an N-Line, select disconnected.

If there is no meter connected for the moment, please select "No Meter" to avoid alarms.

It is suggested to install the meter at the system grid connection point and select "Meter in Grid".



Step 4.1

Step 4.2

Step 4.3

Step 4.4: Set the grid code setting.

Please select the grid code based on the local grid network requirements.

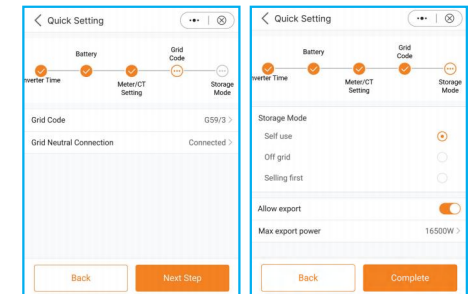
Step 4.5: Set the work mode setting.

Recommended setting is Self-Use Mode. This mode will maximize the use of PV power generation for household electricity, or store it in batteries and use it for household electricity.

Allow export: Allow power output to the grid in Self-use mode.

If you do not want to send power to the grid, do not turn it on.

Max export power: Limit the maximum power sold to the grid.



Step 4.4

Step 4.5

Step 5: Setup complete.

Now the initial settings on the inverter have been set and you can switch on the inverter's DC switch and switch on battery breaker to start up the system. You can also explore in the APP to check the operating data, alarm message or other advanced settings.

15 Completion

You have finished the initial installation.

You may use the Soliscloud APP to link the datalogger to your local router. Please refer to the datalogger installation manual for the detailed configuration.

16 Contact us

Ginlong Technologies Co., Ltd.

No. 57 Jintong Road, Binhai Industrial Park,
Xiangshan, Ningbo, Zhejiang, 315712, P.R.China.

Tel: +86 (0)574 6578 1806

Email: info@ginlong.com

Web: www.solisinverters.com