

Quick Installation Guide

Single-phase Hybrid Solar Inverter



SL3KLH-W | SL3.6KLH-W | SL4.6KLH-W | SL5KLH-W | SL6KLH-W | SL8KLH-W

- This Guide could be updated and modified due to product upgrades or other reasons, and it does not replace the User Manual and safety instructions for the product under any circumstances.
- Before operation, please read the User Manual and More information is available on www.slenergy.com or the manufacturer's website.
- All operations must be performed by qualified technicians who have read the User Manual, master the safety precautions related to operation, and are familiar with local standards and relevant safety regulations of the electrical system.
- The cables in the photovoltaic power generation system must be intact and well-insulated. Use insulation tools and wear protective equipment when operating them;
- Slenergy assumes no liability for injury or property damage due to repairs attempted by unqualified individuals or a failure to properly follow this Guide.
- All information and recommendations provided herein do not constitute an express or implied warranty, the final interpretation of the relevant content shall be vested solely in Slenergy.

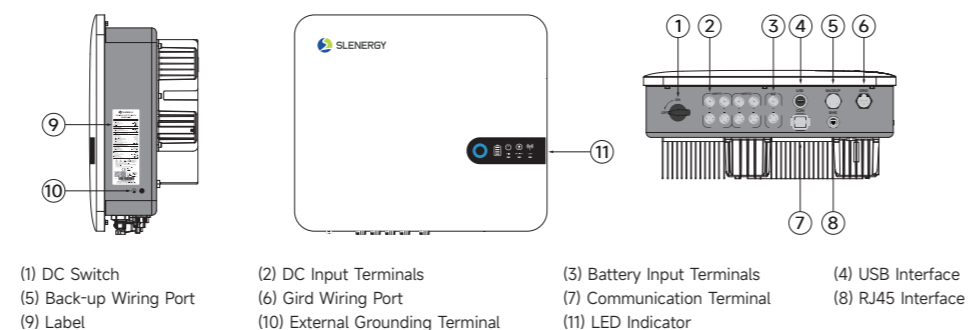
The packing list is as follows:

Name	Quantity	Name	Quantity
Inverter	1	16pin Communication Connection	1
Wall Mounting Bracket	1	Back up AC Quick Connector	1
External CT	1	GRID AC Quick Connector	1
Datalogger	1	Quick Installation Guide	1
PV DC Connector (pair)	3	Factory Inspection Report	1
BAT DC Connector (pair)	1	Screw Mounting Kit	1
3m Network Cables and Waterproof Connectors			1

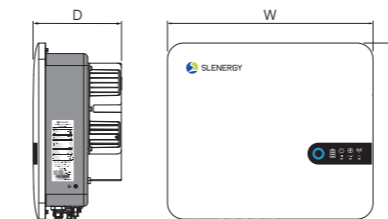
Important Safety Instruction

- Switch off the machine before any operation and maintenance.
- Before wiring and checking, ensure that the DC/AC circuit breakers of inverter have been disconnected and wait at least 5 minutes.
- Do not expose this machine to ambient temperatures above 60°C(140°F) or below -30°C(-22°F).
- Read the Manual before any operations on the inverter.
- Exposed wiring and operation during powering on can present a risk of electrical shock.
- Reliably earth the inverter for protective grounding.

Product Overview

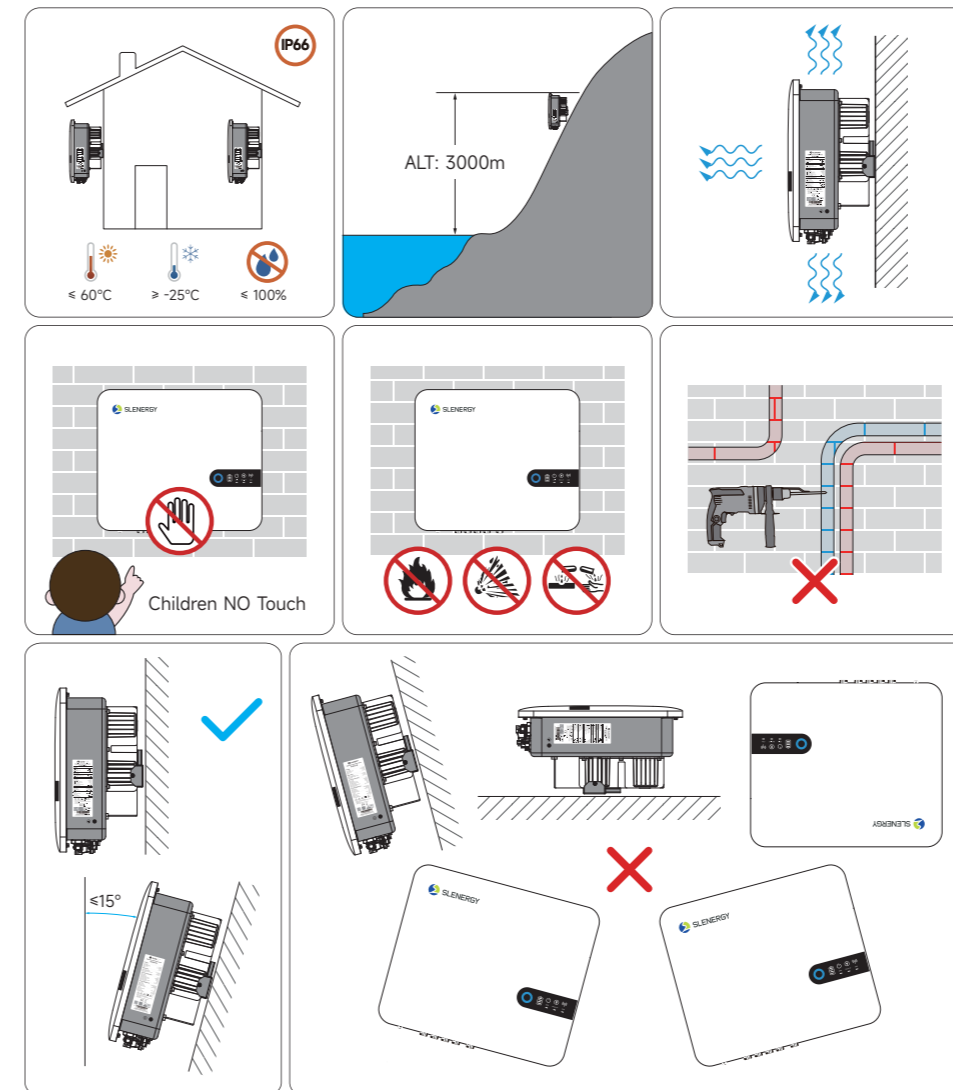


Dimension & Weight



Models	Dimension (W×D×H)	Weight
SL3-8KLH-W	516 x 222 x 442mm	23kg

Installation Site



LED Indicators

The LED on the front panel of the inverter indicate the current working status of the inverter.

Indicator	Status	Indication
	Steady Blue	The inverter is in normal mode.
	Blinking Blue at 2s intervals	DC or AC is on, and the inverter is in standby or Start-up mode.
	Steady Yellow	The inverter is Alarm.
	Blinking Yellow at 0.2s intervals	Program download/upgrade.
	Steady Red	The inverter is faulty.
	Steady White	It indicates battery level.
	Blinking White at 2s intervals	The BMS experiences a communication failure or abnormal. (battery internal overtemperature, overcurrent, etc.)
	Off	The battery is not connected.
	Steady White	The power grid is normal.
	Blinking White at 0.2s intervals	The power grid is abnormal, and the grid connection is not accessible.
	Off	The grid is not connected.
	Steady White	There is a normal voltage in the back-up output port.
	Blinking White at 0.2s intervals	The inverter is overload.
	Off	There is no voltage in the back-up output port.
	Steady White	Wifi/4G monitoring is normal.
	Blinking White at 0.2s intervals	No communication module is installed or the communication is abnormal.

NOTICE

When the indicator is off, it may be in poor contact but may still be energized. Therefore, it is very necessary to pay attention to electrical safety when you need operate the inverter.

As the dimension and parameter of products change, the latest information of our company shall prevail without prior notice.

Slenergy Technology (A.H.) Co., Ltd.

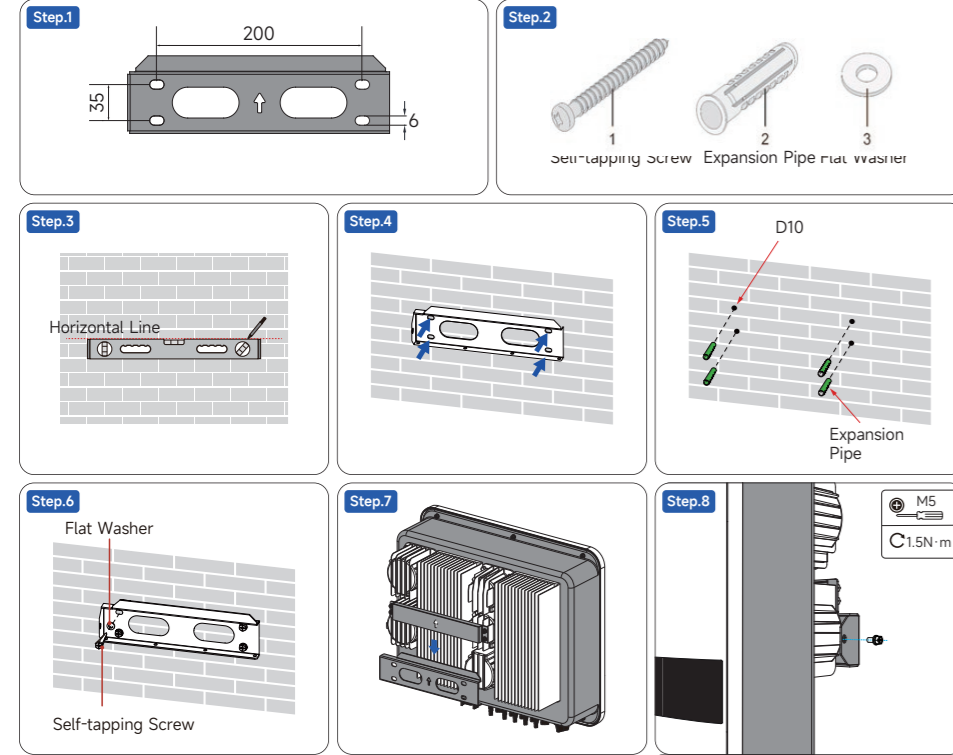
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Official website of Slenergy

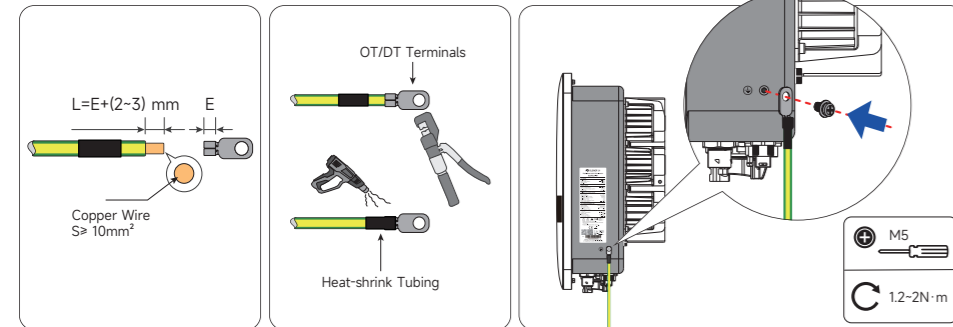
Installation Steps

Before drilling, avoid the electrical wiring inside the wall to prevent danger!
Place the hanging plate flush on the wall, mark the recommended holes as shown, and drill the holes to a depth of about 70 mm.



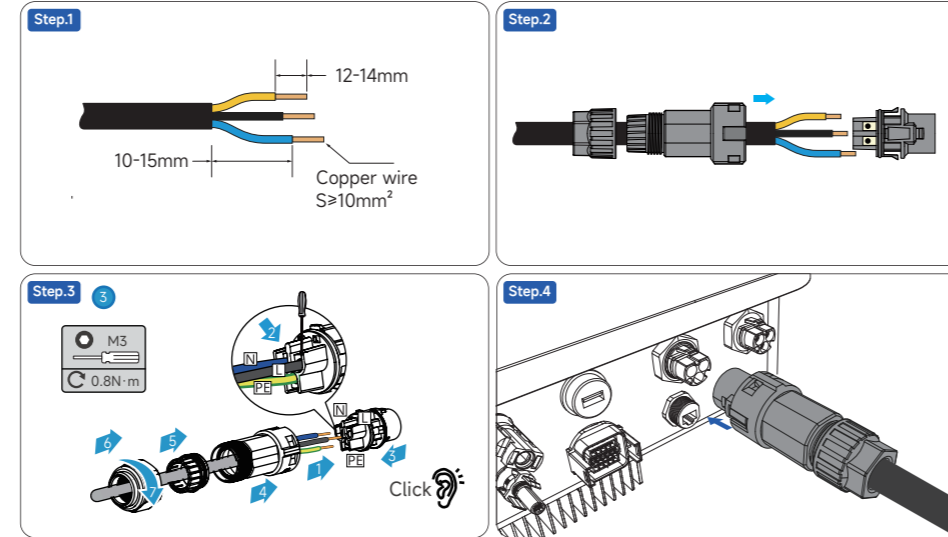
External Grounding Connection

Since the inverter is transformer free, both the positive and negative poles of the PV string cannot be grounded, otherwise the inverter would not function properly.
An external grounding connection is required before PV string and communication connections on the AC side. The grounding connection of the external protection grounding terminal cannot replace the PE terminal connection in the AC wiring. It shall be ensured that both of them are reliably grounded. Otherwise, Slenergy shall not be liable for any consequences that may occur.

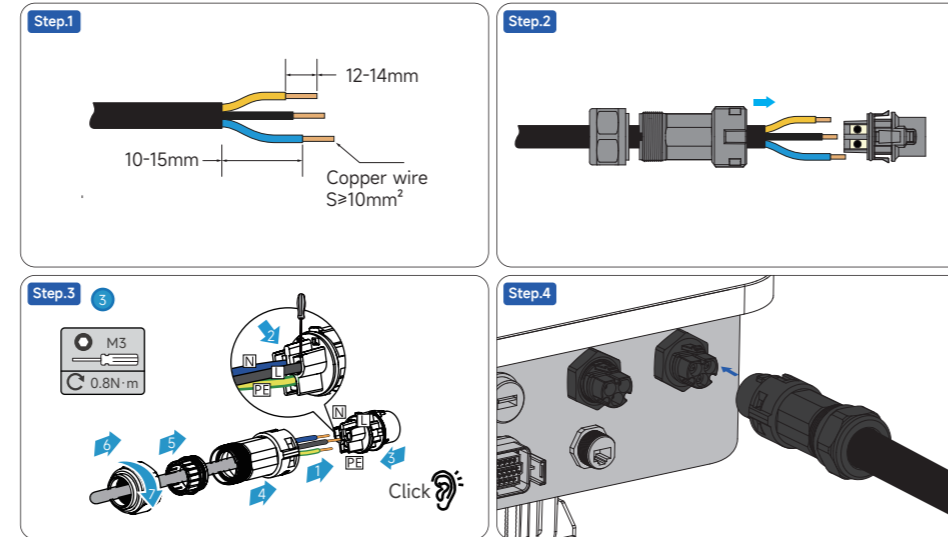


AC-side Wiring

BACK-UP Wiring



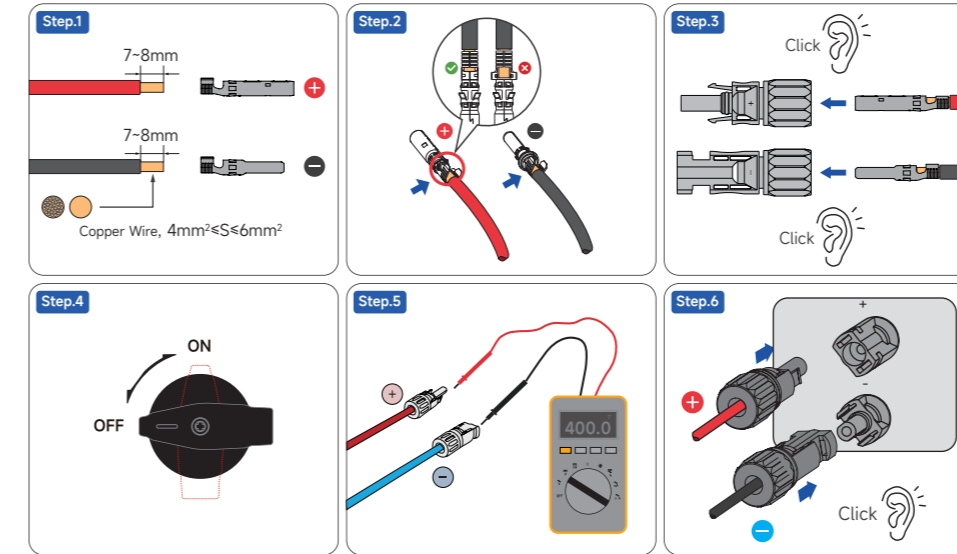
ON-GRID Wiring



NOTICE

- Position of the PE cable and the N cable. If the phase wire is connected to the PE or N terminals, the inverter may be irreversibly damaged.
- Please ensure that the cable core is fully connected to the terminal wiring hole without any exposure.
- Please ensure that cables are securely connected. Otherwise, the terminal may overheat, causing damage to the device during operation.

DC-side Connection (PV & BAT)

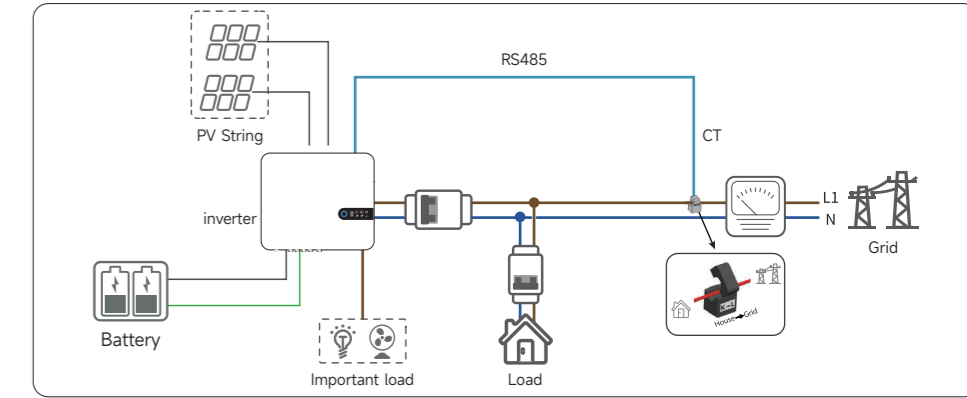


Communication Cable Connection

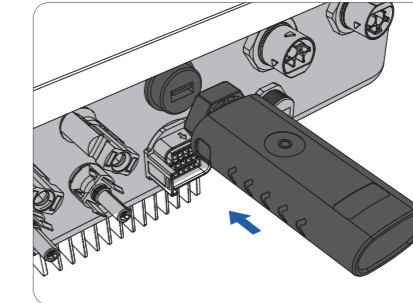
S/N	Port Definition	Function	Functional Description
1	DRM2/6	DRED grid dispatching	DRED (Demand Response Enabling Device): The inverter meets Australian DERD certification requirements and provides a DRED signaling control port.
2	DRM1/5		
3	DRM3/7		
4	COM		
5	DRM4/8		
6	REF		
7	RS485_L2	Meter RS485 communication	The inverter comes with a CT as standard, and supports optional meters; One of the two options can be used; If you choose a meter, you need to connect the meter to the RS485 communication before connecting it to the inverter.
8	RS485_H2		
9	Load.I+	CT communication	Sample the household loads to realize self-generation and self-consumption functions.
10	Load.I-		
11	RS485_L3	Host computer communication	The communication between the inverter and the host computer is achieved through a debugging interface, and the user can make settings by using the network module.
12	RS485_H3		
13	NC	Load control	The inverter has a reserved dry contact control port that supports the connection of an additional contactor for controlling the load on or off.
14	NC		
15	+12V.S	Load control	The inverter has a reserved dry contact control port that supports the connection of an additional contactor for controlling the load on or off.
16	Suspended/GND		

NOTICE

- The external CT is an important part of the system, so the position and direction of the CT need to be installed correctly. Please refer to the figure below.
- Each inverter comes with one CT as standard. The inverter and CT are calibrated, and replacement of other CTs is not allowed.
- The inverter comes with a CT as standard. If you need a meter, you can contact the manufacturer to purchase a matching one, please refer to the instruction manual for its installation.



Datalogger Installation

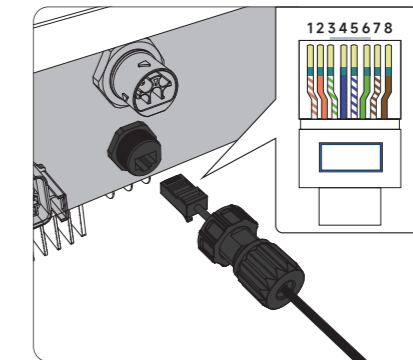


Data Monitoring

- If you are a home user of photovoltaic power station, it is recommended to use the APP Smart M. You can download the APP by scanning the following QR code on your mobile phone, or searching for "Smart M" in the App Store (Android or iPhone).
- You can also log in to <https://global.slenergytech.com>
- for data searching.



BMS Cable Connection



S/N	Color	Interface Definition	Interface Implication
1	Orange & white	RS485_L1.BAT	Communication L between the inverter and the battery RS485
2	Orange	RS485_H1.BAT	Communication H between the inverter and the battery RS485
3	Green & white	NC	
4	Blue	CANH.BAT	Communication H between the inverter and the battery CAN
5	Blue & white	CANL.BAT	Communication L between the inverter and the battery CAN
6	Green	NC	
7	Brown & white	NC	
8	Brown	NC	

Commissioning Steps

- Turn the DC switch on the inverter to "ON".
- If a DC switch is equipped between the inverter and the PV string, close the switch.
- If an AC switch is equipped between the inverter and the grid, close the switch.
- If a DC switch is equipped between the inverter and the batteries, close the switch.
- The inverter will operate normally if the sunlight is normal and the grid conditions meet the grid-connection requirements.
- Observe the status of LED indicators (see "LED Indicators" for details).