



# Quick Installation Guide

Single-Phase Low-Voltage Hybrid Inverter









SL3.6KLV-W | SL5KLV-W | SL6KLV-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](http://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.

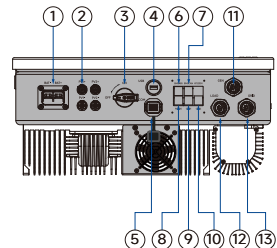
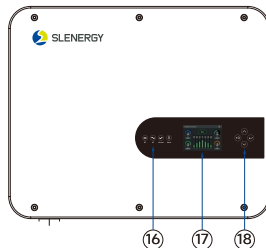
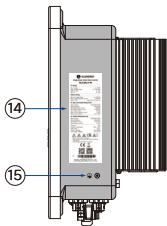
## The packing list is as follows:

Name	Quantity	Name	Quantity
Inverter	1	8pin Communication Connection	1
Wall Mounting Bracket	1	Waterproof Cover Assembly	1
External CT	1	Quick Installation Guide	1
Datalogger	1	Screw Mounting Kit	1
DC Connector (pair)	2	RNB38-6 OT Terminals	2
Battery temperature sensor	1	RNB8-5S OT Terminals	1
AC 3-pin Plug	3	M32 Waterproof Terminal	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



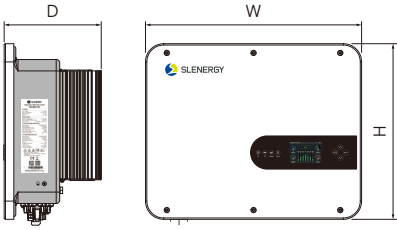
- (1) Battery Wiring Port
- (5) Communication Terminal
- (9) CAN1 Interface
- (13) GRID
- (17) LCD Screen

- (2) DC Input Terminals
- (6) BMS 485 Interface
- (10) CAN2 Interface
- (14) Label
- (18) Function Button

- (3) DC Switch
- (7) BMS CAN Interface
- (11) GEN
- (15) External Grounding Terminal

- (4) USB Interface
- (8) RS485 Interface
- (12) LOAD
- (16) LED Indicator

## Dimension & Weight



Models	Dimension (W×H×D)	Weight
SL3.6KLV-W SL5KLV-W SL6KLV-W	492 x 400 x 220mm	21kg

## Installation Site

IP65

≤ 60°C

≥ -25°C

≤ 100%

ALT: 3000m

Children NO Touch!

≤15°

## Installation Steps

Before drilling, handle 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.

**Step. 1**

**Step. 2**

**Step. 3**

**Step. 4**

**Step. 5**

**Step. 6**

**Step. 7**

**Step. 8**

## 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.

$L = E + (2-3) \text{ mm}$      $E$

Copper Wire  
 $S \geq 10 \text{ mm}^2$

OT/DT Terminals

Heat-shrink Tubing

M5

1.2-2N·m

## AC Side Connection

### Requirements on AC Side

Before connecting to the power grid, please ensure that the power grid voltage and frequency meet the requirements of the inverter. Please see "Technical Data" for details, or contact the power company to solve the problem.

### **⚠ NOTICE**

**Inverters can only be connected to the grid with access permission by the local power company.**

### AC Circuit Breaker

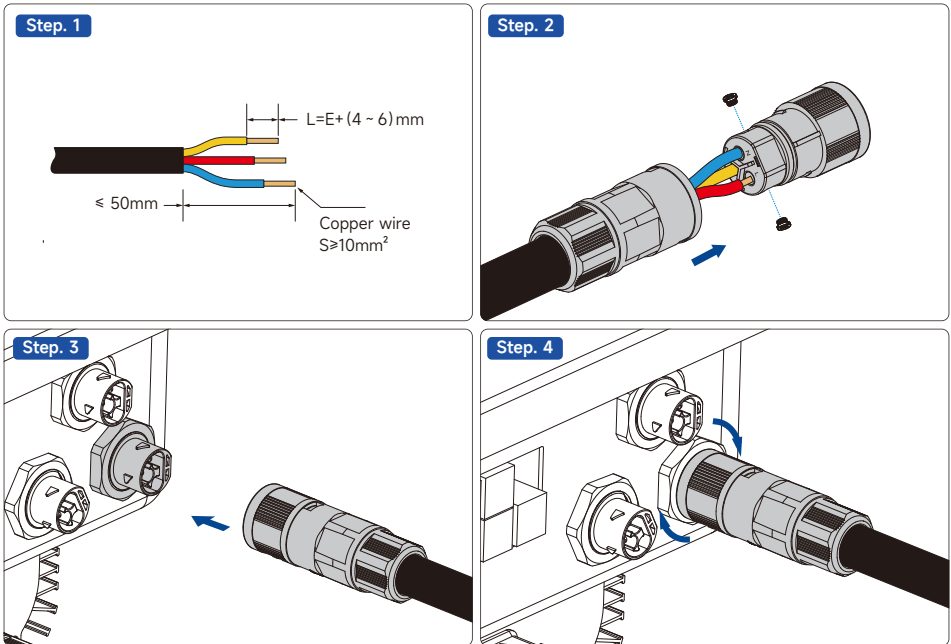
An independent circuit breaker is configured on the AC side of each inverter to safely disconnect the inverter from the power grid.

Inverter Model	Recommended AC circuit breaker parameters
SL3.6KLV-W	32A
SL5KLV-W, SL6KLV-W	64A



### CAUTION

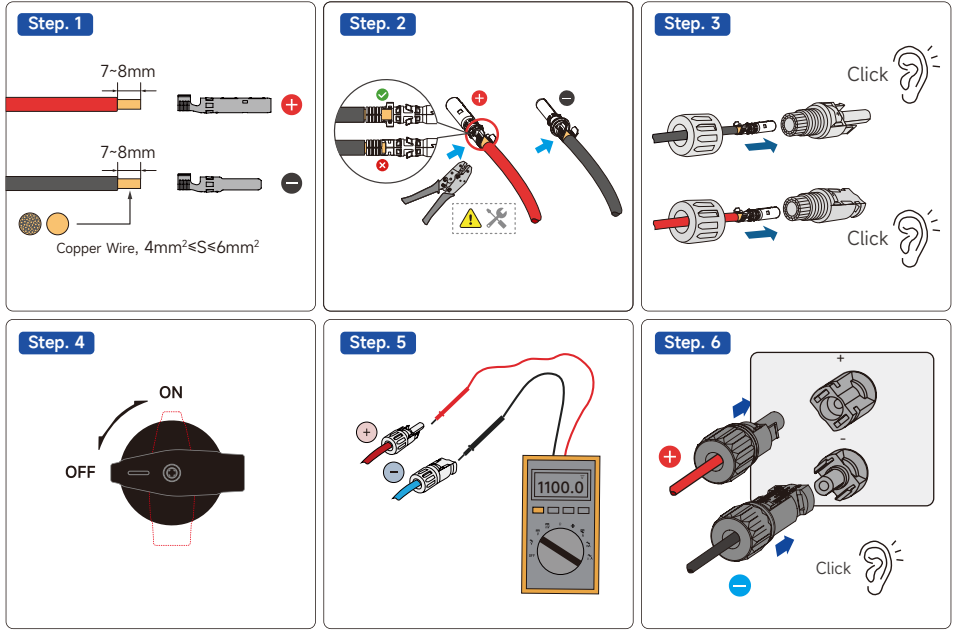
- \* Inverters may be connected to the grid only with the access permission from of the local power utility company.
- \* Multiple inverters shall not share a single AC circuit breaker.
- \* No load shall be connected between the inverter and AC circuit breaker.



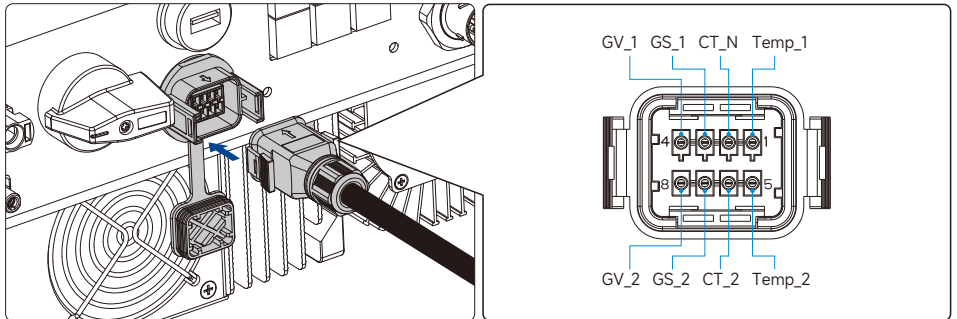
### **⚠ NOTICE**

- After the circular connector is wired and installed on the machine, the connector protective sleeve must be locked. Unqualified individuals are not allowed to operate.
- Pay much attention to the positioning of the "PE" cable and "N" cable. If the phase wire is connected to the terminal of "PE" or "N" cable, the inverter may be permanently damaged.

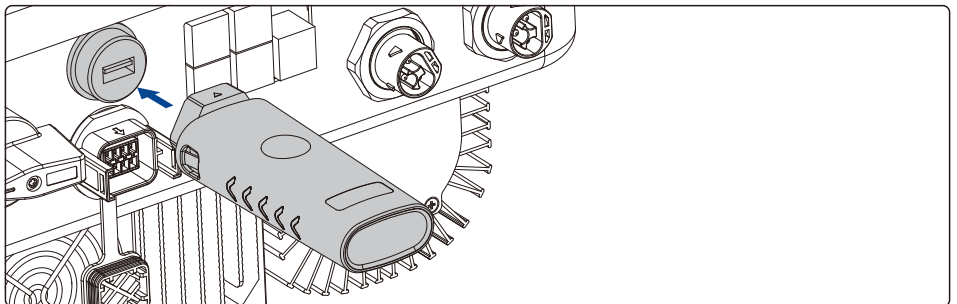
## DC Connector Assembling



## Communication Cable Connection

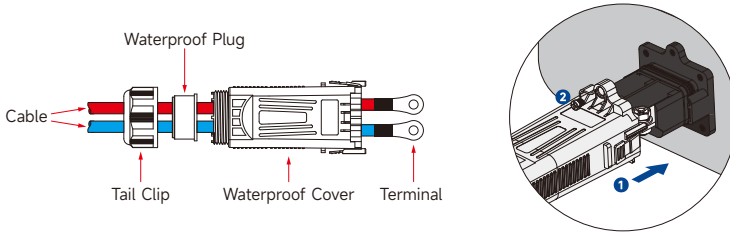


## Datalogger Installation



## Battery Connection

- STEP 1:** Remove the tail clip on the positive and negative terminals of the battery of the energy storage device.
- STEP 2:** Take out the waterproof plug, and insert the battery cable into the tail clip, waterproof plug, and waterproof cover.
- STEP 3:** Crimp the battery cable to the O-terminal.
- STEP 4:** Connect the positive end of the battery to the positive end of the battery terminal of the device, and the negative end of the battery to the negative end of the battery terminal of the device.
- STEP 5:** Fasten the waterproof cover, waterproof plug, and tail clip.



## Commissioning Steps





- STEP 1:** Turn the DC switch on the inverter to "ON".
- STEP 2:** If a DC switch is equipped between the inverter and the PV string, close the switch.
- STEP 3:** If an AC switch is equipped between the inverter and the grid, close the switch.
- STEP 4:** If a DC switch is equipped between the inverter and the batteries, close the switch.
- STEP 5:** The inverter will operate normally if the sunlight is normal and the grid conditions meet the grid-connection requirements.
- STEP 6:** Observe the status of LED indicators (see "LED Indicators" for details).

## Pre-commissioning Checks

S/N	Inspection Item	Inspection Result	
		Normal	Abnormal
1	Check and confirm whether all equipment is reliably installed in place.	<input type="checkbox"/>	<input type="checkbox"/>
2	Check whether the DC switches and AC circuit breakers are "OFF".	<input type="checkbox"/>	<input type="checkbox"/>
3	Check whether the grounding lines are properly and reliably connected.	<input type="checkbox"/>	<input type="checkbox"/>
4	Check whether the AC cables are properly and reliably connected.	<input type="checkbox"/>	<input type="checkbox"/>
5	Check whether the DC cables are properly and reliably connected.	<input type="checkbox"/>	<input type="checkbox"/>
6	Check whether the communication cables are properly and reliably connected.	<input type="checkbox"/>	<input type="checkbox"/>
7	Check whether the vacant terminals are sealed.	<input type="checkbox"/>	<input type="checkbox"/>
8	Make sure that no construction tools, etc. are left on top of the machine or in the junction box (if any).	<input type="checkbox"/>	<input type="checkbox"/>
9	Select AC circuit breakers as per the Manual and local standards.	<input type="checkbox"/>	<input type="checkbox"/>
10	Ensure that all safety signs and warning labels are fixed and visible.	<input type="checkbox"/>	<input type="checkbox"/>
11	Check if the connector protective sleeve is locked after the installation of the AC circular plug.	<input type="checkbox"/>	<input type="checkbox"/>

## LED Indicators

Given the LED indicator + LCD screen as a human-computer interaction interface, the LED indicator on the front panel can indicate the current inverter status.

Indicator	Status	Indication
 DC	Steady Green	Indicator of DC operating status.
 AC	Steady Green	Indicator of AC operating status.
 Normal	Steady Green	Indicator of normal operation.
 Alarm	Steady Red	Indicator of abnormal alarm.

### NOTICE

When the indicator is off, it may still be charged. Therefore, please pay attention to electrical safety when using the inverter.

## Data Monitoring

- If you are a residential 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 with mobile phone, or searching for "Smart M" in the App Store (Android or iPhone).
- You can also go to <https://global.stenergytech.com> to log in to search data.



Smart M

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

**Stenergy Technology (A.H.) Co., Ltd.**

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Official website of Stenergy