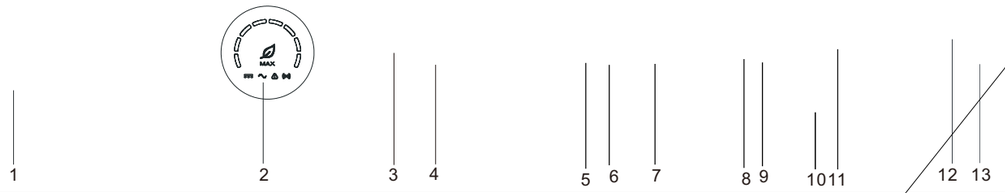
MAX 100-150KTL3-X LV/MV Quick Guide

1. Overview



(1)Front panel	(2)LED indicator	(3)Junction box	(4)Support frame	(5)DC switch
(6)PV terminal	(7)Vent valve	(8)USB port	(9)COM port	(10)Anti-collision angle
(11)Waterproof silicone pad	(12)AC terminal block	(13)Grounding copper bar		

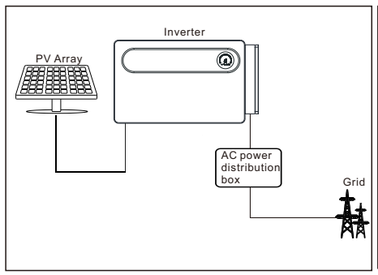
⚠ Note:

1.This document is for quick installation guidance only, please refer to User Manual for more details.

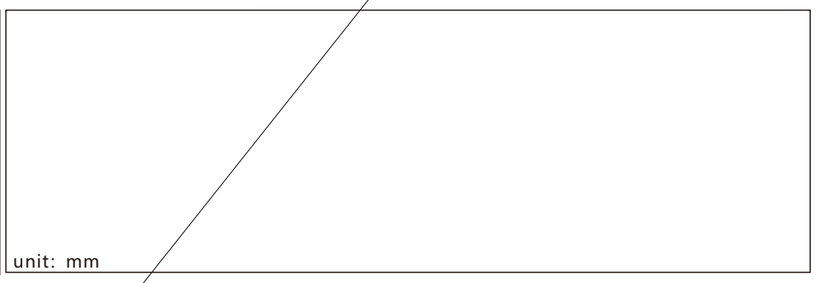
2. Growatt shall not be liable for any damage resulting from unproper installation.

2. Installation

System overview

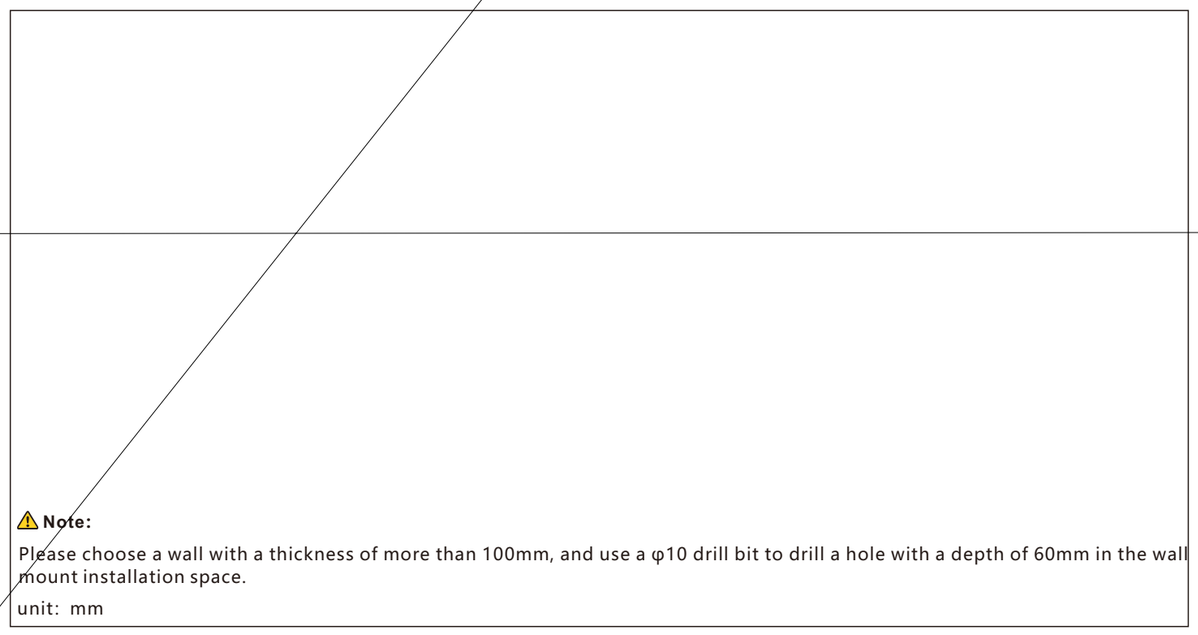


2.1 Installation requirements



unit: mm

2.2 Wall mounting

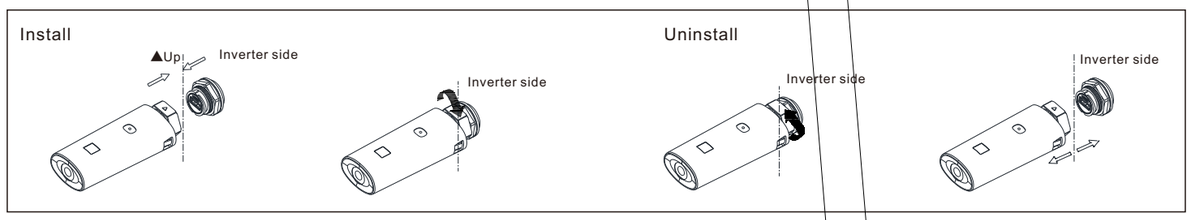


⚠ Note:

Please choose a wall with a thickness of more than 100mm, and use a φ10 drill bit to drill a hole with a depth of 60mm in the wall mount installation space.

unit: mm

2.3 Communication module installation



3. Electrical connection

Please prepare the cable before connecting as follows.

No.	Cable name	Type	Recommend model (Copper wire)	Recommend model (AL. wire)
1	Protective grounding wire	Single multi-core yellow-green wire	50mm²	70mm²
2	AC output wire	Single multi-core wire	70mm² - 240mm²	95mm² - 240mm²
3	PV input wire	Single multi-core wire	4mm² - 6mm²	/
4	Communication wire	RS485	/	/

⚠ Note:

1.Please make sure all switches are in “OFF” position before wiring. For personal safety, please do not operate with electricity.

2.If the diameter of the cable does not match the terminal, or the cable is aluminum wire, please contact our after-sales personnel.

3.1 Grounding

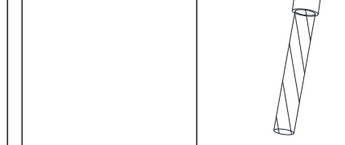
⚠ Note:

1.The built-in grounding copper bar is only used as an equipotential connection point for the protective ground. It cannot be used as a substitute for the protective grounding point of the inverter housing.

2.It is recommended that the PE cable of the inverter be connected to a nearbyground point. For a system with multiple inverters connected in parallel,connect the ground points of all inverters to ensure equipotential connections to ground cables.

3.2 AC output connection

1



The OT/DT terminals need to be prepared by the user, make sure the terminal and cable are well crimped.

2

⚠ Note:

Make sure that the terminals and cables are well crimped.

3

⚠ Note:

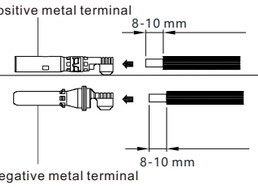
The waterproof joint must be blocked with fireproof mud to prevent water from entering.

4

3.3.1 PV input terminal installation

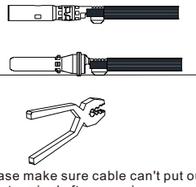
1

Positive metal terminal



Negative metal terminal

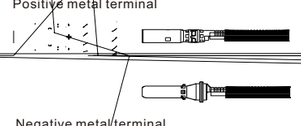
2



Please make sure cable can't put out from terminal after pressing.

3

Positive metal terminal

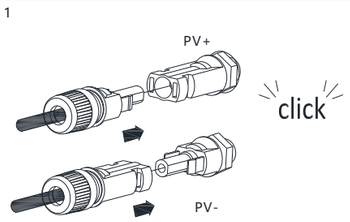


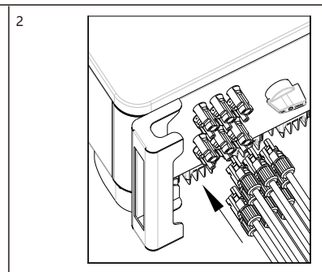
Negative metal terminal

Pull the PV cable make sure there is no loosen or shaking.

4

3.3.2 Plug in PV terminal

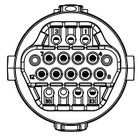




⚠Note:
1.Before installing the PV terminal, please double-check that the PV input voltage and current do not exceed the MPPT limits.
2.When installing the PV terminal, pay attention to the difference between the positive and negative poles and the one-to-one correspondence between the terminals and the machine.
3.There is a "click" sound when the terminal is connected,please gently pulling the PV wire to make sure there is no loose or pulling off.

3.3.3 Communication cable installation

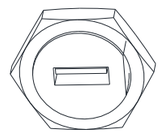
3.3.3.1 RS485 installation



No.	Description	No.	Description
1/2	485-1 Shield	9	DRM1/5
3	485-1 A1	10	DRM2/6
4	485-1 B1	11	DRM3/7
5	485-1 A1	12	DRM4/8
6	485-1 B1	13	REE/GEN
7	485-2 A1	14	DRM0/COM
8	485-2 B1	15	485-1 matching resistance

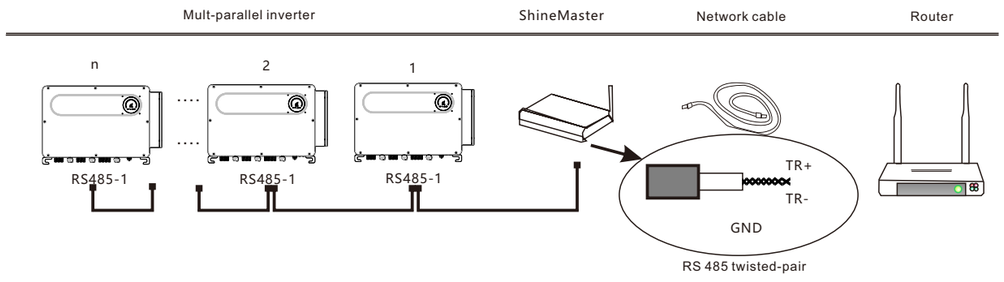
⚠Note: When mult-parallel inverter are installed, matching resistors need to be introduced.

3.3.3.2 USB installation



USB interface can be used to connect USB to WIFI module /GPRS module.

3.3.3.3 Mult-parallel inverter installation



⚠Note:
When multiple inverters communicate in parallel (n>1, n is recommended not to exceed 32), short-circuit the pins 15/16 of the last inverter through a wire to introduce matching resistance.

4. Post-installation check

No.	Acceptance criteria	No.	Acceptance criteria
1	The inverter is installed correctly, firmly and reliably.	6	The RS485 communication cable is installed correctly and firmly.
2	The ground wire connected well and the connection is firm and reliable.	7	The cable tie port is trimmed well without leaving sharp corners,meets the requirements of the user.
3	All switches are in the OFF state.	8	All exposed terminals are well protected and there are no vacant ports.
4	All wiring is correct and securely connected.	9	Pay attention to clean up all construction residues.
5	The wiring of the cable is reasonable, meets the requirements, and there is no phenomenon of broken skin.		

5. Power on and off steps

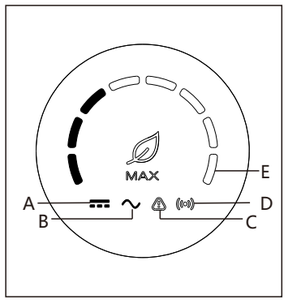
⚠Note:

Before powering on, please make sure that all voltage ranges are within the working range of the machine, otherwise the machine may be damaged.
Follow the steps below to switch on and off:
1.Close the switch between the PV and the inverter.
2.Close the switch between the power grid and the inverter.
3.If you need to set the inverter, please refer to the inverter user manual for details.
4.The shutdown steps are opposite to the above order.

6. Status of PV grid inverter

Customer can read more information by LED.Follow are the instruction of LED:

Indicator	Function	State	Instructions
A	PV voltage indicator	Green light is always on	PV voltage≥190V
B	AC voltage indicator	Green light is always on	Inverter is in the grid state
		Green light is flashing	Inverter grid-connected countdown/fault status
C	Alarm / fault indicator	Red light is flashing slowly	Inverter warning
		Red light is always on	Inverter fault
D	Communication indicator	Green light is always on	The inverter communicate normally
E	Power indicator	Green light is always on	The eight LEDs represent the power of the inverter
	Fault code indicator	Green light is always on	For the detail fault code,please refer to the manual



7. Service and contact

Shenzhen Growatt New Energy Co., Ltd
4-13/F,Building A,Sino-German(Europe) Industrial Park,
Hangcheng Ave, Bao'an District, Shenzhen, China
T +86 0755 2747 1942
E service@ginverter.com
W www.ginverter.com

Download Manual

Growatt New Energy