



iMars XG17-33KTR-PRO

Quick Installation Guide

INVT Solar Technology (Shenzhen) Co., Ltd.

	● Only qualified electricians are allowed to install the inverter. ● Do not put and install the inverter on or close to combustible materials. ● Install the inverter away from electronic devices with strong electromagnetic interference. ● Keep the installation site away from children and other public places. ● Remove the metal jewelry such as ring and bracelet before installation and electrical connection to avoid electric shock. ● The input voltage of the PV panel not allowed to exceed the maximum input voltage of the inverter; otherwise inverter damage may occur. ● The positive and negative pole of solar modules can not be grounded, otherwise irrecoverable damage may occur. ● Ensure the proper grounding of the inverter, otherwise, improper connection or no grounding may cause stop of the inverter. ● Ensure reliable installation and electrical connection. ● PV grid-tied inverter have LCD and LED versions, the installation methods of the two versions are the same.
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1 Unpacking inspection

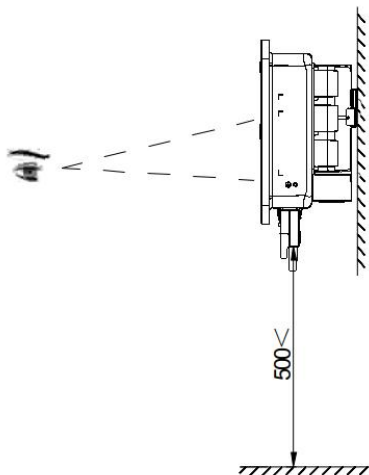
Inspect the information of the order and the name plate to ensure the product are the ordered one and no damage to the package. If any problem, contact the supplier as soon as possible.

Table 1 Packing list of three-phase inverter:

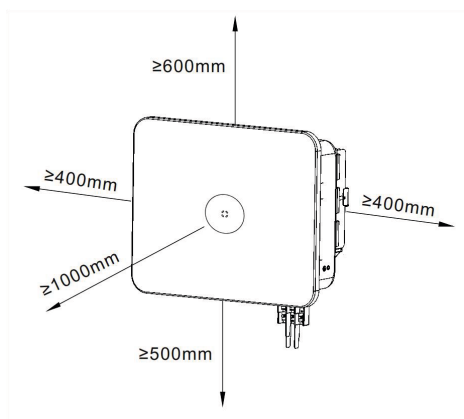
No.	Name	Qty
1	PV Inverter	1
2	PV connector (pair) XG17~25KTR-PRO(4pair)/XG30~33KTR-3M-PRO(5pair)	4/5
3	Install the hanger	1
4	M6*50 Expansion bolt	3
5	M6*16 Bolt assemblies	3
6	M6 Flange nuts	3
7	M6 Stainless steel flat pads	3
8	M6 Copper tube terminals for cables	5
9	M4*12 Screw	5
10	AC output waterproof cover	1
11	Quick installation guide	1
12	GPRS Module (Optional)	1
13	WIFI Module (Optional)	1
14	Ammeter (Optional)	1
15	485 comm. cable (Optional)	1

2 Installation distance and location

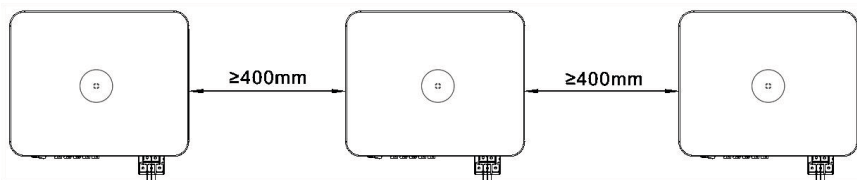
(1) The installation position height shall ensure that the line of sight is on the same horizontal plane as the LED display lamp, this is easy for people to inspect the inverter status.



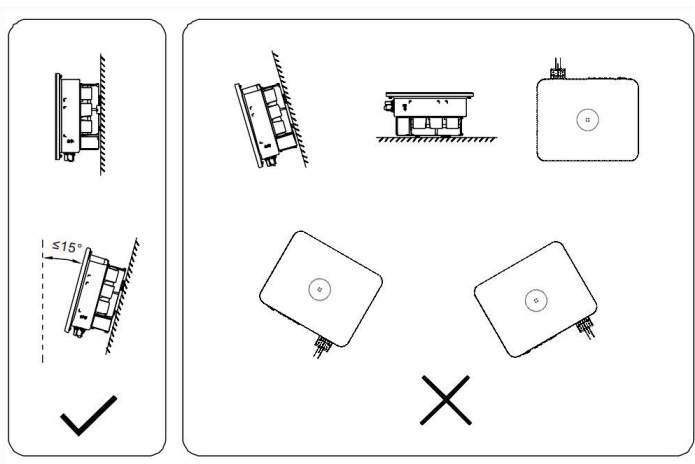
(2) There is enough reserved space around the installation site to facilitate the disassembly and assembly of the inverter and air convection.



(3) When installing multiple inverters, it is necessary to reserve a certain space between the inverters, the left and right space is as follows, and at the same time, the upper and lower parts of the inverter need to leave a sufficient distance in order to ensure that it dissipates heat well.

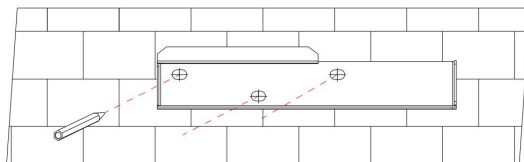


- (4) The mounting surface should be perpendicular to the horizontal line as shown in the figure below. Please install the inverter vertically or tilted back $\leq 15^\circ$ to facilitate the heat dissipation of the machine. Do not tilt the inverter forward, horizontally, upside down, lean back too much, or install it sideways.

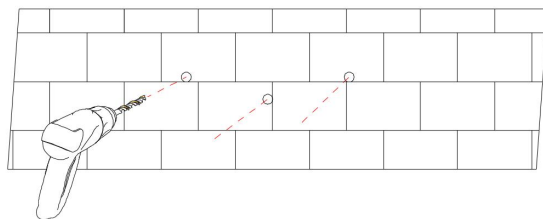


3 Inverter installation

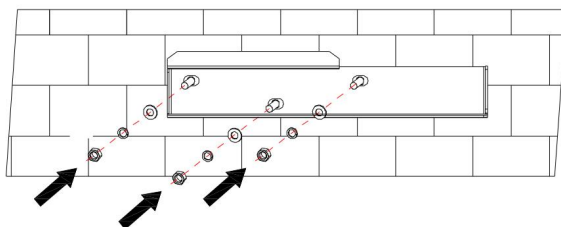
- (1) Place the hanging plate at the wall installation point, adjust the angle with a horizontal ruler, and mark with a marker pen



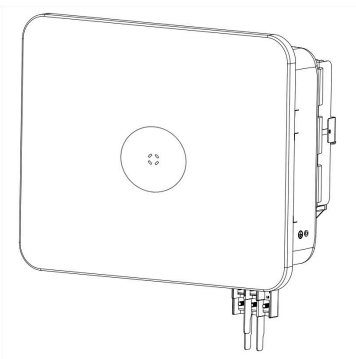
- (2) Punch holes with a impact drill and install expansion bolts. The user needs to prepare the expansion bolt by himself, and it is recommended to use M8 × 60 stainless steel explosion expansion bolt.



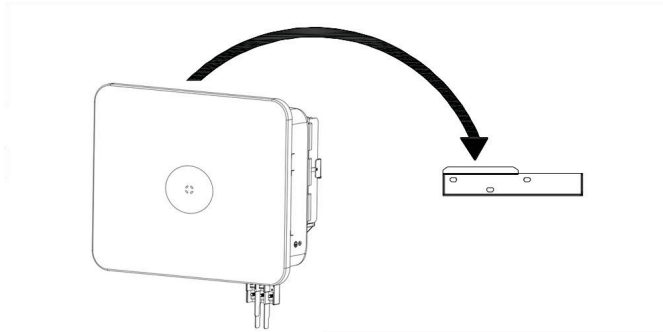
(3) Fixed hanging plate. Clean the hole, impact the expansion bolt into the hole with a rubber hammer, use a wrench to tighten the nut to fix the tail of the bolt, then remove the nut, spring pad and flat pad, and then lock the wall hanging plate fixation to the wall surface, with the tightening torque of $13\text{N} \cdot \text{m}$.



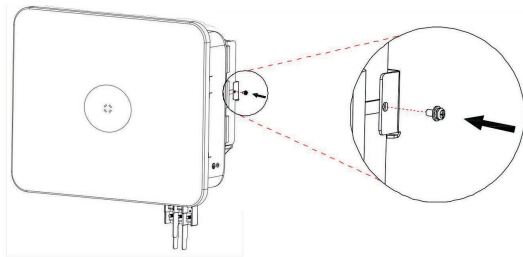
(4) Take out the inverter from the packaging box. If the installation position is high, transport the inverter to the destination while ensuring safety.



(5) After lifting the inverter, fasten the back bracket plate of the inverter into the wall hanging plate, and ensure that the inverter bracket plate is well matched with the hanging plate groove.



(6) After the inverter is stably hung on the wall mount, fix the bottom screws.

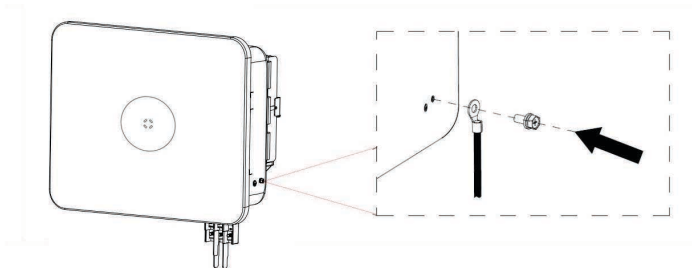


4 Electrical connections

4.1 Connect the PGD

Crimp the OT terminal to the ground wire, and there are two ways to connect the ground wire:

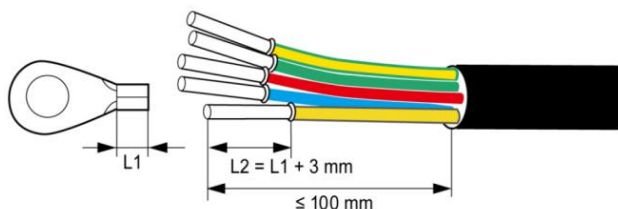
(1) Remove the screws at the grounding position on the side of the chassis, fix and lock the ground wire through the screws, and tighten the torque of $7-9\text{N}\cdot\text{m}$.



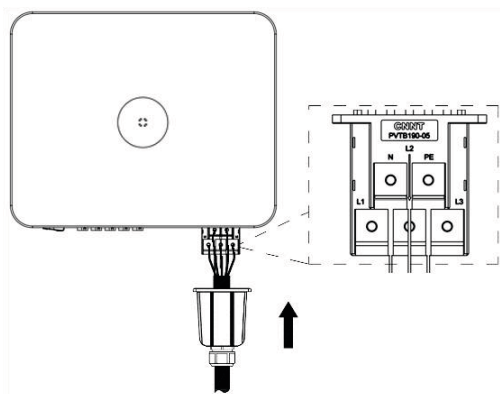
(2) Connect the PE that has been pressed into the AC connector terminal, and the PE tightening torque is $7-9\text{N}\cdot\text{m}$.

4.2 Terminal block grid access

(1) Crimp the terminals of the four conductors L1, L2, L3 and N of the three-phase public grid.



(2) Tighten L1, L2, L3, and N of the crimped terminals with a torque of 7-9N•m, and the grounding torque of PE on the outside of the chassis is 7-9N•m; then tighten the AC waterproof cap.



4.3 PV wiring

- (1) Connect the outgoing cable of the PV panel to the MC4 terminal delivered with the inverter
- (2) Check the polarity of the PV strings, and then connect it to the inverter.

4.4 Wire specifications

In order to standardize the specifications of compatible inverter AC and DC connectors or terminal blocks, the corresponding model is connected

The AC and DC wires of the inverter have the following requirements:

Model	DC side	AC side
	Recommended min. Cross-section mm ² (length ≤ 50m)	Recommended min. cross-section mm ² (length ≤ 50m)
XG17~33KTR-PRO	4-6	16-35

Remark:DC cable: meet the standard 1100V photovoltaic cable;AC cable: outdoor four/five-core copper/aluminum core.

4.5 Communication Connections

(1) 485 pin definition

1 (Red)	+5VDC
2 (Orange)	A (RS485+)
3 (Brown)	B (RS485-)
4 (Black)	GND

(2) Comm. optional accessories

Communication options	Inverter interface	Host computer interface
Ethernet converter	RS485-1	RJ45 plug
WiFi converter	RS485-1	Wireless WiFi Signal
GPRS converter	RS485-1	Wireless GPRS signal
ENET converter	RS485-1	Network interface

5 Pre operation inspection

- (1) Turn on the AC side circuit breaker of the grid;
- (2) Turn on the DC switch of the inverter;
- (3) Turn on the switch on the DC input side of the PV string;
- (4) Observe the status of the inverter's LED lights or the information displayed on the LCD screen
- (5) Wait for the inverter to connect to the grid successfully.

Regular maintenance

When power failure maintenance, overhaul, troubleshooting of the inverter is required, please stop the inverter strictly as follows:

- (1) Switch off the breakers at the AC side;
- (2) Switch off the integrated DC switch;
- (3) Contact with customer service staff or local dealers.

More information	
For complete instruction of relevant parameters, please refer to Operation Manual of INVT iMars Series PV Grid-tied Inverters. You can visit www.invt.com or scan QR code to download. Service line: +86 400 700 9997	



INVT Solar Technology (Shenzhen) Co., Ltd.

Certificate of Quality



Quality Inspector: _____

The product is tested by our quality control and quality assurance department, is in line with the product standards and specified technical requirements and is ready to be shipped.



Warranty Card

Customer Name:		
Customer Address:		
Contact Person:	Tel/Phone:	
Product Model Number:	Factory Serial Number:	
Purchase Date:	Fault Date:	
Open Circuit Voltage (Voc) / DC Input Power (W):	Grid Rated Voltage / Frequency :	
Setup Model ☐ Independent ☐ Parallel	Noise ? ☐ YES ☐ NO	Smoke ? ☐ YES ☐ NO
Inverter Software Version: Version 1 _____; Version 2 _____		
MCU Version:		
Error Code:		
Error Description:		

Please return this card with information to us. Thank you!



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Information may be subject to change without notice during product improving



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