

INVT BG8-10KTR Series PV Grid-tied Inverter Quick Installation Guide

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- 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 inverter input voltage does not exceed the maximum input voltage; 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.

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:

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	BG8KTR BG10KTR
Inverter	1
Installation bracket	1
Quick installation guide	1
Communication connector	1
Expansion bolt	4 (M6*60)
DC connector	2
AC connector	1

2 Before installation

2.1 Installation place

Select installation place based on the following considerations:

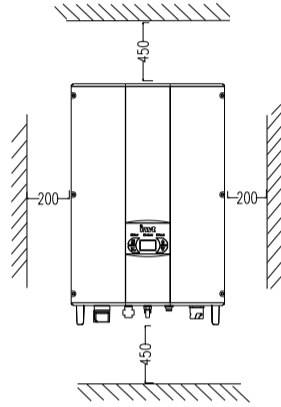


Figure 1 Installation space(mm)

- (1) The environment temperature is between -25°C ~ 60°C .
- (2) The installation surface should be perpendicular to the horizontal line. Refer to Figure 2.

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Table 3 Size of installation bracket

Model	Installation hole
	A(mm)×B(mm)
BG8KTR BG10KTR	260×45

Installation steps of three-phase inverter:

- (1) Locate the installation hole with the installation bracket, and then use expansion bolts to fix the installation bracket at the proper location of the walls;
- (2) Lift the inverter to suspend it on the installation bracket through M8 hex socket cap screws;
- (3) Finally, fix the inverter with the bracket. For firm installation, the operators cannot release the device until the inverter is installed on the bracket firmly.
- (4) Fasten the screws.

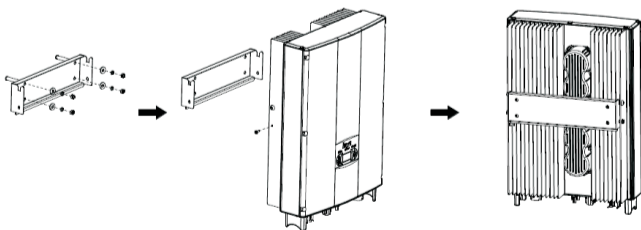


Figure 4 Installation of the inverter

4 Electrical installation

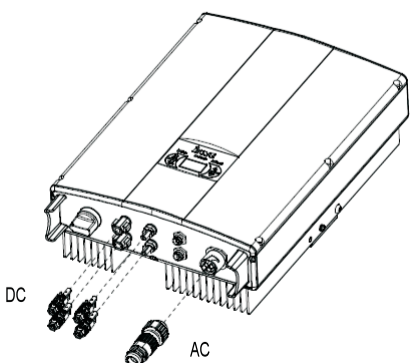


Figure 5 Electrical wiring of the inverter

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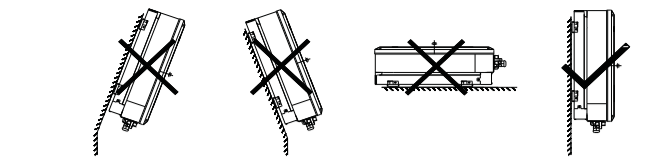


Figure 2 Installation position

2.2 Cable specifications

The user can select connection cable according the table below:
Table 2 Cable specifications

Model	DC side	AC side
	Cross-section mm ²	Mini cross-section mm ²
BG8KTR BG10KTR	4 (12AWG)	4 (12AWG)

3 Mechanical installation

Take the typical installation environment as the example, the manual describes how to install the inverter on concrete wall.

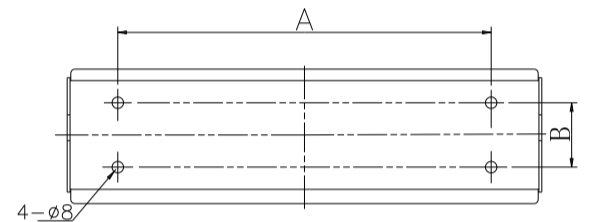


Figure 3 Installation bracket of the inverter

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- (3) Switch on the breakers at the AC side;
- (4) Observe the LED indicators and information displayed on the LCD screen.

- Run Green indicator blinks, others off: the inverter is power on and in self-inspection;
- Run Green indicator on, others off: the inverter is in power generation after self-inspection---successful commissioning.
- "Warn" or "Fault" indicators are on or blinking: the inverter is power on, but fault occurs.

5.3 Accessories and wiring

The accessories are the handheld terminal, WiFi, ENET and GPRS.

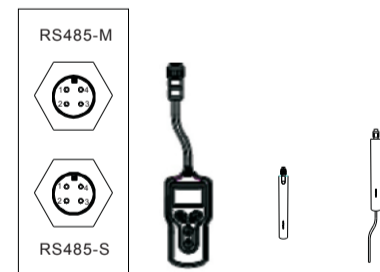


Figure 6 Connection of the AC side and the inverter

Below are the electrical wiring steps of the three-phase inverter:

- (1) Before connecting the three-phase AC grid cable to the inverter, take lightning and short circuit protection measures in accordance with the local electrical safety codes;
- (2) As shown in Figure 6, connect and fasten L1, L2, L3, N (optional) and PE conductors of the three-phase common grid to AC terminal, and then connect the terminal to the AC port of the inverter;
- (3) Fix and connect the DC output cables of PV board with the matched DC connectors, and then connect the connectors to the DC port of the inverter.

5 Operation

5.1 Inspection before operation

Check as follows before operation:

- (1) Detect the voltage of the components is in the allowable input voltage range of the inverter;
- (2) Detect the voltage of the AC port at AC side is normal;
- (3) Check the inverter is in good grounding;
- (4) Ensure all switches are "off";
- (5) Ensure all electrical safety precautions are clearly-identified on the installation site.
- (6) Confirm the handheld keypad or communication module is in correct connection.

5.2 Grid-tied operation

Please start the inverter as follows:

- (1) Switch on the integrated DC switch;
- (2) Use the handheld keypad or communication module to set the time, date and area of the inverter;

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Connect the 485 port of accessories to the RS485-M port of the inverter; for the ACF inverter, RS485-M is to the upper PC and RS485-S is to the ammeter.

5.4 Regular maintenance

Stop the inverter as follows it needs maintenance, inspection and troubleshooting:

- (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-solar.com or scan QR code to download.

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