ABB Solar inverters
Quick Installation Guide
PVI-3.8/4.6-I-OUTD

In addition to what is explained below, the safety and installation information provided in the installation manual must be read out followed. The technical documentation and the interface and management software for the product are available at the website.

The device must be used in the manner described in the manual. If this is not the case the safety device governed by the user might not be effective.

Power and productivity for a better world

![Image](https://example.com/image1)

### Installation position

- **Inverter position**
  - For the correct operation of some types of photovoltaic panels it may be necessary to ground one of the two input poles (positive or negative), or to have both input poles floating in regards to ground potential. In order to achieve this, it is possible to vary the grounding configuration by connecting the wiring and removing of the object from the mounting surfaces; comply with the indicated minimum distances
  - For a multiple installation, position the inverters side by side. If the space available does not allow this arrangement, position the inverters in a staggered arrangement as shown in the figure so that heat dissipation is not impeded by other inverters
  - The inverters must not be placed in the same space as other devices not interconnected devices that may be located externally.

### Quality of the installation

- **Wiring and connections**
  - Ensure that the wiring is done according to the requirements of the electrical code of the country.
  - Always use weather-resistant cables (with double insulation) or armoured wires.
  - Do not route live and neutral cables on the same cable tray in order to avoid differences of potential.
  - Do not make connections where metal parts are exposed.

### Electrical data

- **Input voltage**
  - AC Input voltage: 100 - 240 V
  - DC Input voltage: 100 - 240 V
- **Input power**
  - Max power (PAC): 4600 W
  - Continuous power (PAC): 4600 W

### Environmental checks

- **Service and environmental conditions**
  - Temperature range: -25 to +60 °C
  - Humidity: 10 – 95% non-condensing

### Assembly and mounting

- **Mounting the inverter**
  - The inverters can be mounted in a location exposed to direct sunlight as it may cause overheating.
  - Always make sure that the inverter is installed in a location that is easily accessible.
- **Mounting position**
  - The inverters must be mounted with the heat sink facing downwards.
  - The inverters must be placed in a location where the temperature is within the range specified.
  - The inverters must be placed in a location where the air flow is not obstructed.

### Grounding

- **Grounding of the DC inputs**
  - The inverters must be grounded at the point of connection to the DC source. This can be done by connecting the negative input pole to ground (Negative Grounding Connector) or by connecting the positive input pole to ground (Positive Grounding Connector).
  - The inverters must not be grounded in the case of INDEPENDENT channel configuration.

### Additional information

- **Wiring and connections**
  - Ensure that the wiring is done according to the requirements of the electrical code of the country.
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### Technical data

- **Inverter Models and Components**
  - The technical documentation and the interface and management software for the product are available at the website.
  - The technical data of the inverters can be found on the website.

### List of available components

- **Available components**
  - The list of available components can be found on the website.

### Choice of installation location

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Check for correct polarity in the input strings and absence of any leakage to ground in the PV generator. When exposed to sunlight, the PV generator supply DC voltage to the inverter. The inside of the inverter may only be accessed after the equipment has been disconnected from the grid and that the grid voltage is zero.

- The inverter features three LED indicators (Red, Yellow, Green) that are located on the front panel. The icons are explained on the operator's manual.

Each cable which must be connected to the connectors of the communication and control signals must pass through one of the two service cable glands. An M6 cable gland (that takes cables from 7 mm to 15 mm in diameter) and a gasket with two holes to insert into the cable gland which enables two separable cables of a maximum diameter of 5 mm to be accommodated, are available.

- The REM terminal block is used to access the three main menus, which have the following functions:
  1. Settings: General information and technical data
  2. Display: AMS settings and inverter identification parameters. By pressing this function the inverter waits until there is grid voltage to carry out the parallel connection.
  3. Diagnosis: Error messages and other status information.

- The MODE function makes it possible to access the three main menus, which have the following functions:
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- The INVERTER function is used to access the main menu, to go back to the previous menu or to exit the inverter. When the inverter is turned off, the menu selection is made by pressing the keypad.

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