

**ABB solar inverters**

Quick Installation Guide

PVS-50-TL, PVS-60-TL (50 to 60 kW)

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**Installation site and position**

Consult technical details to confirm the environmental specifications will be met. Installation of the unit in a location exposed to direct sunlight is acceptable. Ensure the installation site is suitable and the following conditions be met:

- No installation in closed spaces where air does not freely circulate.
- Always arrange the installation site so that the inverter is not blocked, so as to prevent overheating.
- Do not install near flammable surfaces.
- Do not install near wooden walls or near flammable surfaces.

- The inverter must be installed vertically or horizontally.

- Place the inverters in a staggered arrangement as shown in the figure so that horizontal discharges are not affected by other inverters below.

- A maximum of 4 inverters can be placed side by side. If more than 4 inverters are placed side by side, it is recommended that a wire be used to secure the inverters together.

- The equipment must be used and installed in accordance with what is described in this technical documentation and the interface and management software for the product.

- The ropes and equipment used for lifting must be suitable for bearing the weight of the equipment.

- Change of loading and unloading the components. Do not lift several units or parts of the equipment at the same time.

- Do not block access to the external AC and DC disconnect switches.

- Do not install near on wooden walls or near flammable surfaces.

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**Transport and Handling**

- The equipment especially by road, must be carried with means for protecting the components in particular, the electronic components from shock which could deform the insulating materials.

- The inverter may be installed vertically or horizontally.

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**Fitting**

- ABB usually supplies and protects individual components by suitable means to make the transport and handling safe.

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**Lifting**

- Use a lifting device designed for lifting the equipment, and use it as a drilling tool. Use the lifting device in accordance with the manufacturer's instructions.

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**Supervision and Checking**

- The inverter has been removed and disposed of according to applicable laws and regulations of the country where the equipment is being installed.

- Do not lift several units or parts of the equipment at the same time.

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**Handling of the inverter on the bracket**

- The lift facilities must be used to lift the inverter on the vertical or horizontal support.

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**List of Components**

- Inverter model: PVS-50-TL, PVS-60-TL

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**Technical documentation**

- For more information, please refer to the ABB Technical documentation.
Connect the Neutral (if provided), R, T to the respective terminals of the AC output screw terminal block (FIG. 12) and connect the Ground fault isolation circuit (FIG. 12). GFI LED (FIG. 12) will light up and the output frequency range will be from 40 Hz to 60 Hz. If the GFI LED does not light up, check the GFI connection or install the GFI device in your network. Do not place objects of any kind on the inverter during operation! Do not touch the neat inverter while the inverter is operating! Some parts may be very hot and cause burns.

Comply with the maximum input current relative to the grid-connection as indicated in the technical data.

Potency inverters can cause serious damage. Check potenti before connecting each string!

When planning inverters, ensure to safeguard that you provide continuous DC linkages to the inverter.

To avoid risks of electrical shocks, all wiring operations must be carried out with the DC disconnect switch internal and external (if present), complying with LTCW procedures so as to interrupt both position (allowing LTCW operation). 

In case of presence of internal DC disconnect switch only, then only the part internal to the inverter with a consequent risk of electrical disconnection should be considered.

If input strings are parallel, then you must have the same installation condition (number of points, panel type, orientation and so on).

DC-DC connections may vary depending on the inverter model. For these inverters, based on MPPT type and PV array configuration, the wiring can be set as 4 unipolar MPPTs or as one bipolar MPPT with the three paralleled input channels. Polarized inputs can be obtained by installing the gate (provided on the paralleled MPPT connection panel) by means of 2 wires MPTT (as shown in FIG. 5). These input channels can be used to feed energy production.

Quick MPPT connections installed on the inverter can eliminate the need to wire each MPPT. Quick MPPT connections installed on the inverter can eliminate the need to wire each MPPT. Quick MPPT connections installed on the inverter can eliminate the need to wire each MPPT.

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