1. **APP solar inverters**

**Quick Installation Guide**

PV1-3/0/3/6/4-TL-OUTD

In addition to the equipment, the safety and installation information present in the installation manual must be read and followed. The technical documentation and the interface and management software for the product are available at the website.

2. Mounting to the Wall

During installation, do not place the front of the inverter facing the ground. Ensure the inverter is tilted by at least 15°.

- Position the inverter as it is perfectly level on the wall and use it as a drilling template. They are 14 and 20mm holes on the bracket. Line up the holes on the wall bracket. An additional fixing point must be placed on the inverter's lower bracket.

- Ensure the inverter is installed in a location protected from the weather and in an environment that is not exposed to any flammable materials.

- Do not install in small closed rooms where air cannot circulate freely.

- Install in safe, easy to reach places.

3. Metal brackets and components

<table>
<thead>
<tr>
<th>Available components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bracket for wall mounting</td>
<td>1</td>
</tr>
<tr>
<td>Safety bar</td>
<td>1</td>
</tr>
<tr>
<td>Screw to lock safety bar</td>
<td>3</td>
</tr>
<tr>
<td>M3 and M5 Cable glands</td>
<td>1+1</td>
</tr>
</tbody>
</table>

4. Transport and handling

- The equipment, especially by road, must be carried out with by suitable ways and means for protecting the components from violent shocks, humidity, vibration, etc.

5. Environmental factors

- Consider the technical data to check the environmental parameters to be observed to ensure that the unit will function correctly.

6. Assembly instruction

- For the required drilling holes on the bracket, proceed as follows:

7. All versions of the inverter are equipped with two input channels (with double maximum power point tracker MPPT) independent of each other, which can now be connected in parallel using a single MPPT.

- Warning: Do not open the inverter when it is rating, opening or in high humidity (≤80%)

- After making all the connections, ensure the cover is closed by tightening the 4 screws on the front panel with a minimum torque of 1.5 Nm.
Warning! The inverter to which this document relates to are WITHOUT ISOLATION TRANSFORMER (transformer-less). This type uses the use of insulated photovoltaic panels (IEC 61733 Class A) and the need to maintain the photovoltaic generator floating with respect to earth. No protective grid must be connected to earth.

For the string connections it is necessary to use the quick fit connection (usually a clip or clip). The MultiConnectTM (MC) system allows the connection of the string on the inverters. Refer to the document "String inverter - Product Manual appendix" available at www.abb.com/inverters to know the brand and model of the quick fit connection. Depending on the model of the inverter of the own inverter it is necessary to use the same model and the respective counterpart (check the complete counterpart on the website of the inverter of ABB).

ABB declares that the ABB transformerless inverters, in terms of their construction, do not inject continuous ground fault currents and therefore there is no requirement to install a differential protection device per installation of the inverters type A1 in accordance with IEC 61733 A1.

Characteristics and sizing of the line cable:
Three-core cables are required. The cross section of the AC connection cable must be sized in order to prevent unwanted discontinuities of the current due to high impedances in the line that connect the inverter to the power point source.

Using the alarm terminal block:
Terminal block connecting the configurable relay that allows connection of external devices which, according to the node selected in the menu "Settings + Alarm" can, for example, signal malfunctions. The opening and closing of the alarm contacts can be used for: Production and Alarm.

The ALARM contact can be used only with systems that ensure a delay, adding additional at least (supplementary insulation in real live).

For further information regarding the configuration and use of the communication and control signals terminal block, please see the manual "PVI-USB-RS232_485 (opz.)".

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