ABB solar inverter
Quick Installation Guide
UNO-DM-6.0-T-PLUS-Q (6.0 kW)

1. Models or the inverter show the markings, main technical data and the identification of the equipment and of the manufacturer. The same tables are identified as examples only, as in other models are available.

Regulatory Label.
In case of a service password request, it is necessary to have the serial number available (EN. YYWWWSSSSSS).

Wireless Identification Label.
The label is clipped in two separate parts by a detached line; take the bottom part and apply on the cover of this quick installation guide.

2. The inverter models referred to in this instalation guide are listed below.
Standard model UNO-DM-6.0-T-PLUS-Q -Q.
Model equipped with Wireless communication (-B); AC connection with cable gland and terminal block (-G) and two independent Input Channels (U).
Model with “S” suffix UNO-DM-6.0-T-PLUS-BQ-G. Models equipped with DC disconnecting switch (-6), Wireless communication (-B); AC connection with cable gland and terminal block (-G) and two independent Input Channels (U).

Main components
- Bracket
- DC Input terminals
- Anti-condensation valve
- Front Cover
- LED panel
- AC cable gland
- Wireless antenna connector
- DC Input terminal block
- AC Output terminal block
- Inverter label
- Service cable gland
- Screwing Screw

3. Transportation and handling
The transportation of the device, in particular via land transportation, must be made with adequate means and breaks to protect the parts from violent impacts, humidity, vibration, etc.

4. Unpacking and inspection
The packaging components must be removed and disposed of according to the applicable regulations of the country where the device will be installed.
Once opening the packaging, check the integrity of the equipment and verify that all the components are present.

5. Assembly instructions
- Please keep the packaging in the event it has to be returned; the use of inappropriate packaging would impair the warranty.
- Always store the Quick Installation Guide, all the supplied accessories and the AC connector cover in a safe place.

6. Place and position of installation
- Refer to the technical data for the verification of the environmental conditions to be met.
- Do not install the inverter where it is exposed to direct sunlight. If necessary, use protection that minimizes the exposure, especially for ambient temperatures above 40°C.
- Do not install in small unventilated spaces where the air cannot circulate freely. Always ensure that the inlet and outlet air are unobstructed to provide satisfactory ventilation.
- Do not install near flammable substances (minimum distance 3 m from B1 and C1).
- Do not install it in wooden surfaces or other flammable substances.
- Do not install inside residential premises or where a prolonged presence of people or animals is planned; due to the acoustic noise the inverter produces during operation, the noise emission value is strongly influenced by the installation location (e.g. type of surface around the inverter, general properties of the room, etc.) and the quality of electricity supply.
- Install on solid and stable structures that are suitable to support the weight of the inverter and its accessories.
- Install in a upright position with a minimum inclination as shown in the figure. The maximum inclination tolerated is 3%.
- Ensure that the inverter is adequately supported and that there is sufficient space around the unit to allow easy installation and removal of the equipment from the mounting surface.
- No protective equipment is necessary if the inverter is installed in a location with a temperature not higher than 40°C.

7. Connection and linking

8. Choice of the place for the installation

9. Components supplied with the inverter

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bracket for wall fixing</td>
<td>1</td>
</tr>
<tr>
<td>M25 Cable glands</td>
<td>1</td>
</tr>
<tr>
<td>Service cable gland</td>
<td>1</td>
</tr>
<tr>
<td>Technical documentation</td>
<td>1</td>
</tr>
</tbody>
</table>

Spare components

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Spare part) T25 screw for front cover</td>
<td>1</td>
</tr>
<tr>
<td>M25x1.5 screw for the external ground connection</td>
<td>1</td>
</tr>
<tr>
<td>DC contact terminals for the external ground connection</td>
<td>2</td>
</tr>
<tr>
<td>AC Input terminal block</td>
<td>1</td>
</tr>
<tr>
<td>AC Output terminal block</td>
<td>1</td>
</tr>
<tr>
<td>Inverter label</td>
<td>1</td>
</tr>
<tr>
<td>Wireless antenna antenna</td>
<td>1</td>
</tr>
<tr>
<td>Screwing Screw</td>
<td>1</td>
</tr>
</tbody>
</table>

1. The labels placed on the equipment absolutely MUST NOT be removed, damaged, dirtied, hidden, etc.
2. Do not open the inverter in case of risk, e.g. live wire risk. Be careful not to damage the connectors. The equipment must be used in accordance to what is described in this Quick Installation Guide.

3. The labels placed on the equipment absolutely MUST NOT be removed, damaged, dirtied, hidden, etc.
4. Check the correct polarity of the input strings and the absence of earth connections of the PV generator. When the PV panels are exposed to Humidity, they may produce continuous voltage (DC) to the inverter. Access to the internal inverter zones must be carried out with the inverter switched off and removed as specified in the Quick Installation Guide.
5. ABB solar inverters are equipped with a transformer which is not isolating, the generated power is delivered to the AC network through the transformer. A power transformer is an isolated device and the terminals connected to the AC network must not be connected to any other AC network. The access to the internal zones of the inverter must be carried out after a period of at least one minute to ensure that the stored energy is dissipated.
6. Use the manufacturer’s label to indicate the point of connection of the device to the AC network.

7. Models and accessories Components

- UNO-DM-6.0-T-PLUS-Q (6.0 kW) Model equipped with Wireless communication (-B); AC connection with cable gland and terminal block (-G) and two independent Input Channels (U).
- Model with “S” suffix UNO-DM-6.0-T-PLUS-BQ-G. Models equipped with DC disconnecting switch (-6), Wireless communication (-B); AC connection with cable gland and terminal block (-G) and two independent Input Channels (U).

8. The inverter models referred to in this instalation guide are listed below.

- UNO-DM-6.0-T-PLUS-Q (6.0 kW) Model equipped with Wireless communication (-B); AC connection with cable gland and terminal block (-G) and two independent Input Channels (U).
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9. The inverter models referred to in this instalation guide are listed below.

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10. The labels placed on the equipment absolutely MUST NOT be removed, damaged, dirtied, hidden, etc.

11. In case of a service password request, it is necessary to have the serial number available (EN. YYWWWSSSSSS).

12. Do not open the inverter in case of risk, e.g. live wire risk. Be careful not to damage the connectors. The equipment must be used in accordance to what is described in this Quick Installation Guide.

13. The labels placed on the equipment absolutely MUST NOT be removed, damaged, dirtied, hidden, etc.

14. Check the correct polarity of the input strings and the absence of earth connections of the PV generator. When the PV panels are exposed to Humidity, they may produce continuous voltage (DC) to the inverter. Access to the internal inverter zones must be carried out with the inverter switched off and removed as specified in the Quick Installation Guide.
Protection switch under load (AC switch) and rating of the line cable

To protect the AC connection block of the inverter, we recommend the installation of a protective device against overcurrent and earth leakages with the following features:

- Circuit breaker with differential magnetic-thermal protection
- According to local standard
- Based on the local standard, this protective device will be selected based on the expected fault current.
- ModBus RTU (SunSpec), Aurora Protocol
- For ground fault on the DC side of the PV generator. The error is shown on the
- Inverter's display.

Data sheet for UNO-DM-6.0-TL-PLUS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit breaker with differential</td>
<td></td>
</tr>
<tr>
<td>MAGNETIC-thermal protection</td>
<td></td>
</tr>
<tr>
<td>According to local standard</td>
<td></td>
</tr>
<tr>
<td>ModBus RTU (SunSpec), Aurora</td>
<td></td>
</tr>
<tr>
<td>Protocol</td>
<td></td>
</tr>
</tbody>
</table>

Caution! Before performing the operations described below, make sure that you have properly disconnected the AC line downstream of the inverter.

1. Procedure for opening the contacts of AC output terminal block (2L-N/2L-PE)

   a) Insert a flat screwdriver in the slot behind the contacts until the clamp opens.
   b) Insert the cable in the clamp with the screwdriver inserted in the slot.
   c) Remove the screwdriver and check the tightness.

2. Connecting the protective earth (yellow-green) cable to the terminal labelled with the symbol “earth”

   Working! Add the ground wire to the earth terminal:
   - 1) Insert the cable in the clamp with the screwdriver inserted in the slot.
   - 2) Connect the cable to the terminal labelled with the number 3.

ON:alus

1. Access to the firmware update:

   - 1) Connect the UNO-DM-6.0-TL-PLUS to the WiFi network.
   - 2) Insert the product key (PK) into the firmware update window.
   - 3) Click on the "Update" button to proceed with the firmware update.

2. Operating the inverter from the群里 (only available in the basic installation without meter

   - 1) Accessing the UNO-DM-6.0-TL-PLUS Q via the WiFi connection.
   - 2) Starting the wizard to set the required parameters.

3. Checking the firmware update status:

   - 1) Accessing the UNO-DM-6.0-TL-PLUS Q via the WiFi connection.
   - 2) Checking the firmware update status.

4. Commissioning

   - 1) Connecting the UNO-DM-6.0-TL-PLUS Q to the WiFi network.
   - 2) Starting the commissioning wizard.

5. Troubleshooting:

   - 1) Accessing the UNO-DM-6.0-TL-PLUS Q via the WiFi connection.
   - 2) Checking the troubleshooting guide.

6. Contact us

   - 1) Accessing the UNO-DM-6.0-TL-PLUS Q via the WiFi connection.
   - 2) Contacting the customer support.

Specifications and illustrations subject to change without notice.