



**RAULI
WALL**

INSTALLATION INSTRUCTIONS

Solar panels are installed in either a vertical or a horizontal position. The mounting system is always installed horizontally.

The vertical position is the recommended method of installation. Installing the panels in a horizontal position requires more rails, which directly affects the speed of assembly as well.



If the panels must nevertheless be installed horizontally -- for example to take advantage of usable space -- please note that a larger mounting system and more attachment accessories will be necessary.



Depending on the type of wall, the mounting system is attached to sheet metal or wood with 7 x 40 mm drilling screws or by anchoring with an 8 mm anchor/7 x 40 mm drilling screws for stone walls.

Ends of the rails should be attached using two screws. Recommended distance between the screws is 30-40 cm apart so that every other screw is in a upper hole of the rail and every other screw is in a bottom hole of the rail.



RAULI



The end profiles are attached using four 6.3 x 19 mm screws with RUSPERT coating.



The intermediate clamp is attached using one 6.3 x 38 mm screw with RUSPERT coating.



Between the solar panels, one earthing plate is installed under the upper intermediate clamp.

Based on the width required by the panel row, it is possible to determine the lengths and number of rails required. The width of the panel row is calculated as follows:

The width of the panel x the number of panels + the width of the mounting brackets x the number of spaces + the width of the end segments x 2

Sample calculation: $(99 \times 10) + (3 \times 9) + (5 \times 2) = 1027$ cm

NOTE! Check the measurements of the panels and the brackets before calculating!

For the racking for one row measuring 10 m 27 cm in length, there would be a 4 x 3 meter upper rail and a 4 x 3 meter lower rail. Of these, one upper and one lower rail would be shortened, for example in the middle. In this way, the mounting system will have a length of 10 m 50 cm. The place where the cut is made should be painted in order to prevent rust.

Installation requires two people. When the position of the panel field has been established, installation of the mounting system may be started at the left or right edge of the lower row. First the lower rail is attached in place. Install the rail as level as possible by using a laser, for example, or a level. The lower rail is attached at the ends and in the middle.



After this, the upper rail is installed. The end profiles are set vertically on top of the lower rail, which has already been installed. The upper rail is mounted on top of them. In this way, it is automatically installed at the proper height. The upper rail is aligned laterally and screwed at the end into the wall. After this, both the upper and lower rails are fastened finally into place using the accessories and with proper spacing according to the instructions. Continue in this manner until the end of the row.



Next, the lower rail of the next row is installed, directly on top of the upper rail of the lower row. Then the upper rail of the second row is installed, again using the end profiles to help you. Continue in this manner until the end of the row.



RAULI

Once the mounting system is finished, the solar and grounding cables are brought in, the grounding is built and the panels are attached.

The panels are attached by hoisting the upper end of the panel into the upper rail under the "lip", then setting the bottom of the panel inside the "lip" of the lower rail and allowing the panel to rest on the bottom rail. The panel will now stay in place without being held by hand.



The first panel in the row is mounted laterally at an appropriate place and attached by placing the end profile in place and screwing it tight according to the instructions.



RAULI

The second panel is hoisted into place and connected. An earthing plate is placed at the upper intermediate clamp (under the solar panel), The solar panel is then attached to the previous panel / rail with an intermediate clamp.



RAULI

Raulibrackets.fi
Huunankaarto 8 B
1012400 Tervakoski
Suomi/Finland

info@raulibrackets.fi
019 278 3303



Nopea asentaa



Suomalainen tuote



Takuu 30v



Musta rakenne



Easyslide