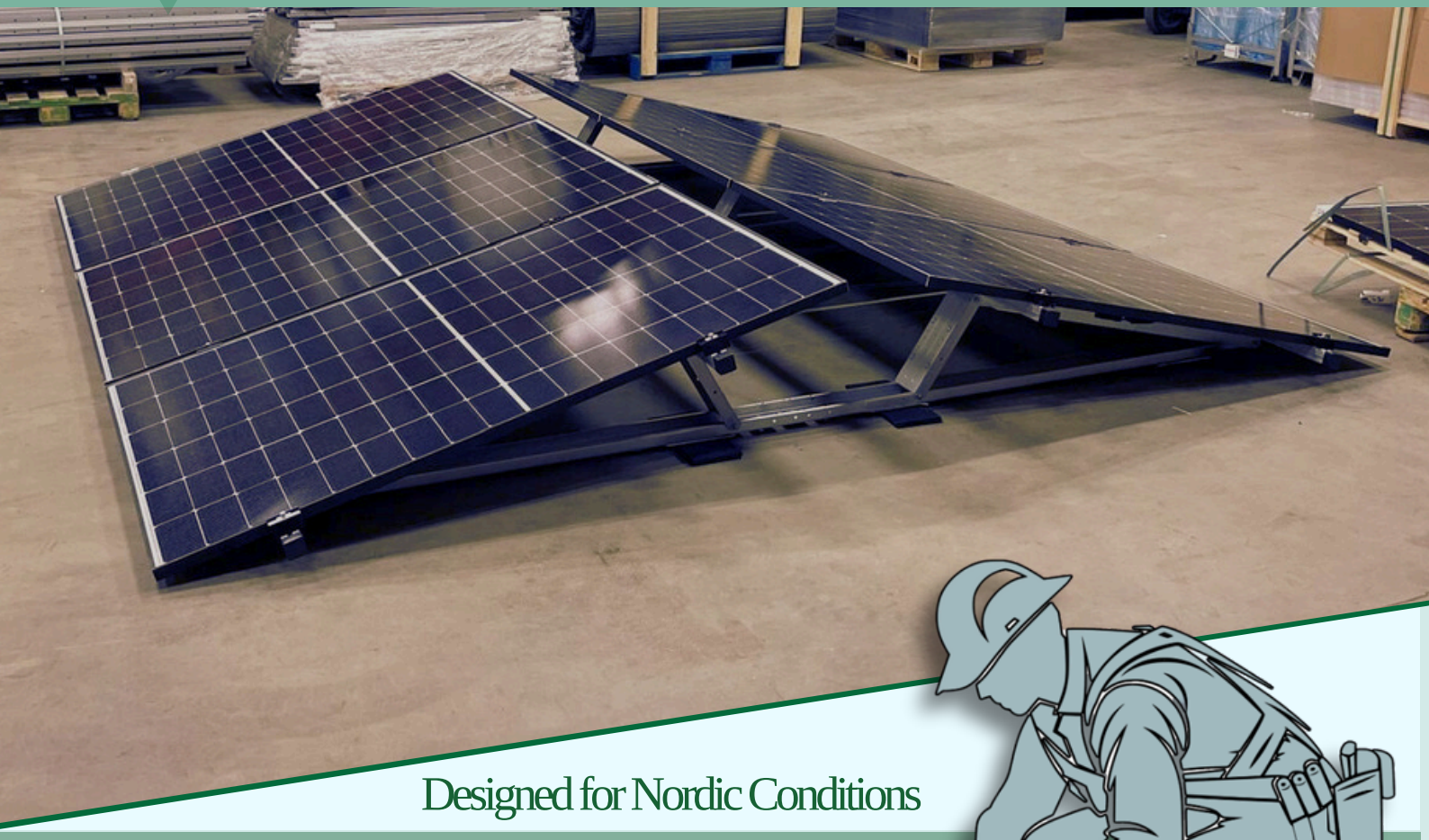
Moisolar

User Manual



Designed for Nordic Conditions

NORDIC FLAT

EAST-WEST Portrait 15

Mounting System for Flat Roofs

Quick & Easy to Install | 35 Years of Material Warranty | Durable

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Installation overview

1.) Turning the upper parts of the triangles to an east–west position

- The pre-assembled triangles are shipped with the tops facing south. To turn them to an east-west position, remove the bolts, move the tops to a right angle, and reattach the bolts in the indicated locations. (See picture below)

2.) Placing the triangles in place on the rubber mats

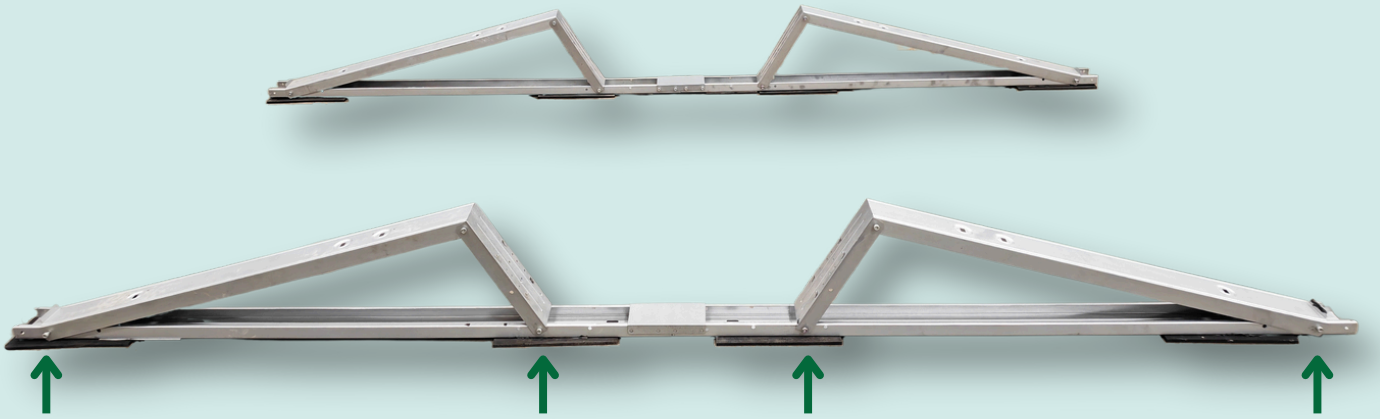
- Place the triangular structures on the roof according to the plan, placing protective mats made of butyl rubber (*8 mm* **BM02** or *15 mm* **BM01**) underneath them to protect the roof and allow water to drain away.

3.) Connecting triangles with extension pieces

- Connect triangles to each other with extension pieces.
- This makes the structure sturdy and uniform.

4.) Bitum welding (if necessary)

- If wind conditions or the roofing material require it, perform felt welding at the joints.
- Follow the separate felt welding instructions and ensure the necessary occupational safety permits.



Installation overview

5.) Installation of aluminum profiles on top of the triangles

- Install the load-bearing aluminum profiles PR11 on top of the triangles – Use PR03 connector and screws SS03/SS04 to fasten the profiles.
- Use PR12 profile connector and EC01 end cap when needed.
- They form the basis for attaching solar panels and ensure the correct tilt angle (15°).

6.) Ballast weight placement

- Add ballast weights to the predetermined points, according to the agreed plan.
- The specifications (i.e., ballast amount and placement map) are based on wind and snow load calculations to ensure stability of the system without mechanical fastening.

7.) Attaching electrical cables

- Make sure that the cabling is done neatly and safely. Use attaching Cable Clip CC01 and Cable tie CC02 to prevent movement and chafing of the cables.

8.) Mounting solar panels

- Place the panels in pace according to the panel manufacturer’s instructions. Fasten panels on the aluminum profiles using Middle clamps CL11 and End clamps CL02.
- Check that the attachment is secure and the orientation is correct.

9.) Final check

- Perform a full system check: review all fasteners, weights, cabling, and panel installation. Ensure that the installation is as planned and safe for use.

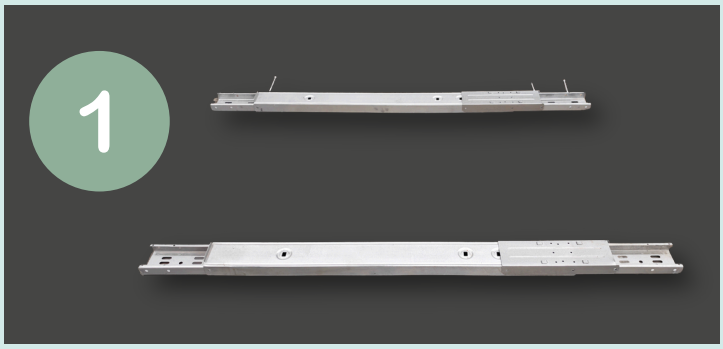
1.) Site planning

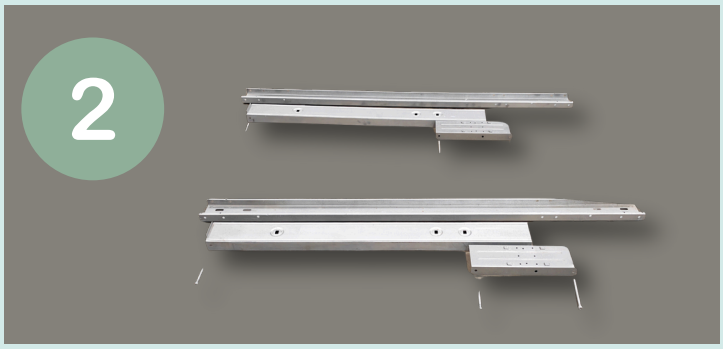
- Make the initial data and information clear:
- Building information
- Roofing materials
  - Location on the map (wind and snow loads)
  - Image of a pressure map
- Image showing the height, length, and width of the building
- Panel layout

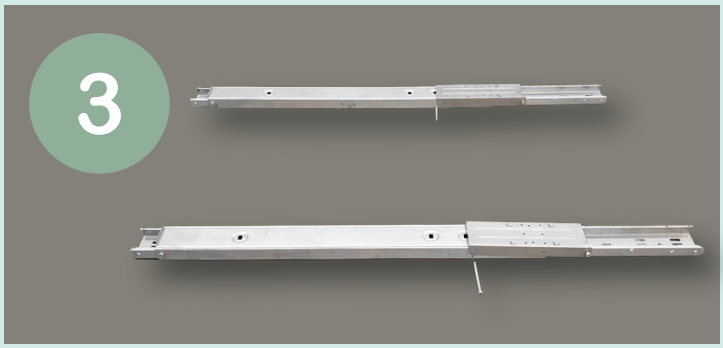
→ **With this, the plan is complete!**

2.) Turning the upper parts of the triangle to the E-W position

1.) Remove the bolts
2.) Place the upper parts in E-W positions
3.) Fasten the outermost bolts in place
4.) Lift the upper parts into a triangle position
5.) Attach and tighten the triangle bolts



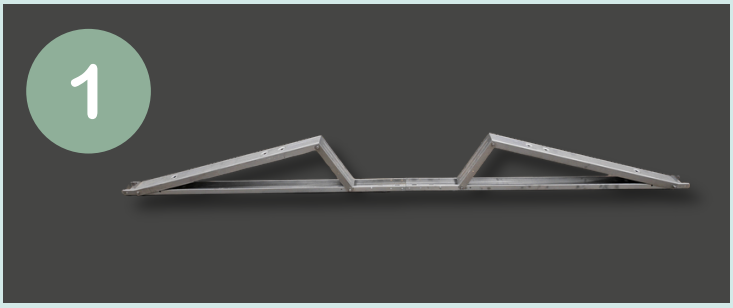


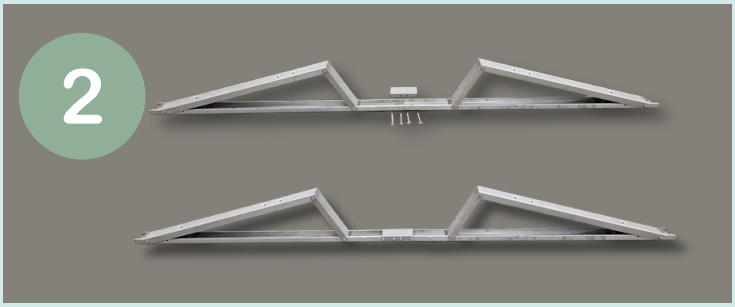


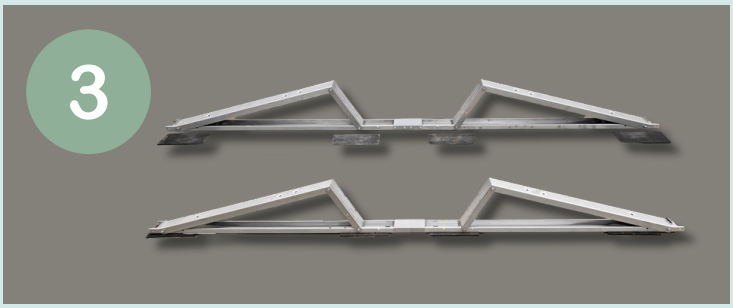
3.) Connecting the E-W triangles to the final position

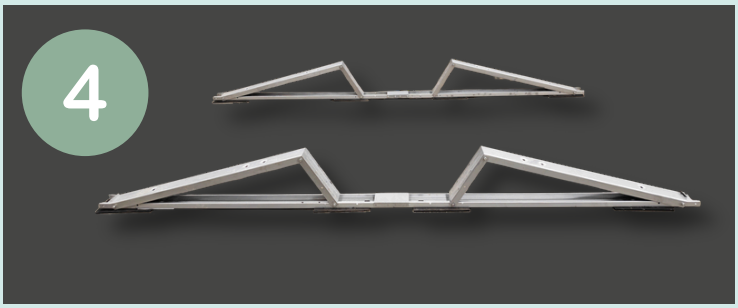
1.) Place the triangles opposite each other
2.) Connect triangles with FC01 - Extension connector and 4 x FS01 - Bolt & nut
3.) Place BM01 – Protective mat (15 mm) or BM02 – Butyl mat (8 mm) under the triangles
4.) Place the E-W entities in place

The distance between the triangles is determined by Moisolar's pre-calculated snow loads (1134-1700 mm)





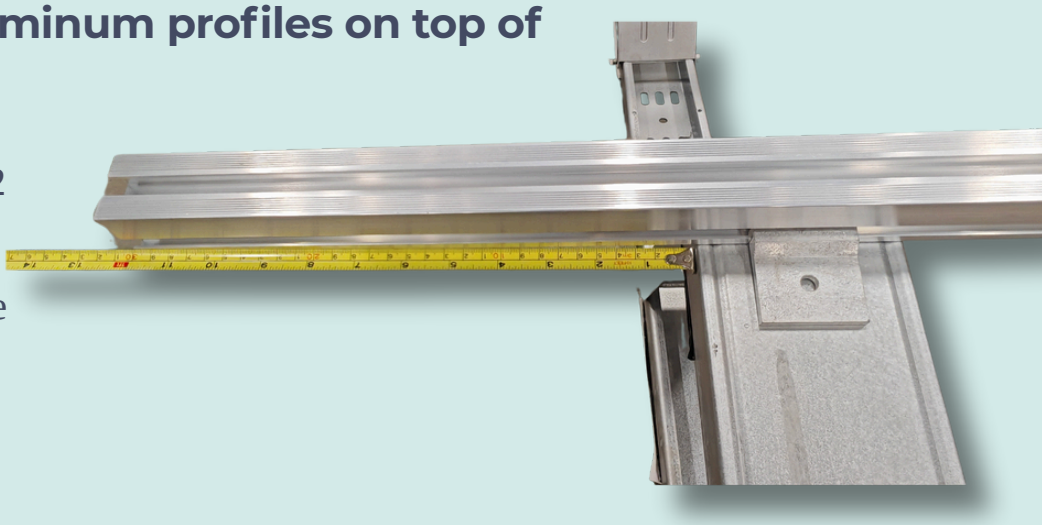


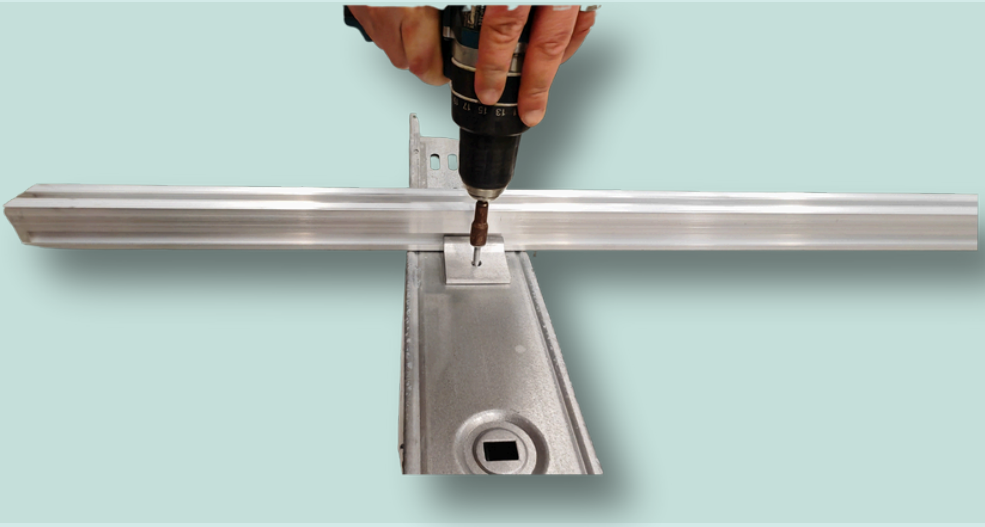


4.) Bitum welding (if necessary)

5.) Installation of aluminum profiles on top of the triangles

The aluminum profile PR12 extends 30 cm from the edge of the triangle. Use the profile connector and EC01 end cap when needed.

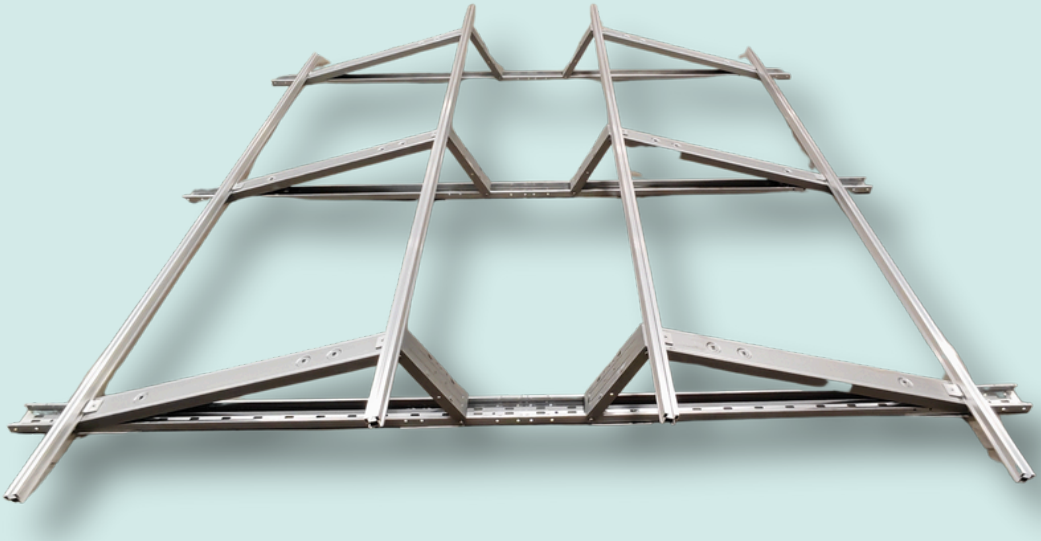




The aluminum profile is attached to the triangle with a profile cross connector PR03 and a self-drilling screw SS04.

The final setup looks like this!

At this point you can move on to putting the wires in place.



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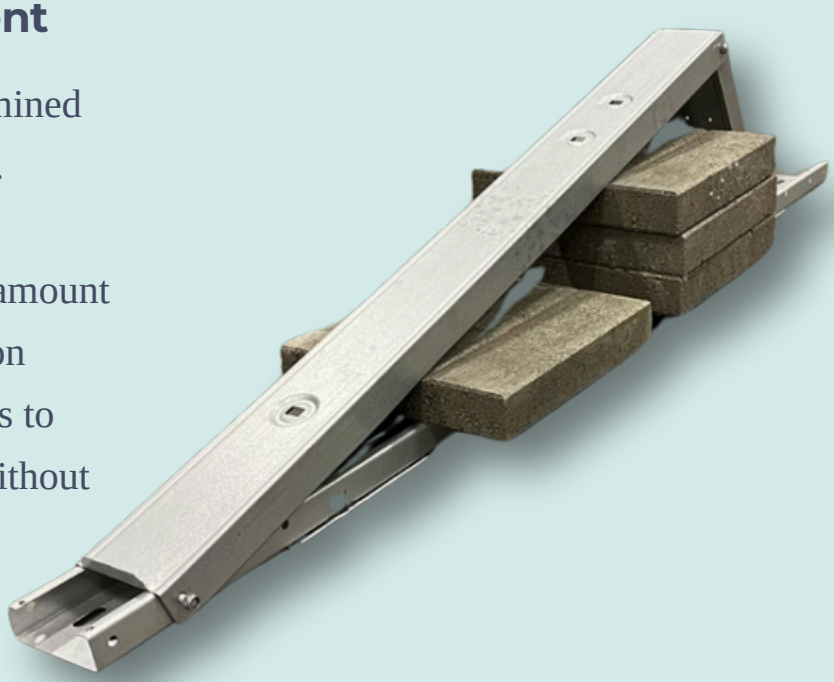

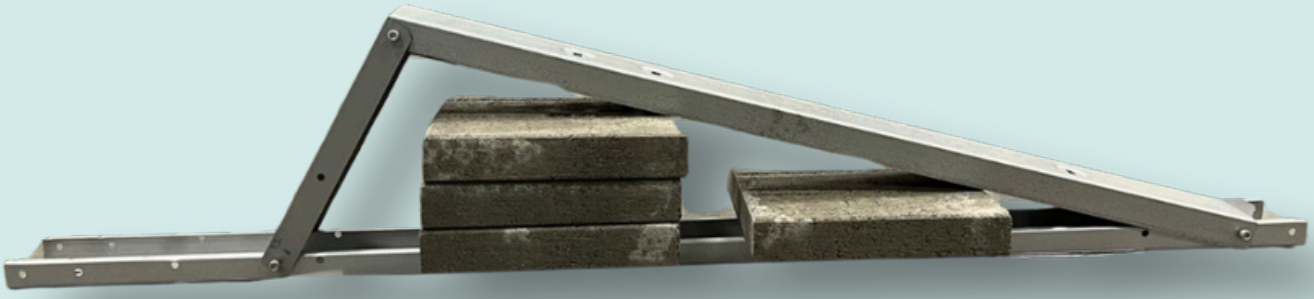

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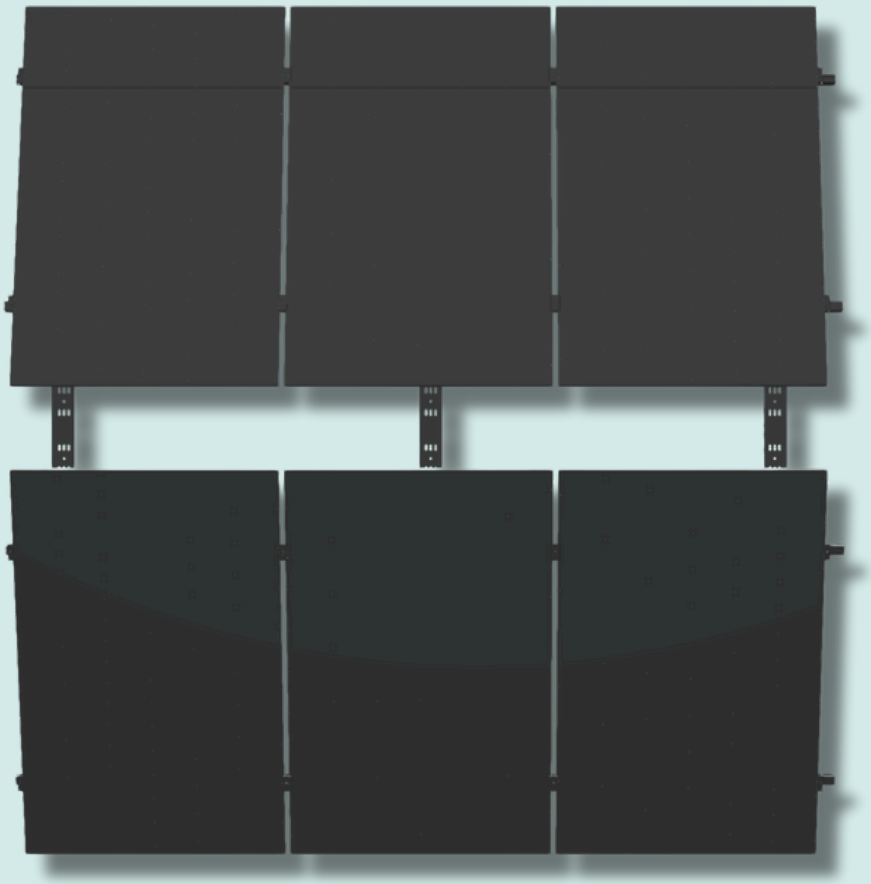

9.) Final check

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