

ALL-IN SUPPLIER
FOR SOLAR PANEL INSTALLERS

MANUAL

System D - pitched roofs
Portrait / landscape

ALLIMEX
Green Power

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ATTENTION

Only Allimex products may be used when installing the mounting systems. Use of other components may affect the stability of the system and can thus cause damage. The installation of solar installations may only be carried out by trained and skilled personnel. No liability will be taken for damage caused by other components or poor installation.



OVERLOAD

In addition to the net weight of the photovoltaic system, the system components and the substructure are mainly influenced by wind and snow loads. Each system must therefore be specifically calculated and planned for its external requirements, taking into account the Eurocode.

The overload caused by wind mainly depends on the wind zone, the height of the building, the shape and the slope of the roof. Weight overload due to snow depends on the snow zone, the height of the building, the shape and slope of the roof.

The wind and snow overload can be determined for each location by an external professional.



PRESSURE

The statics of the roof, substructure or facade must always be observed. Basically, the statics of each roof should be checked by authorised specialists. It should be checked whether the building can carry the additional overload of the solar installation.

Since the load on a roof and the effect of a solar installation are determined by many factors, a static calculation must be made for each individual roof.

The current state of the roof must be such that the roof does not have to be renovated within 20 years.



MATERIALS

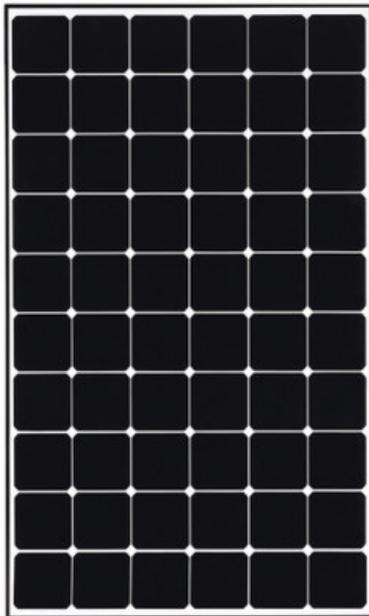
- layout plan
- parts list
- tape measure
- M10 hexagon bolt + M10 knurled nut
- M8 hexagon socket screw + M8 square nut
- t-head bolt + M8 clip nut
- flange nut
- hex keys
- angle grinder small

Follow all safety measures in accordance with the relevant guidelines before starting the installation!

1. START - POSITIONING OF THE PANELS

If necessary, take a look at the layout plan you have drawn up and the parts list and check whether all the materials are present.

TIP: Our representatives can help you with this list of materials if you provide them with the correct layout.



Solar panels must not be mounted too close to the ridge, gutter or roof edge. This is to prevent the panels from having to withstand the forces of wind turbulence in heavy winds. In the case of terraced houses, the panels can be installed up to the edge of the property.

As a rule, at least 2 roof tiles must always be kept free from the ridge, gutter and side, so that the panels can be installed in a stable position. In practice, this comes down to approximately 60 cm from the ridge and gutter and 40 cm from the side. If you have a roof tile type with a different size, you may stick to these measurements.

Before you proceed with the installation of the panels, it is important to first determine exactly where the panels will be placed on the roof by marking the contours of the panel field on the tiles with chalk or a marker. On the lines where the profiles are to be placed, a cross marks where the roof hooks are to be placed.

2. MOUNTING ROOF HOOK

The exact position of the solar system is measured on the roof to locate the position of the roof hooks. Make a position distribution of the roof hooks with an appropriate distance as mentioned on the installation plan. Slide up or remove the top tile. Then place the roof hook in the tile valley over the tile and the batten and put the top tile back. Adjust the roof hook so that the roof hook clamps slightly over the tile and batten.

- » **the mounting profile cannot protrude the outer roof hook more than 200 mm**
- » **the solar panels must be positioned at least 500 mm from the roof edge**
- » **the distance between the roof hooks must not exceed 400-550 mm**

It is possible that the roof tiles no longer fit neatly together due to the installation of the roof hooks. Therefore, grind out a piece of the underside of the tile the size of the roof hook and put it back in its original place. Make sure that the tile retains its strength and watertightness.



3. MOUNTING PROFILE

Place a t-head bolt with a flange nut at the outer roof hooks. Make sure the profile is aligned left and right and fasten the profile against the roof hook by turning the profile around the rotating part of the roof hook. The t-head bolt now falls into the mounting profile. Secure the flange nut on the outer roof hooks to the t-head bolt so that the profile is securely fastened.

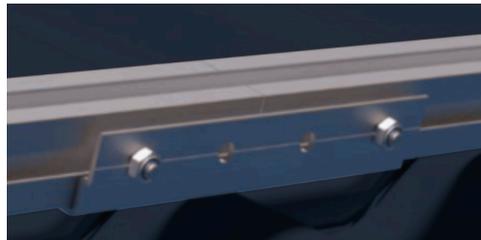


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4. PROFILE CONNECTION

The maximum length of a profile is 6.20 m. Using a profile connector, the profiles can be extended.

Screw the profile connector onto the mounting profiles. Install the profile connector with two t-head bolts and flange nuts. Tighten the flange nuts firmly so that the profile can no longer be moved.



5. ELECTRICAL WIRING

Provide the upper holes with a bolt and a nut. The bolt must be mounted in such a way that it protrudes 3 cm at the back. After the bolts have been tightened on both sides with a nut, the panel can be attached to the profile.

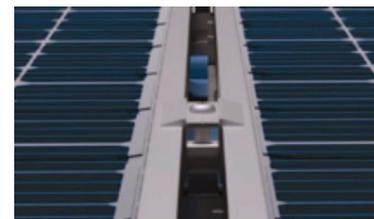
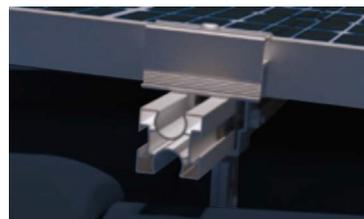
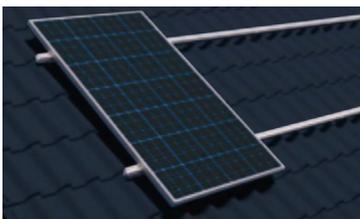
To mount the solar panels, the electrical cables must be clicked together to form a chain. The - is always connected to the +. The connectors can only be connected in one way to avoid errors.

If your solar system contains several inverters, the solar panels must be divided into several strings. Larger inverters often offer this possibility. For personal advice, you can always contact Allimex Green Power.

6. MOUNTING SOLAR PANELS

Position the first panel on the profiles and tighten the end clamp. Press the end clamp against the panel and make sure that the end clamp is positioned against both the panel and the profile.

Position the second panel on the profiles and install a middle clamp between the panels. Press the panels firmly against the middle clamp. All panels are secured at 4 points.



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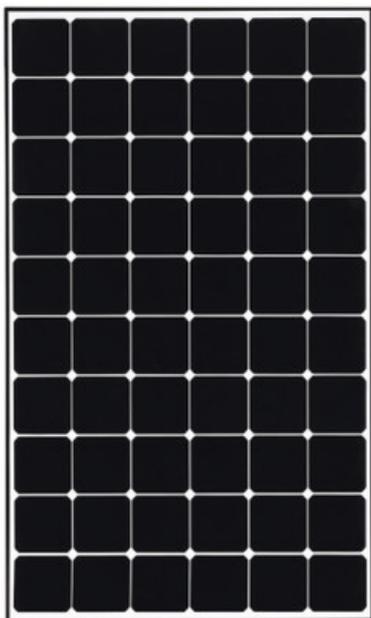
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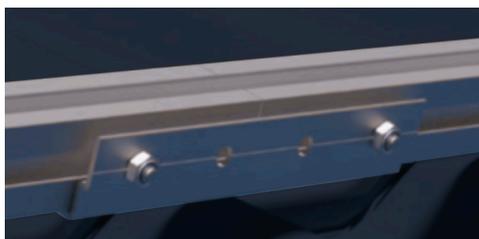
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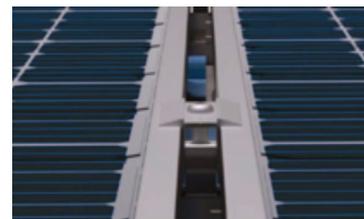
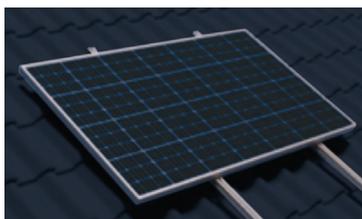
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