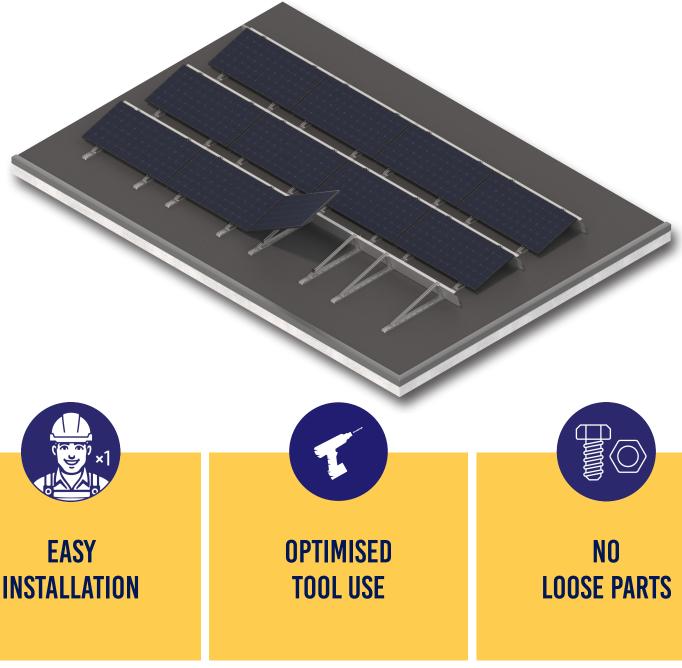


EASY-TO-INSTALL SOLUTION FOR THE FLAT-ROOF INSTALLATION OF SOLAR PANELS



ANCHORED OR WEIGHTED ROOF INSTALLATION



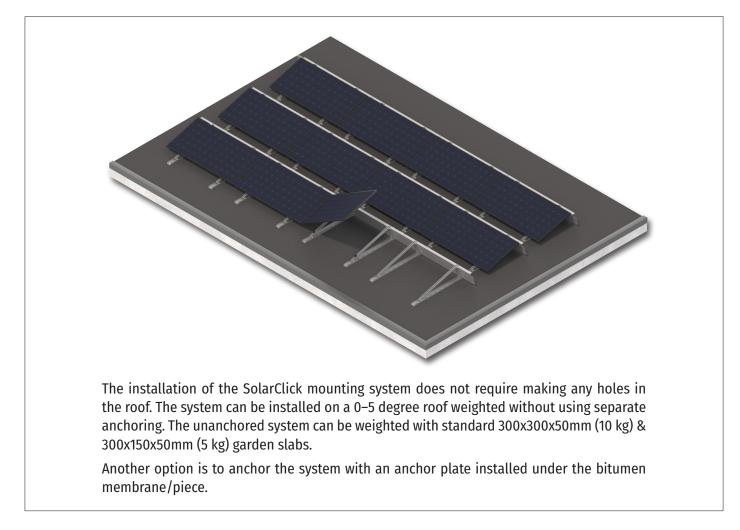
SOLARCLICK SOLAR PANEL MOUNTING SYSTEM FOR FLAT ROOFS

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MANUFACTURER:

Finelcomp Oy, Yrittäjänkatu 6, 83500 Outokumpu, Finland www.finelcomp.fi

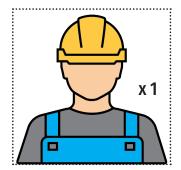
Preliminary information



Installation accessories

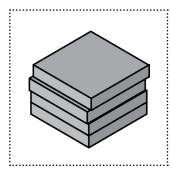
For assembling the SolarClick FR mounting system

you need 10 & 13 mm socket wrenches and a screwdriver.









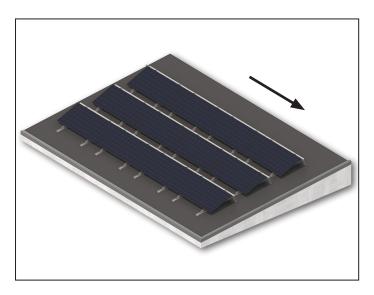
Please follow the local health and safety laws/regulations as well as safe work practices. Please use the necessary safety equipment.

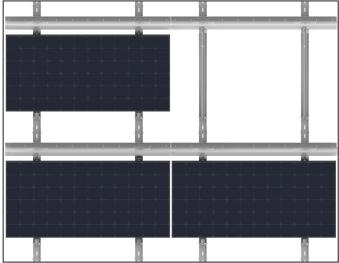


Installation overview

Orientation of the mounting system

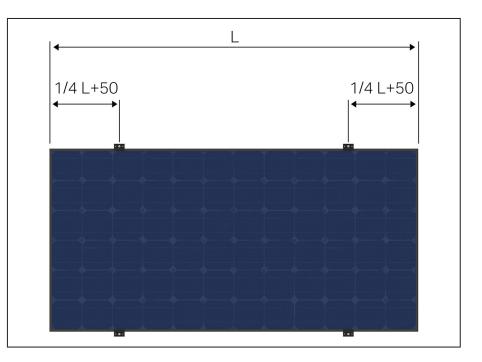
On a flat roof, the mounting system can be freely oriented. However, on a pitched roof, the system must always be installed parallel to the roof ridge. The panels are always horizontally installed in the flat roof brackets.





Panel overhang instructions

Please follow the panel manufacturer's instructions regarding panel overhang. A common rule is that the maximum panel overhang is 1/4 of the panel length + 50 mm, but it is always a good idea to check the overhang instructions on a case-by-case basis.





Mounting triangle

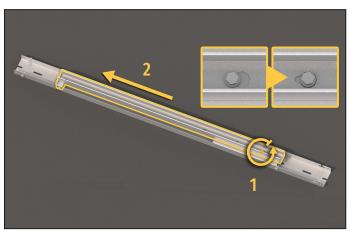
General

- \cdot There are two different versions of the mounting triangle: 15° and 25°.
- The mounting triangles come pre-assembled.

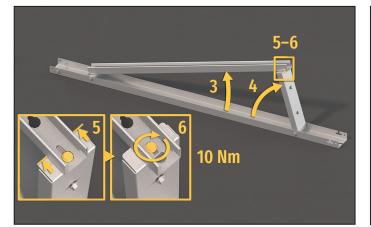
Erecting the mounting triangle



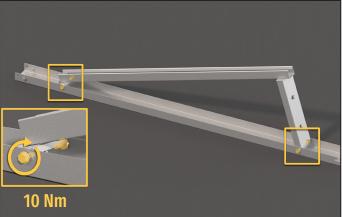
Pre-assembled mounting triangle before erection.



Loosen the back screw.



Lift the rear support and rail into place. Tighten the screw in the rear support to the specified torque.



Tighten the screws to the specified torque.

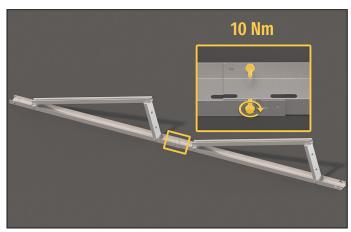


Installing the mounting triangles

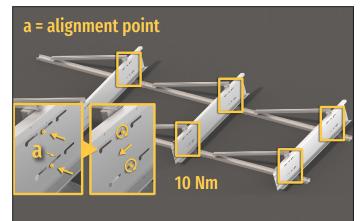
General

- Mounting triangle can be installed on the roof either weighted or anchored.
- \cdot Weighted installation can be used when the pitch of the roof is 0–5°.
- \cdot Select a suitable weight rack on the basis of the panel angle (15° & 25°) and panel width.

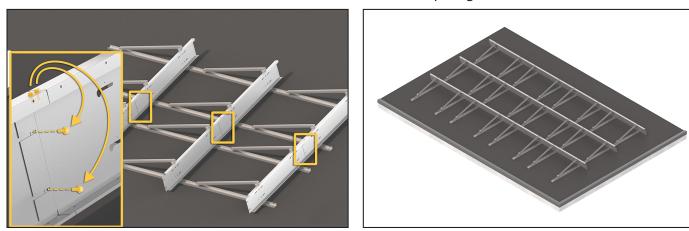
Installation



To extend the row of mounting triangles, install the next mounting triangle into the slot in the bottom rail.



Place the mounting triangle rows at the desired spacing and install the weight rack to fix the horizontal spacing between them.



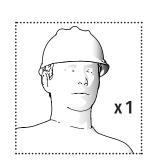
Tie the rows of panels together by connecting the weight racks of the adjacent rows.



Installing the solar panels

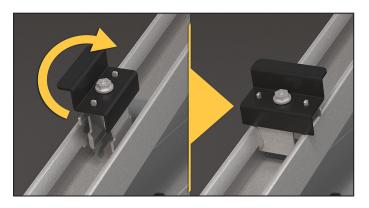
General

 \cdot The installation can be performed by one person.



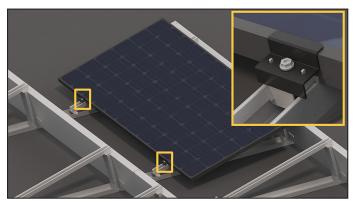


• Attach the solar panels to the mounting triangles with SolarClick end fasteners.

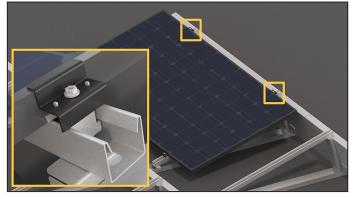


1. Fit the lower panel fasteners to the rail and turn 90°. The rail has 2 slots that hold the fastener in the correct position. Select the slot to use based on the installation height and panel size.

Note! You can adjust the panel fasteners' position on the rail until you lock them.

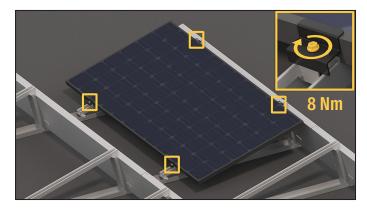


2. The fastener stays in place in the slot, and you can mount the solar panel on the lower fasteners.



3. Installing the upper fasteners.

4. To lock the panel fasteners in place, tighten the screws in the fasteners to the correct torque.

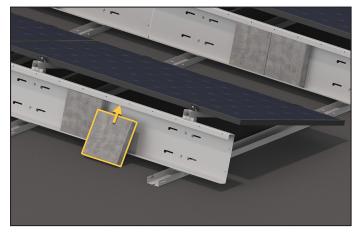




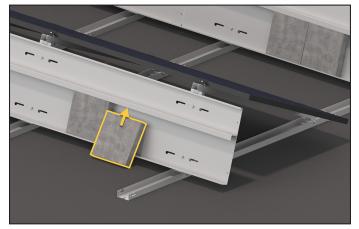
Weighting of the system

General

- SolarClick FR mounting system can be installed as a weighted installation without separate anchoring on roofs where the pitch is 0–5°
 - Note! Remember to check the strength and condition of the roof base before installation.
- The required weighting based on the wind load is calculated separately for each project. Please contact your nearest dealer for the weighting calculation for your project.
 - If the panel field is small or subject to an unusually heavy wind load, it is recommended to anchor the system to the roof using SolarClick anchoring plates. Please contact your nearest dealer regarding weighting restrictions.
- The weighting is done by adding standard-size garden slabs to the weight rack. The weight racks are sized to accommodate standard 300 mm high and max. 50 mm thick garden slabs.
 - · For example: 300x300x50mm (10 kg) & 300x150x50mm (5 kg)
- \cdot One weight rack can take a maximum of 50 kg of additional weights.



Setting weights in the 15° weight rack.



Setting weights in the 25° weight rack.

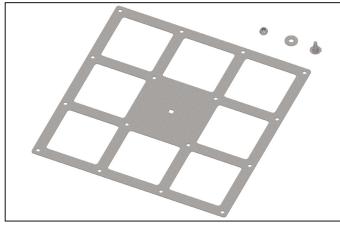


Installing the system using SolarClick anchor plates

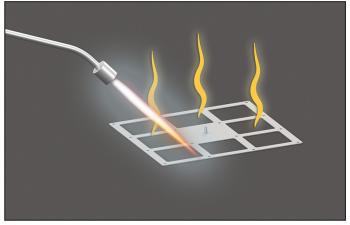
General

The SolarClick anchor plate is a fixing method that does not penetrate the roof surface. It allows the SolarClick FR mounting system to be anchored to the roof. The installation entails an anchor plate installed under the bitumen membrane/piece plus separate fastening accessories. The recommended surface area of the bitumen membrane/piece is $\geq 0.5 \text{ m}^2$, such as 750 x 750 mm. Note! The installation requires a hot work certificate.

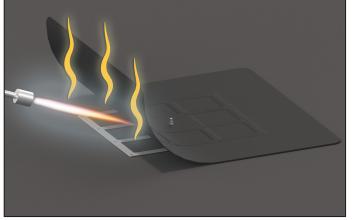
Even when the system is anchored, weight racks must be used for the installation. In an anchored installation, the weight racks act as windbreaks and there is no need to install additional weights to the racks.



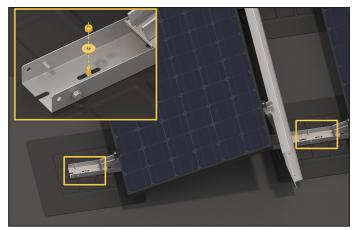
Anchor plate and fixing accessories.



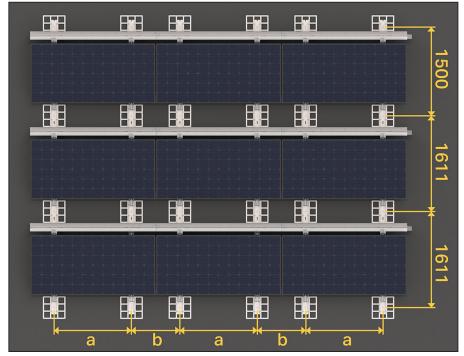
Installing the anchor plate to the roof.



Use a \ge 0.5 m² bitumen membrane/piece for the installation. Fixing of the mounting triangle to the anchor plates.

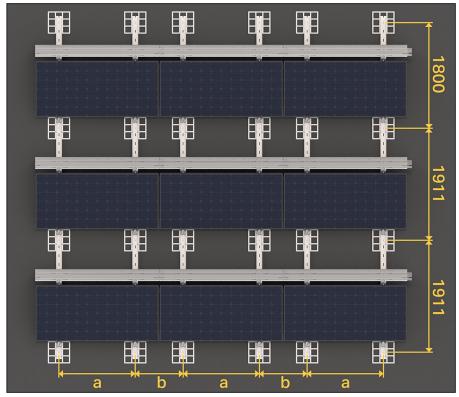


Installing the system using SolarClick anchor plates



Installing the anchor plates for 15° mounting triangles

For the 15° mounting triangles, the lengthways spacing is 1,611 mm, but the last space is 1,500 mm. Select the distance across (a, b) based on the panel size and the preferred distance between rails.



Installing the anchor plates for 25° mounting triangles

For the 25° mounting triangles, the lengthways spacing is 1,911 mm, but the last space is 1,800 mm. Select the distance across (a, b) based on the panel size and the preferred distance between rails.



Parts list

Mounting triangles

Item number	Name	Electrical number
40220051	SolarC FR triangle 15	80 135 22
40220052	SolarC FR triangle 25	80 135 23

Weight racks

Item number	Name	Electrical number
40220060	SolarC FR weight rack 15-1762	80 135 32
40220061	SolarC FR weight rack 15-1909	80 135 33
40220063	SolarC FR weight rack 15-1961	80 135 37
40220062	SolarC FR weight rack 15-2094	80 135 24
40220070	SolarC FR weight rack 25-1762	80 135 34
40220071	SolarC FR weight rack 25-1909	80 135 35
40220073	SolarC FR weight rack 25-1961	80 135 38
40220072	SolarC FR weight rack 25-2094	80 135 25

- The numbers in the name of the weight rack indicate the angle of the compatible mounting triangle and the panel width for which the weight rack is optimized.
 - E.g. SolarC FR weight rack 15-1909 = 15° mounting triangle, 1909mm wide panel.
- Ask your nearest dealer about the availability and suitability of weight racks for different panel widths.

Anchor plate

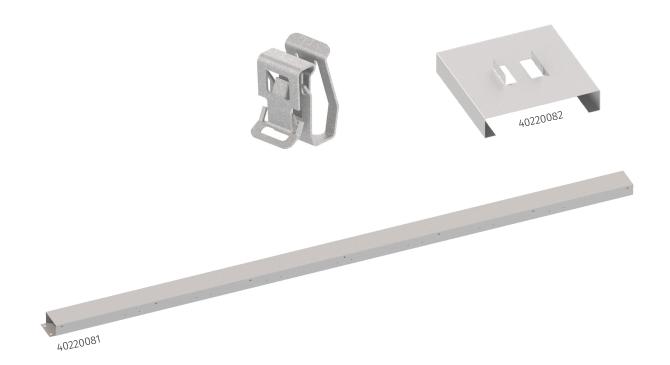
ltem number	Name	Electrical number
40220091	SolarC TK anchor plate	80 135 28
0226825092-100	Square neck bolt DIN 603 A2 M8X25 (100)	80 135 29
03978005-100	Nyloc nut din 985 A4-80 M8 (100)	80 135 30
412928005-100	Washer DIN 9021 A4 M8/8.4 (100)	80 135 31

Panel fasteners

Item number	Name	Electrical number
40220023	SolarC end fastener 35K	80 135 19
40220033	SolarC end fastener 30K	80 135 21

Supplementary parts

ltem number	Name	Electrical number	
40220081	SolarC FR cable duct	80 135 26	
40220082	SolarC FR duct weight	80 135 27	
	Cable clamp	For example: 1370870	





Technical data

Materials data

- Magnelis ZM310
- Coating thickness 25 µm
- Coating type zinc, aluminium 3.5%, magnesium 3%

Standards

According to IEC 61730, where the snow load specified for the panels is 5,400Pa = 540 kg/m² and the wind load is 2,400Pa = 408 kg/panel.

The required weighting for sites based on the wind load is calculated separately for each project.

Links

<u>https://www.finelcomp.fi/en/products/solarclick/</u>





Terms of warranty

Finelcomp SolarClick terms of warranty as of 4 May 2023

The SolarClick product warranty complements Finelcomp's general terms and conditions of sale and is valid for 25 years from the date of purchase. Finelcomp guarantees that the SolarClick products meet the requirements for normal use of the product and that the products will not rust through during the warranty period. The warranty does not cover normal aesthetic changes due to ageing.

The warranty is valid when:

- The product has been installed according to the Finelcomp SolarClick product installation instructions.
- Any scrap metal generated during the installation has been removed immediately upon installation.
- The product does not come into contact with metals that are more precious than the product or with liquids passing through more precious metals.
- The claim is submitted within one (1) month of detecting the damage.
- The claimant can prove that the system was installed in accordance with the supplier's installation instructions and cleaning was carried out properly after the installation.

The warranty is void if:

- The operating environment is particularly aggressive or corrosive, such as in proximity to a chemical factory or in a particularly saline or humid climate.
- The product has been exposed to corrosive foreign bodies outside the normal climate load (moderate salinity, moderate humidity, water, tree leaves).
- Other manufacturers' components have been used in the installation of the system.

Compensation and reimbursement handling

If the claim was submitted in accordance with the terms of warranty, Finelcomp Oy undertakes to provide the buyer with new replacement products from the existing product range within 60 days, provided that the purchase document is presented.

If a reimbursement is paid for the product, its value shall not exceed the product's original invoiced value.

Finelcomp Oy shall not be liable for any business expenses, special expenses, costs arising from loss of income or other indirect costs.



