



**IVENDO Solar**  
ul. Wojska Polskiego 2D  
14-200 Itawa

## Instructions for installing the Floor system

# KN-BIFACIAL-BK

This manual contains information on the assembly of the floor-supported construction for 12 vertical modules.

### **Materials:**

- Stainless steel A2
- Aluminum 6060 T66
- Structural steel with magnolium coating S320 ZM430.

**It is essential that you familiarize yourself thoroughly with the instructions and use them in accordance with the intended purpose.**

# Information about the security

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Before starting the assembly work, you should familiarize yourself with the following safety instructions, which will reduce the risk of an accident.



**Attention!** The setup and connection should be performed by qualified personnel with the appropriate authorizations. The general safety rules must also be observed.



**Attention!** During the work, it is necessary to observe the applicable national and European standards, especially the electrical installations. It is also necessary to follow the instructions of the other components, e.g. the inverter.



**Attention!** Danger of falling from heights. The rules for working at heights and the necessary safety equipment such as harnesses and safety ropes must be observed.



**Attention!** Danger of falling objects. Special care must be taken. Before starting work, the assembly area must be appropriately secured to avoid hazards.



**Attention!** Warning of electric current. Be especially careful when performing electrical work, especially when connecting modules and when setting up and connecting the inverter to the modules.



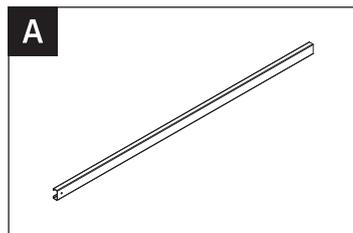
**Attention!** Warning about highly flammable materials. Photovoltaic modules, inverters and other electrical equipment should not be used near easily flammable materials.



**Attention!** The assembly work must not be carried out by persons under the influence of alcohol or other intoxicating substances.

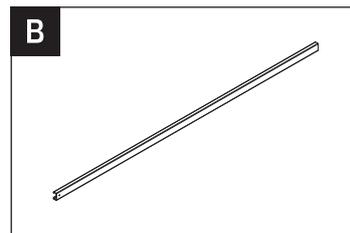
## Element overview

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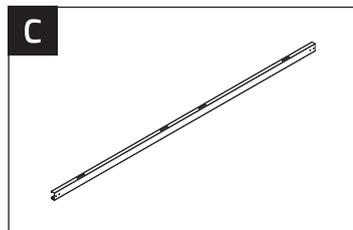
**A**  
**SMM foot**  
**70x50x2,5 L2800**  
5 Piece.

*Material: Steel with  
Magnelis coating*



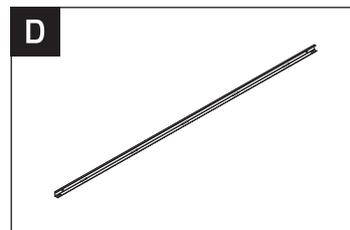
**B**  
**SMM foot**  
**70x50x2,5 L3907**  
5 Piece.

*Material: Steel with  
Magnelis coating*



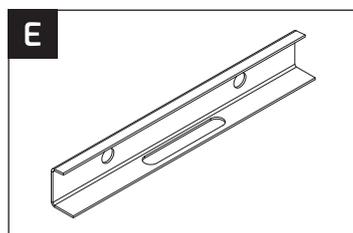
**C**  
**Rafter SMM**  
**80x50x1,5**  
5 Piece.

*Material: Steel with  
Magnelis coating*



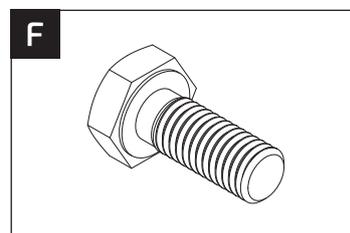
**D**  
**SMM purlin**  
**L2220**  
16 Piece.

*Material: Steel with  
Magnelis coating*



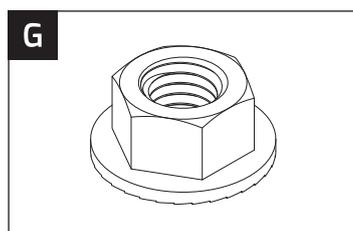
**E**  
**Purlin joint**  
12 Piece.

*Material: Steel with  
Magnelis coating*



**F**  
**Hexagon head screw**  
**M10/25**  
48 Piece.

*Material: Stainless steel*



**G**  
**Nut**  
**M10 flange**  
48 Piece.

*Material: Stainless steel*

Parts list for 12 modules with dimensions from 1740 - 1940 mm

# Assembly instruction

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## Required tools:

- Allen wrench (size 5)
- Ring wrenches (size 13, 15 and 17 mm)
- Cordless screwdriver with Torque adjustment
- Cross-recess bits / attachments for the Cordless screwdriver (PZ)



## Tightening torques:

- Tighten middle and end clamps with a tightening torque of 8.5 Nm
- Tighten M8 bolts and nuts with a tightening torque of 18 Nm.
- Tighten M10 bolts and nuts with a tightening torque of 36 Nm



## Staffing for assembly:

- At least 2 persons



## Assembly time:

- About 2 hours

# Control and maintenance

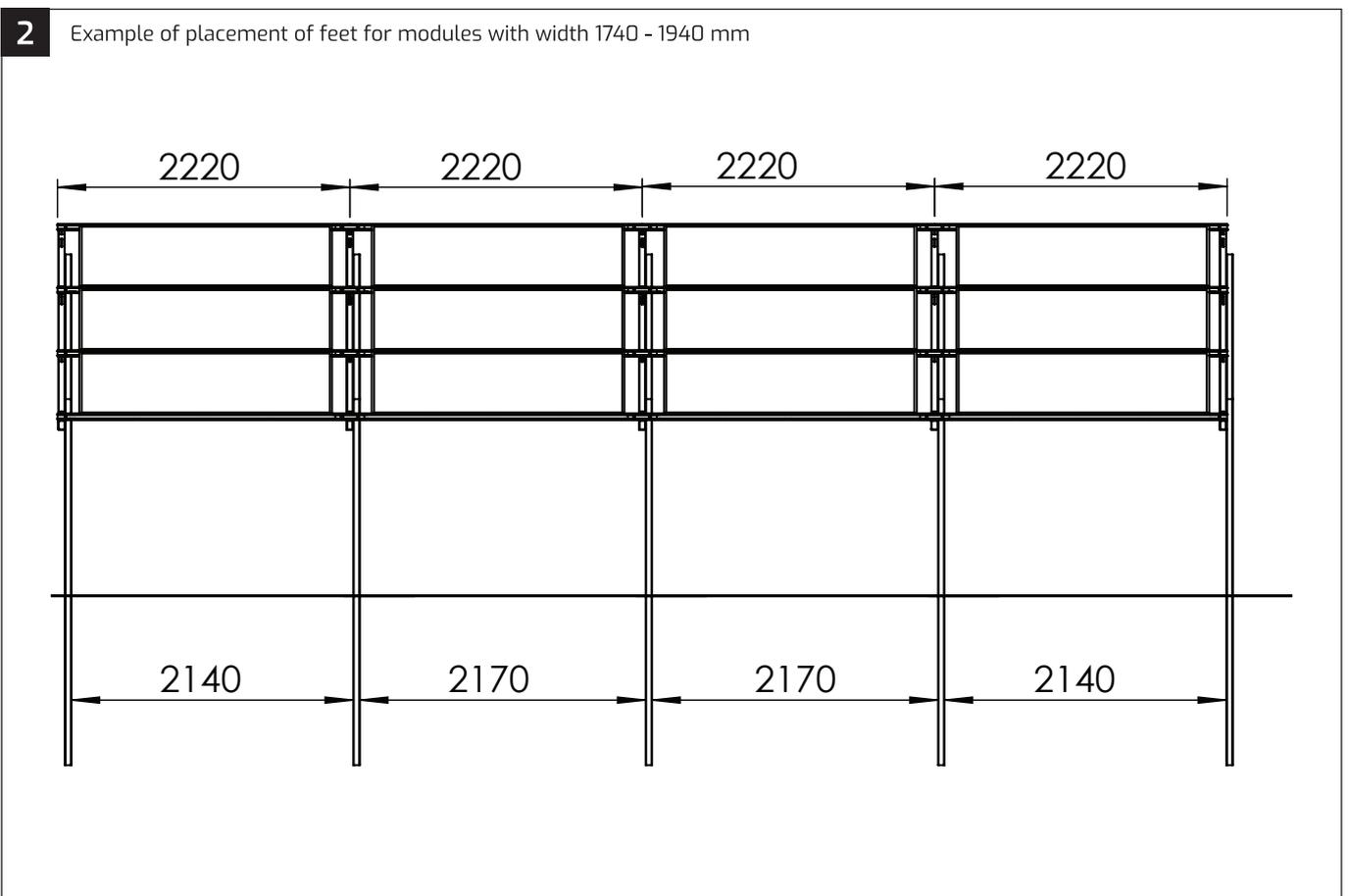
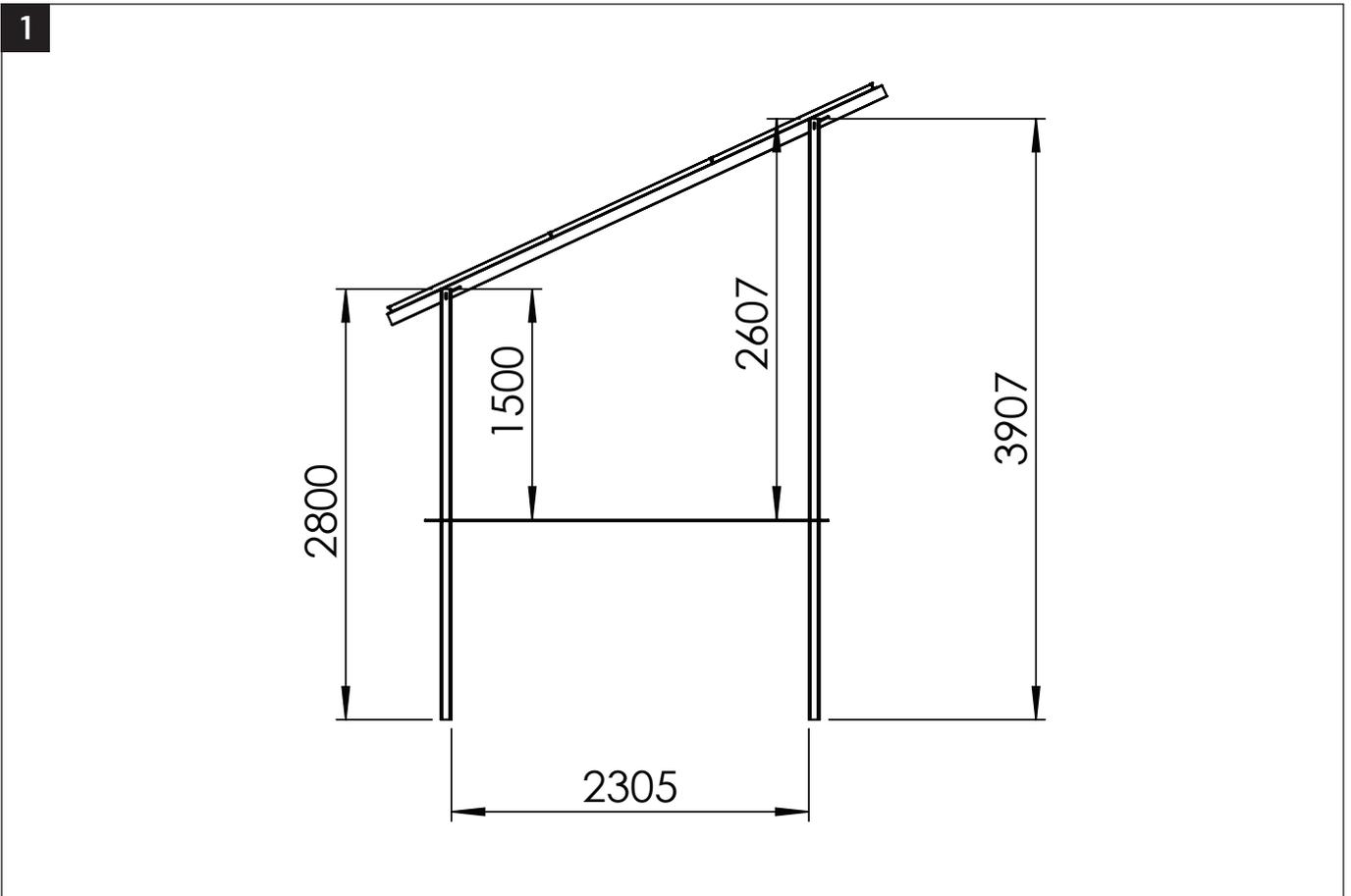
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During the installation work, it must be ensured that the photovoltaic system is used according to its intended purpose. All changes in the use of construction elements, including connection with elements that do not come from IVENDO Solar, the modification of the construction by welding, shortening, lengthening, drilling, etc., and increasing the load on the systems will result in the loss of warranty claims and may have a direct impact on the life of the systems and their safe use.

The technical inspection and maintenance of the mounting system should be carried out at least once every six months, special attention should be paid to:

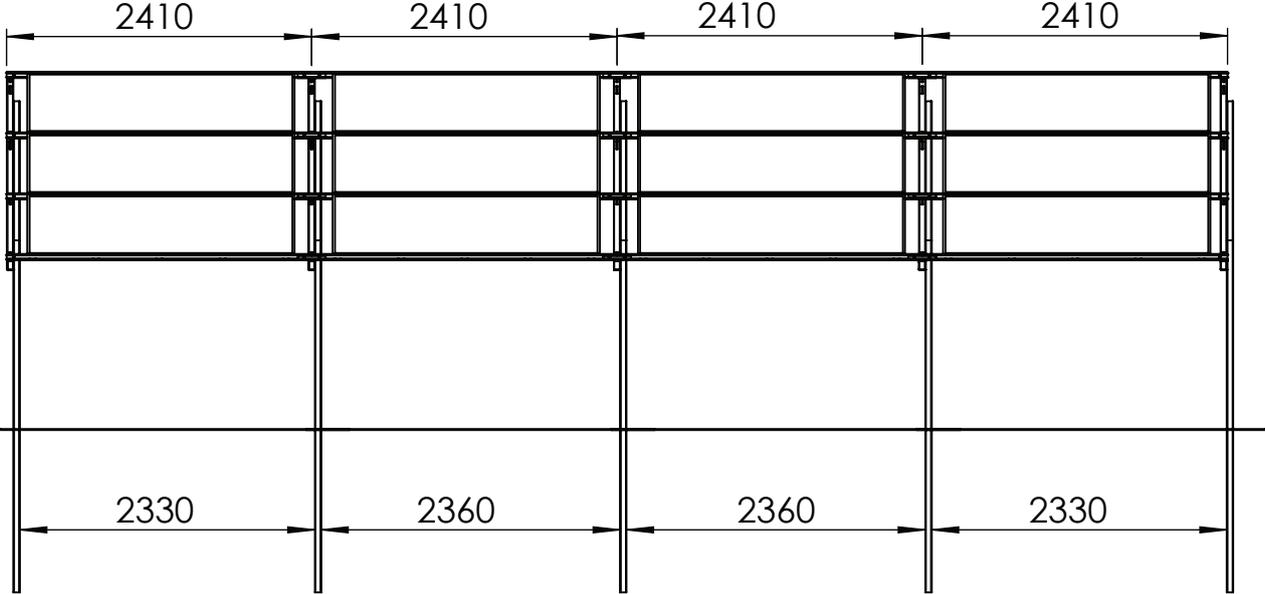
- Bolted connections,
- The condition and connections of the electrical cables are checked,
- the visual condition of the PV modules (contamination, mechanical damage) is checked.

# Assembly of the set

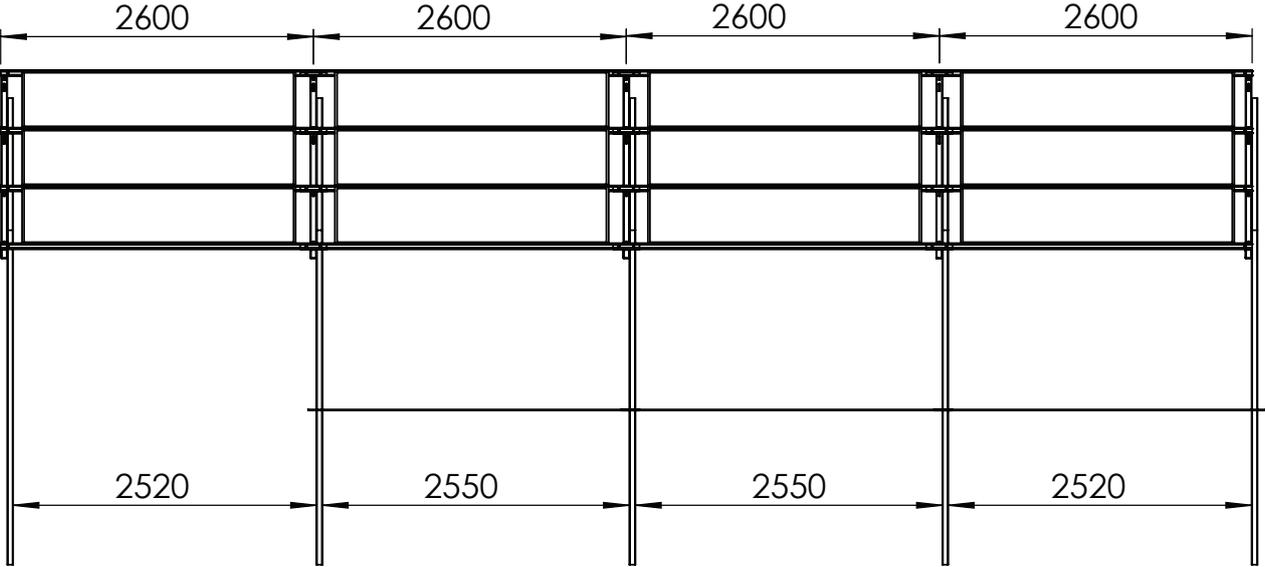


# Assembly of the set

Example of placement of feet for modules with width 1940 - 2110 mm



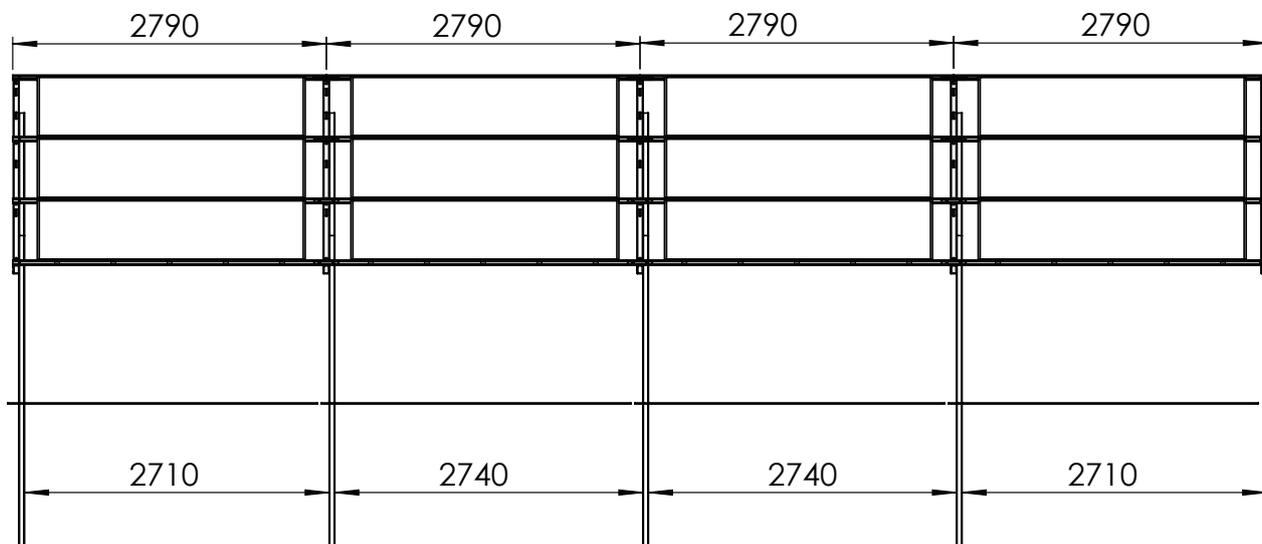
Example of placement of feet for modules with width 2120 - 2300 mm



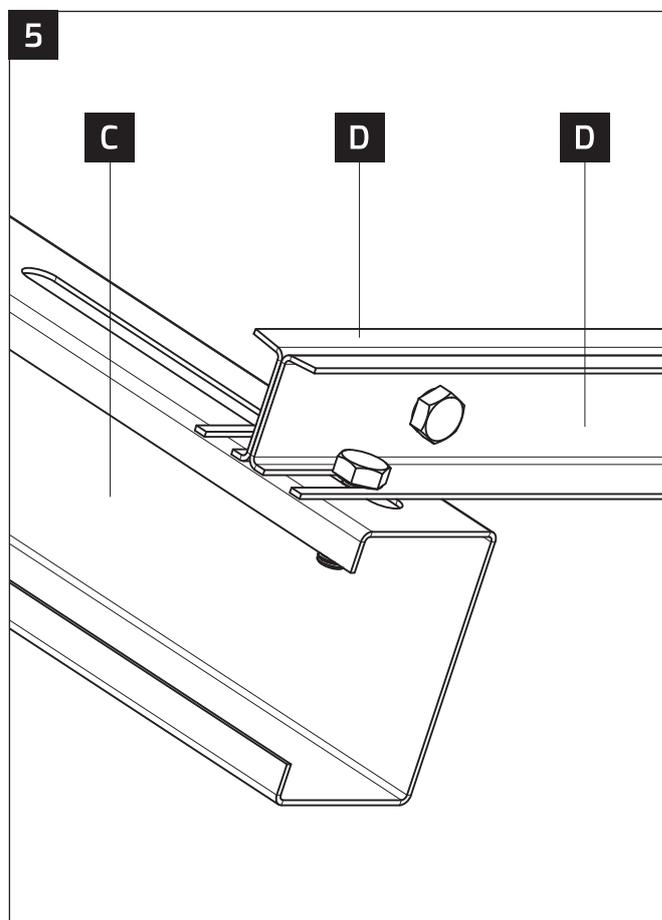
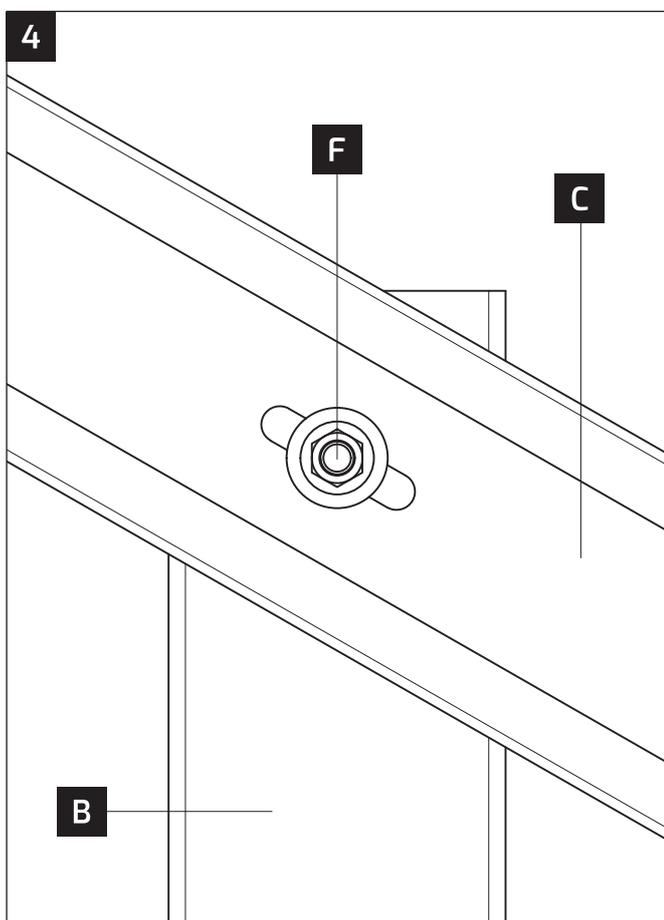
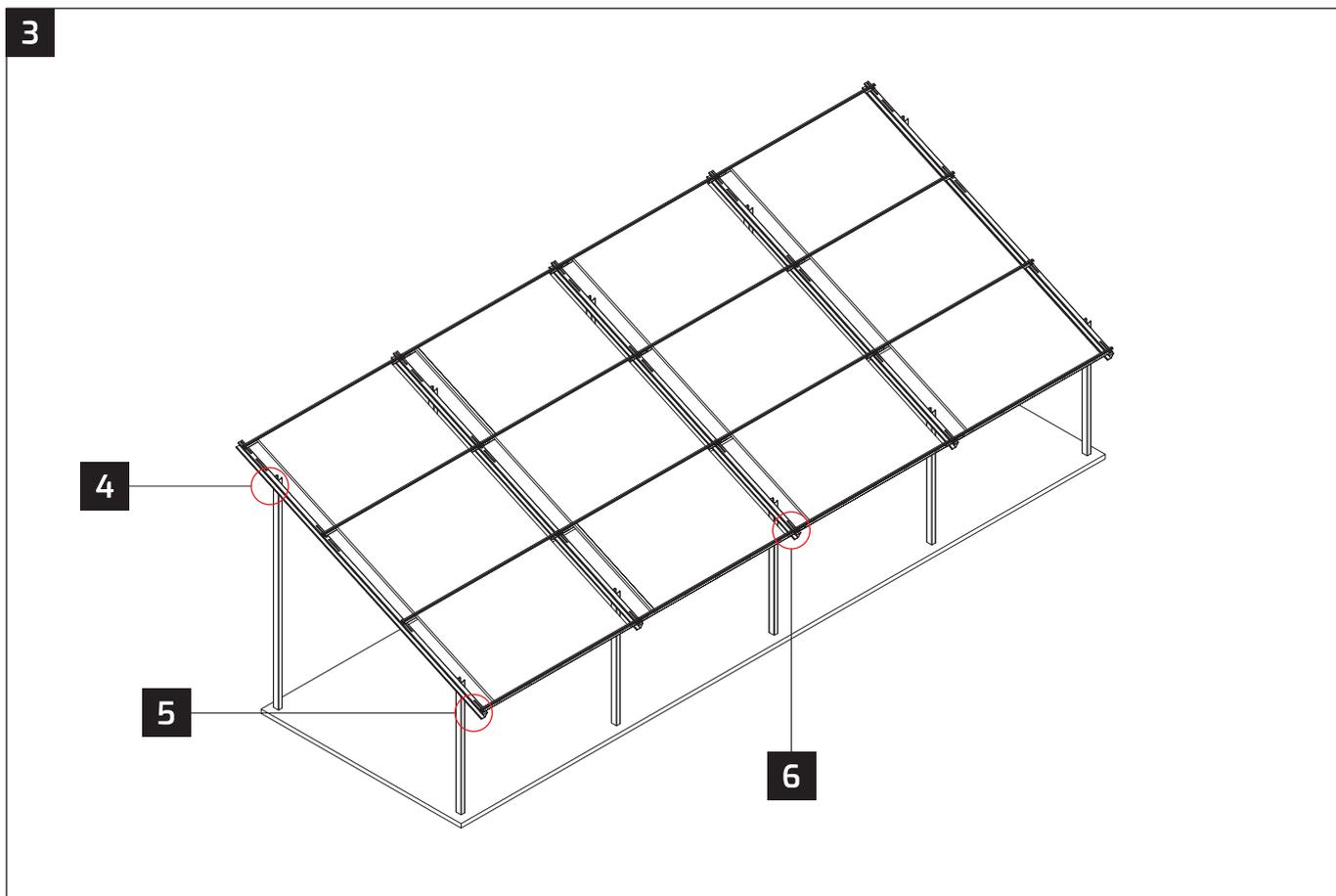
# Assembly of the set

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Example of placement of feet for 2310 - 2490 mm wide modules

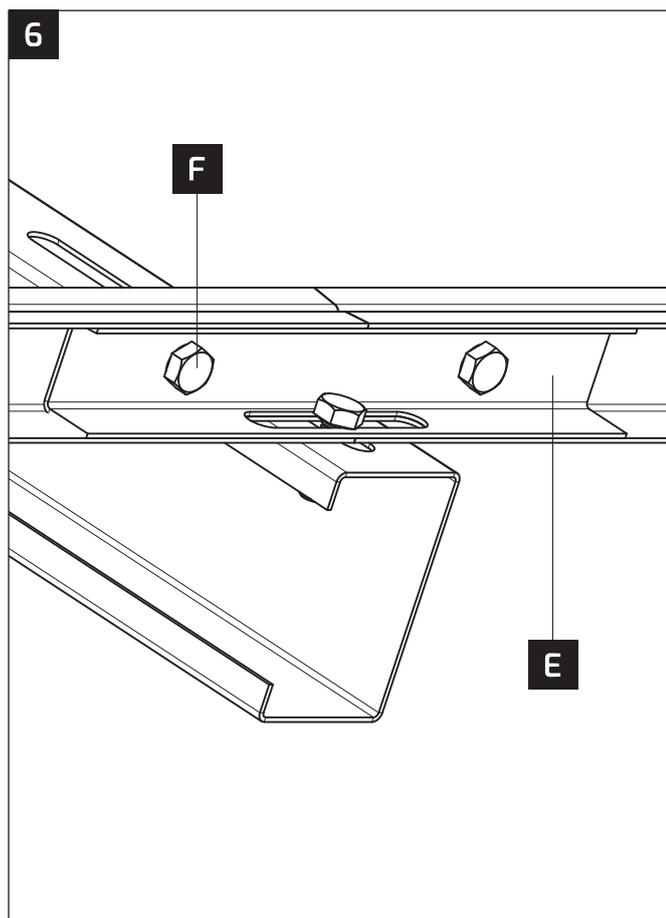


# Assembly of the set



## Assembly of the set

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# Legal clause

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These instructions define the basic standards for the installation and operation of a support system for photovoltaic modules. The instructions do not replace the photovoltaic installation project. The correct selection of the mounting system for photovoltaic modules and its components is the responsibility of the persons who directly perform the installation of this system. This work should be performed by professional installers with appropriate qualifications and experience. It is the installers' responsibility to select the appropriate mounting system and the way of its integration with the building or the ground depending on the site conditions and the customer's needs. IVENDO SOLAR, as a manufacturer of mounting systems, does not assume any responsibility for the proper execution and installation of the structure. Regular inspection of the technical condition of the installation should be performed at least once a year by persons with appropriate qualifications. In case of occurrence of weather anomalies (strong gusts of wind over 79 km/h, unusual amounts of snow), a check of the technical condition of the installation should be carried out immediately after its completion. The construction shall be used in accordance with its purpose and environmental protection requirements. It is required that the structure be kept in a technically sound condition and no significant deterioration of its usability and technical performance shall be permitted. Changes and modifications of the IVENDO SOLAR mounting systems, including its cutting, welding, shortening, stretching, reducing the number of elements specified in the manual, increasing the distance of the support structure, increasing the load on the systems or using the systems not according to the purpose, will result in immediate loss of warranty claims and may result in shortening the life of the systems and limiting their safe use.