



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

Instructions for installing the Floor system

KN-BIFACIAL

These instructions contain information on the assembly of the floor-supported construction for 16 vertical modules.

Materials:

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

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

Information about the security

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.

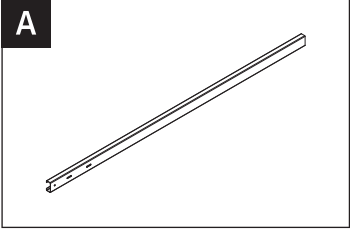
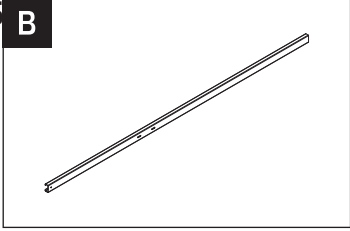
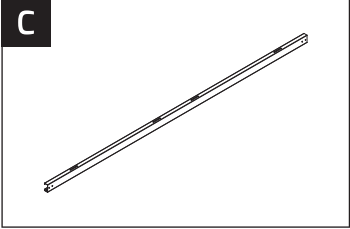
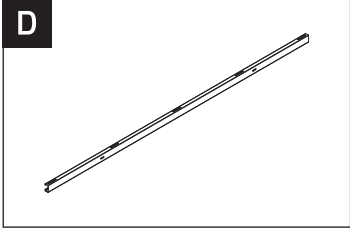
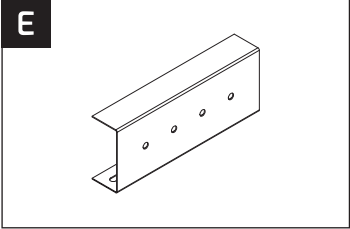
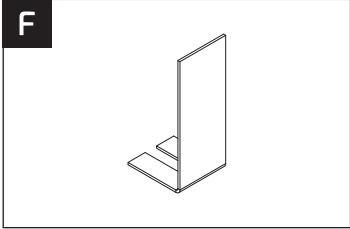
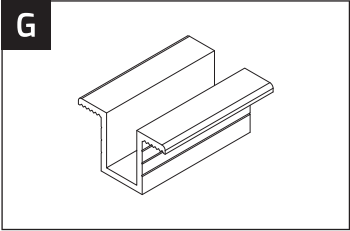
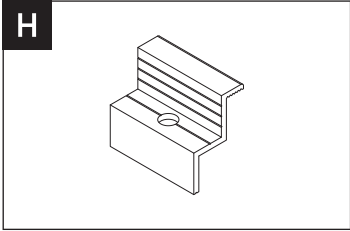
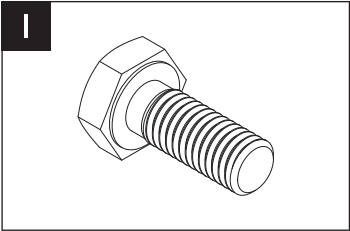
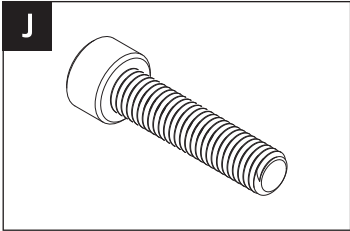
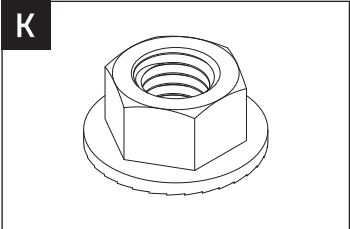
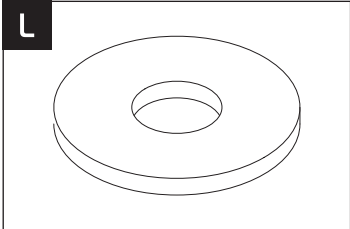
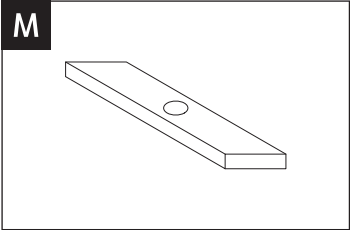
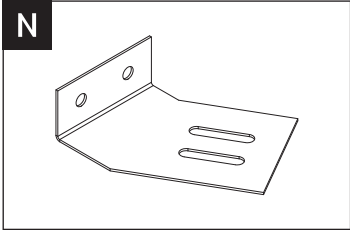


Attention! Warning about highly flammable materials. Photovoltaic modules, inverters and other electrical equipment should not be used near easily flammable materials.



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

Element overview

	<p>Foot SMM 100x48x2,5 L2990 5 Piece</p> <p><i>Material: Steel with Magnelis coating</i></p>		<p>Foot SMM 100x48x2,5 L4260 3 Piece</p> <p><i>Material: Steel with Magnelis coating</i></p>
	<p>Plate SMM 120x50 x1,5 L4910 10 Piece</p> <p><i>Material: Steel with Magnelis coating</i></p>		<p>Rafter SMM 100x50 x1,5 L4350/L4700 3 Piece</p> <p><i>Material: Steel with Magnelis coating</i></p>
	<p>Plate connection gs piece 115x44x1,5 5 Piece</p> <p><i>Material: Steel with Magnelis coating</i></p>		<p>Steel angle 6 Piece</p> <p><i>Material: Steel with Magnelis coating</i></p>
	<p>Center flap silver/black 50x24 24 Piece</p> <p><i>Material: Aluminium</i></p>		<p>End tab silver/black 16 Piece</p> <p><i>Material: Aluminium</i></p>
	<p>Hexagon head screw M10/25 41 Piece</p> <p><i>Material: Stainless steel</i></p>		<p>Hexagon socket screw M8 40 Piece</p> <p><i>Material: Stainless steel</i></p>
	<p>Flange nut M10 41 Piece</p> <p><i>Material: Stainless steel</i></p>		<p>Raised washer washer M10 41 Piece</p> <p><i>Material: Stainless steel</i></p>
	<p>Extended Part nut M8 40 Piece</p> <p><i>Material: Stainless steel</i></p>		<p>Connecting piece for the reinforcement foot. 2 Piece</p> <p><i>Material: Steel with Magnelis coating</i></p>

Assembly instruction



Necessary 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)



Staffing for the assembly:

- At least 2 persons



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



Assembly time:

- About 2 hours

Control and maintenance

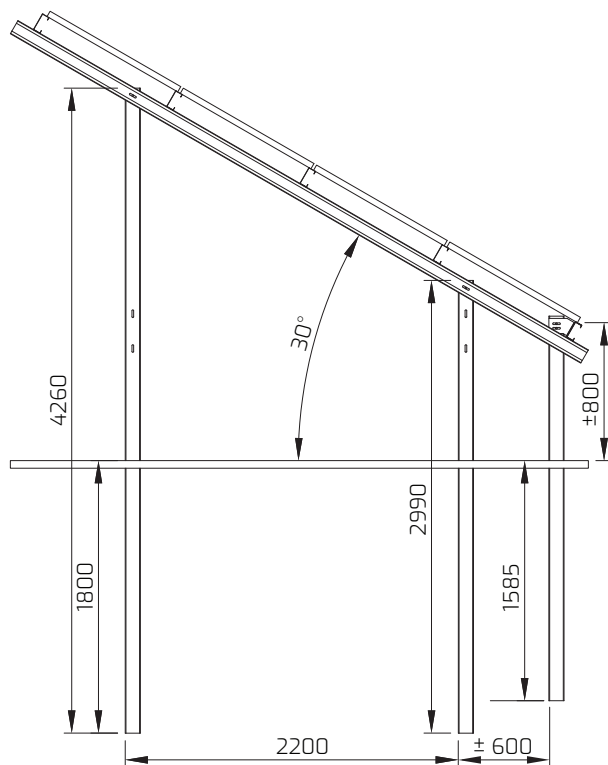
During the installation work, it must be ensured that the photovoltaic system is used according to its intended purpose. All changes in the use of construction elements, including connection with elements that do not come from IVENDO Solar, the modification of the construction by welding, shortening, 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.

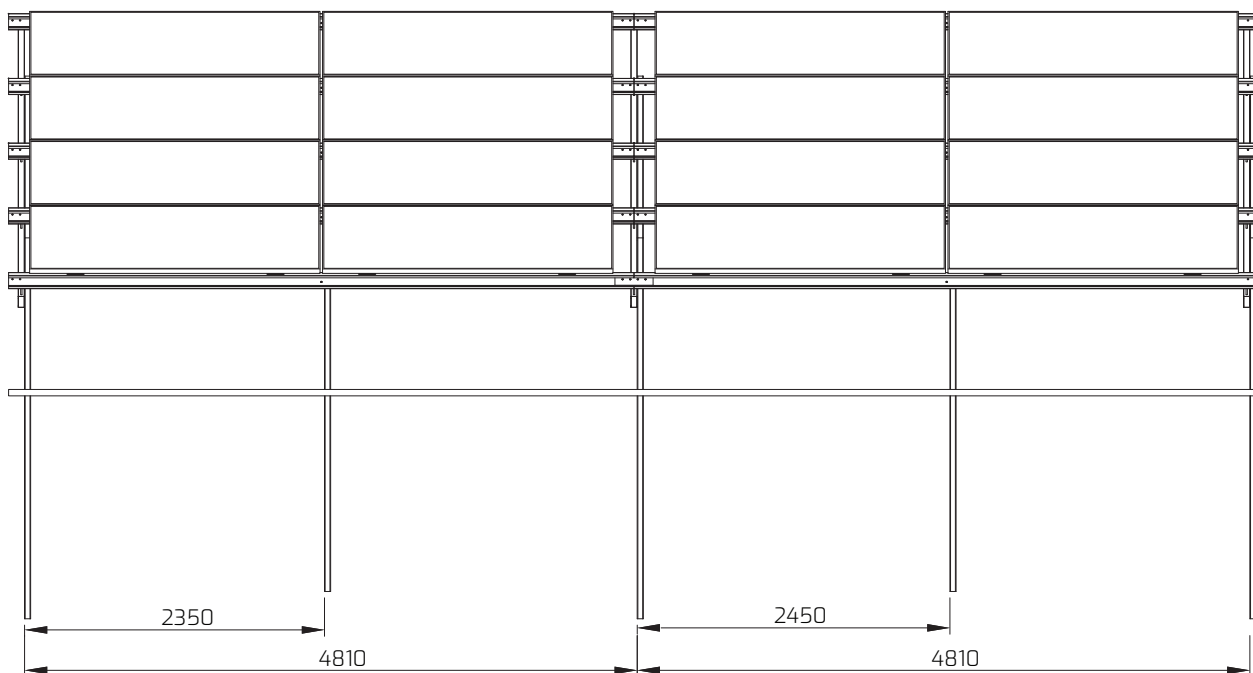
Assembly of the set

1



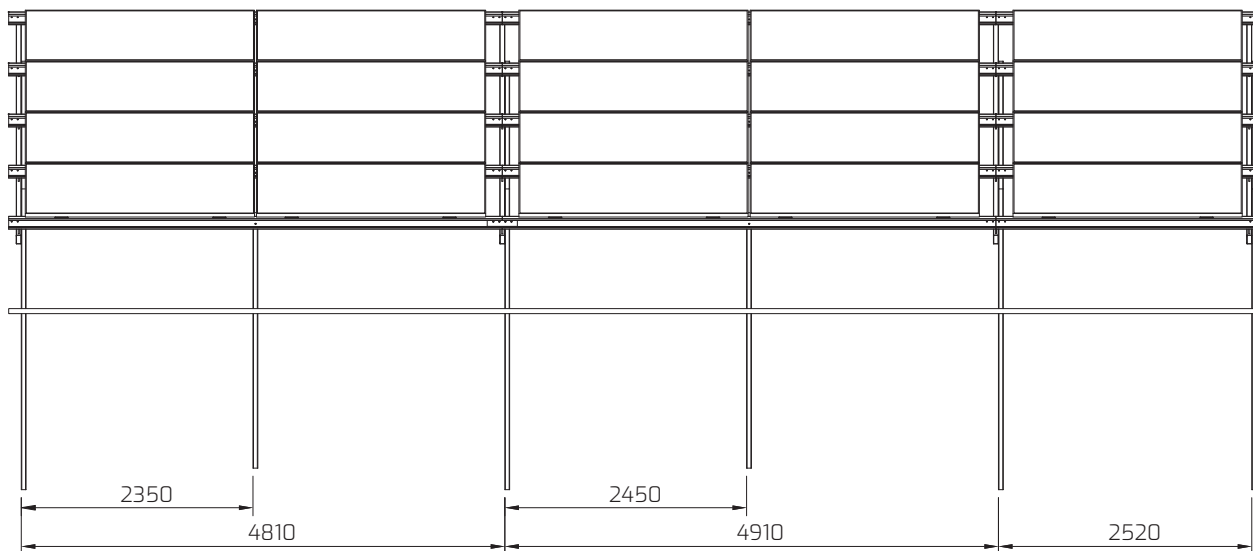
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Example of foot placement for 16 modules

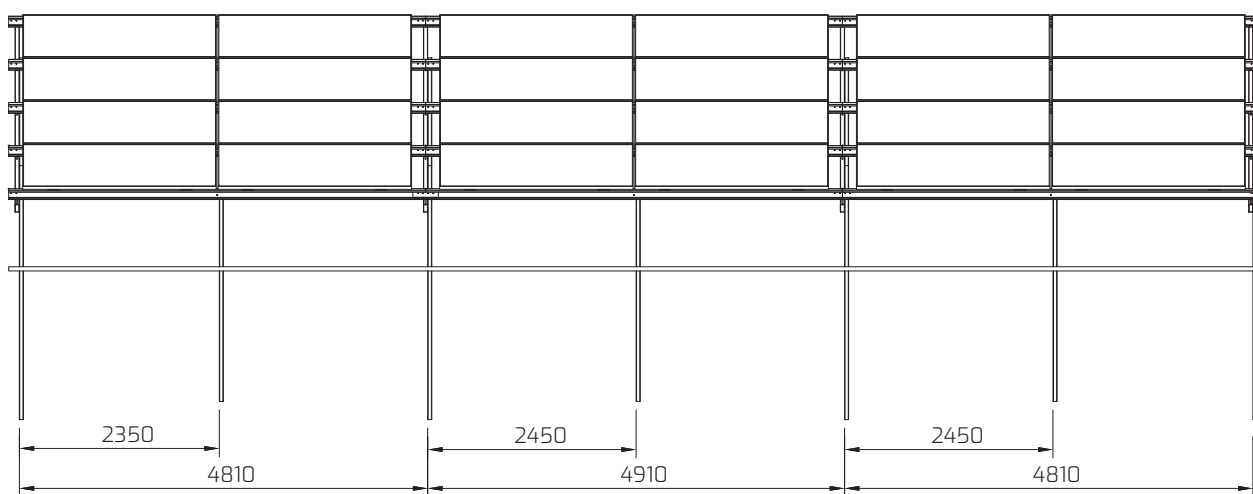


Assembly of the set

3 Example of foot placement for 20 modules

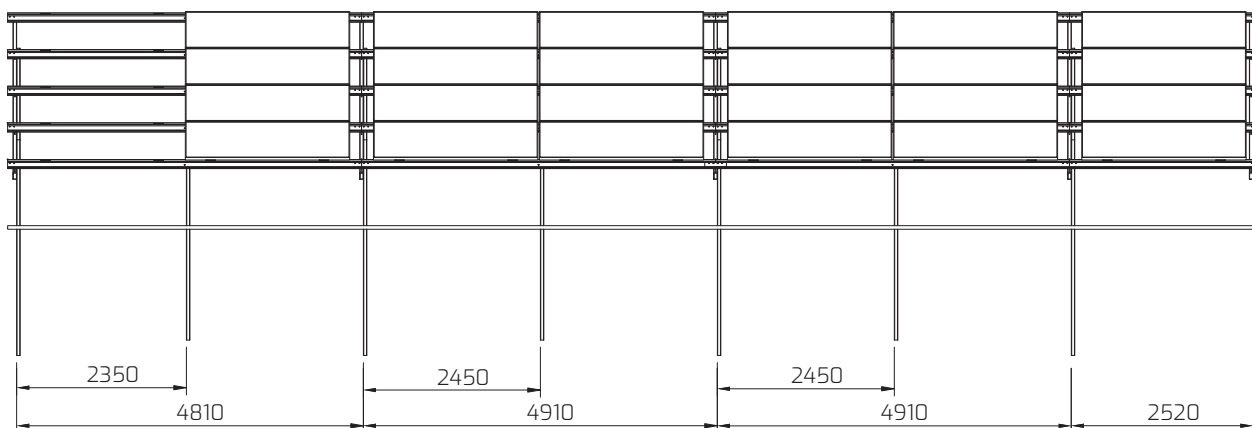


4 Example of foot placement for 24 modules

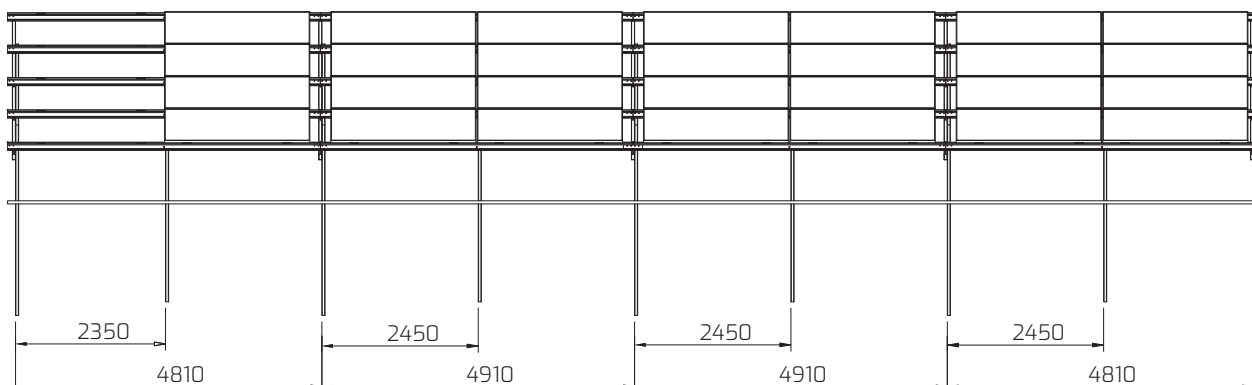


Assembly of the set

5 Example of foot placement for 28 modules

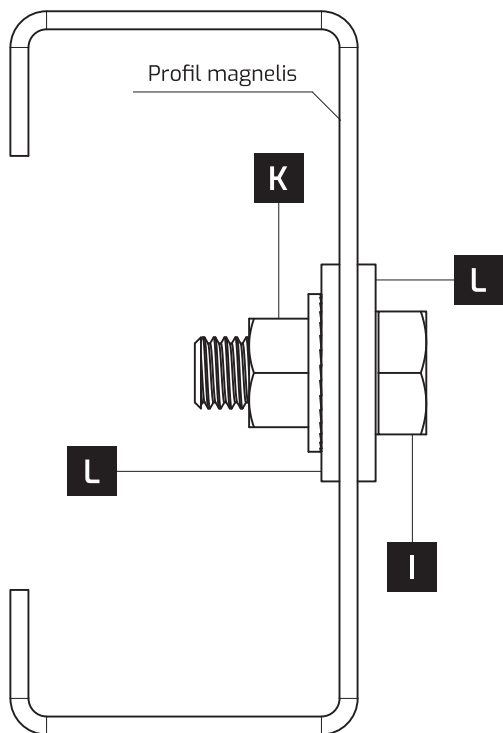


6 Example of foot placement for 32 modules

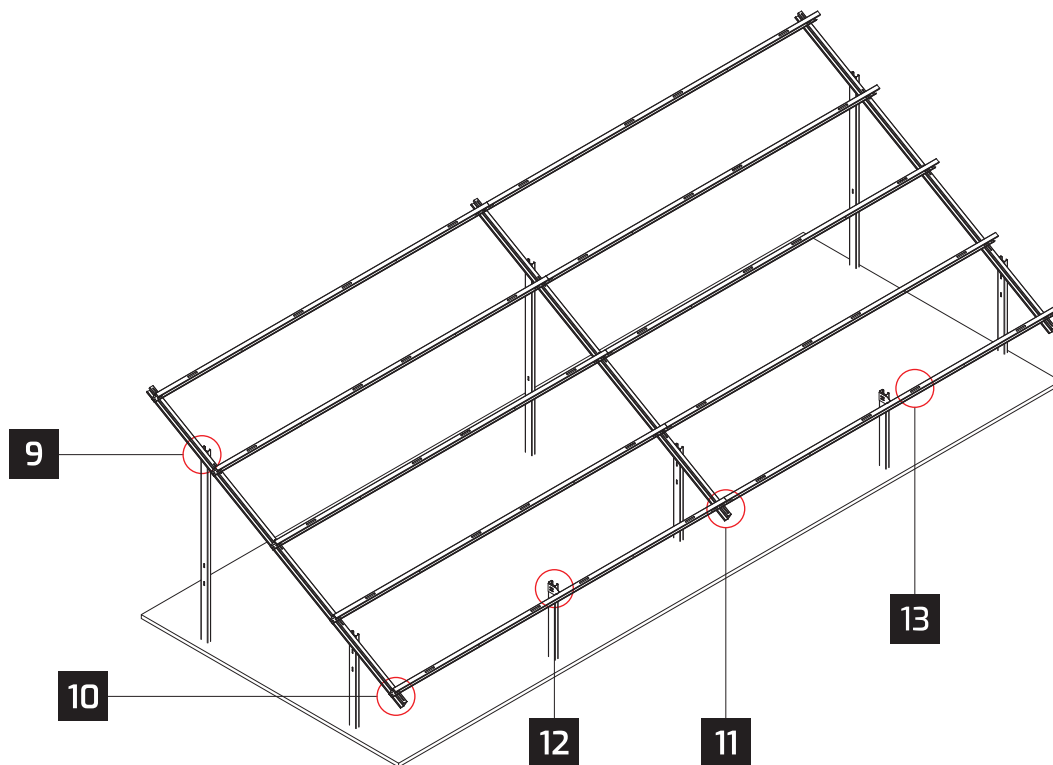
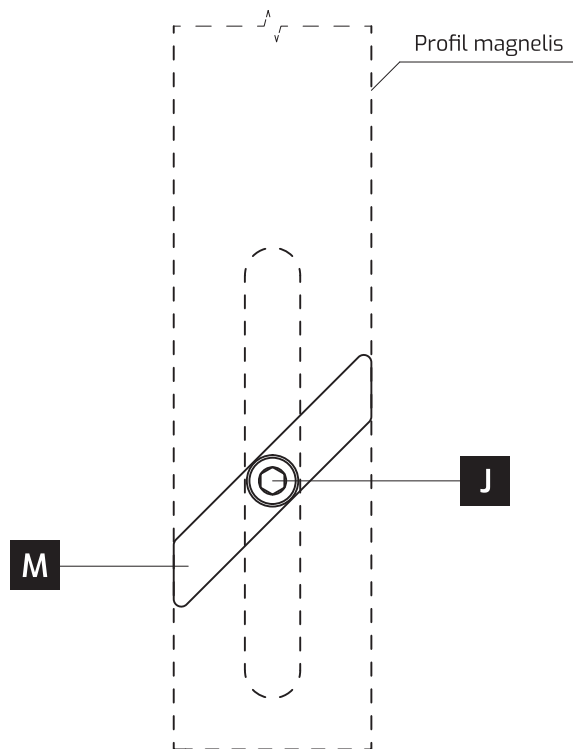


Assembly of the set

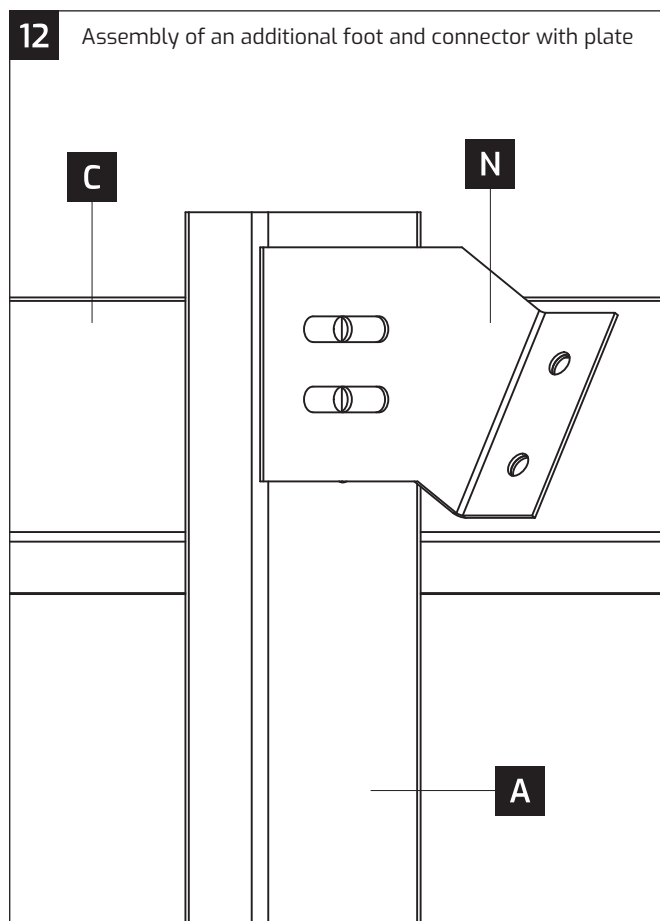
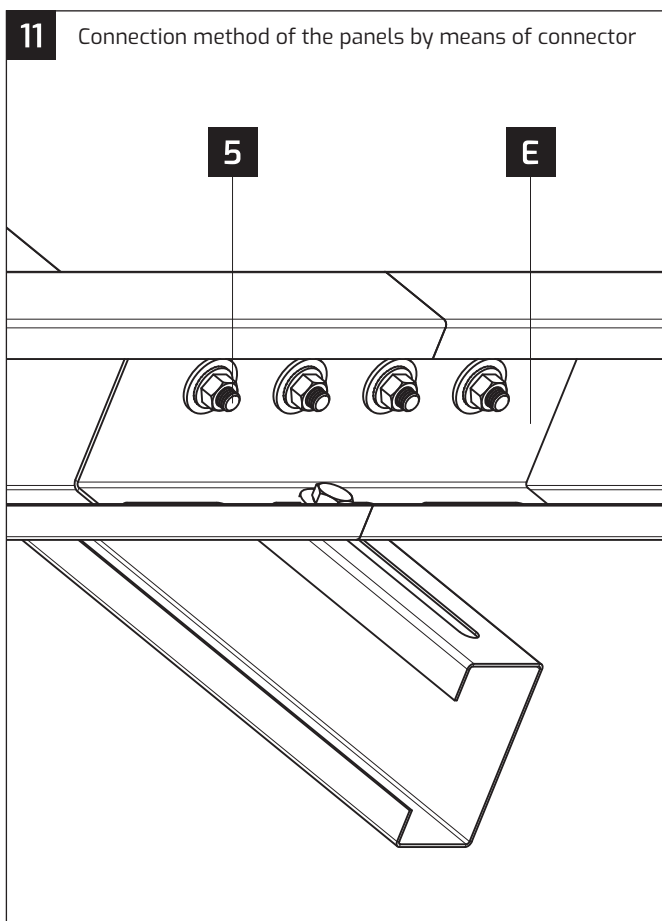
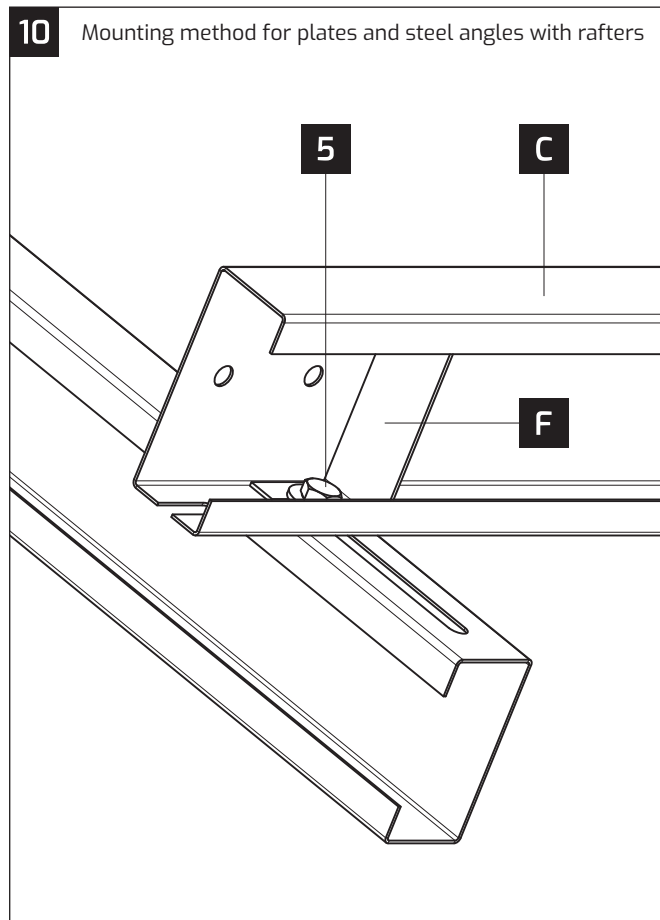
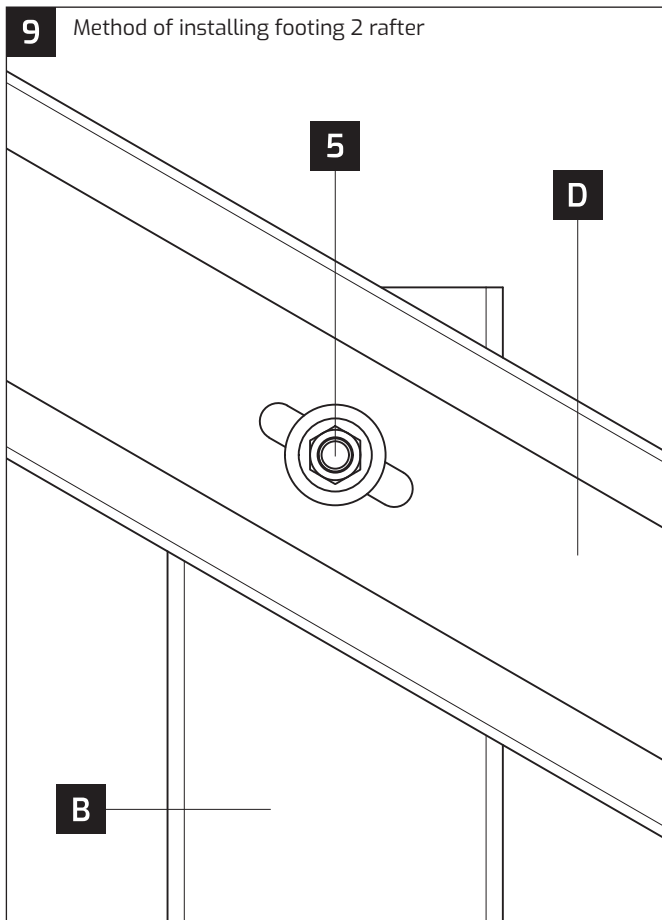
7 Connection method for M10 hexagonal bolts



8 Connection method for M8 socket head cap screws

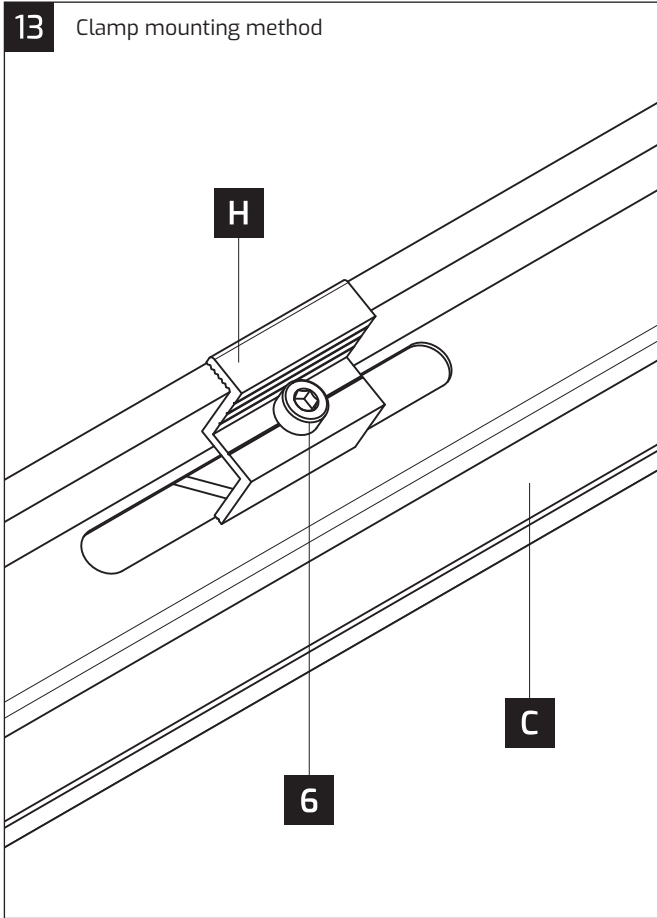


Assembly of the set



Assembly of the set

13 Clamp mounting method



Legal clause

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 responsibility of the installers to select the appropriate mounting system and the way of its integration into the building or the ground depending on the site conditions and the needs of the customer. 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 system should be performed at least once a year by appropriately qualified persons. In the event of weather anomalies (strong gusts of wind over 79 km/h, unusual amounts of snow), an inspection of the technical condition of the installation must be carried out immediately after its completion. The structure shall be used in accordance with its intended purpose and the requirements of environmental protection. The structure shall be maintained in a technically sound condition; no significant impairment of its serviceability and technical performance shall be permitted. Changes and modifications to the IVENDO SOLAR mounting systems, such as cutting, welding, shortening, stretching, reducing the number of elements specified in the instructions, increasing the spacing of the supporting structure, increasing the load on the systems or using the systems for purposes other than those for which they are intended, will result in the immediate loss of warranty claims and may shorten the service life of the systems and limit their safe use.