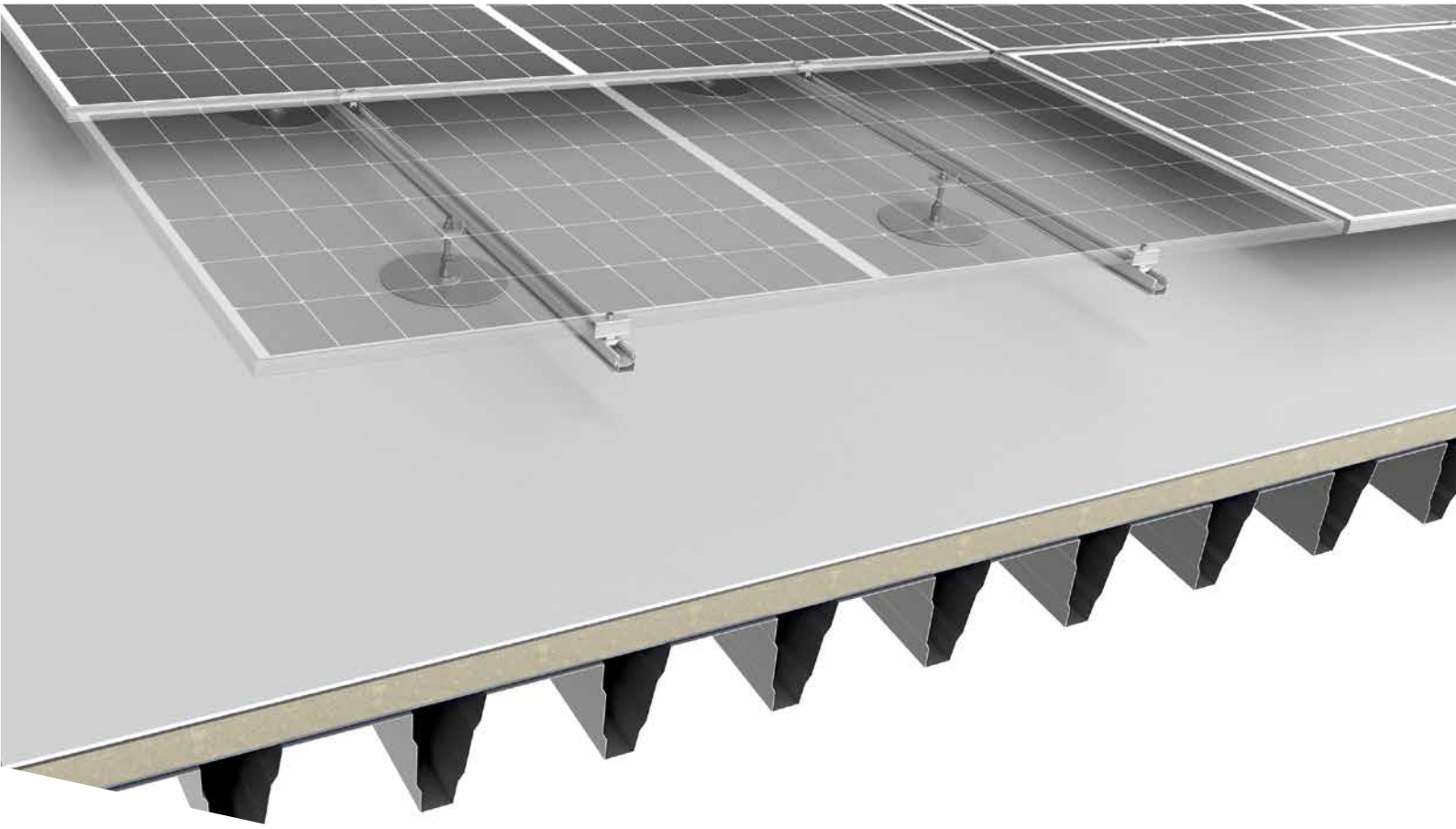
Connecting Strength



Assembly instructions

SingleRail IFP

Membrane and bitumen roofing



Inhalt

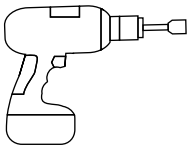
- **Tools overview** 3
- **Symbols and their meanings** 3
- **General safety information** 4
- **The following guidelines apply** 5
  - Planning with K2 Base 5
  - Roof requirements 5
  - Important mounting instructions 5
- **Components** 6
- **Assembly** 8
  - Thermal separations – landscape 8
  - Set anchors – landscape 8
  - Thermal separations – portrait 9
  - Set anchors – portrait 9
  - Rail attachment 10
  - Connecting rails 10
  - Module assembly – End clamp 11
  - Module assembly – Middle clamp 11
- **Module spacing in rail direction** 12
  - Landscape 12
  - Portrait 12
- **Equipotential bonding/Module frame earthing** 13
  - TerraGrif K2SZ 13
  - TerraGrif QL 13
- **Optional** 14
  - Cable management with Alpha PV Clip 14
- **Notes** 15

Tested quality – multiple certifications

K2 Systems stands for secure connections, top quality and maximum precision. Our customers and business partners have known this for a long time. Independent bodies have tested, verified and certified our competencies and components.

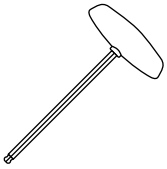
You can find our quality and product certificates at
k2-systems.com/en/technical-information

Tools overview





6 mm





6 mm

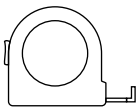


6 - 30 Nm
(4.5 - 22.2 lb-ft)



6 mm





≥ 3.0 m



≥ 6.0 m



Symbols and their meanings

Important note
Provides important information and requirements for the installation and use of the system.

Information
Provides additional information and installation tips.



Equipotential bonding
Indicates assembly steps or components that establish a conductive connection for the purpose of equipotential bonding/earthing.

General safety information

Please note that our general mounting instructions must be followed at all times and can be viewed online at k2-systems.com

- The equipment may only be installed and operated by qualified and adequately trained installers.
- Prior to installation, ensure that the product complies with on-site static loading requirements. For roof-mounted systems, the roof load-bearing capacity must always be checked.
- National and local building regulations and environmental requirements must be adhered to.
- Compliance with health and safety regulations, accident prevention guidelines and applicable standards is required.
  - Protective equipment such as safety helmet, boots and gloves must be worn.
  - Roofing works must be in accordance with roofing regulations utilising fall protection safeguards when eaves height exceeds 3 m.
  - At least two people must be present for the duration of the installation work in order to provide rapid assistance in the event of an emergency.
- K2 mounting systems are continuously developed and improved and the installation process may thereby change at any time. Prior to installation consult our website at www.k2-systems.com/en/technical-information for up-to-date instructions. We can send you the latest version on request.
- The assembly instructions of the module manufacturer must be adhered to.
- Equipotential bonding/grounding/earthing between individual parts is to be performed according to country specific standards, as well as national laws and regulations.
- At least one copy of the assembly instructions should be available on site throughout the duration of the installation.
- Failure to adhere to our general safety and assembly instructions and not using all system components, K2 is not liable for any resulting defects or damages. We do not accept liability for any damage resulting in the use of competitor's parts. Warranty is excluded in such cases.
- K2 Systems GmbH reserves the right to exclude liability in case of disregard of our General Safety Instructions as well as in case of installation or mounting of components of a competitor.
- If all safety instructions are adhered to and the system is correctly installed, there is a product warranty entitlement of 12 years! We strongly recommend reviewing our terms of guarantee, which can be viewed at k2-systems.com/en/warranty-terms-and-conditions We will also send this information on request.
- Dismantling of the system is performed in reverse order to the assembly.
- K2 stainless steel components are available in different corrosion resistance classes. Each structure or component must be carefully checked for possible corrosion exposure.

The following guidelines apply

This System can be used without further testing by K2 systems in the following standard conditions. It is also suitable for higher requirements. However, if a value exceeds the standard conditions, please contact K2 Systems.

Planning with K2 Base

We recommend our free online software K2 Base for the planning. In five steps, you can plan the right assembly system and get an installation recommendation, a bill of materials and the structural analysis report. Simply register and start planning: base.k2-systems.com

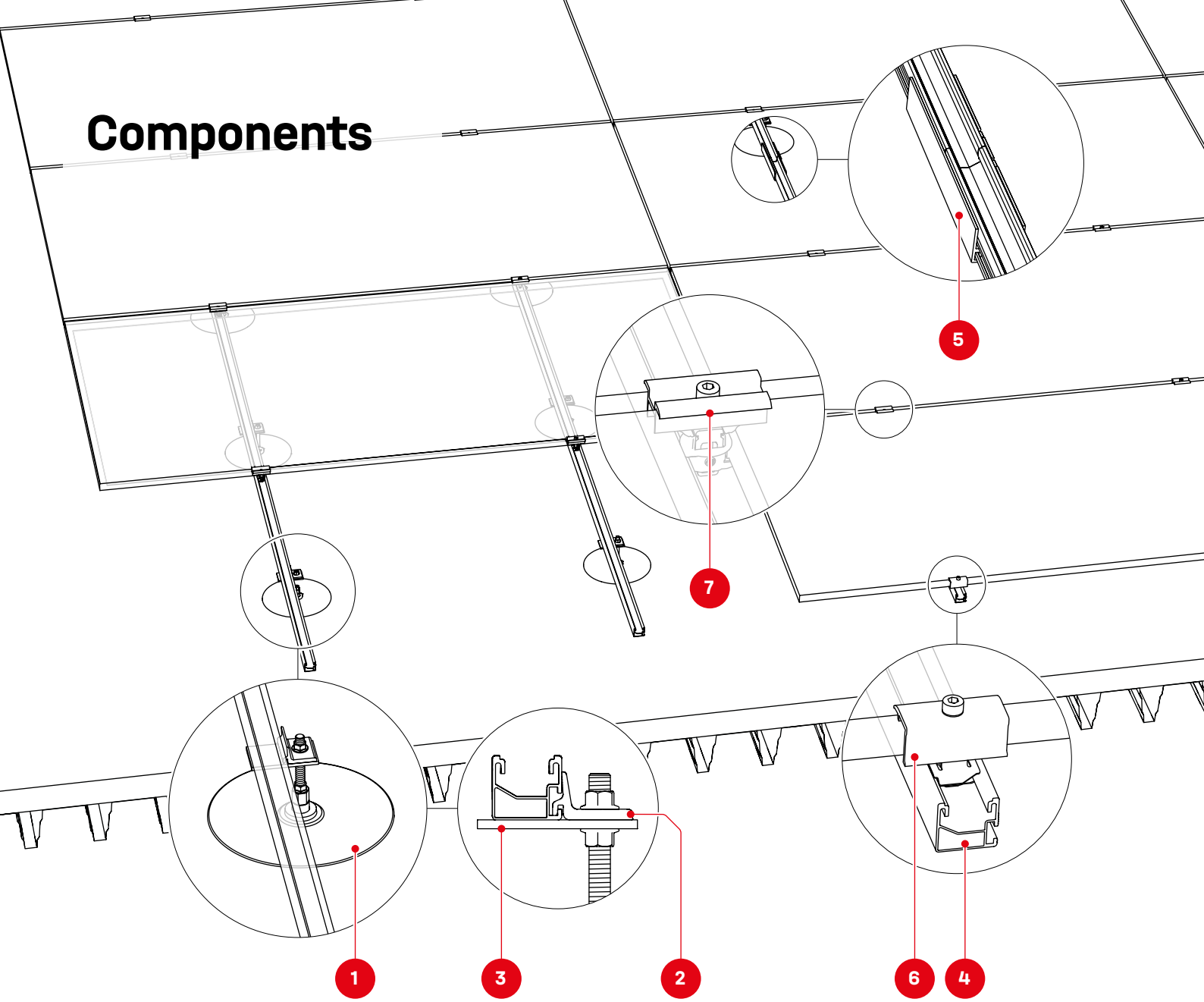
Roof requirements

- It is essential to check that the roof structure has sufficient residual load capacity and that the pressure capacity of the roof insulation (where present) is not exceeded.
- Roof pitch of: ≥ 5 ° - ≤ 35 °
- Sufficient load reserves to support the PV system.

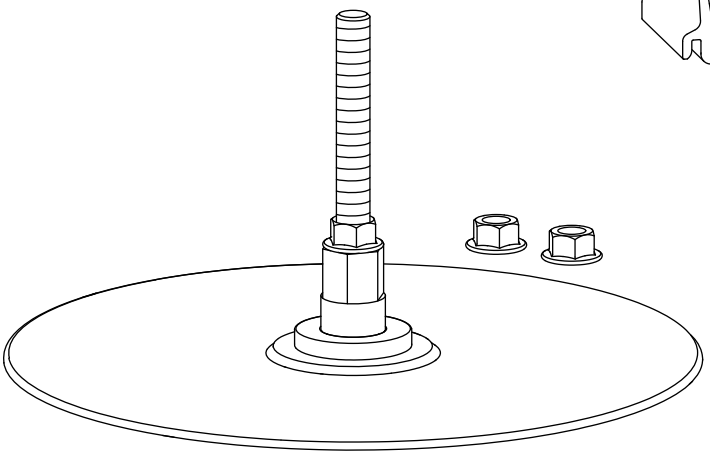
Important mounting instructions

- The system is suitable for roofs with the following load bearing substructure: trapezoidal sheet metal, wood and concrete.
- On-site general standards and regulations for lightning protection must be observed and consultation with a specialist to create a lightning protection concept is recommended (use lightning protection clamp if necessary).
- For information regarding the module clamping range, see the model manufacture's assembly manual.
- Do not step on anchors or rails, as these are not climbing assists.
- The selection, quantity, product properties and manufacture of the anchors must be decided and checked by those responsible for the project.
- The anchors are not included in the scope of delivery of K2 and must be provided on site.
- The specifications (approvals, data sheets, installation instructions) of the respective manufacturer apply to the use of the anchors. K2 will not provide any further information on installation and manufacture.
- Sufficient impermeability must be ensured after installation of the anchors. Depending on the project, a suitable sealing measure must be properly implemented in the water-bearing layer.
- Subsequent leaks (caused by components provided by the customer, or the interaction of these with the components provided by K2, or other reasons) are not the responsibility of K2, provided they are not due to material defects in the comments supplied by K2.
- Testing the suitability of the insulation layer is the responsibility of the building owner and is not the responsibility of K2.
- For portrait installation, ensure that the adapter plate is aligned “upwards” in the direction of the ridge so that the rail is above the threaded anchor rod (see p10, step 2).
- A minimum mounting distance of 50 mm from the end of the rail / rail joint to the module frame.
- Rail cut SingleRail ≥ 1200 mm
- The SingleRail 36/50 RailConnector must always be positioned between two roof anchor plates; meaning, a cantilever extension at the rail edge outside the last roof anchor plate is not permitted.

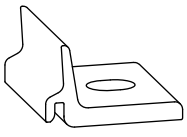
Components



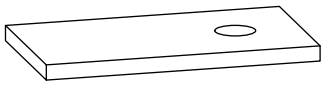
1 **Roof anchor plate with adapter**
Not included in the K2 product portfolio
Manufacturer: Sika,
CW Lundberg, Solmont etc.

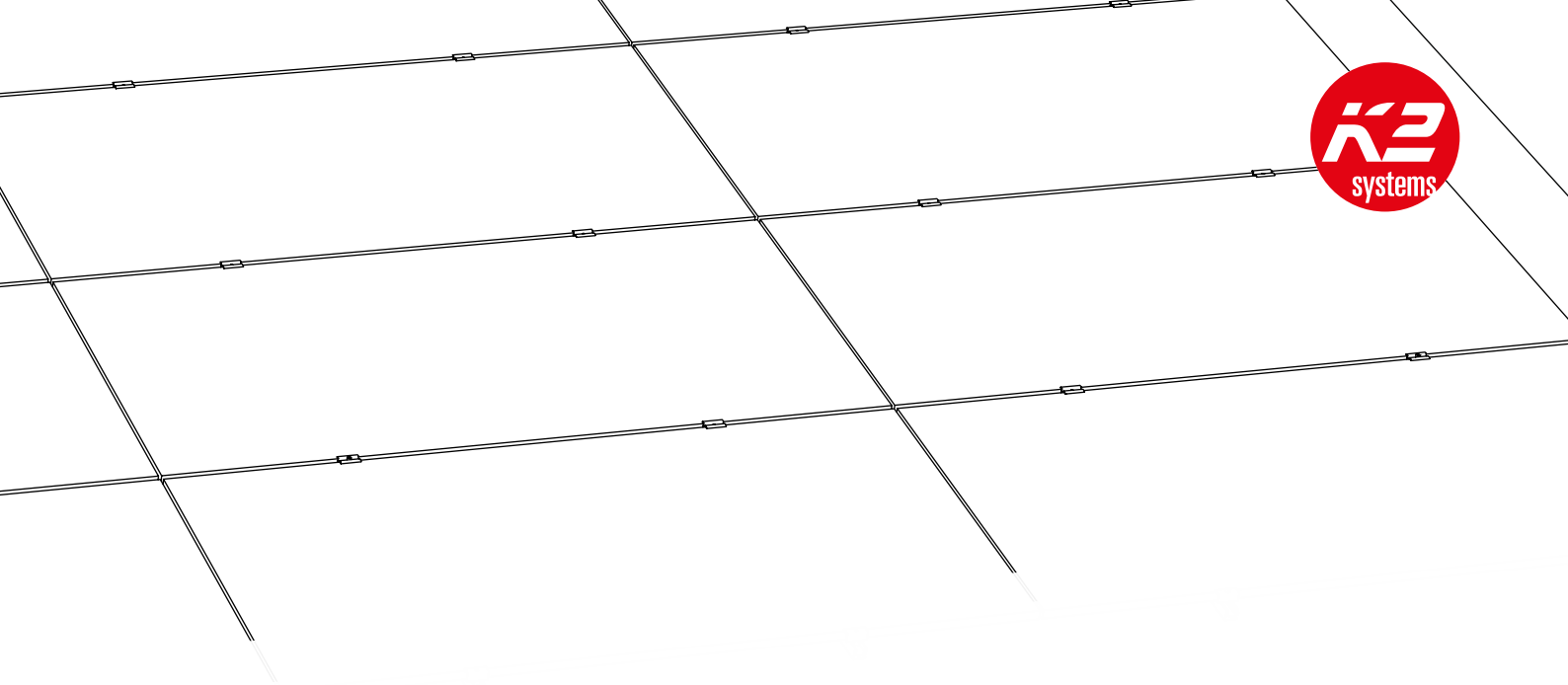


2 2003146/2003147
Climber 36/50 M10/
Climber 36/50 M12

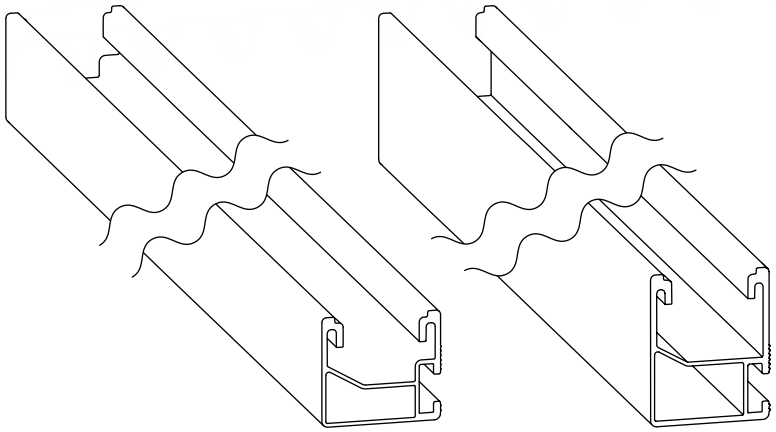


3 2002546/2002547
Adapter plate M10/
Adapter plate M12

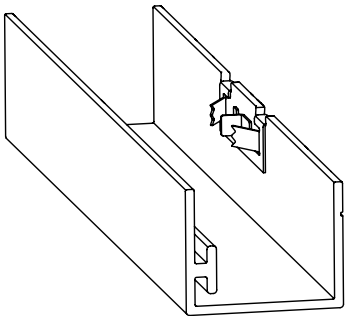




4 Item number system-specific
SingleRail 36/SingleRail 50



5 2001976/2002404
SingleRail 36/50 RailConnector



Optional

6 Item number system-specific
Module end clamps

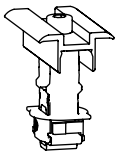


K2 Clamp EC
25 - 40



XS Clamp EC
30 / 33 / 35

7 Item number system-specific
Module middle clamps

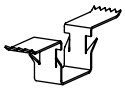


K2 Clamp MC
25 - 40



XS Clamp MC
30 / 33-35

2001881
TerraGrif K2SZ



2004231
TerraGrif QL

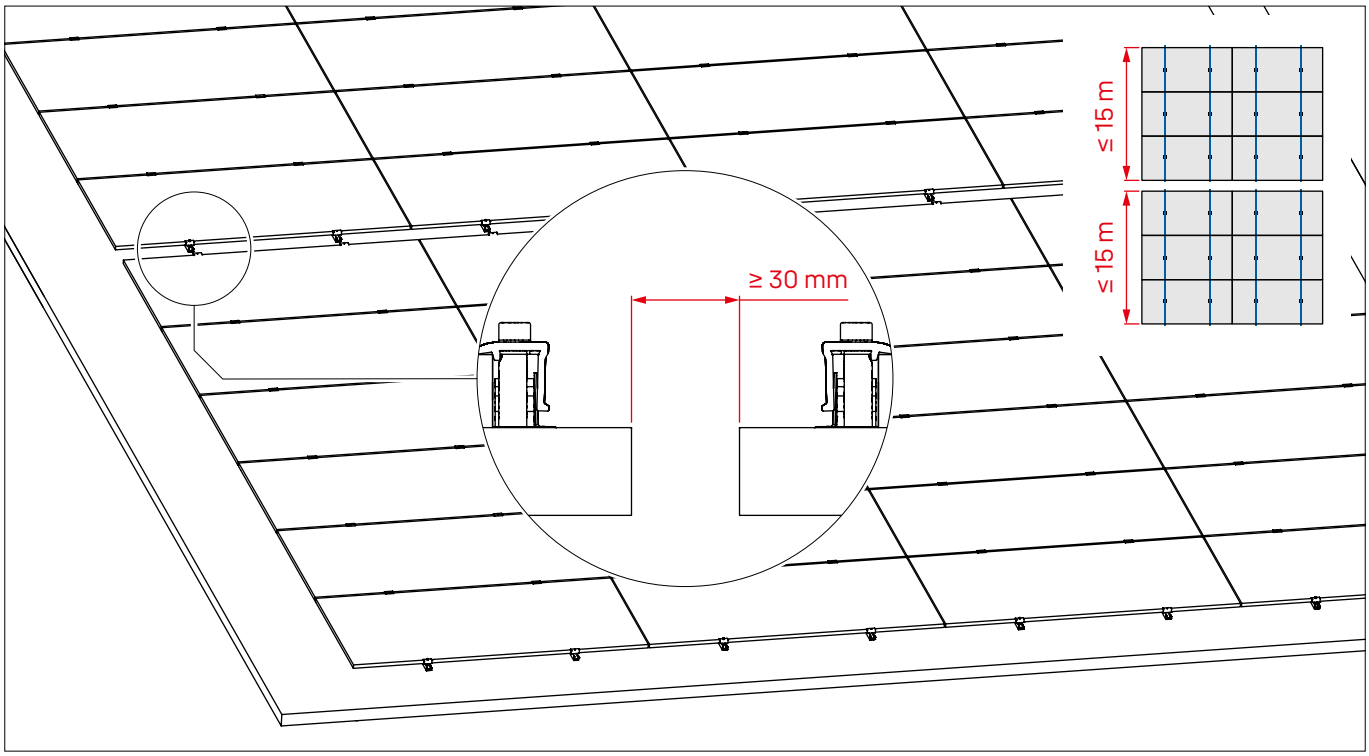


2005041
Alpha PV-Clip

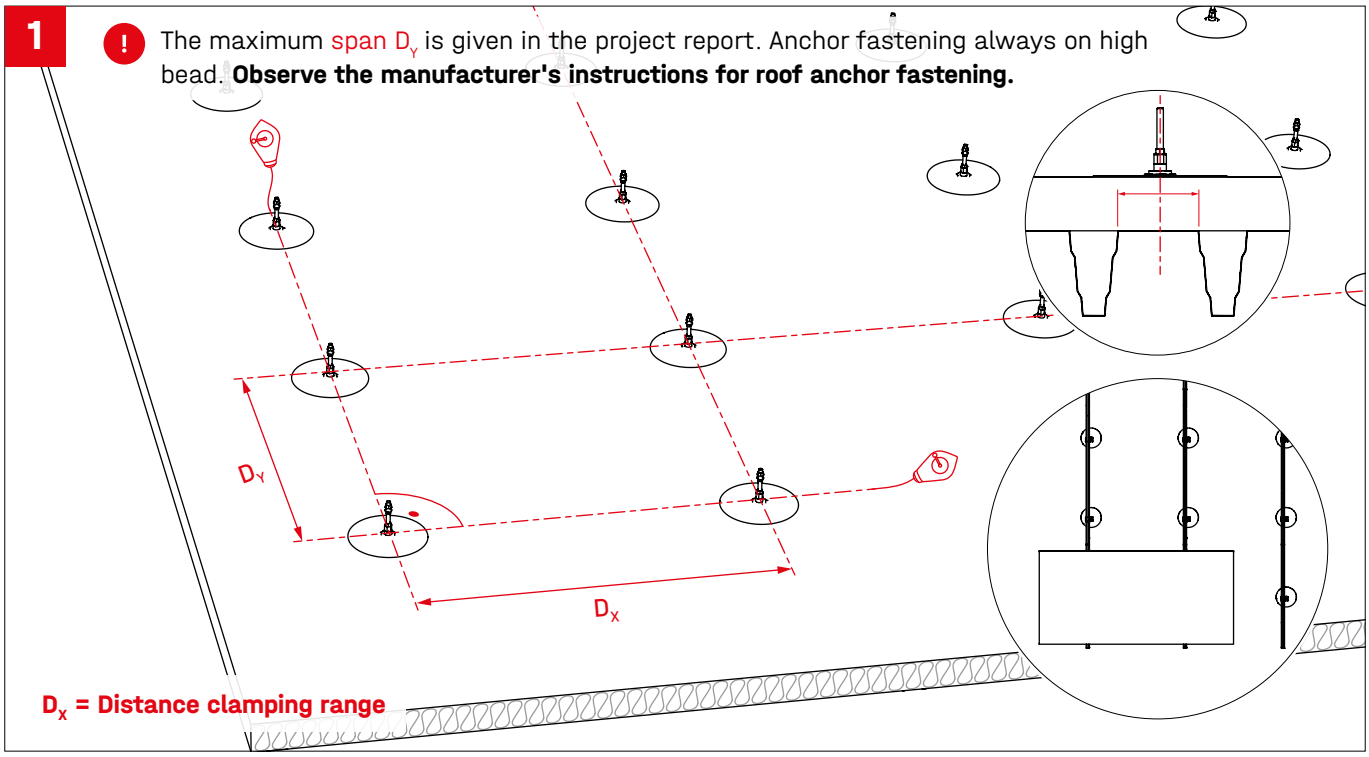


Assembly

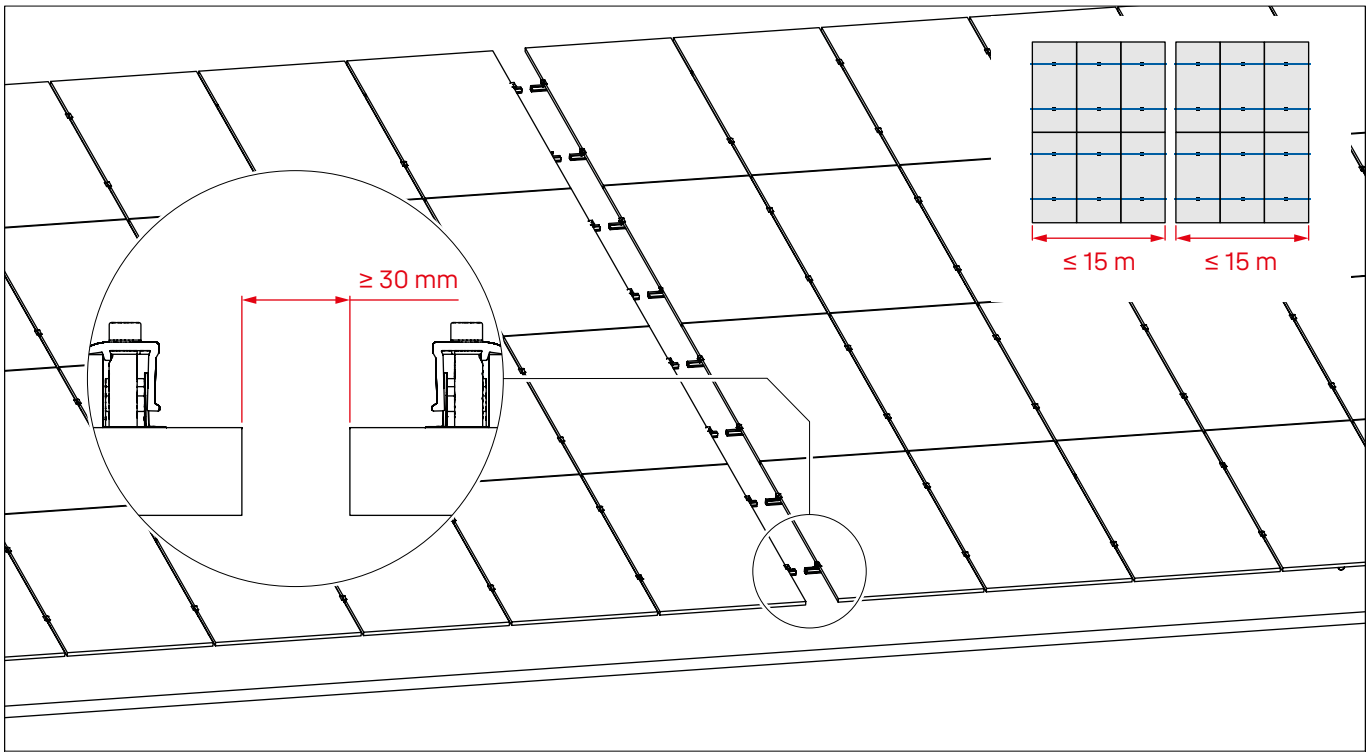
Thermal separations - landscape



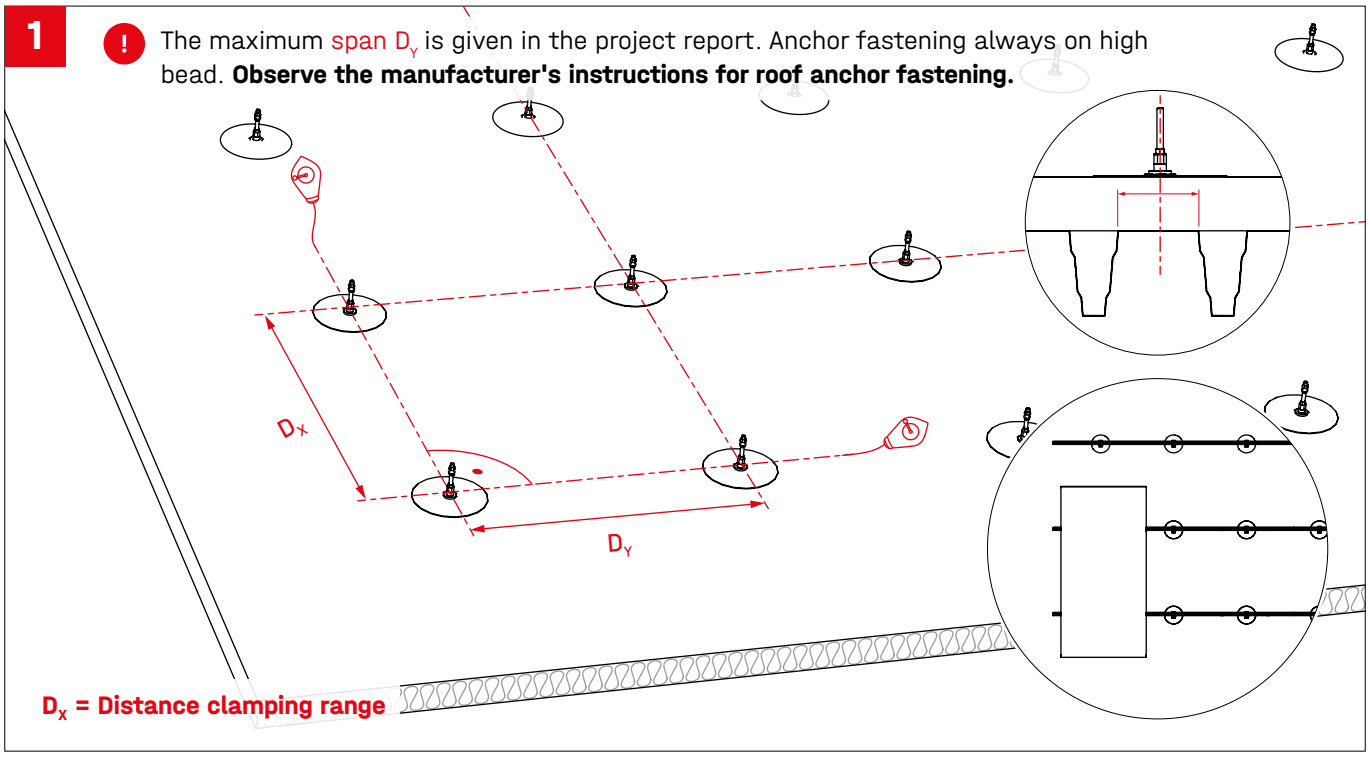
Set anchors - landscape



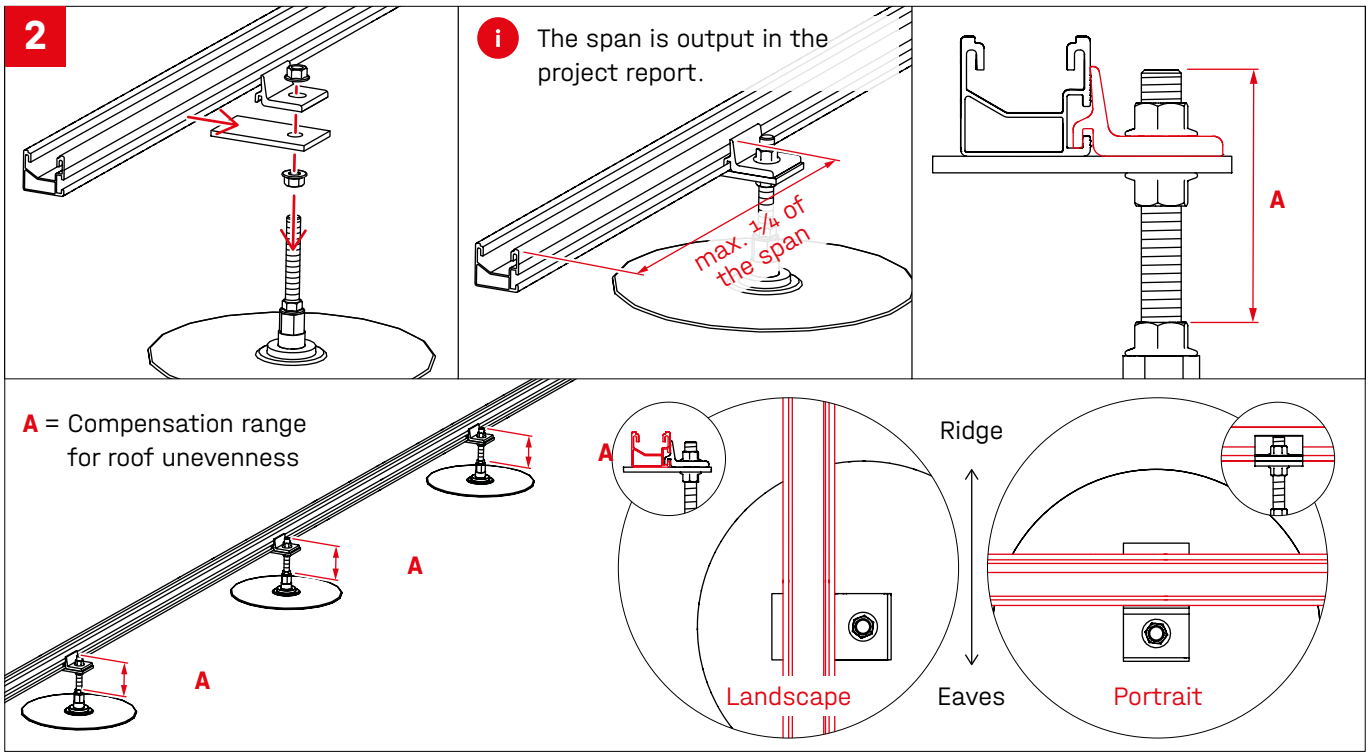
Thermal separations - portrait



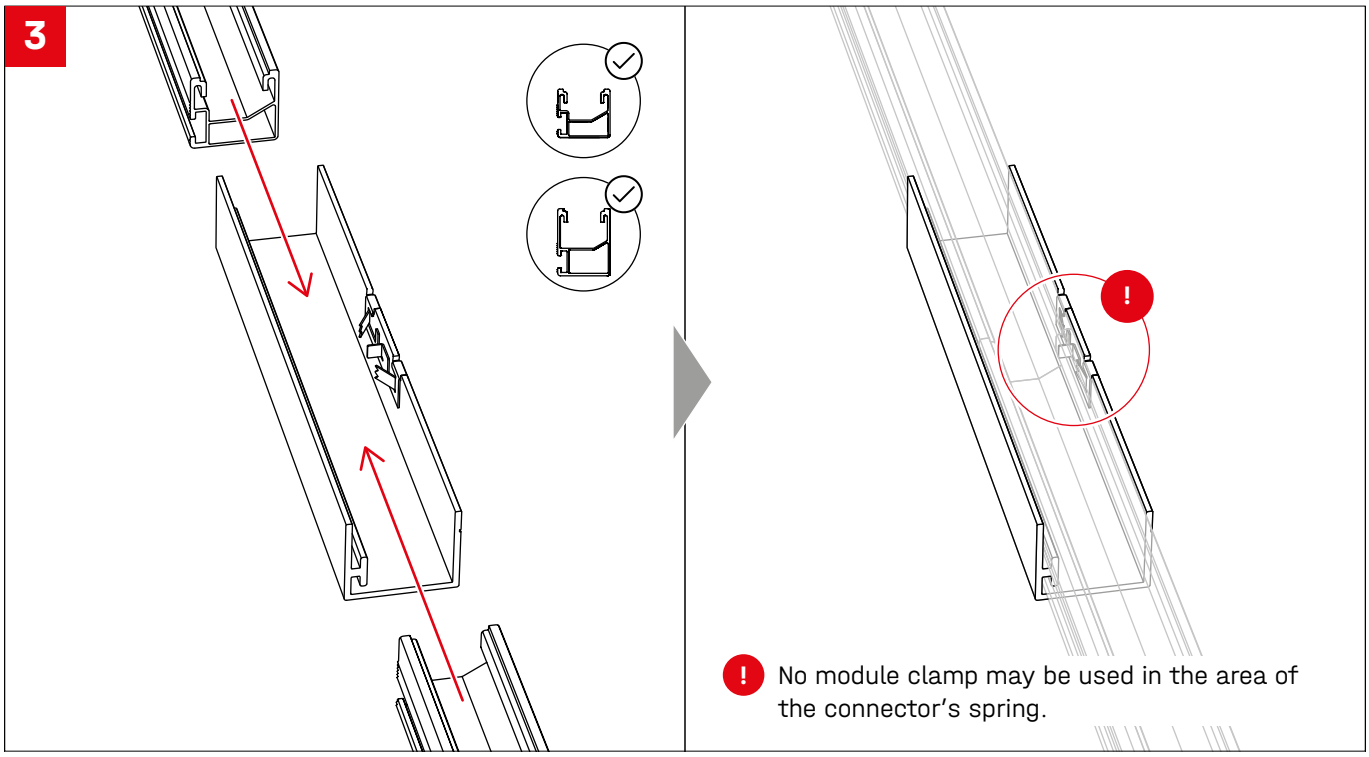
Set anchors - portrait



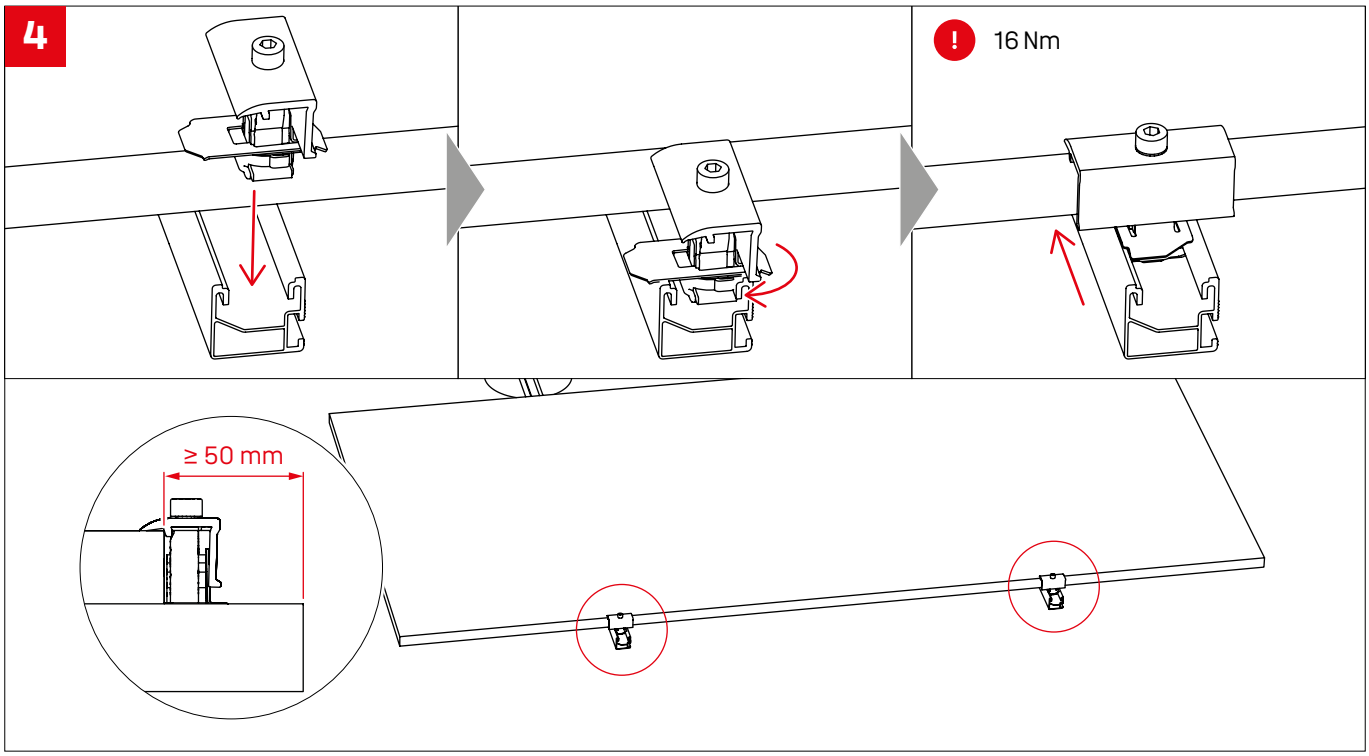
Rail attachment



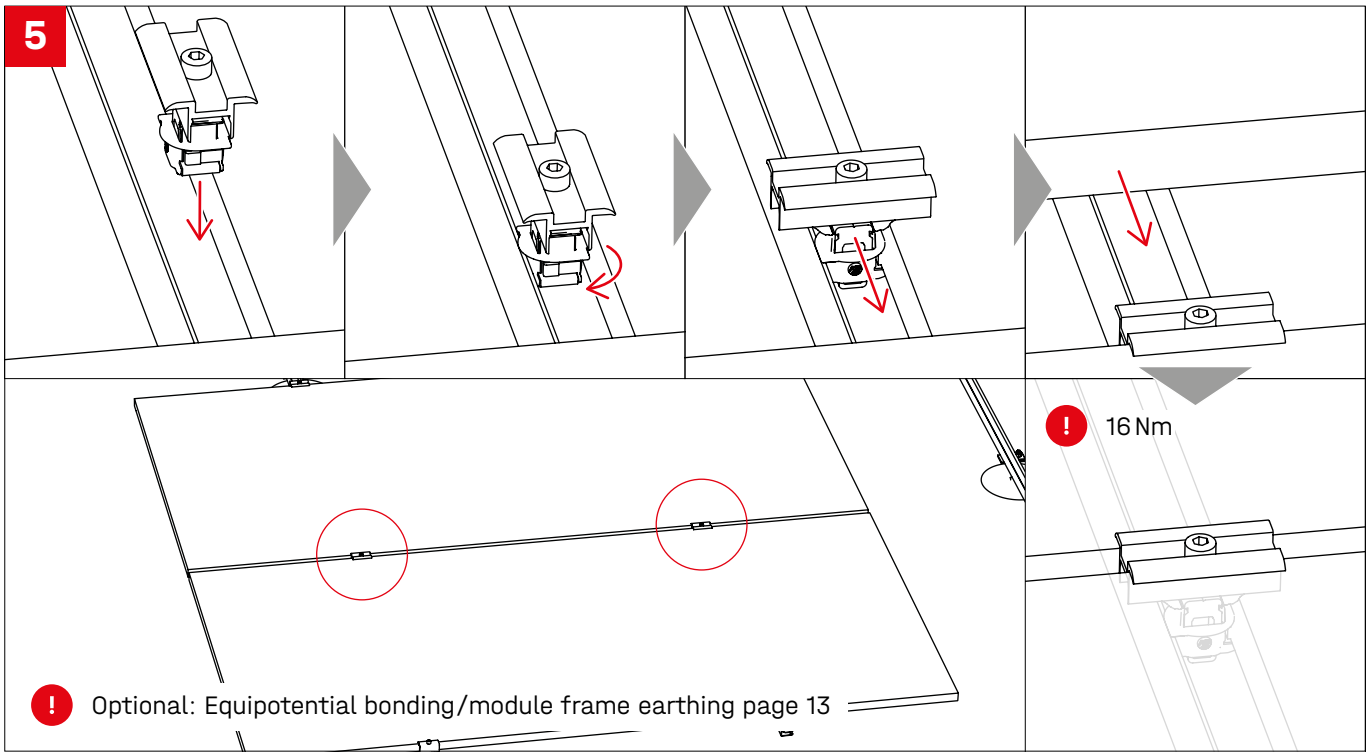
Connecting rails



Module assembly - End clamp

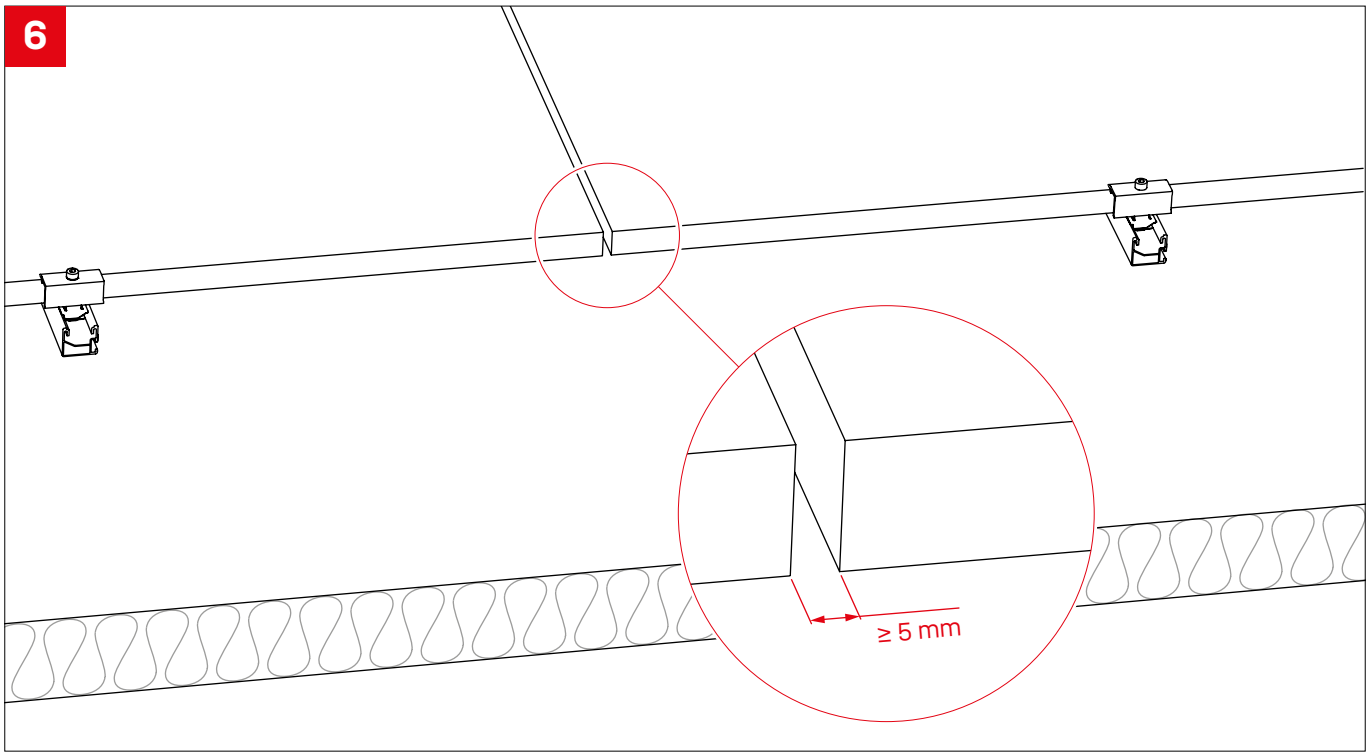


Module assembly - Middle clamp

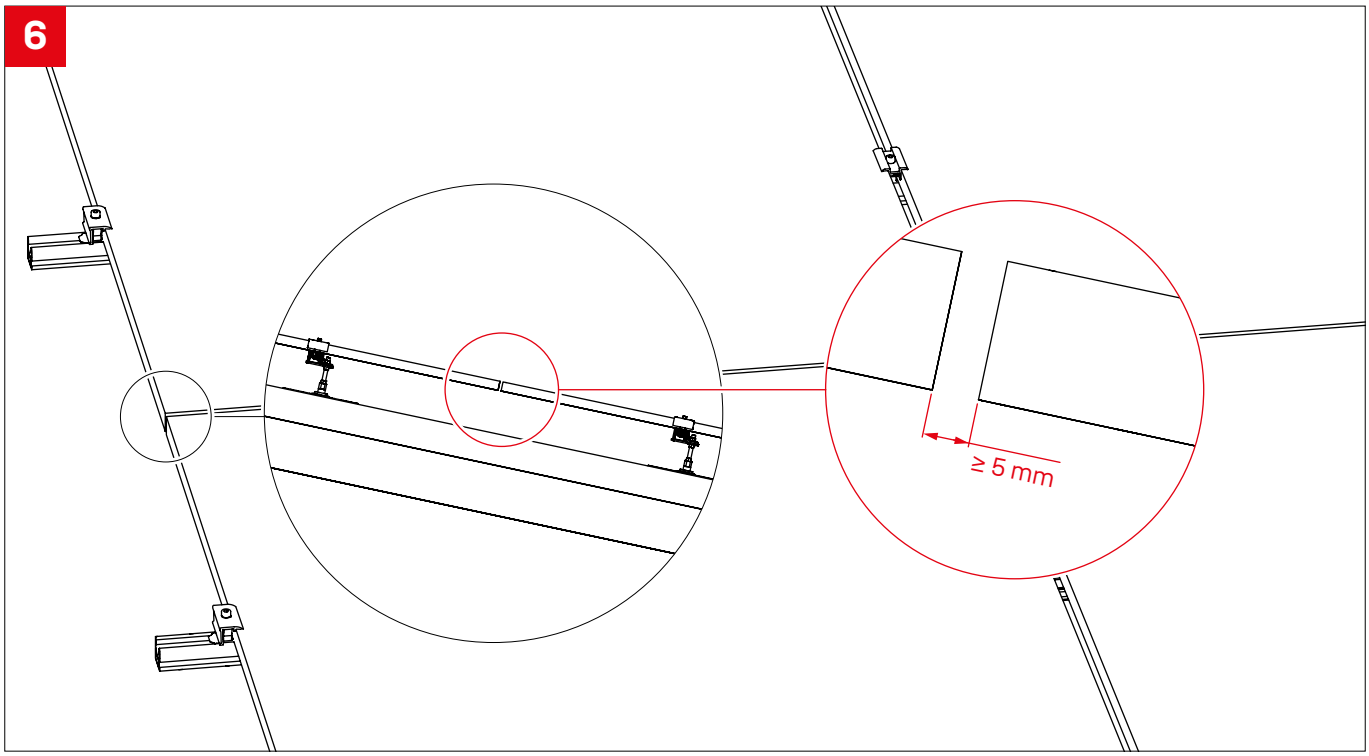


Module spacing in rail direction

Landscape



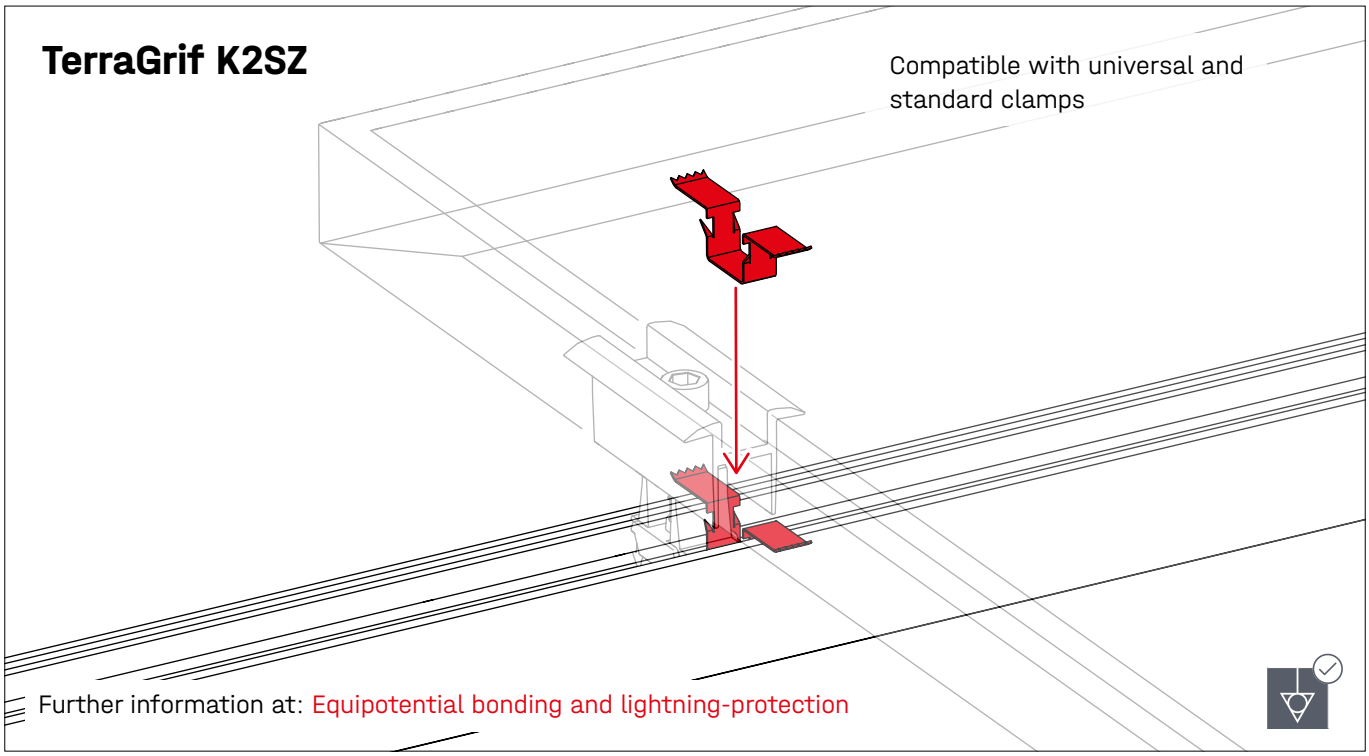
Portrait



Equipotential bonding/ Module frame earthing

TerraGrif K2SZ

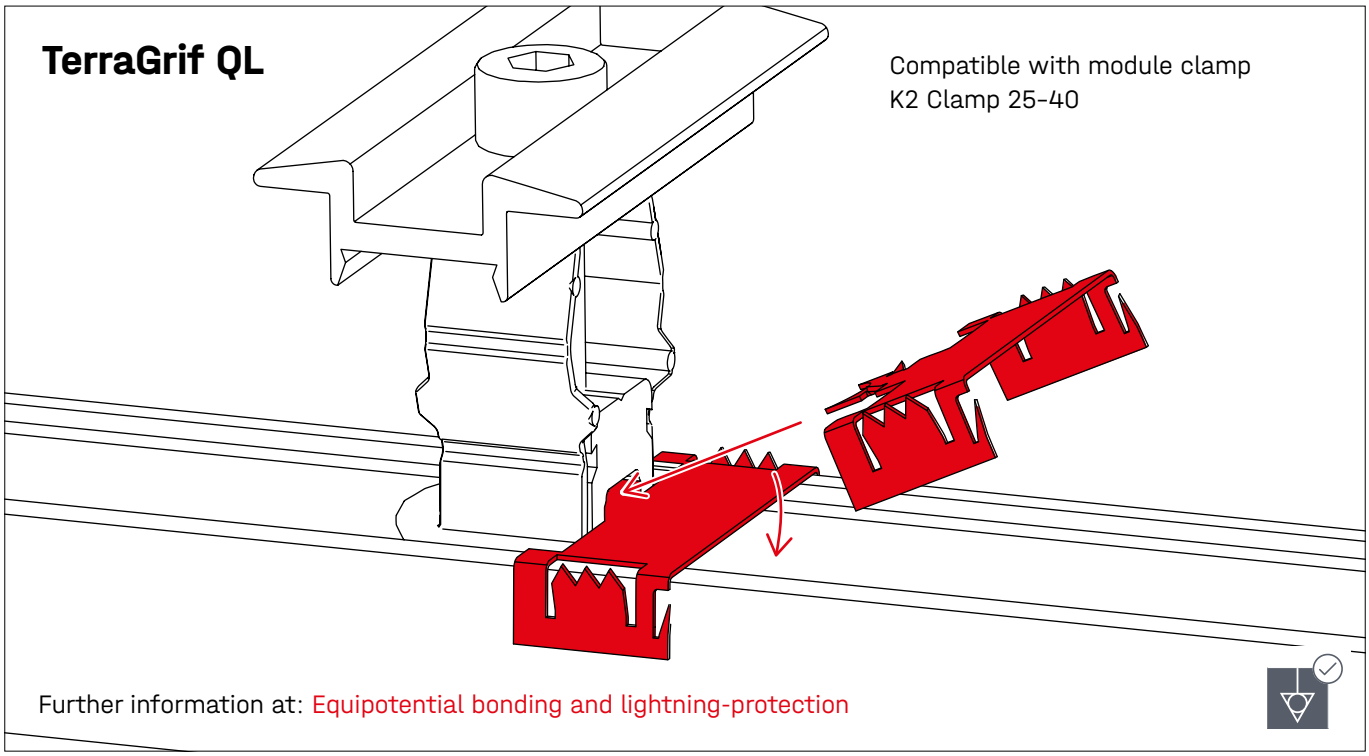
Compatible with universal and standard clamps



Further information at: Equipotential bonding and lightning-protection

TerraGrif QL

Compatible with module clamp K2 Clamp 25-40

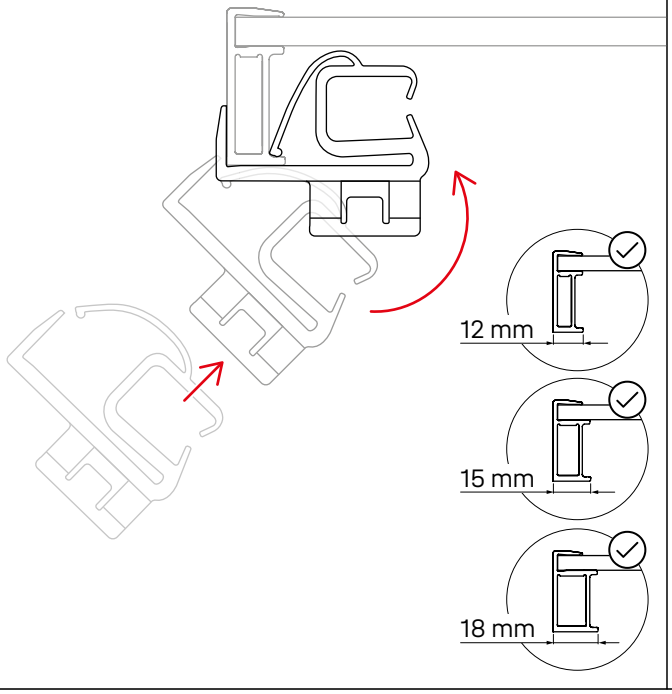


Further information at: Equipotential bonding and lightning-protection

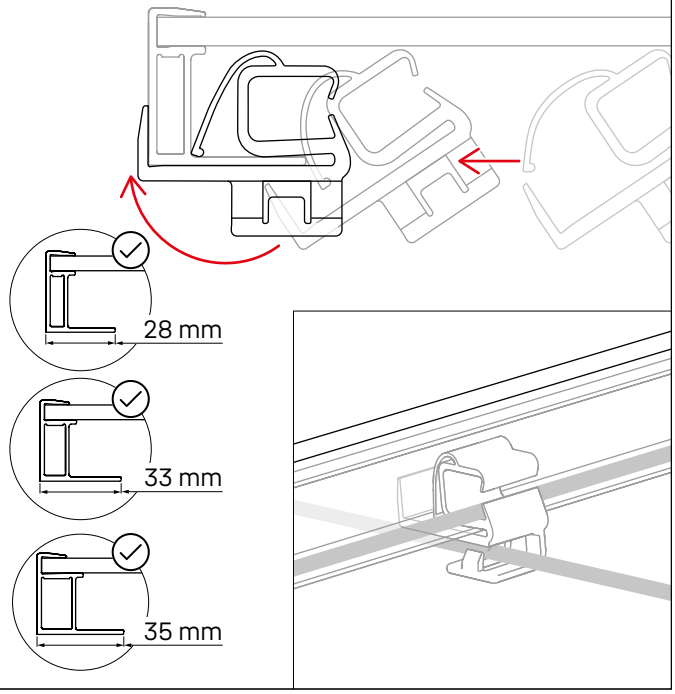
Optional

Cable management with Alpha PV Clip

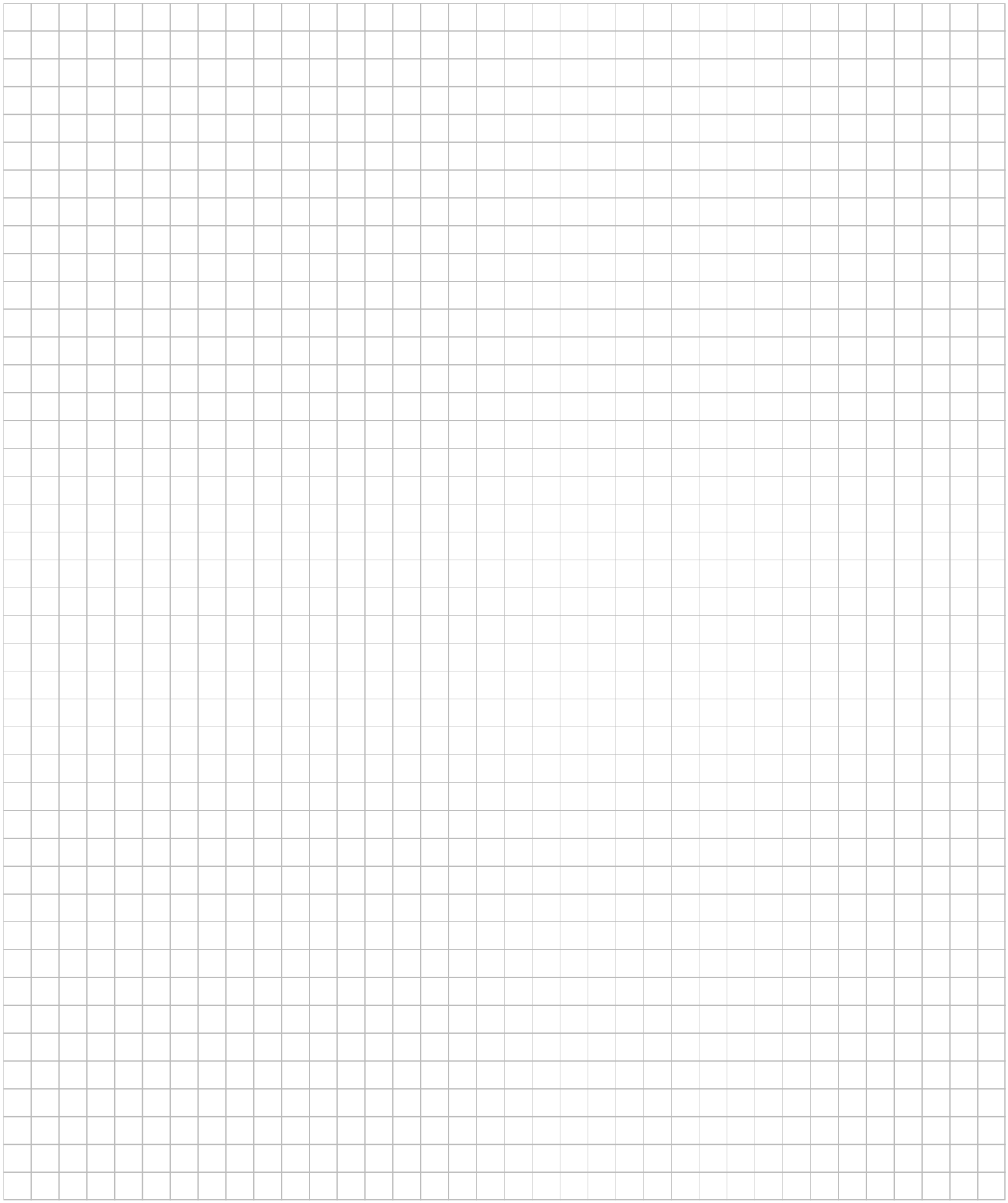
Installation on the short side of the PV modules



Installation on the long side of the PV modules



Notes



Connecting Strength

Thank you for choosing a K2 mounting system.

Mounting systems from K2 Systems are quick and easy to install. We hope these instructions have helped. Please contact us with any questions or suggestions for improvement. Our contact data:

- **k2-systems.com/en/contact**
- **Service Hotline: +49 7159 42059-0**

Our General Terms of Business apply. Please refer: k2-systems.com

K2 Systems GmbH
Haldenstraße 1 · 71272 Renningen · Germany
+49 (0) 7159 - 42059 - 0 · info@k2-systems.com · k2-systems.com

SingleRail IFP Assembly EN V2 | 1126 · Subject to change
Product illustrations are exemplary and may differ from the original.