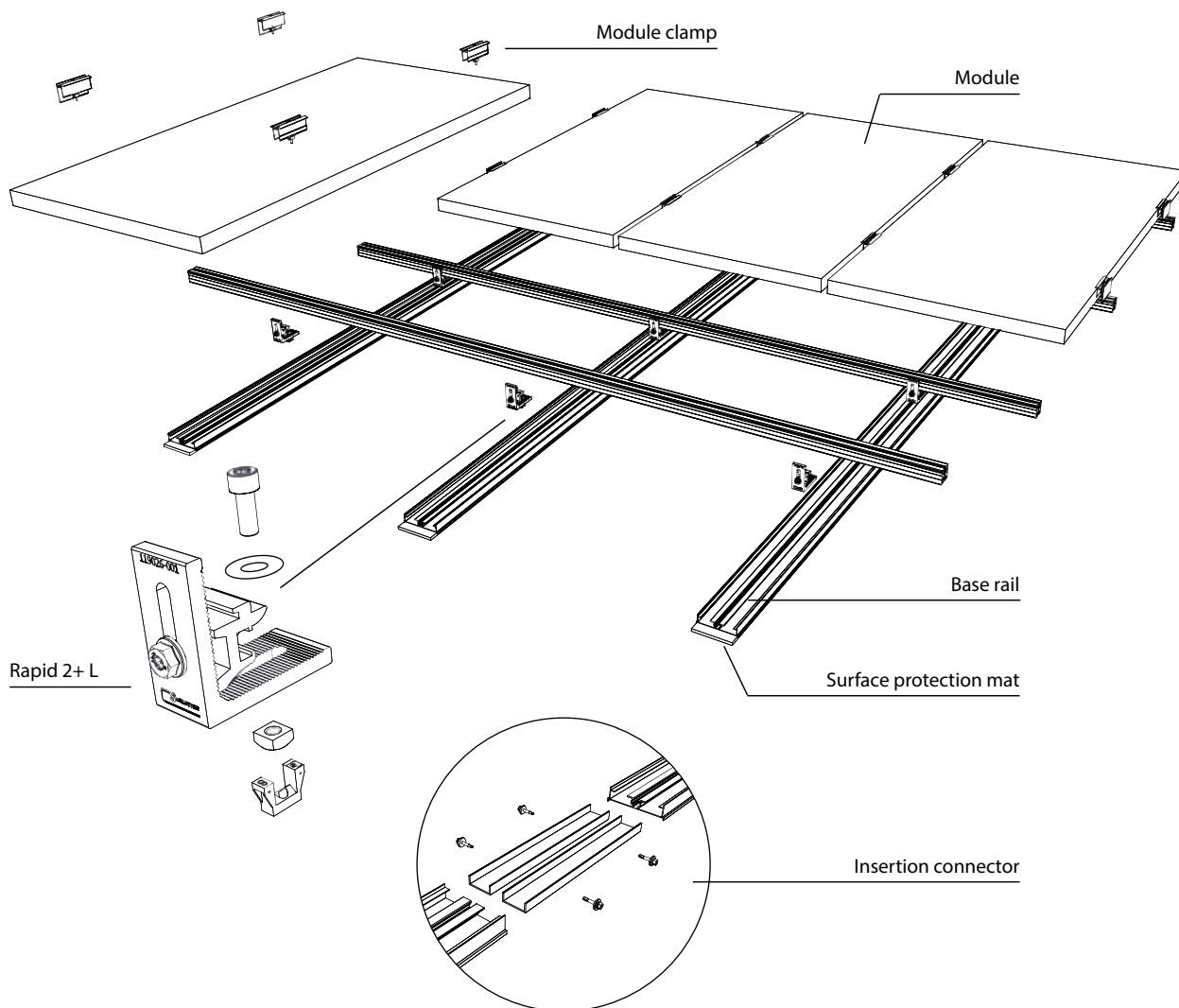


FlatGrid

Mounting instructions



Required tools

Measuring tape
Power screwdriver with bit holder
Hexagon bit wrench size 6
Torx T40 bit

Further required documents

General mounting instructions -
Mounting and project planning
FlatGrid product sheet

Tightening torques

M8 bolted connections: 15 Nm

Safety Precautions



The system must be built exclusively with the load specified in the structural analysis for superimposed loads. You will receive this analysis from Schletter along with the plant projecting. Alternatively, the data can be obtained directly in the "Download" area on our website: www.schletter.eu.



Risk of breakage! PV modules can be damaged if stepped upon.



The planning, assembly and putting into operation of a solar energy plant must be undertaken, exclusively, by qualified personnel. Unprofessional execution of the project can result in damage to the plant and place people in danger.



Risk of electric shock! The mounting and maintenance of the PV modules must be carried out by professionals only. Please observe the safety regulations issued by the solar module manufacturer!



Risk of falling! There is a risk of falling when working on the roof as well as when ascending and descending the building. Accident prevention regulations must be observed and appropriate safety equipment must be used.



Risk of injury! Objects falling off the roof can cause injury to people. Before starting the assembly work, the danger area around the installation site must be sealed off and persons in the vicinity must be warned.

Mounting information



If the roof or the roof sealing is very uneven, compensatory measures may have to be taken in order to safeguard an evenly distributed load transfer.



The required distances to the roof edges have to be maintained.



The maximum length of the base profile (rail) is 6 m. With extra big projects, the length can be extended in individual cases after consulting Schletter.



AluGrid is NOT recommended for roofs with a pitch of more than 10 degrees.



For reasons of structural safety, at least two module rows must be interconnected. If this is not possible, please consult our technical advisers.



The distributed load must not exceed the excess load-bearing capacity of the building!



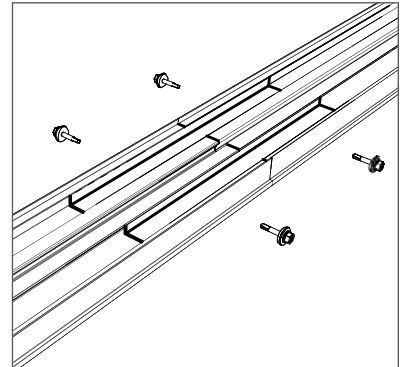
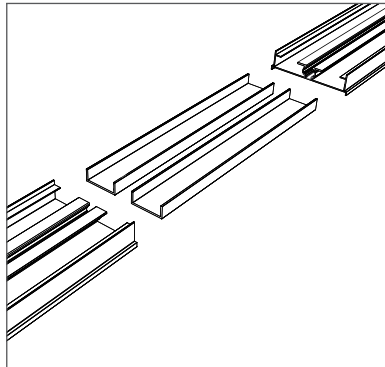
The partial surface pressure onto the roof cladding and the insulation under the continuous beams on the roof cladding must not exceed the admissible distributed surface load.

1 Extending base rails (profiles)

- Extend the base rails (profiles) as required.
- Join two rails together by inserting a connector into one end of each rail and fasten it at both rail ends with two self-drilling screws each.

Tools:

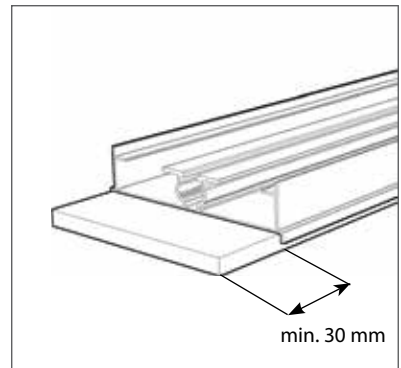
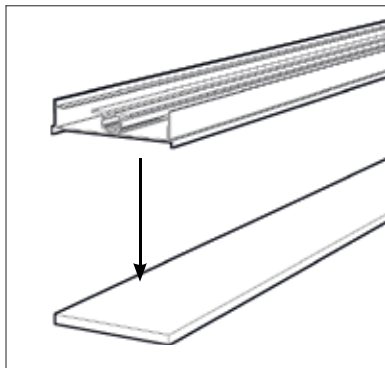
Power screwdriver with 8 mm bit holder



2 Mounting of the surface protection mat

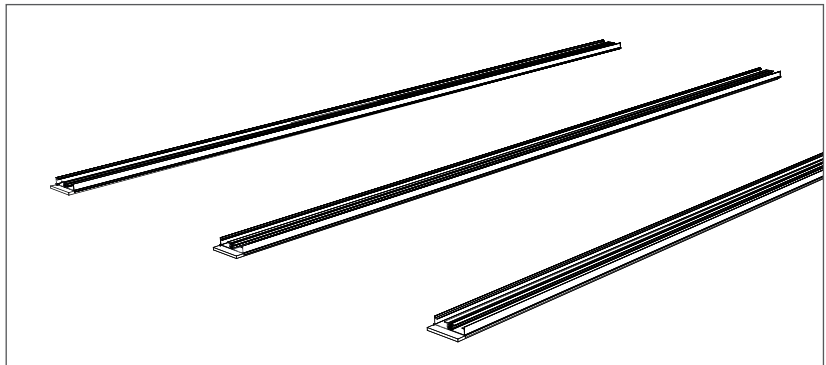
- Pull the protective foil off the surface protection mat strips and glue them onto the continuous beam profile that is intended for that purpose.
- Make sure that the bearing rubber protrudes at least 30mm from each rail end.

⚠ Do not stretch surface protection mat strips; they should be a little compressed when they are installed.



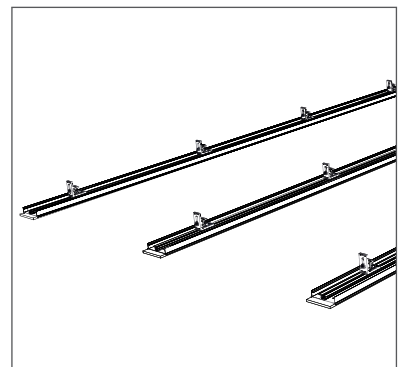
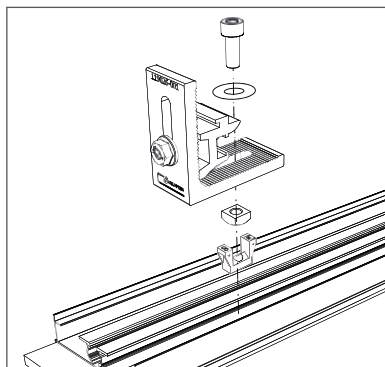
3 Alignment of the base rails

- Lay the assembled base rails (profiles) parallel to one another in ridge - eaves direction.
- Distance between the profiles according to structural specifications.



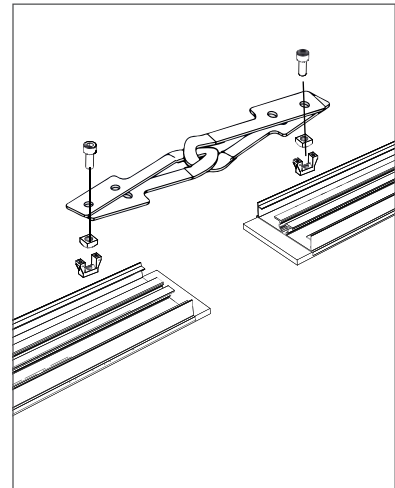
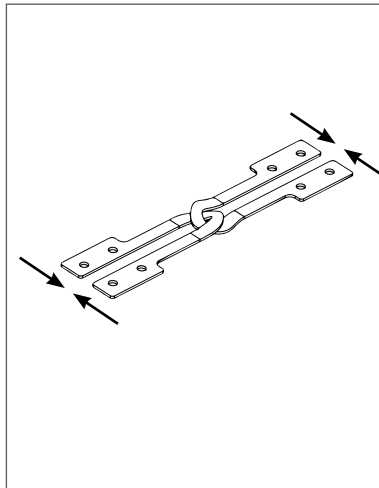
4 Mounting of the Rapid 2+ L

- Press the KlickIn click component and the square nut into the base profile (rail) at the desired position.
- Place the Rapid 2+ L onto the profile (rail), align it and fasten it with a screw and a washer.



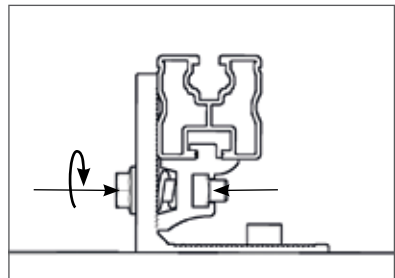
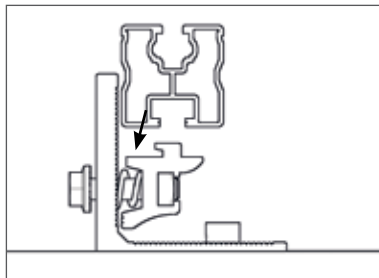
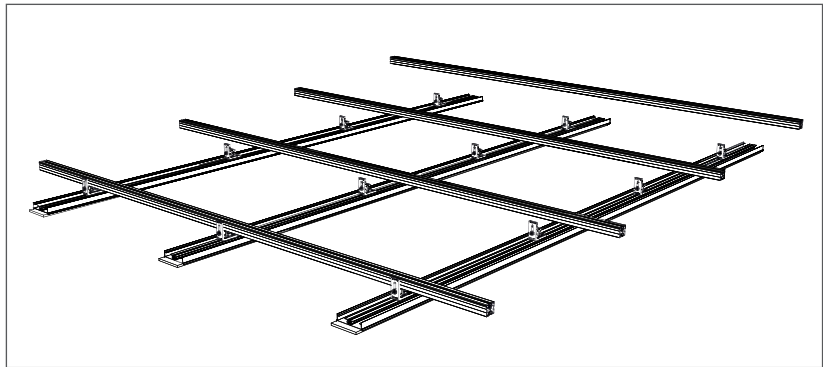
5 Anti-slide protection

- On inclined roofs, module arrays must be secured against sliding for example by
 - horizontal fastening or
 - coupling two opposite continuous beams using a tension connector at the ridge. For this purpose, inter-connect the connectors, press them together at the ends and fasten them from above with two screws to both base profiles using KlickIn click components and square nuts.
- Roof parapets can give extra protection against sliding. A correct fastening and structural safety are compulsory.



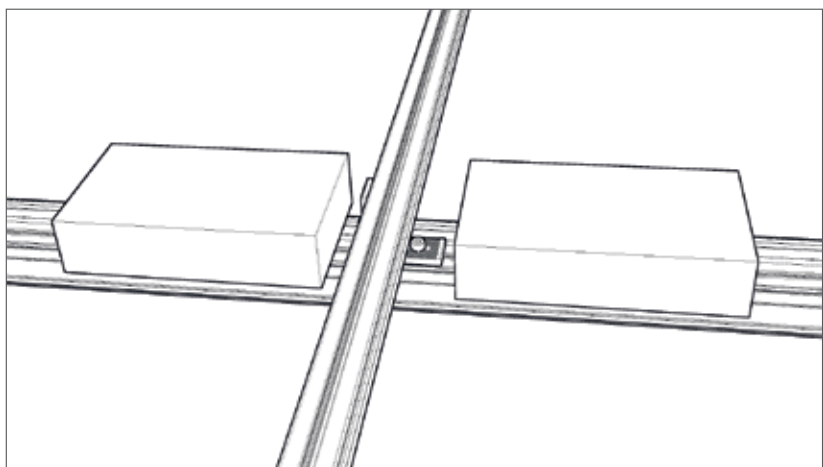
6 Mounting of the module-bearing profiles

- Insert the module-bearing rail (profile) into the clamping at the lower screw duct.
- Set the module-bearing rail at the desired height together with the clamping component and tighten the fastening screw.



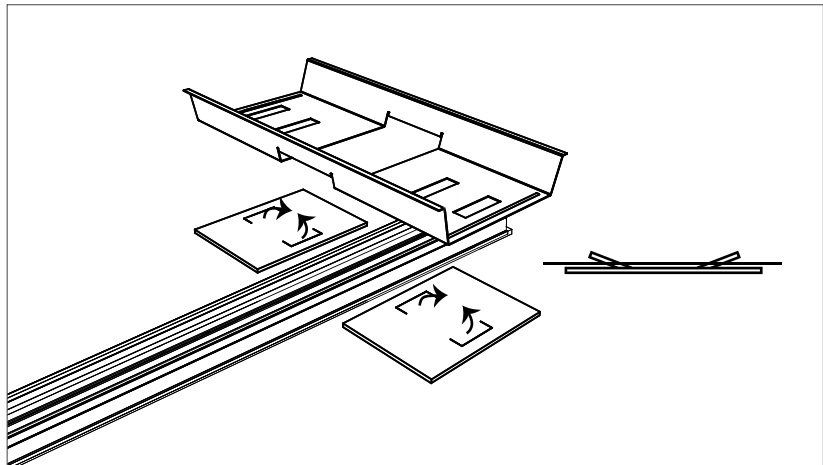
7 Loading

- Distribute the superimposed loads as specified in the structural analysis for superimposed loads. You will receive the structural analysis of superimposed loads together with the plant plans of the solar plant or in the download area on our website: www.schletter.de
- Distribute the superimposed load evenly on the base rail (profile). If the superimposed loads are unevenly distributed, place them close to the continuous beams.



(The superimposed load is not included in the scope of delivery of the FlatGrid system). Recommended width of the stones: 10 cm; height up to 8 cm, if required (on extremely uneven ground) only 6 cm

- i** If not enough superimposed load can be put on the base rail (profile), a special tray can be filled with stones as extra superimposed loads. Surface protection mat pieces are fastened to the tray with fastening lugs.

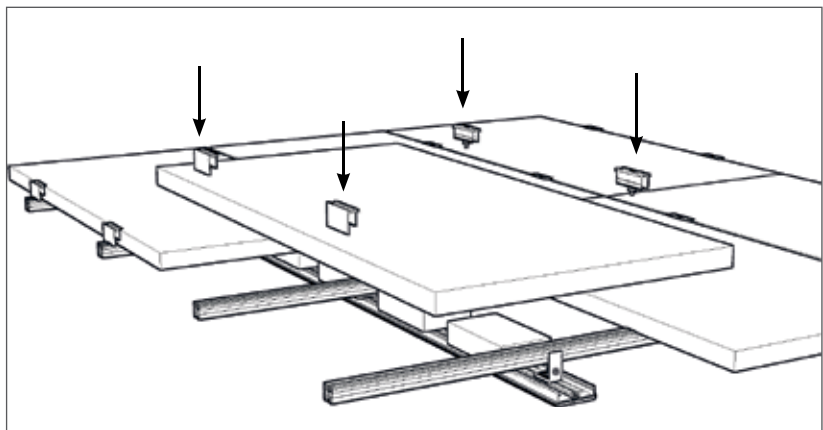


8 Fastening of the modules

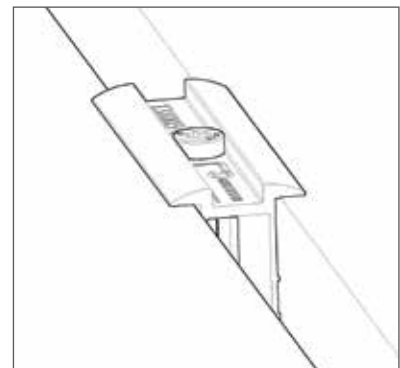
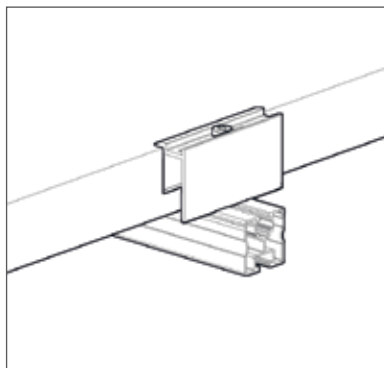
- Place the module on the module-bearing rail according to the specifications, connect the cables and fasten the module clamps.

⚠ Please observe the clamping points specified by the manufacturer

⚠ The fastening points for the module clamps can be selected as desired along the module bearing profile. The M8 high-grade steel nuts are inserted into the duct at the required points and the modules are mounted using clamps and screws. The pre-assembled Rapid 2+ clamps are inserted and fastened.



- i** We recommend Schletter cable clips for cabling. Further information with examples of use are shown in the cable fastener product sheet.



For further information about our systems, please visit our website: **www.schletter.eu** and go to the "Download" area.