

# CLICKWALL

## Installation Manual



**CLICKON**  
PHOTOVOLTAIK MONTAGESYSTEME

# Table of contents

1.	General Notes, Safety and Instruction .....	3
1.1	Required Tools.....	4
1.2	Components Overview.....	5
1.3	System Structure .....	6
1.4	Guidelines for Module Requirements and Arrangement.....	7
2	ClickWall Installation .....	8
2.1	Axis and Laying Dimensions of Solar Posts .....	8
2.2	Planning Aid – Positioning of Post Anchors & Solar Posts .....	9
2.3	Fixing the Post Anchors .....	10
2.4	Determining Module & Post Height.....	11
2.5	Inserting Post into the Anchor .....	12
2.6	Positioning Module Ports and L-Brackets .....	13
2.7	L-Brackets mounting .....	14
2.8	Installing Module Ports .....	14
2.9	Cable Manager Installation .....	15
2.10	Mounting Edge Guard .....	15
2.11	Placing & Supporting PV Modules on L-Brackets.....	16
2.12	Routing Connectors in the Cable duct .....	17
2.13	Cable Routing Along the Post.....	18
2.14	(Optional) – Optimizer Installation Inside the Post.....	19
2.15	Fixing PV Modules with Module Clamps.....	20
2.16	Fixing PV Modules with Clamps (Portrait Orientation) .....	21
2.17	Fixing PV Modules with Clamps (Landscape Orientation) .....	22
2.18	Cutting Edge Sheets.....	24
2.19	Edge Sheet Preparation and Installation, Including Corner Fastening (Variant 1 Module Landscape / 1 Module Portrait).....	25
2.20	Mounting PV Modules at the Corner (1 Module Landscape / 1 Module Portrait) .....	28
2.21	Processing the Edge sheets and Assembly with Corner Connectors (Variant: 2 Modules Landscape Stacked) .....	29
2.22	Installing PV Modules on the Corner Connectors (2 Modules Landscape).....	33
2.23	Fixing Edge Sheets (Fence End).....	36
2.24	Fastening the cover plate and top cover cap .....	37
2.25	System Grounding .....	38

# 1. General Notes, Safety and Instruction

Version 1.2 | Stand: 09.2025

## INSTALLATION MANUAL – SOLAR FENCE CLICKWALL

### MATERIAL NOTES ON ALUMINUM

The ClickWall solar fence installation system is made of high-quality aluminum, which is characterized by weather resistance and long service life. However, the material is sensitive to scratches and mechanical stress.

- **Transport & Installation:**  
Aluminum parts must not be dragged or pushed over rough surfaces to avoid damaging the surface.
- **Cleaning & Care:**  
Use soft cloth with lukewarm water for maintenance. For heavier soiling, a mild soap solution is suitable. Do not use abrasive agents, steel wool, or aggressive cleaners.
- **Repair of Damage:**  
Small scratches or coating damage can be touched up with suitable aluminum paint to prevent corrosion.

### Introduction

The ClickWall system combines modern solar technology with elegant privacy protection in a single fence element. It enables energy-efficient and visually appealing design of your outdoor area.

This manual guides you step by step through the installation.

#### Please note:

- Installation must always be carried out with at least two people.
- Mistakes in electrical installation can be life-threatening!

### ELECTRICAL INSTALLATION – WARNING NOTICE

#### ⚠ Danger of electric shock!

All electrical connections – especially at the PV modules, grounding, or the inverter – may only be carried out by a qualified electrician.

#### Requirements:

- Only approved MC4 connectors or equivalent standardized connectors may be used. Cables must be correctly insulated and routed.
- All electrical connections must be completely sealed and reliable to prevent short circuits.

### Handling of PV Modules (not included in the ClickWall installation system)

- **Safe Handling:** PV modules are sensitive and must always be carried out and mounted by two people. Avoid impacts and laying them on hard surfaces.
- **Installation Note:** Modules must be placed precisely on the intended module ports without force. Slight movement after installation is intentional – it compensates for thermal expansion and thus protects the material from damage. This slight mobility does not represent an installation error.

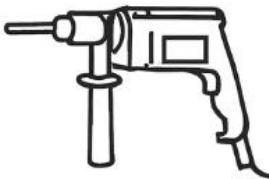
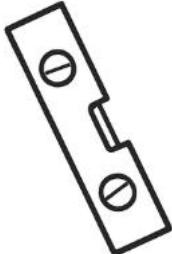
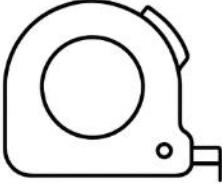
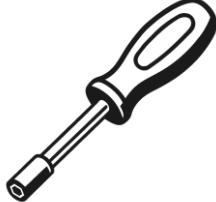
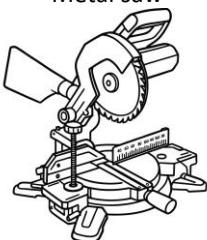
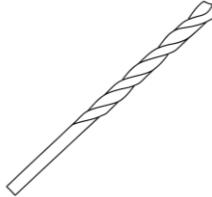
## INSTALLATION SAFETY

- Wear suitable protective equipment.
- Use stable work platforms instead of unstable ladders and ensure they stand on solid, load-bearing ground.
- Installation may only begin after the foundation has been fully cured to ensure stability.
- Foundations for solar posts must be dimensioned sufficiently large according to static requirements such as wind loads, soil conditions, and local environment.

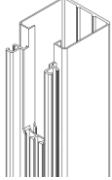
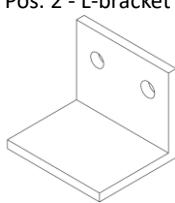
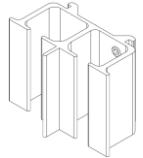
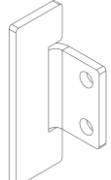
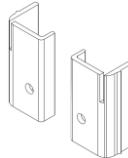
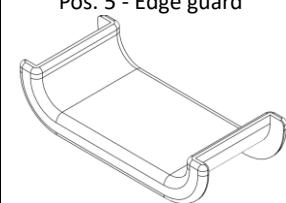
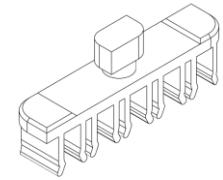
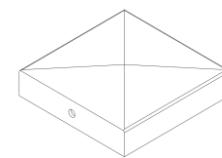
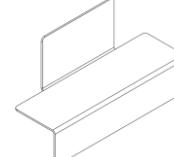
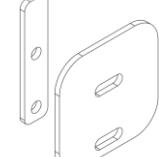
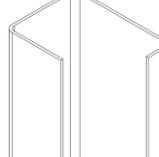
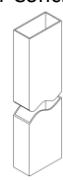
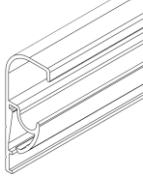
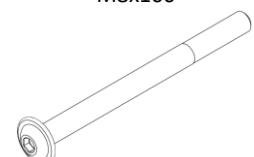
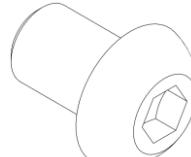
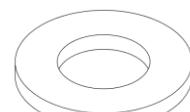
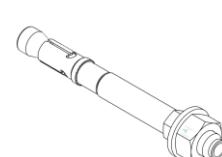
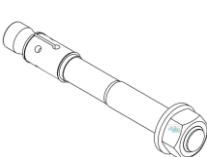
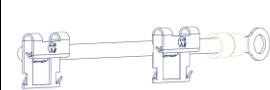
## WARRANTY NOTICE

Ignoring safety and installation guidelines can not only lead to injuries and property damage but also result in the loss of the product warranty.

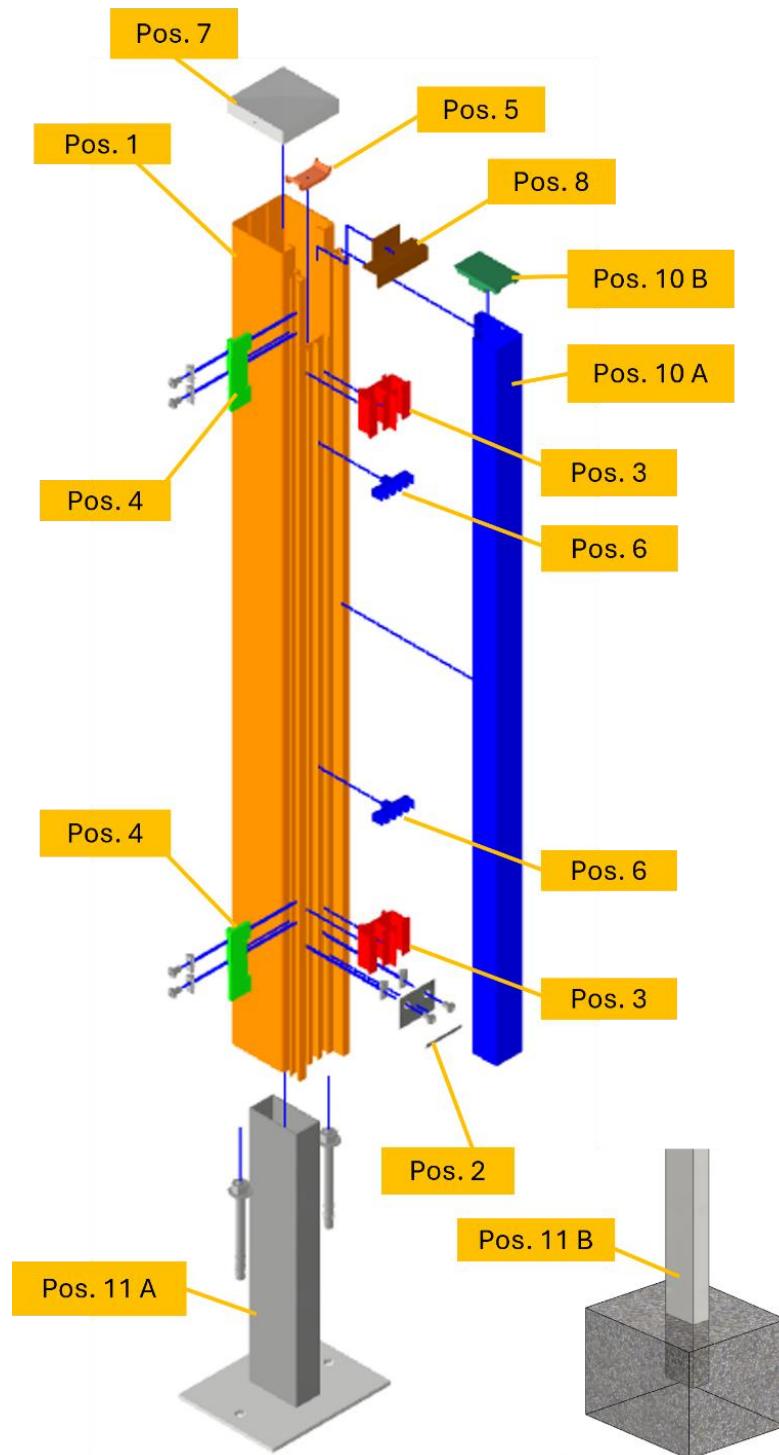
### 1.1 Required Tools

Hammer drill	Electric Screwdriver	Wrench 13 mm	Ratchet with 19/24 mm socket
			
Spirit level	Measuring tape	Chalk line or laser	Allen wrench set
			
Metal saw	Sheet metal shears	Hex-Key Set	Metal drill bits ø9 x L 120 mm & ø10 mm
			

## 1.2 Components Overview

Pos. 1 - Post 	Pos. 2 - L-bracket 	Pos. 3 - Module port with set screw 	Pos. 4 A - Module clamp (Standard) 
Pos. 4 B - Module clamp (Slotted) 	Pos. 5 - Edge guard 	Pos. 6 - Cable Manager 	Pos. 7 - Post cap 
Pos. 8 - Front cover plate 	Pos. 9 - Corner connection 	Pos. 10 A - Edge sheet 	Pos. 10 B - Edge lid cover 
Pos. 11 A - Post anchor (Bolt version) 	Pos. 11 B - Post ground (for Concrete) 	Pos. 12 - Cable duct 	Pos. 14 - Pan head screw M8x100 
Pos. 15 - Slot nut M8 	Pos. 16 - Pan head screw M8x12 	Pos. 17 - Self-drilling screw 3,5x9,5 	Pos. 18 - Washer M10 
Pos. 19 - Hex-bolt M8x20 	Pos. 20 - Concrete anchor M12 	Pos. 21 - Concrete anchor M16 	Pos. 22 - Edge protection strip 
Earth grounding set 			

### 1.3 System Structure



Pos. 1. Post  
Pos. 2. L-bracket  
Pos. 3. Module port  
Pos. 4. Module clamp  
Pos. 5. Edge guard  
Pos. 6. Cable manager

Pos. 7. Post cap  
Pos. 8. Cover plate  
Pos. 10 A. Edge sheet  
Pos. 10 B. Edge lid cover  
Pos. 11 A. Post anchor (for bolting down)  
Pos. 11 B. Post anchor (for concreting)

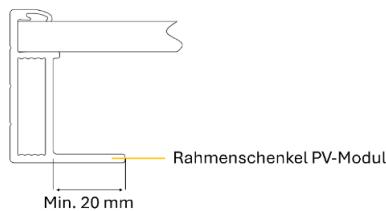
## 1.4 Guidelines for Module Requirements and Arrangement

The ClickWall system allows the installation of standard framed PV modules in both **landscape** and **portrait** orientations.

- **Requirement:** only framed PV modules may be used; unframed modules are not permitted.
- Depending on local wind loads, up to **two modules in landscape orientation stacked vertically** can be installed.
- A supplementary structural assessment must always be performed by the builder.

**Important:**

- The frame profiles of PV modules must have a continuous rear frame lip with a minimum length of **20 mm**, so that the module clamps can securely grip the module frame.
- Clamping on the short side of the module is only possible if the same condition is met there.

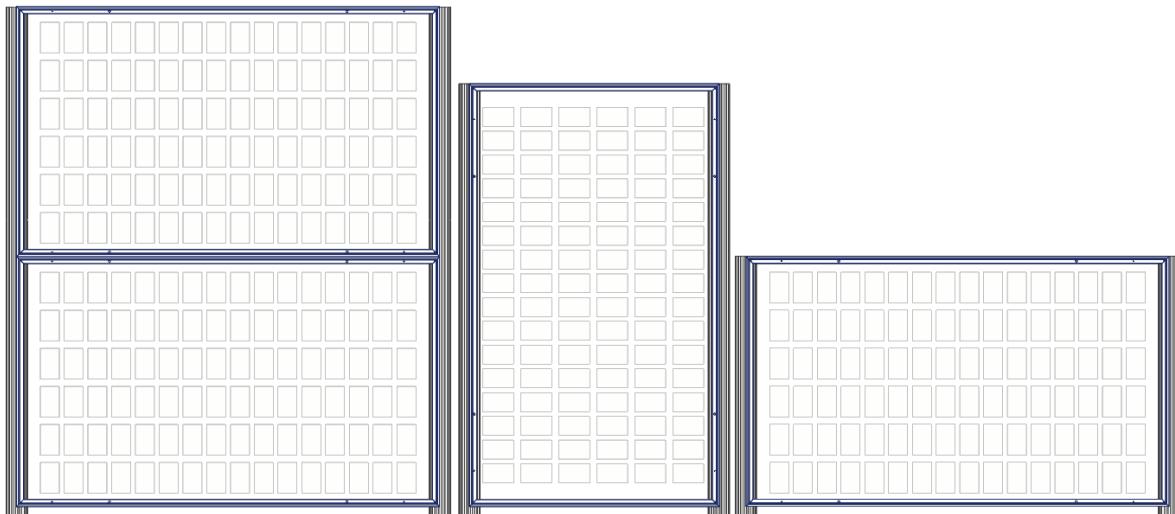


### 3 Permissible installation variants:

2 modules in landscape orientation  
stacked vertically

1 module in portrait  
orientation

1 module in landscape orientation



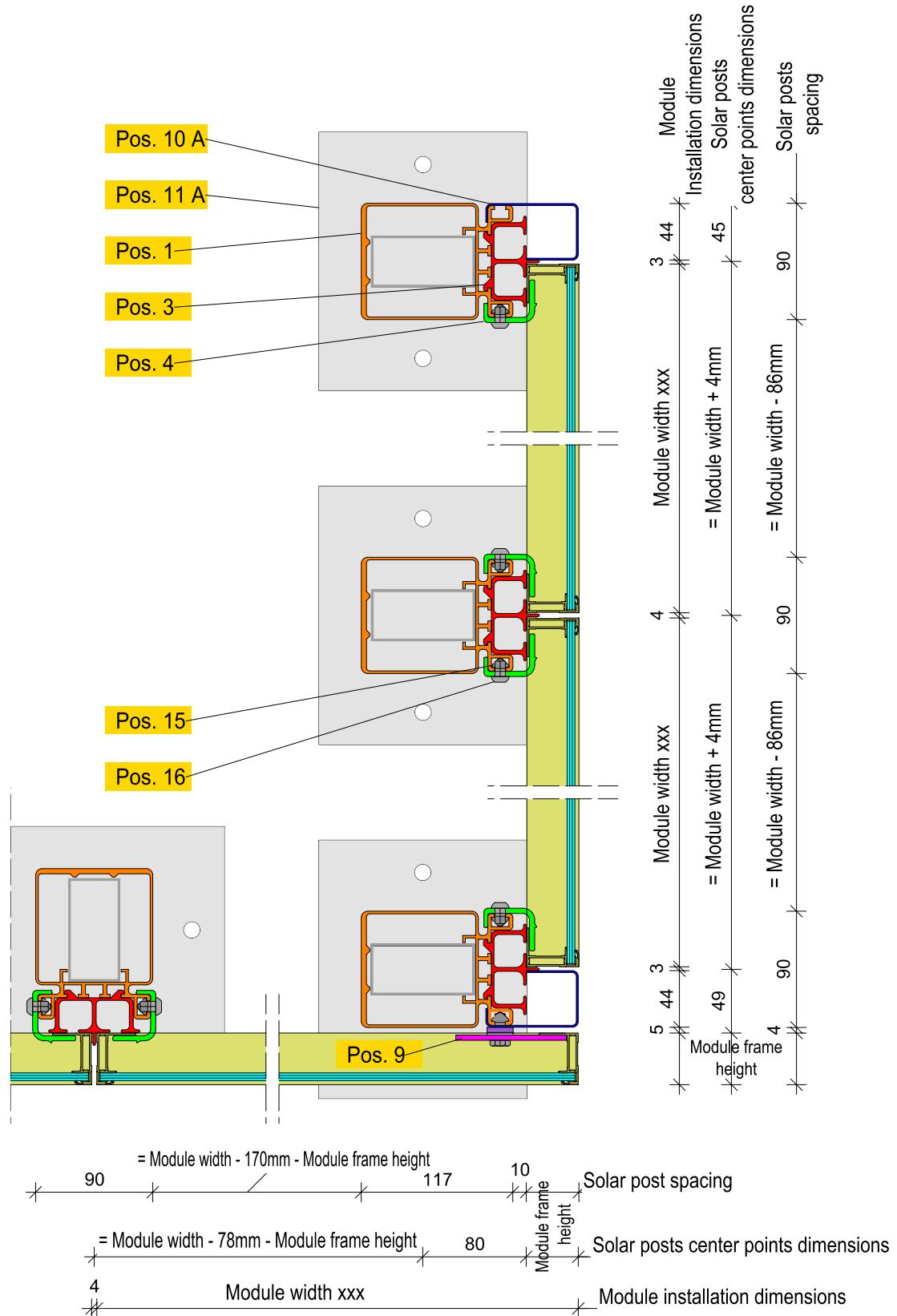
**Application and static requirements:**

- Maximum module size: **180 x 115 cm<sup>2</sup>**
- Maximum suitable for **wind zone 2**
- Maximum installation height: **2.5 m above ground** (with 2 modules in landscape orientation stacked vertically)
- Building regulations must be observed (especially state building codes in Germany). Deviations must follow local regulations. For installations outside Germany, applicable foreign regulations must be checked.

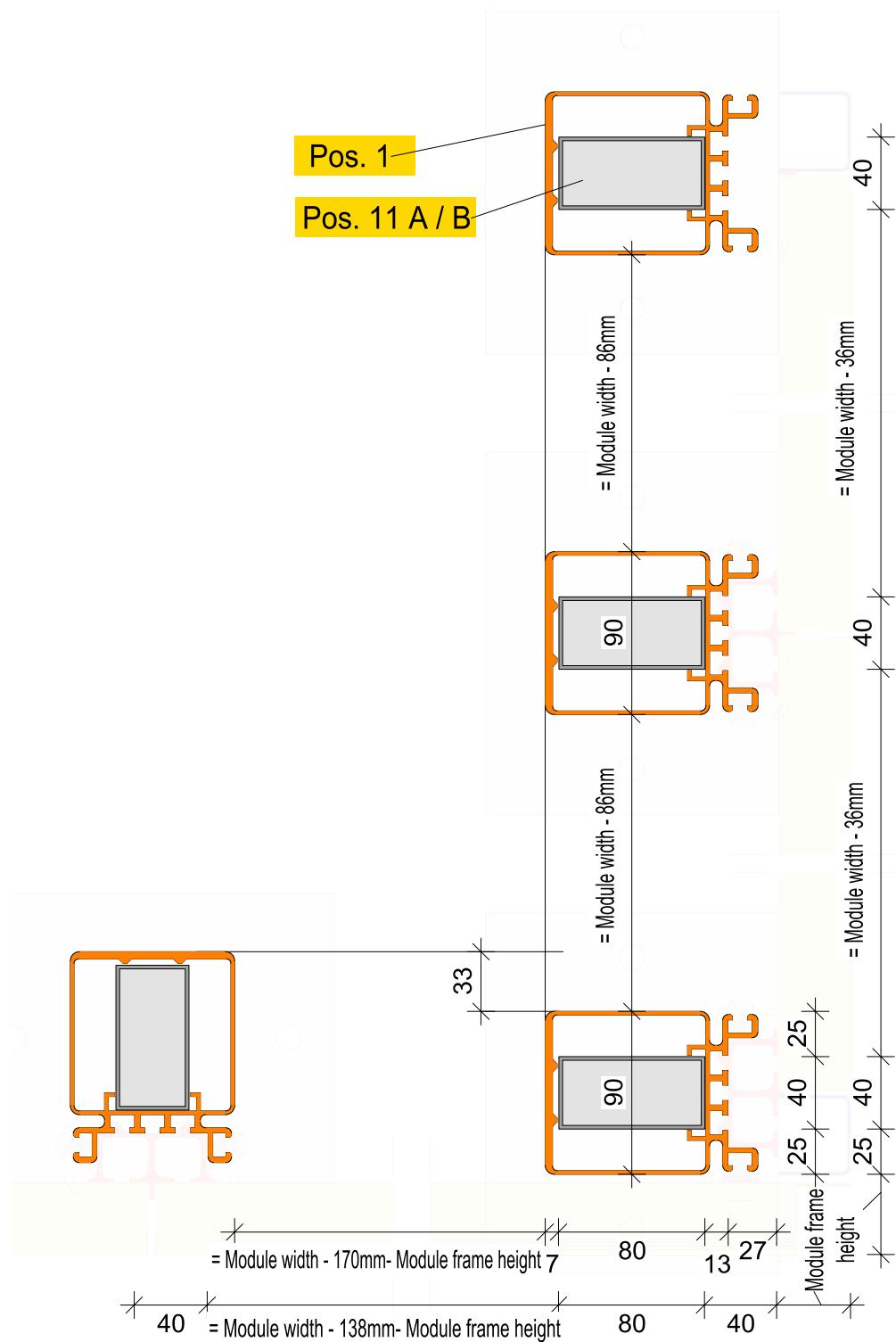
For installations outside these specifications (higher wind load zones, different module dimensions, greater installation heights, or other structures), it is strongly recommended to consult a **structural engineer**. In such cases, ClickWall cannot guarantee the recommended installation method.

## 2 ClickWall Installation

### 2.1 Axis and Laying Dimensions of Solar Posts



## 2.2 Planning Aid – Positioning of Post Anchors & Solar Posts



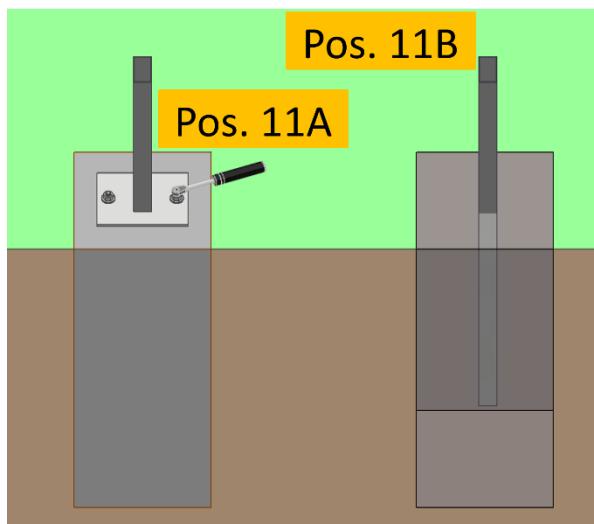
## 2.3 Fixing the Post Anchors

### Two anchor types

There are **two anchor types** depending on the subsoil:

**Pos. 11 A – Post anchor for bolting down (left):** Anchored onto an existing foundation or wall using concrete anchors.

**Pos. 11 B – Ground anchor for concrete embedded (right):** Set into a newly poured foundation.



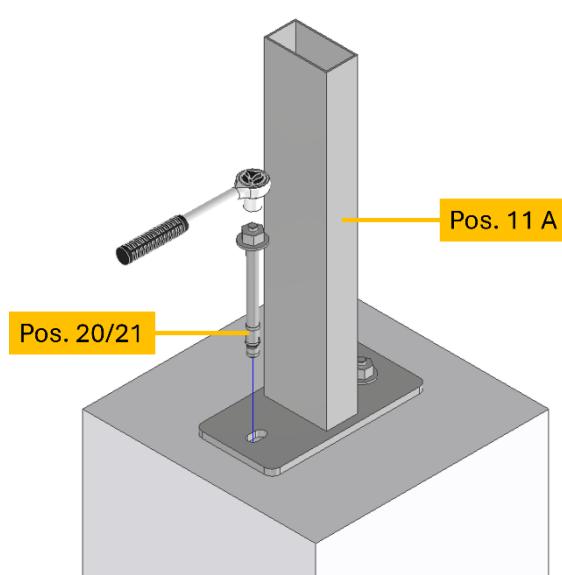
#### Important:

Regardless of the anchor type, the fence line must be planned and marked in advance. Anchors must be positioned horizontally and vertically aligned.

#### Required tools:

- Spirit level
- Chalk line or String line

### Post anchor (Pos. 11 A) – bolted with concrete anchor



#### Required components:

Post anchor, concrete anchors

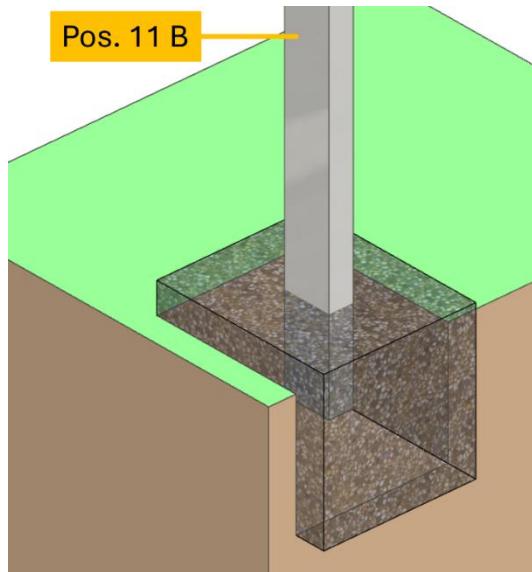
#### Required tools:

Drill, masonry drill, spirit level, wrench

#### Steps:

- Mark position:** position and align the plate, then mark drill holes.
- Drill:** holes vertically into foundation (depth according to anchor specification).
- Cleaning:** Remove dust/debris from holes.
- Insert bolts:** Position post anchor, insert bolts, lightly hammer if needed.
- Align:** Check horizontal and vertical alignment with spirit level. Adjust using slotted holes if necessary.
- Tighten:** Secure by tightening nuts.

### Ground anchor (Pos. 11 B) concrete embedded



**Required tools:** Spade/auger, ready-mix concrete, spirit level, string line, shovel, measuring stick, leveling tool

**Required components:** Ground anchor

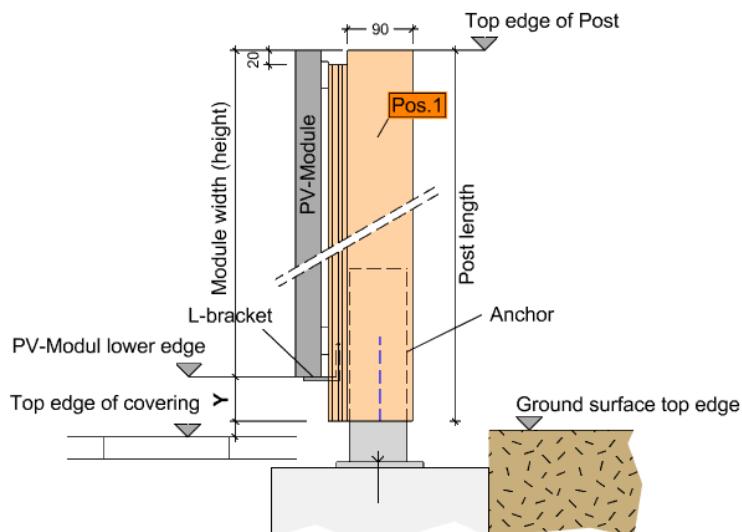
#### Mounting steps:

- A. **Mark position:** Define fence line with string, mark foundation points.
- B. **Dig hole:** Consider required embedment depth!
- C. **Pour concrete:** Fill hole with concrete, avoid cavities.
- D. **Set anchor:** Position anchor according to planning aid, align horizontally and vertically.
- E. **Allow the concrete to be fully cured before continuing:** Observe curing time.
- F. Follow manufacturer's specifications for concrete strength.

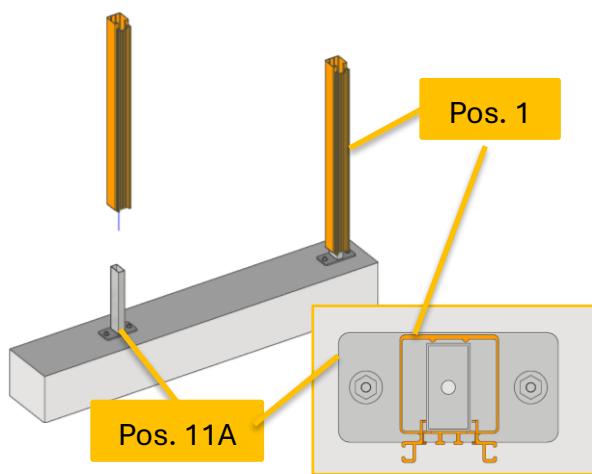
Post length [cm]	Embedded depth [cm]
100	60
170	70
235	85

## 2.4 Determining Module & Post Height

- The PV module should be positioned so that its top edge aligns flush with the top of the solar post. The post may protrude slightly above the module if necessary.
- The support bracket must be attached in accordance with the module's position.
- The lower edge of the PV module should be installed with sufficient ground clearance (Y) to avoid contamination from water splashes.
- For a clean alignment of the entire system, installation should begin at the highest point of the site.
- All further posts are to be aligned with the highest post using a guideline or a laser.



## 2.5 Inserting Post into the Anchor



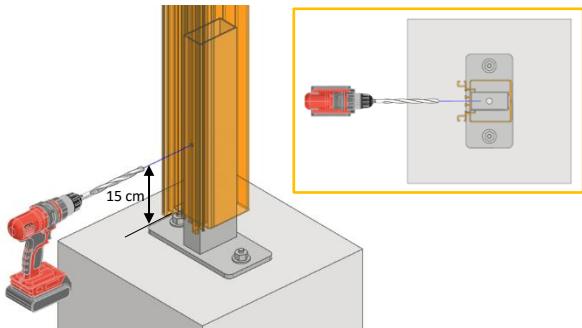
**Required components:** Post, concrete anchors

**Required tools:** Spirit level, string line, electric screwdriver, 9 mm drill bit (L = 120 mm)

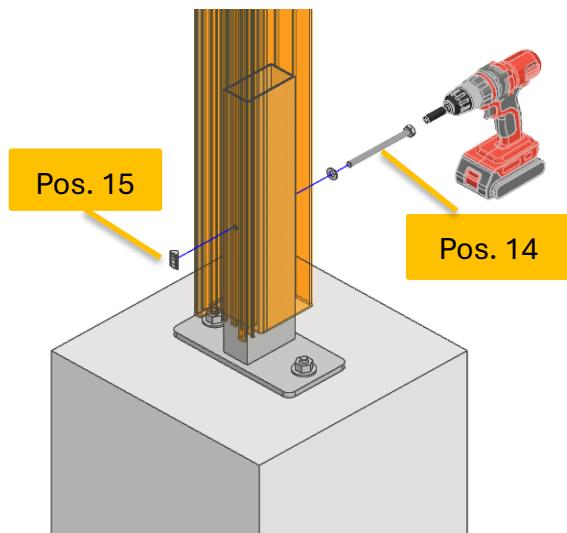
**Mounting steps:**

- Check whether grounding is required (must be determined by a qualified electrician)!**
- Mounting:** Slide the post onto the post anchor.
- Alignment:** Use a spirit level and a guideline to align the post vertically and along the fence line.

**D. Drill hole through Post and Anchor:**



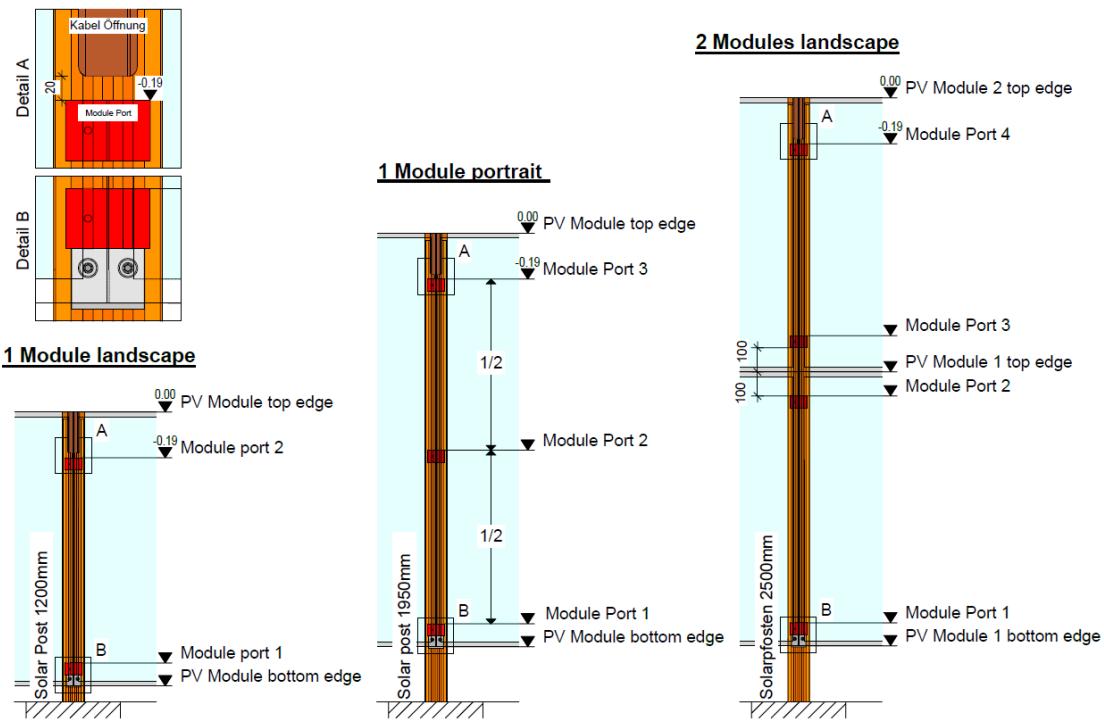
At 15 cm from the lower edge of the post, drill a hole using a 9 mm steel drill bit. Drilling always starts in the middle screw channel of the post and is carried out completely through both the post and the post anchor (see drawing). For this purpose, a 120 mm long metal drill bit is required.



**E. Bolting:**

After drilling, slide the slot nut into the position of the drilled hole. Insert the M8 screw with washer from the back through the drilled hole, align the post with the post anchor, and tighten.

## 2.6 Positioning Module Ports and L-Brackets



**Required components:** L-bracket, module ports

**Required tools:** Allen key set, measuring tape, string line

**Important:** Posts must be precisely aligned so the modules fit flush. Stretch a string line along the top edge of the posts for reference.

**Components arrangement (Arrangement depending on module orientation):**

1 Module landscape:

- 2 Module Ports
- 1 L-Bracket
- **Positioning L-bracket:** Position the L-bracket so that the PV module placed on it sits level with the top edge of the post.
- **Positioning Module Port: Top:** - 20 mm below the recess, **Bottom:** - on L-bracket

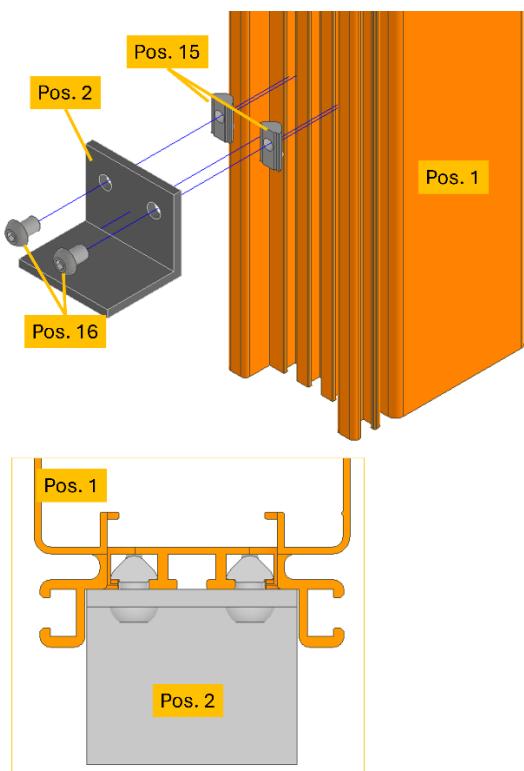
1 Module portrait:

- 3 Module Ports
- 1 L-Bracket
- **Position L-bracket:** The mounting bracket must be positioned so that the PV module resting on it is aligned flush with the top edge of the post.
- **Positioning Module Port: Top:** - 20 mm below the recess, **Middle:** - half of the module, **Bottom:** - on L-bracket

2 Modules stacked landscape:

- 4 Module Ports
- 1 L-Bracket
- **Position L-bracket:** The L-bracket placed so the top module aligns with post top edge.
- **Positioning Module Port: Top:** - 20 mm below the recess, **Middle:** - each 100 mm above and below the upper and lower module edges.

## 2.7 L-Brackets mounting



### Required components:

L-bracket, M8 Slot nuts, M8×12 Pan head screws

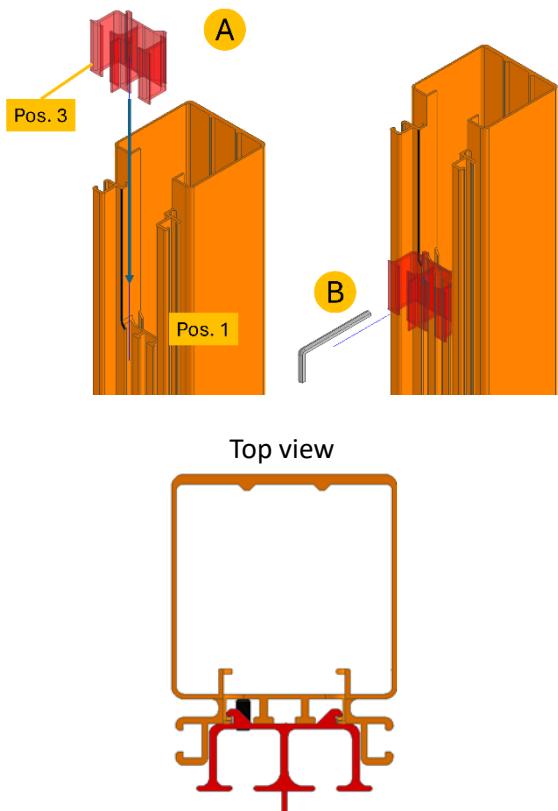
### Required tools:

Allen keys

### Mounting steps:

- A. **Insert slot nuts:** Insert two M8 slot nuts into the outer grooves of the post (from top or clip in from front).
- B. **Placing L-bracket:** Align holes with slot nuts.
- C. **Assemble:** Secure with M8×12 Pan head screws, tighten with Allen key.
- D. **Align:** Check horizontal and vertical alignment

## 2.8 Installing Module Ports



### Required components:

Module Port

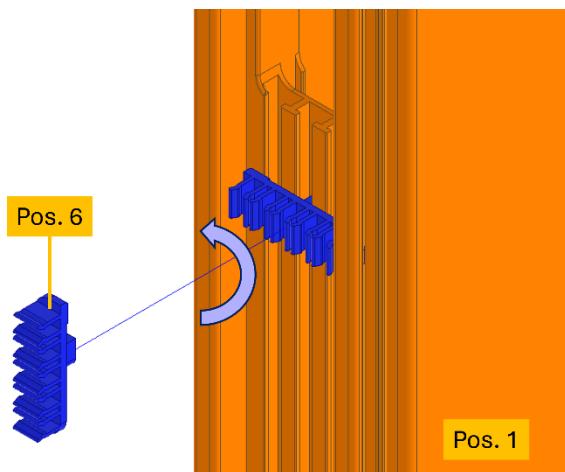
### Required tools:

Allen key

### Mounting steps:

- A. **Insert:** Insert the module support from above into the outer screw channels of the post.
- B. **Positioning:** Raise the module support to the desired height – align the position according to the module size (See chapter Fehler! Verweisquelle konnte nicht gefunden werden.)
- C. **Fix:** Tighten the module port with given set screw using the Allen key.

## 2.9 Cable Manager Installation



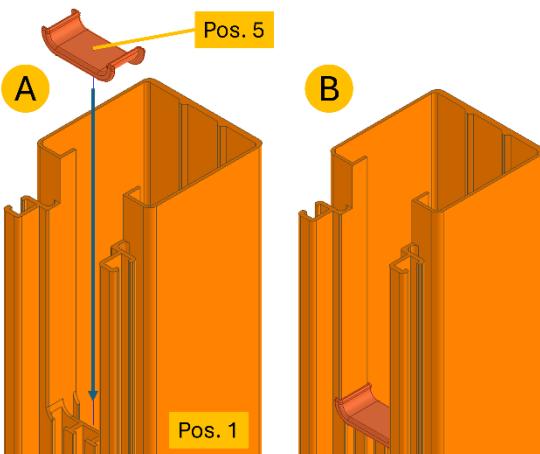
**Required components:**  
Cable manager

**Mounting steps:**

- A. **Installing:** Insert cable manager vertically into the middle screw channel of the post.
- B. **Fixing:** Rotate 90° counterclockwise until it clicks in securely.

**Note:** The cable manager helps to keep cables neatly routed inside the post.

## 2.10 Mounting Edge Guard



**Required components:**  
1x Edge guard

**Mounting steps:**

- A. **Installing:** Slide edge guard into the milled recess of the post from above.
- B. **Positioning:** Push down to lower end of recess until fixed.

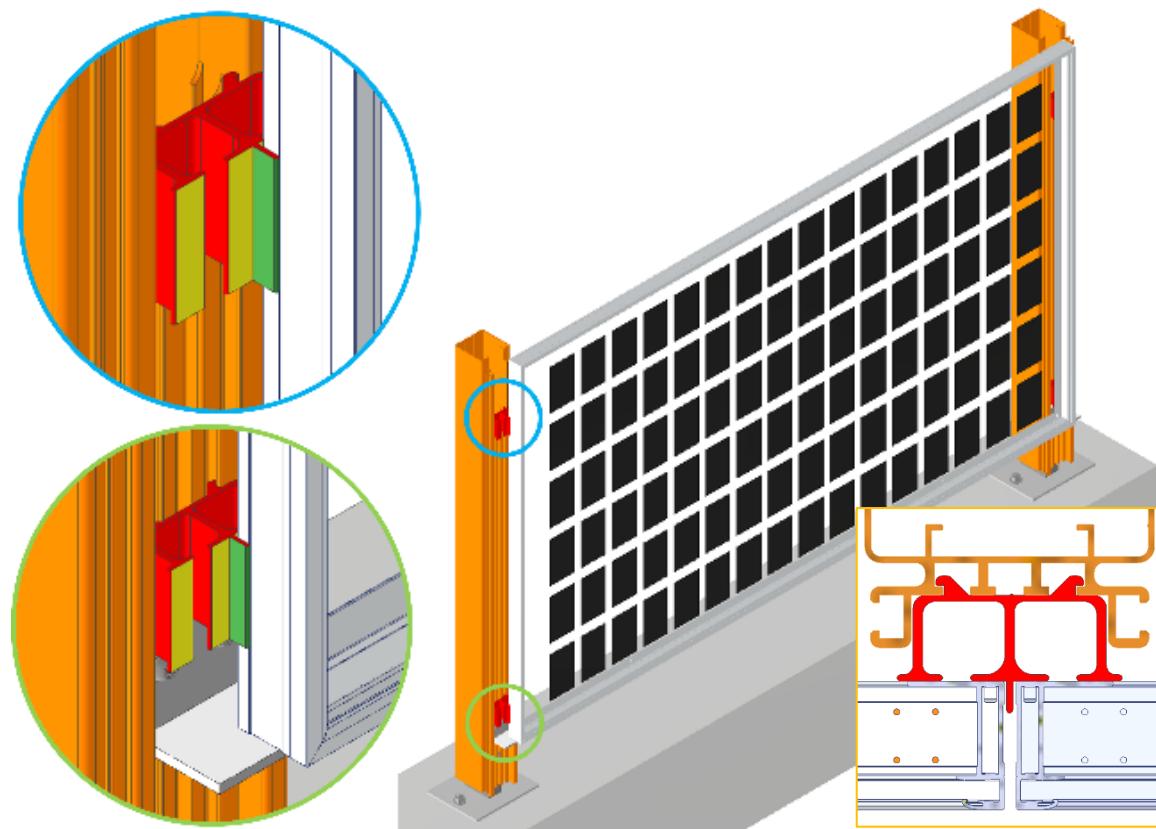
**Note:**

The edge guard safeguards cables inserted into the post – for example: to avoid damage cables from sharp edges when using a power optimizer.

## 2.11 Placing & Supporting PV Modules on L-Brackets

The PV module must firmly rest on L-brackets so that:

- The **back of the frame** touches the contact surfaces of the module ports (yellow in diagram).
- The **protruding ridge** (green) of the module ports sits along the side of the module frame.
- Modules must fit without force.
- Slight play after mounting is intentional – it compensates thermal expansion and prevents damage.
- This slight movement of PV modules is **not an error**.



## 2.12 Routing Connectors in the Cable duct

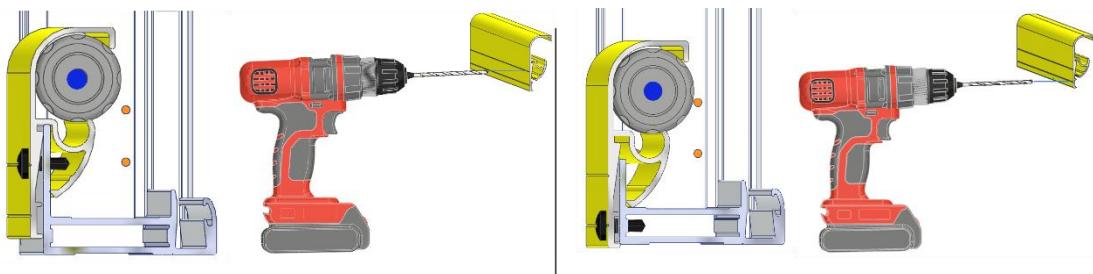
The cable duct allows cables to be routed neatly and out of sight, while also preventing unauthorized access. If the PV module cables are long enough, the duct can also house the connectors.

**Required components:** Cable duct, self-drilling screws

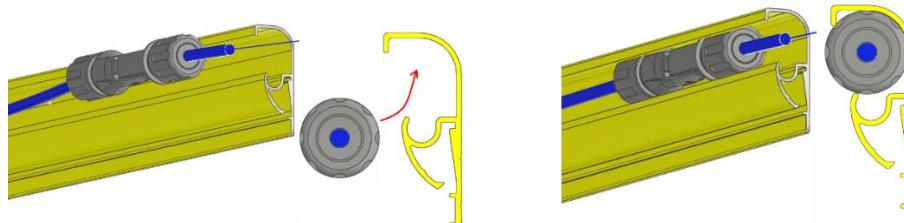
**Required tools:** Electric screwdriver with Phillips bits

**Mounting steps:**

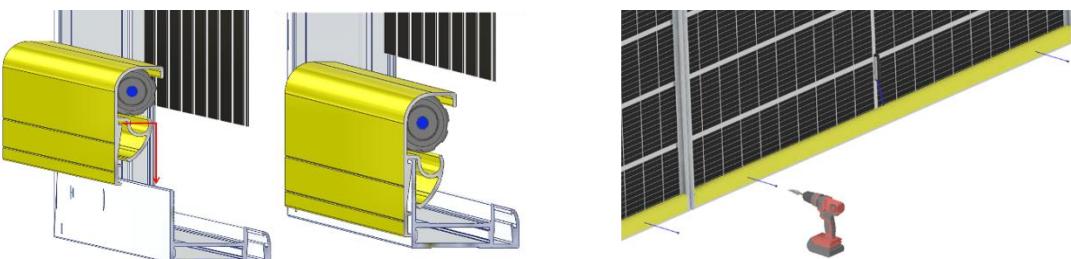
- A. For secure fastening of the cable duct to the PV module frame, it must be pre-drilled at two points. The designated guide grooves hold the drill bit in position. Before drilling, check whether the module has a shorter or longer frame flange. By default, the upper groove is used; if the frame flange is very short, the lower groove must be used to ensure the screw is securely screwed into the frame.



- B. If it is practical due to the cable length and the connector position, the connector can be inserted into the cable duct until it audibly clicks into place.

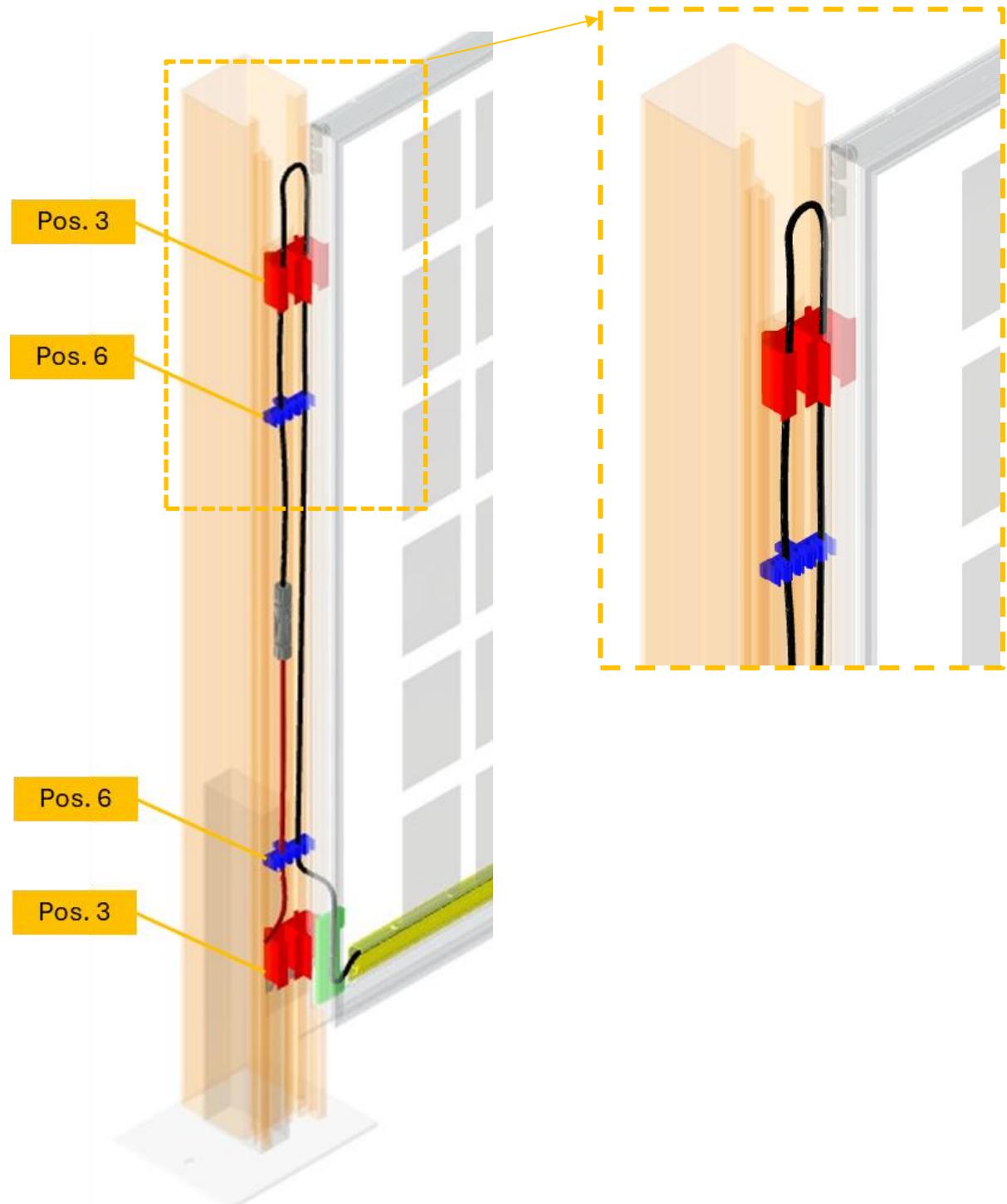


- C. Position the cable duct on the frame flange of the PV module and slide it on completely. Then secure it with two self-drilling screws through the pre-drilled holes in the frame flange.

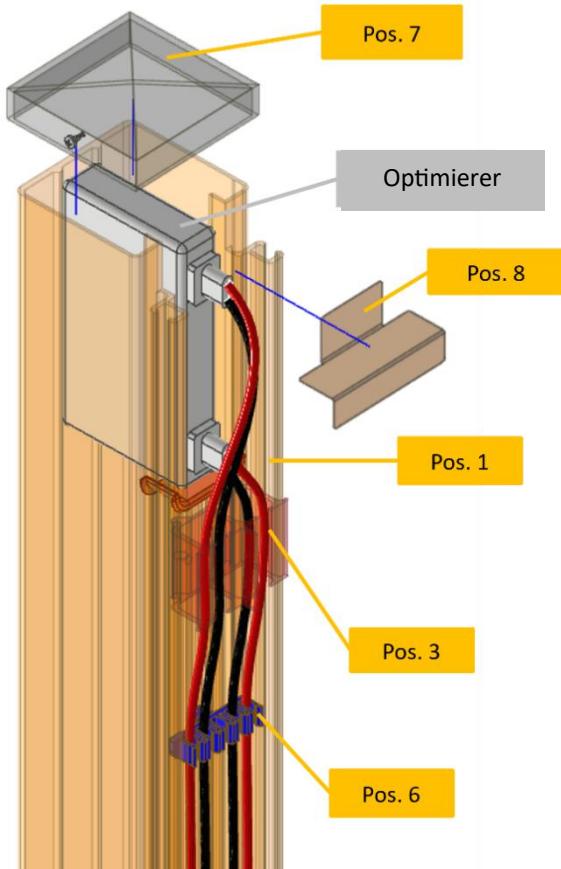


## 2.13 Cable Routing Along the Post

In combination with module ports and cable managers, the post allows **protected, concealed cable routing inside the post**. This keeps cables and connectors invisible and protected from external influences.



## 2.14 (Optional) – Optimizer Installation Inside the Post



The recess at the upper section of the solar post allows installation of suitable optimizers. Before installation, it must be verified in each case that the selected optimizer is suitable.

**Important:**

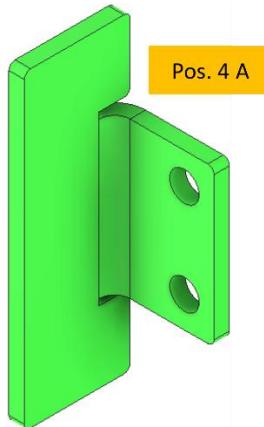
When installing the optimizers, the minimum bending radius of the electrical cables specified by the manufacturer must be observed. In addition, it must be ensured that the cables are properly strain relieved.

## 2.15 Fixing PV Modules with Module Clamps

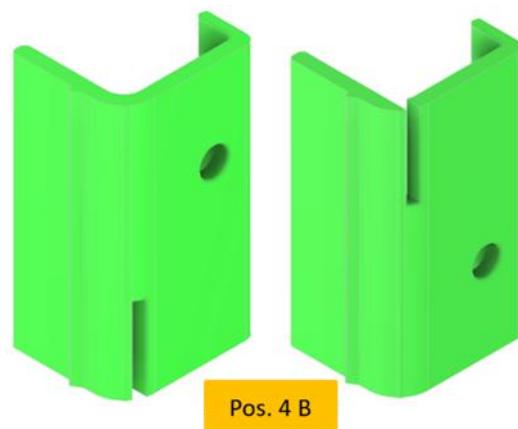
### General notes:

Depending on the orientation of the PV modules (portrait or landscape), different module clamps are used. For portrait installation, two differently slotted module clamps are used, each engaging with its slot at the top and bottom into the rear frame flange of the module.

Module clamp for **landscape orientation**

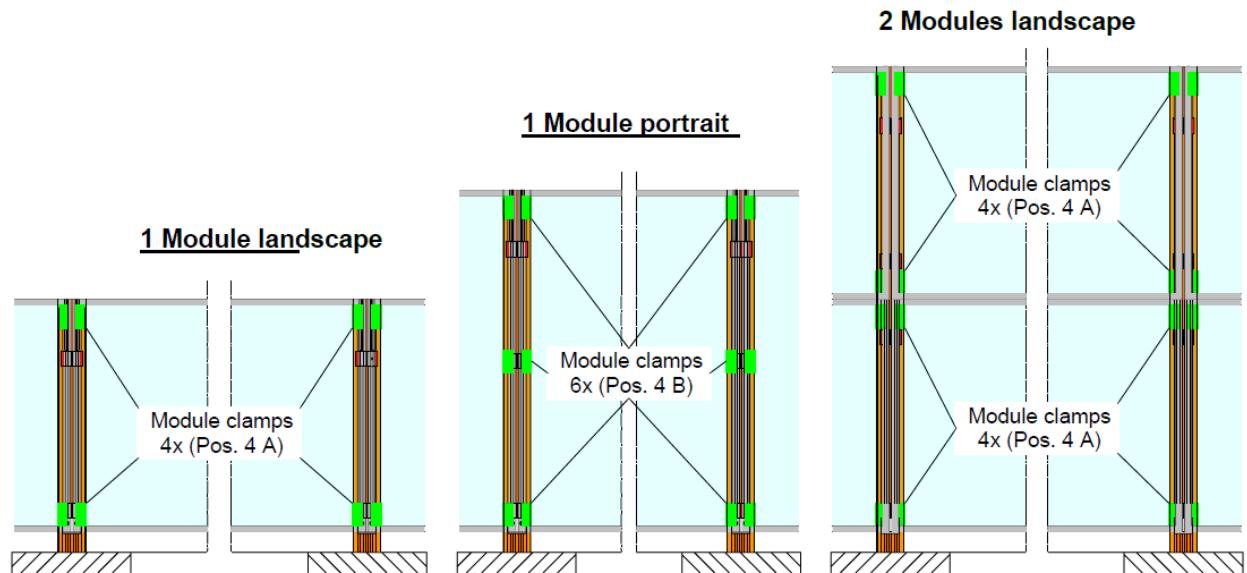


Module clamp for **portrait orientation**



### Number of module clamps depending on module orientation:

- 1 Module landscape: 4 Module clamps (Pos. 4 A) – one at each corner of the module (see left sketch)
- 1 Module portrait: 6 Module clamps – one at each corner of the module, plus one module clamp in the middle of each side.
- 2 Modules landscape stacked: 8 Module clamps (Pos. 4 A) – 4 per module, at corners (see right sketch)



## 2.16 Fixing PV Modules with Clamps (Portrait Orientation)

Required components: Module clamps L & R, slot nuts M8, Schrauben (M8×20)

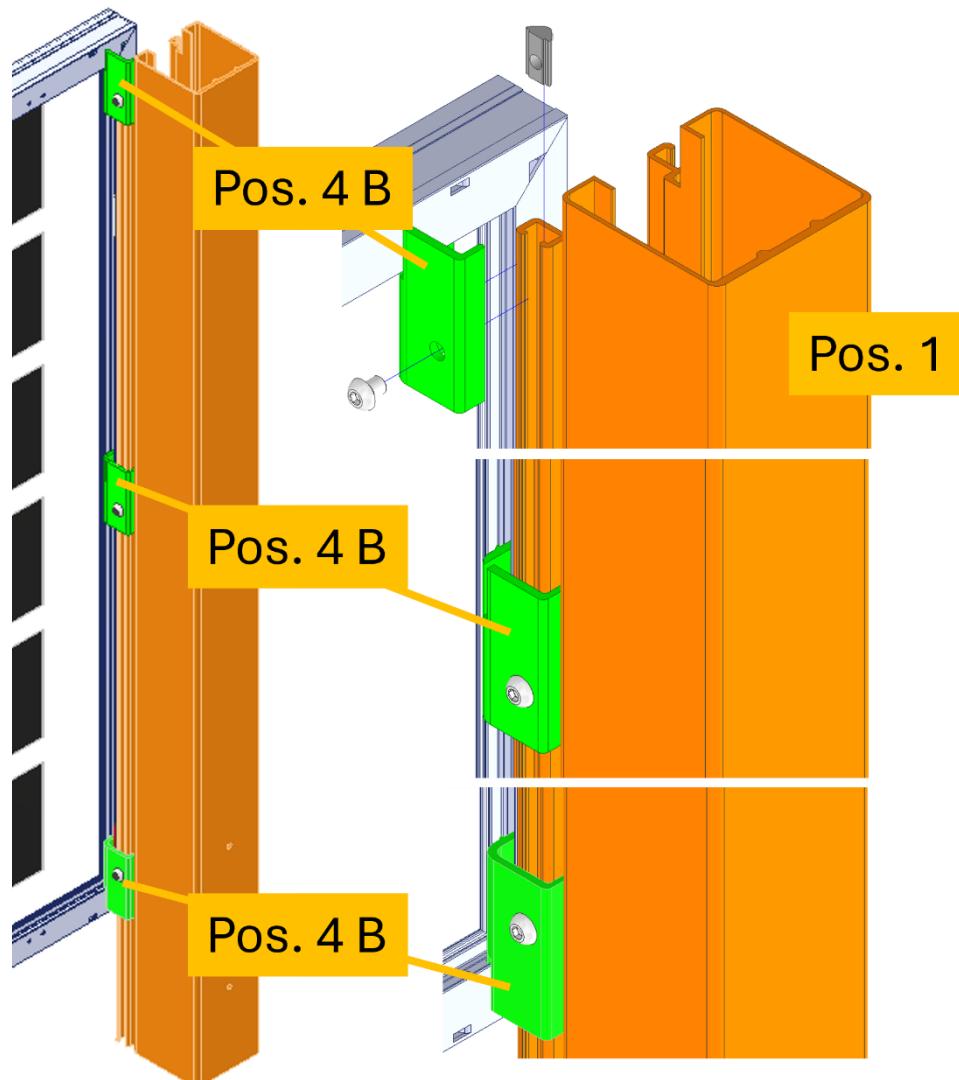
Required tools: Allen key

Mounting steps:

- A. Insert slot nuts into post rail channel at module position.
- B. Place PV module on L-bracket, align with module ports.
- C. Route cables between PV frame and post → position it by using the cable manger (see chapter Fehler! Verweisquelle konnte nicht gefunden werden.).
- D. Insert clamps into module frame.
- E. Fix clamps to slot nuts using screws.

Notes:

Insert slot nuts before placing module to simplify installation.



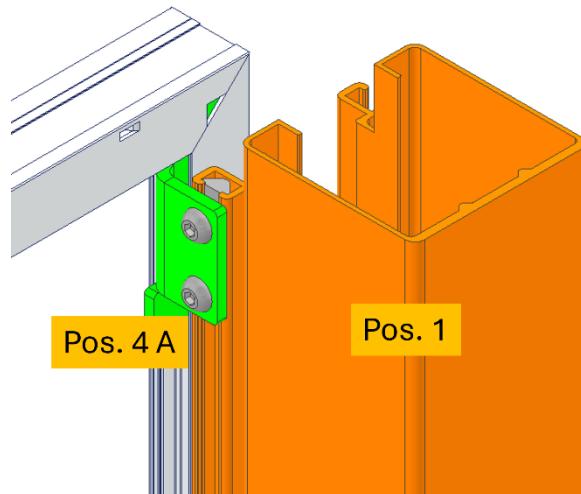
## 2.17 Fixing PV Modules with Clamps (Landscape Orientation)

### Clamp alignment instructions

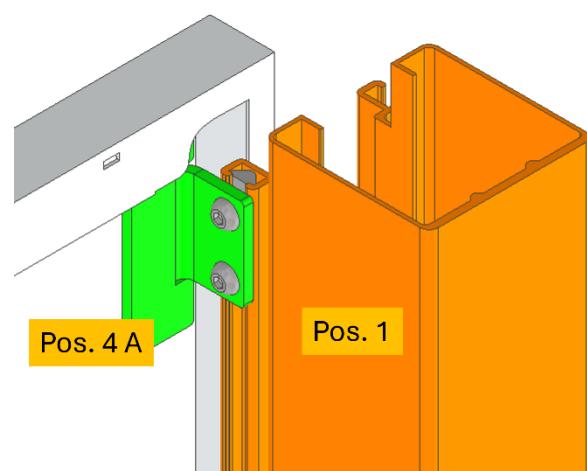
For modules with special frame shapes (Example):

- **Cut out corners**, or
- If the **vertical frame leg** (i.e. the part of the frame that runs **parallel to the post**) is shortened, installation using Variant 1 (see below) is **not permitted or mechanically unsafe**.  
In such cases, the **module clamp must be mounted in a rotated position (Variant 2)** so that it can grip a sufficiently stable part of the module frame.

Variant 1 - Landscapte & continuous frame lip



Variant 2 – landscape, shortened/cut-out frame lip

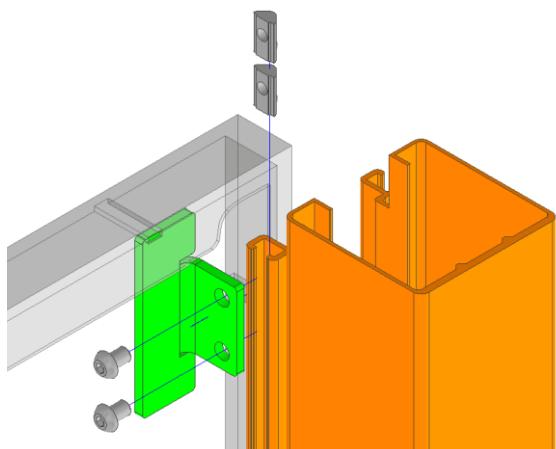


The following mounting directions are **recommended** for securing the PV modules:

- **Use Variant 1 where possible (landscape + continuous frame lip).**

These approaches ensure firm stability and easier installation.

## Mounting Procedure for Landscape Orientation (Example: Variant 2)



**Required components:** Module clamps, Slot nuts M8, Pan-head screws M8x12

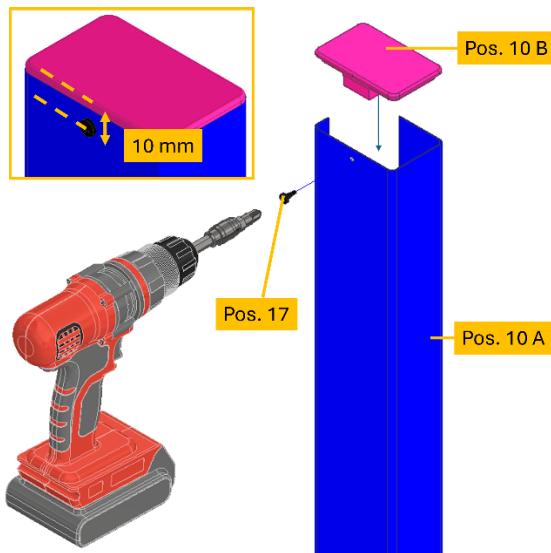
**Required tools:** Allen key

### Mounting steps:

- A. Each clamp requires 2 slot nuts.
- B. Insert slot nuts from above into post rail channel of the post.
- C. Position clamp against slot nuts.
- D. Tighten screws with Allen key until firmly secure.

## 2.18 Cutting Edge Sheets

### Fastening the Edge lid cover to the Edge sheet



#### Required components:

- 1x Edge sheet
- 1x Edge lid cover
- 1x self-drilling screw 3,5 x 9,5 mm

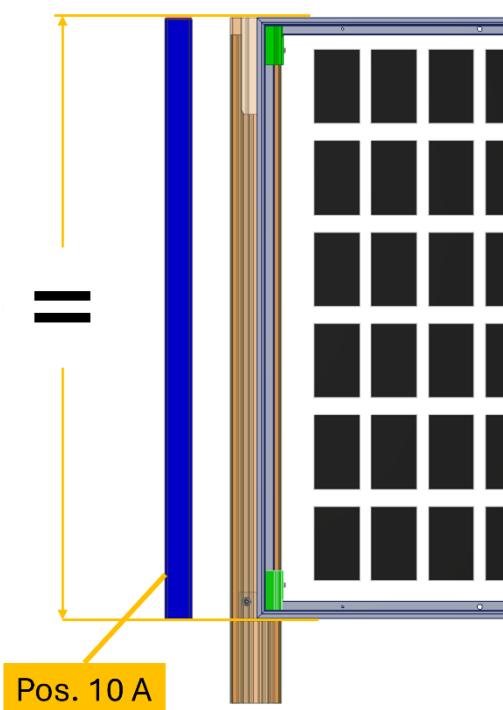
#### Required tools:

- Electric screwdriver with Philips bit

#### Mounting steps:

- A. Slide the lid cover onto the edge sheet from above until it sits firmly.
- B. Pre-drill a hole in the center of the edge sheet using a 3 mm drill bit. Drilling position: 10 mm below the upper edge of the lid cover.
- C. Screw the self-drilling screw through the side edge plate into the wall of the edge sheet until it fits completely.

### Cutting the side Edge sheet with screwed Edge lid cover



#### Required components:

- PV-Module, Edge sheet with screwed edge lid cover

#### Required tools:

- Metal saw (for cutting)

Edge sheets (blue in drawings) must be cut so that – including the inserted Edge lid cover – they match exact vertical length of the PV module (single module portrait/landscape) or the combined height of two stacked landscape modules.

## 2.19 Edge Sheet Preparation and Installation, Including Corner Fastening (Variant 1 Module Landscape / 1 Module Portrait)

### Edge sheet drilling for Corner Fastening

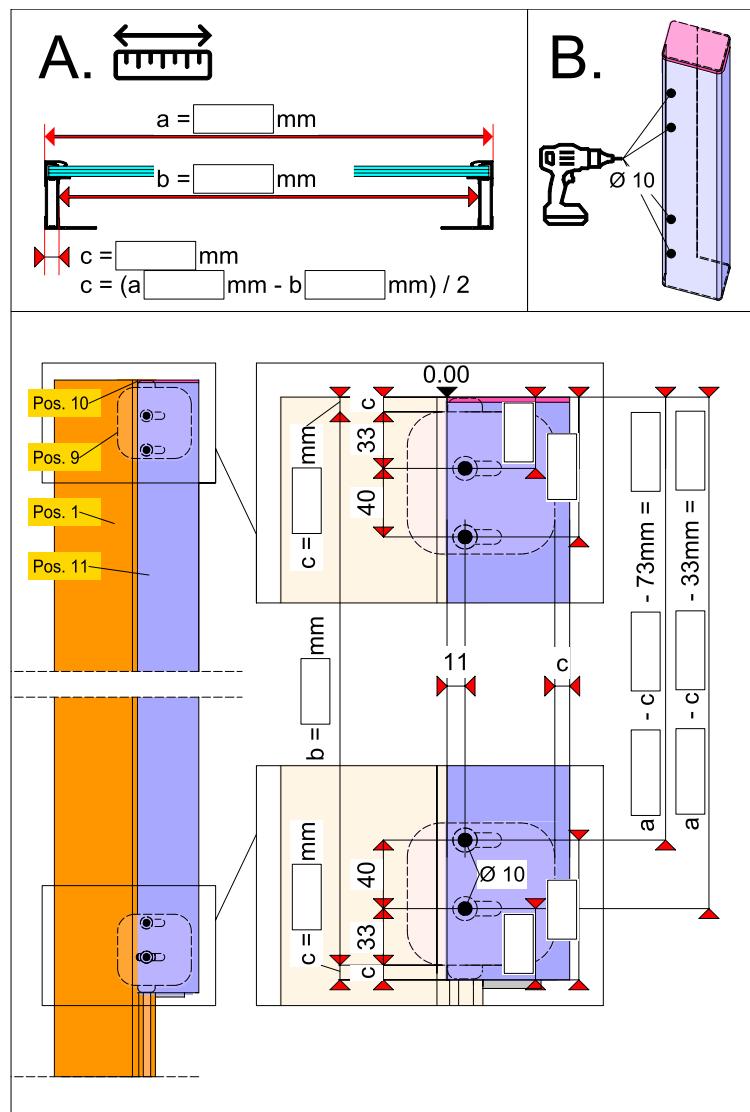
Required components: Edge sheet, Edge cover set

Required tool: Measuring tape, drill with 10 mm metal drill bit, center punch

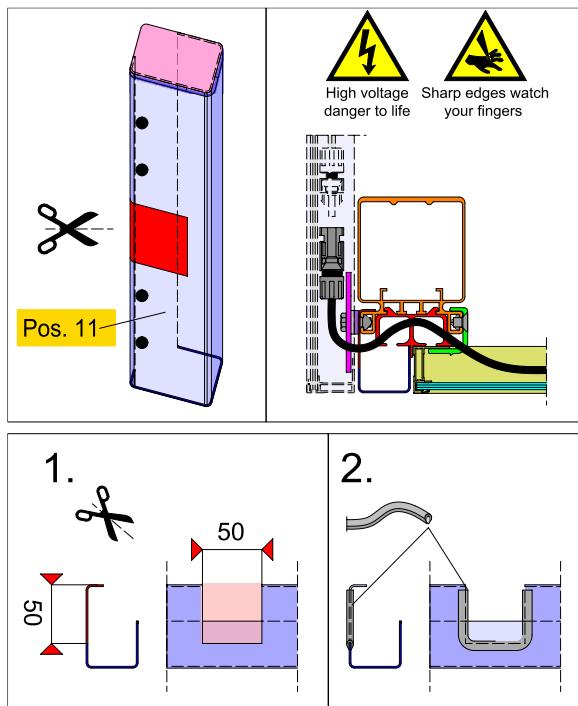
#### Mounting steps:

- Measure module dimensions & calculate frame thickness:** Record outer dimension (a): measure the vertical outer edges of the PV module. Record inner dimension (b): determine the corresponding inner dimension of the PV module. Calculate frame thickness (c).  

$$c = (a \text{ mm} - b \text{ mm}) / 2$$
- Transfer drilling position to Edge sheet & drill Edge sheet:** Using the calculated dimensions (c), transfer the drilling positions for the corner fastening to the Edge sheet according to the drawing. Mark drilling points with the center punch, then drill with a 10 mm metal drill bit.



## Edge sheet Notching for Cable Routing



**Required components:** Edge sheet with Edge lid cover, Edge protector

**Required tools:** Sheet metal shears

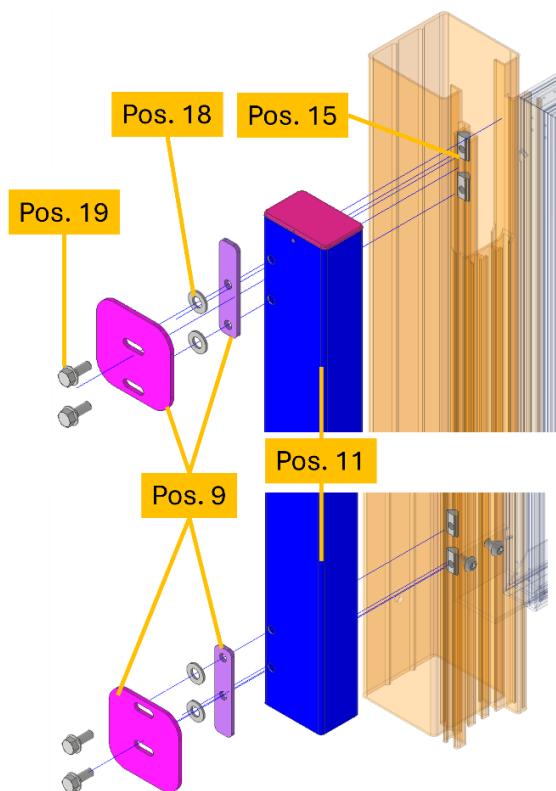
### Steps:

- A. Depending on the junction box position, the Edge sheet must be notched in a suitable location so that easier cable route through the sheet is possible.
- B. The notch should be approximately 50 mm × 50 mm (see figure).
- C. The notched area must be fitted with the supplied edge protection strip.
- D. Ensure that the PV module cable never contacts sharp edges to avoid damage.

### Safety instruction:

- Work on cables and connections may only be carried out by qualified electricians.
- Sharp metal edges can cause injuries – wear protective gloves.

## Fastening Corner Fixture Set



**Required tools:**

Socket wrench set, folding ruler, measuring tape

### Required components:

Edge sheet, slot nuts, corner fastening (spacer plate, clamping plate), washers, hex bolts

### Mounting steps:

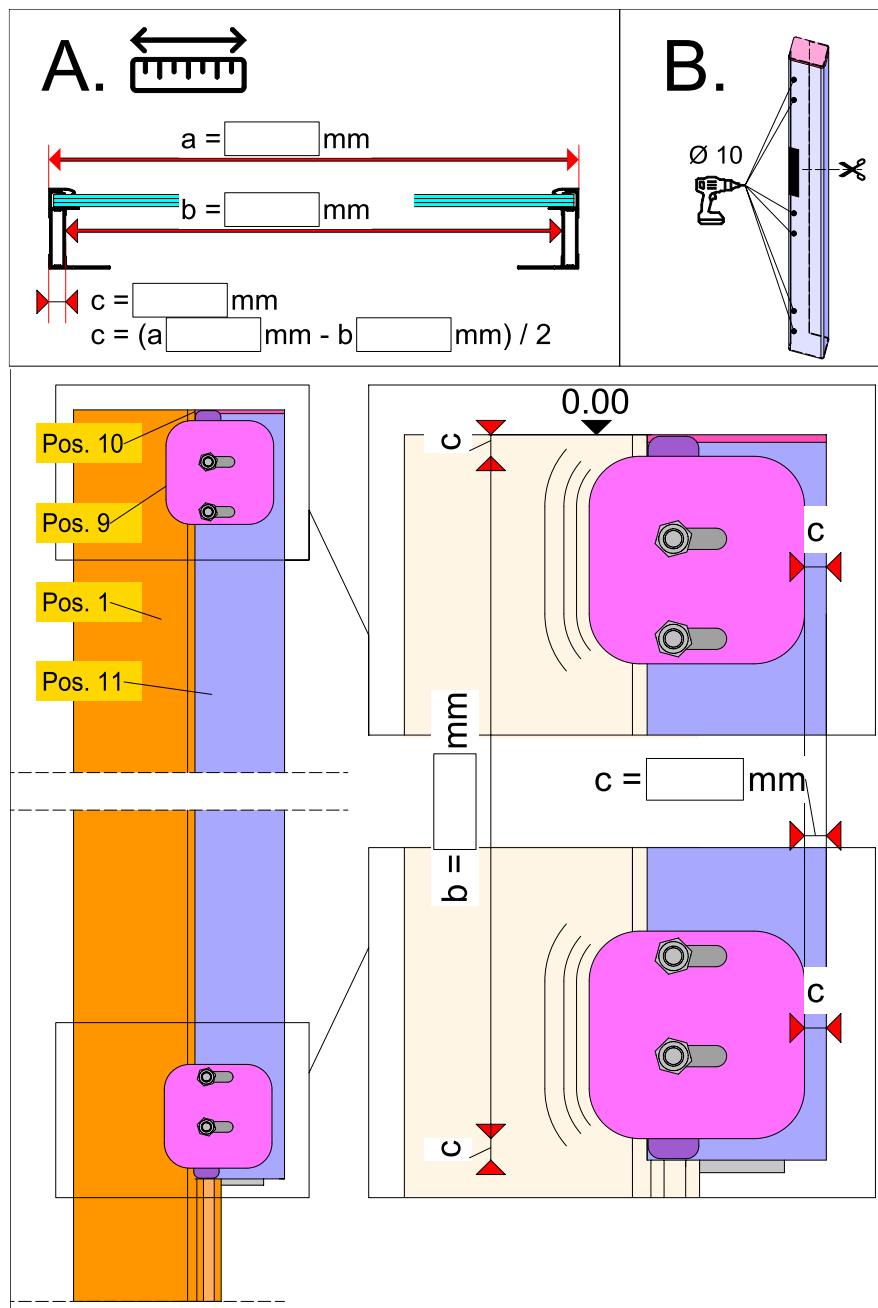
- A. **Preparation:** Insert or snap slot nuts into the side screw channel of the post. Position slot nuts so they align with the drilled holes in the Edge sheet.
- B. **Assembly:** Screw the corner fastening (consisting of spacer plate, washers, and clamping plate) to the Edge sheet according to the left-hand illustration. Consider the mounting direction of the clamping plate (top/bottom)

## Horizontal Alignment of the Corner Fastening set

**Required tools:** Spirit level, folding ruler, wrench

### Mounting steps:

- Align the corner fastening horizontally so that it is mounted at a distance equal to the module frame thickness "c" from the outer edge of the Edge sheet (see drawing).
- Position and fix the corner fastening: Move the corner fastening into the intended position and tighten bolts. Ensure the fastening is perfectly horizontal. Check with the spirit level.

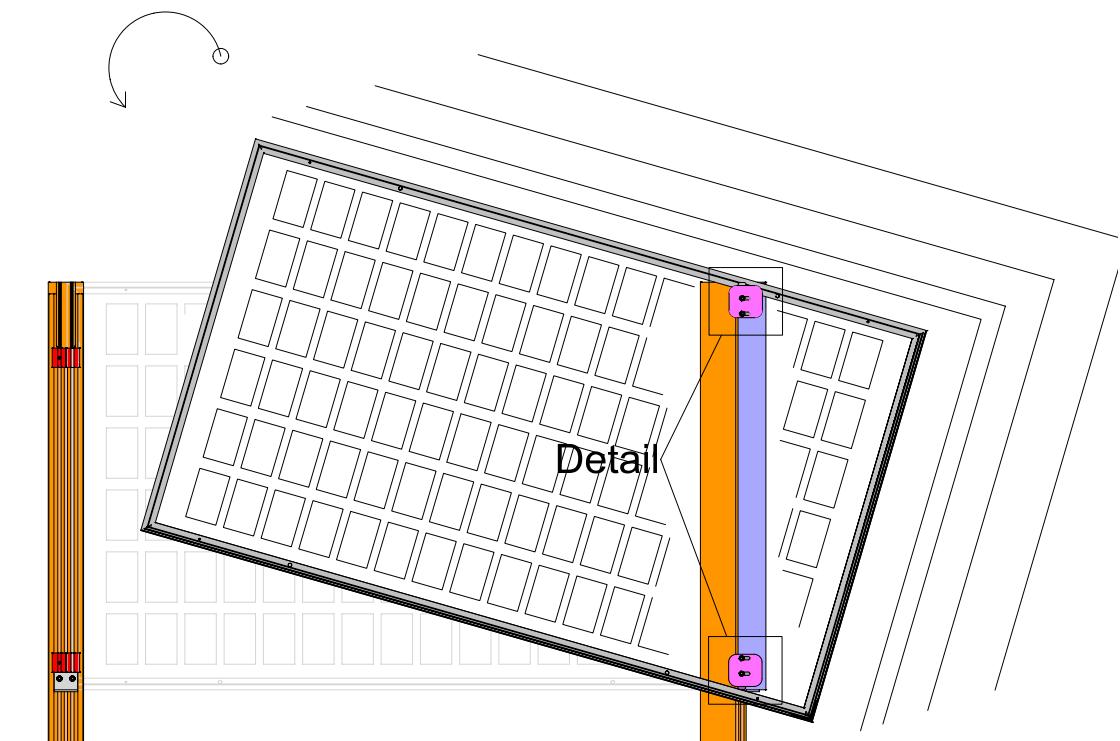


## 2.20 Mounting PV Modules at the Corner (1 Module Landscape / 1 Module Portrait)

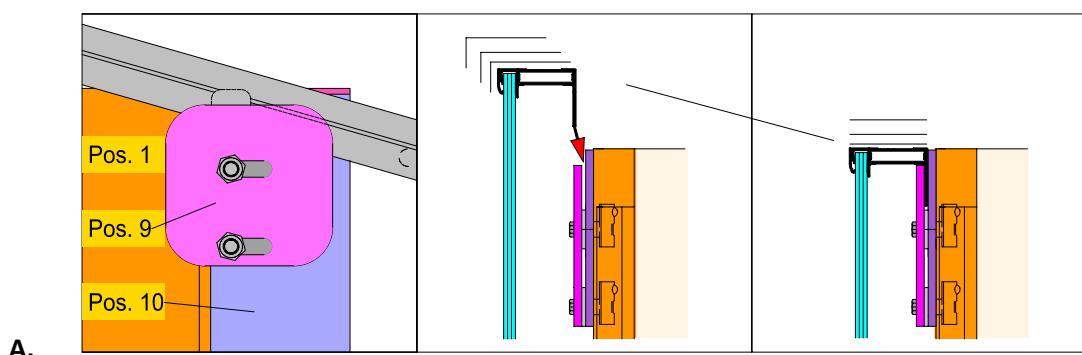
### PV modules mounting

When both vertical and horizontal corner fastenings are correctly aligned and fixed, the PV modules can be inserted.

- A. Hang the PV module with its upper frame flange into the upper corner fastening between base plate (purple) and holding plate (pink) (see detail drawing).
- B. Guide the lower frame edge into the bottom corner bracket, again between the support and clamping plate.
- C. Gently rotate the module until it reaches its final horizontal position.
- D. Ensure that the PV module is securely seated in both the upper and lower corner connectors.

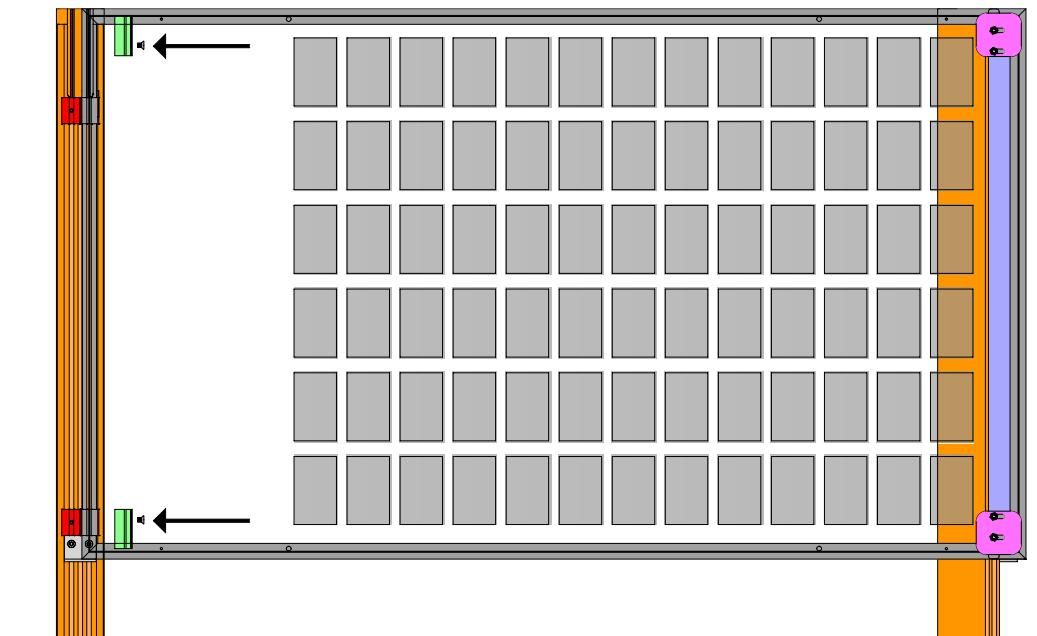


Detail



### Fixing the Corner PV Modules on to the Post

- A. Once the PV module is securely positioned in the upper and lower corner connectors on one side, it can be fixed to the opposite post as described in Chapter 2.15.
- B. Place the PV module on the L-bracket so that the back of the frame rests against the bearing surfaces of the module ports.
- C. The protruding web of the module ports must securely grip the side frame of the PV module.
- D. Once correctly positioned, the module is securely fixed to the post with the designated module clamps.



## 2.21 Processing the Edge sheets and Assembly with Corner Connectors (Variant: 2 Modules Landscape Stacked)

**Required components:** Edge sheet, corner fastening set

**Required tools:** Measuring tape, drill with 10 mm metal drill bit, center punch

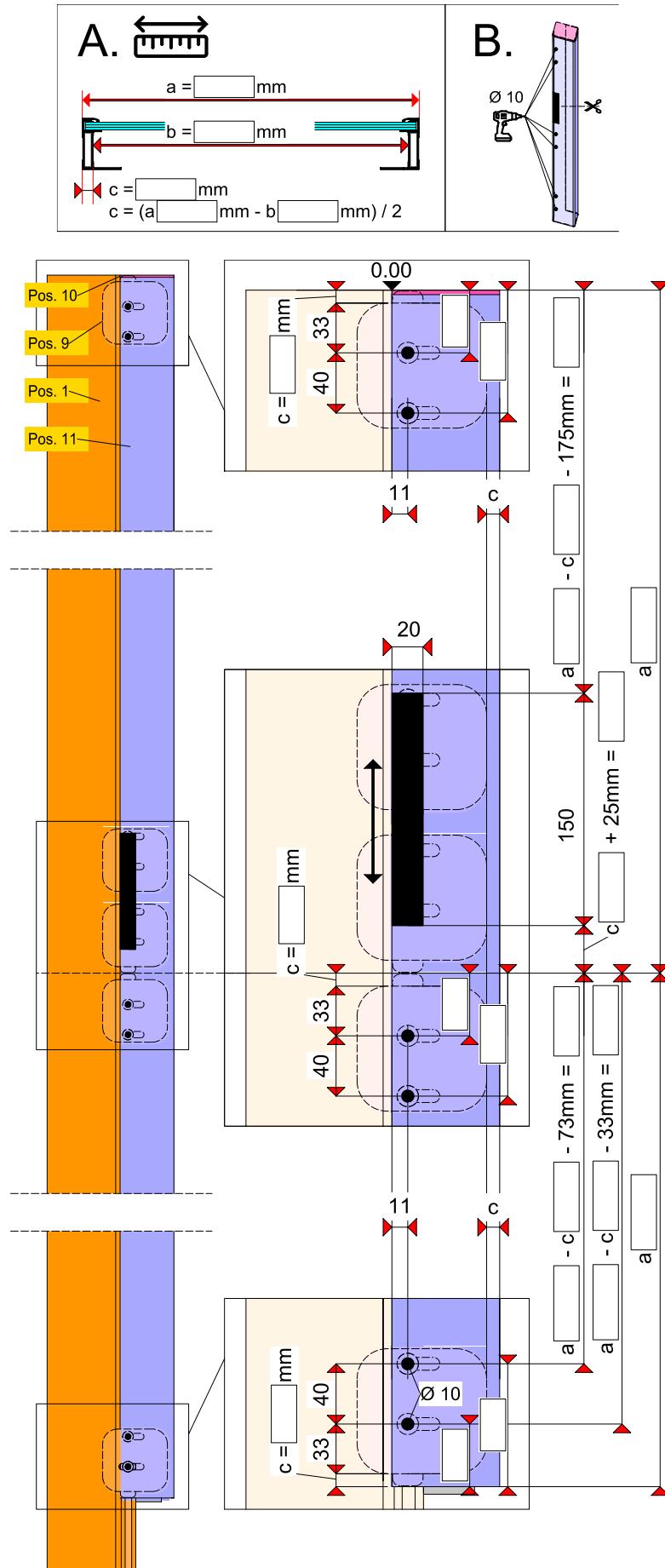
#### Steps:

##### A. Measure module dimensions & calculate frame thickness:

- Record outer dimension (a): Measure the vertical outer edges of the PV module.
- Record inner dimension (b): Determine the corresponding inner dimension of the PV module.
- Calculate frame thickness (c).

##### B. Transfer drilling position to side edge plate & drill side edge sheet:

- Using the calculated dimensions (c), transfer the drilling positions for the corner fastening to the side edge sheet according to the drawing.
- Mark the drilling points with a center punch and drill holes with a 10 mm metal drill bit.



## Cutting Edge Sheet for Cable Routing

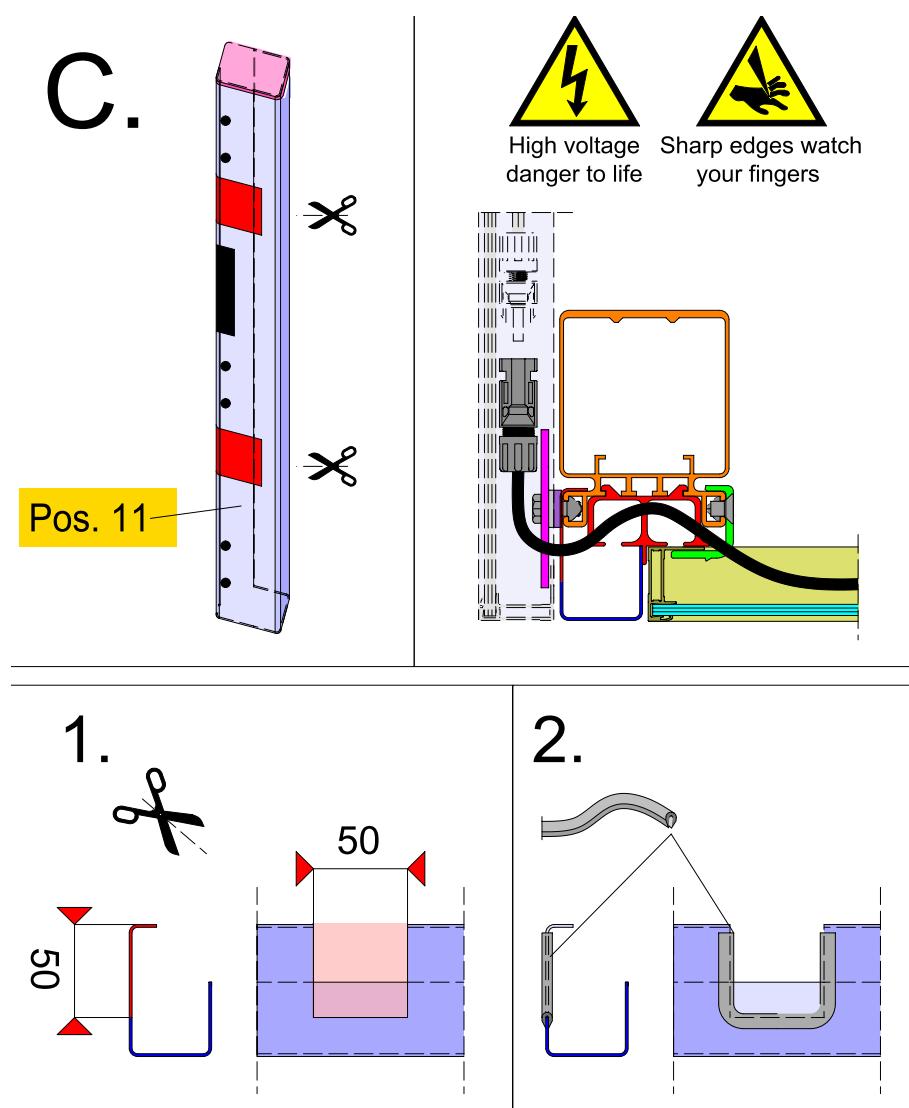
**Required components:** Edge sheet with cover cap, edge protector  
**Required tools:** Sheet metal shears

### Steps:

- A. Depending on the position of the junction box, cut two notches into the edge sheet to allow safe passage of the cables.
- B. Each notch should be approx. 50 mm × 50 mm.
- C. Notched areas must be fitted with the supplied edge protector.
- D. Ensure cable never touches sharp edges or is damaged.
- E. Additionally, cut an extra notch in the marked black area (see calculation) to keep the second upper corner fastening adjustable.

### Safety note:

- Only a licensed electrician is permitted to perform work on cables and connections.
- Sheet metal edges may be sharp and cause injury – always wear protective gloves when handling.



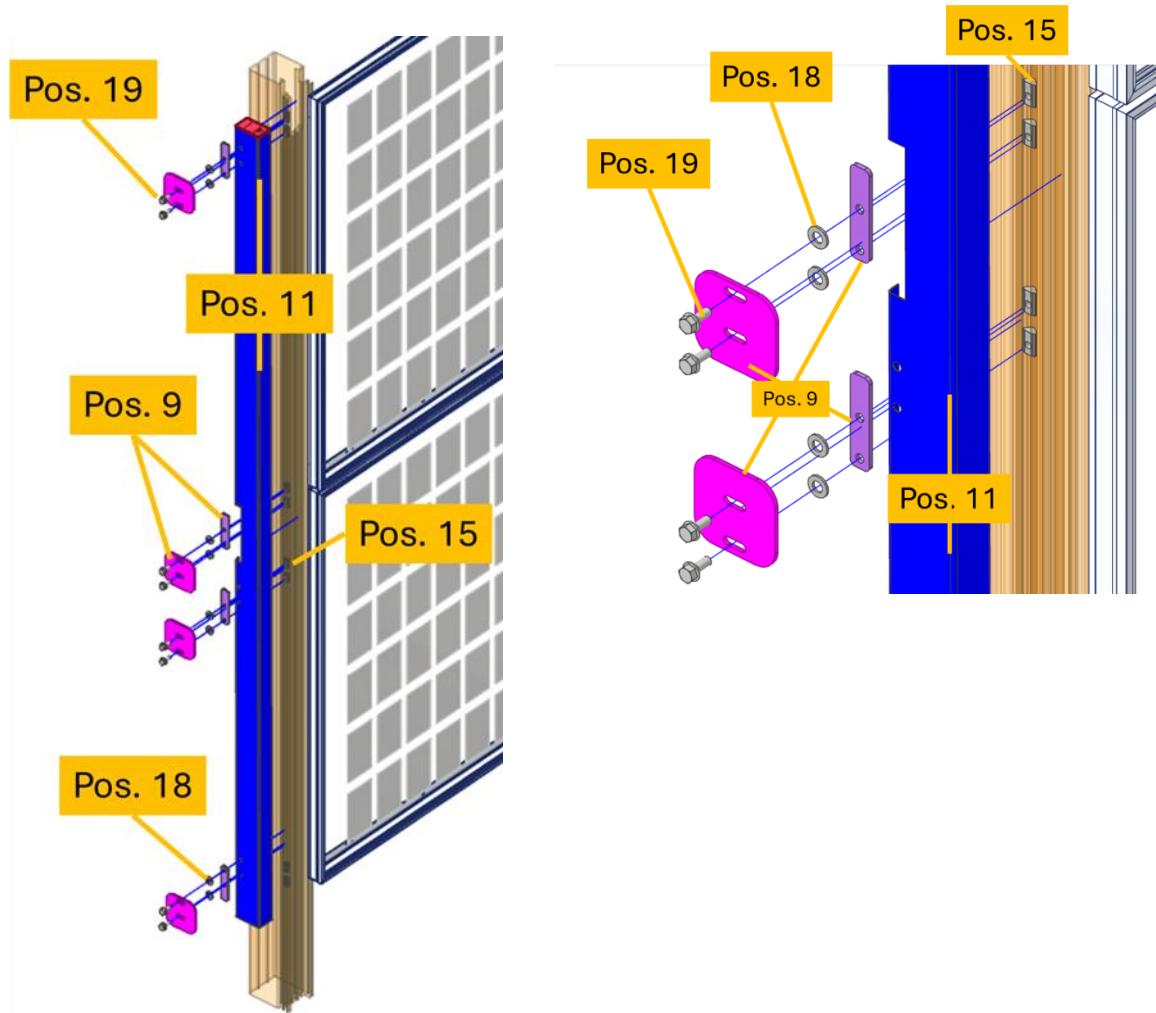
## Fastening Corner Connector Set

**Required tools:** Socket wrench set, folding rule, measuring tape

**Required components:** Side edge plate, slot nuts, corner fastening (spacer plate, clamping plate), washers, hexagon bolts

### Steps:

- A. **Preparation:** Insert or snap the slot nuts into the side screw channel of the post. Position the slot nuts so that they align with the holes in the side edge plate.
- B. **Assembly:** Screw the corner fastening (consisting of spacer plate, washers, and clamping plate) to the side edge sheet as shown on the left. Consider the installation direction of the clamping plate (top/bottom).



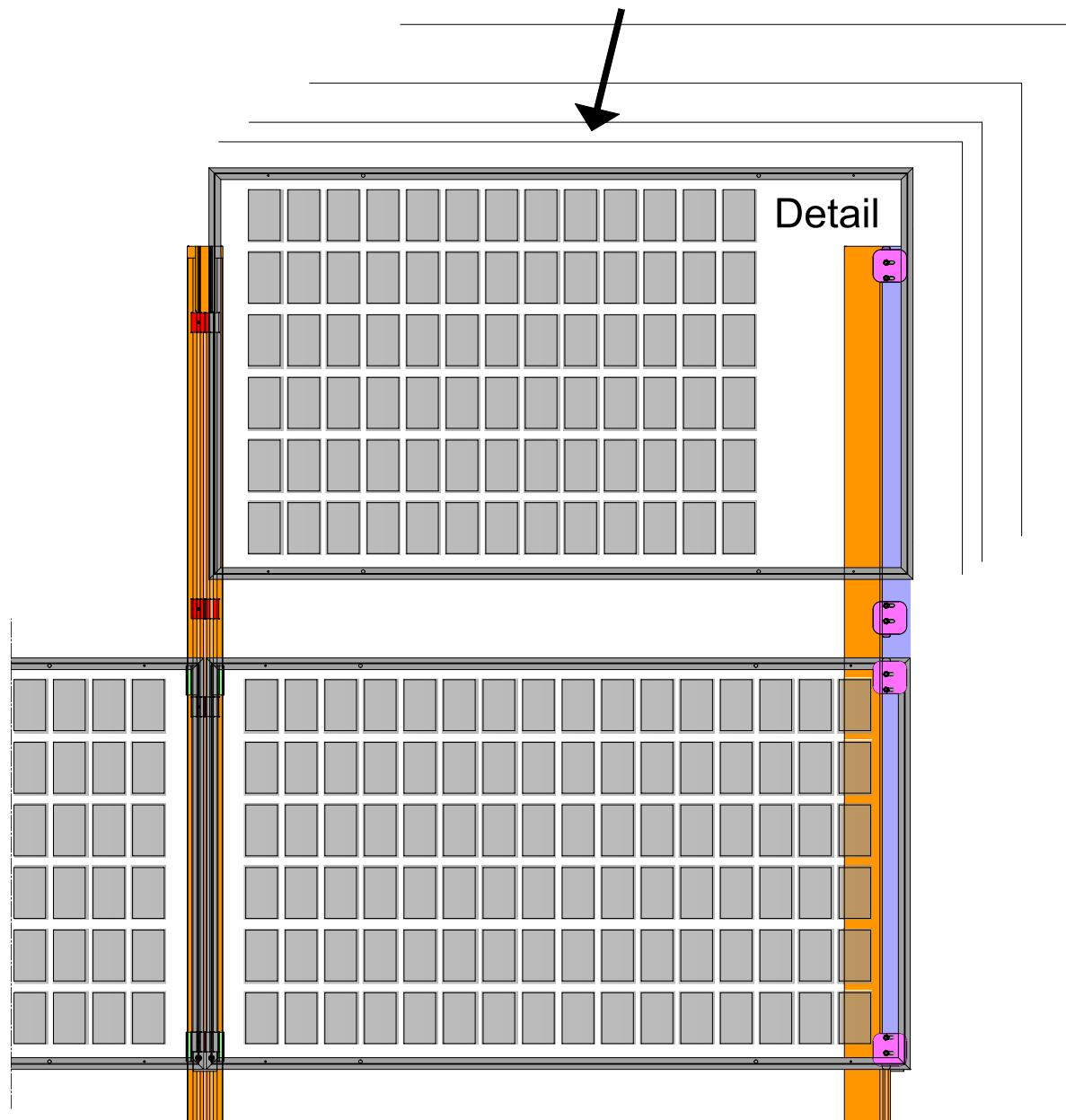
## 2.22 Installing PV Modules on the Corner Connectors (2 Modules Landscape)

### PV modules mounting

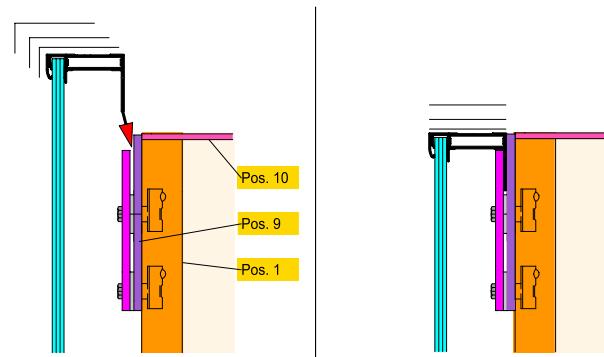
The following installation steps must always be carried out by two people. Once the corner fastenings are correctly aligned both vertically and horizontally, the PV modules can be installed.

#### Mounting steps:

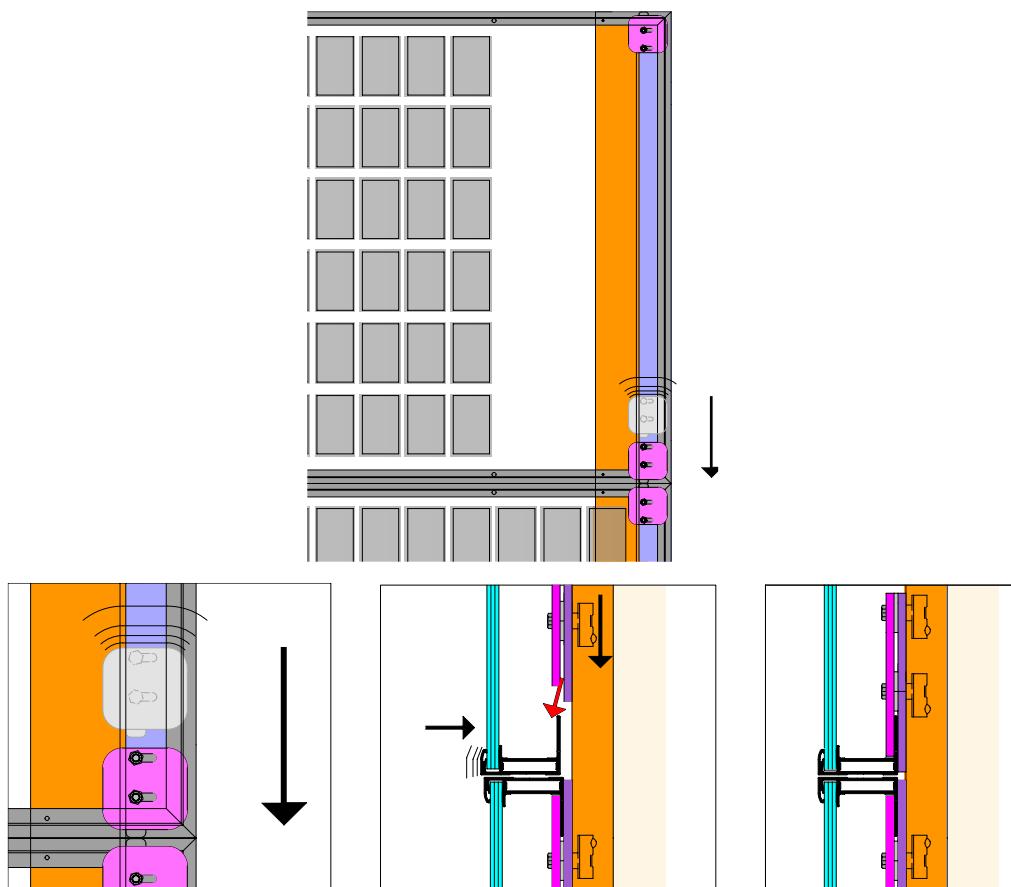
- A. Mount the lower PV module onto the aligned corner brackets, following the procedure outlined in Section 2.20.



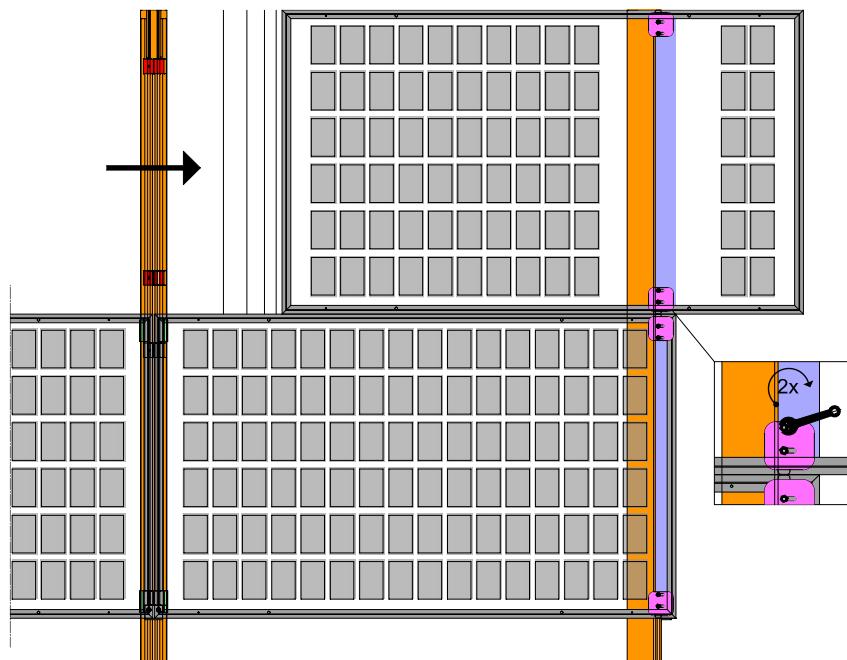
- B. Hook the upper PV module with the frame leg into the designated corner bracket. Ensure that it rests correctly on top of the lower PV module.



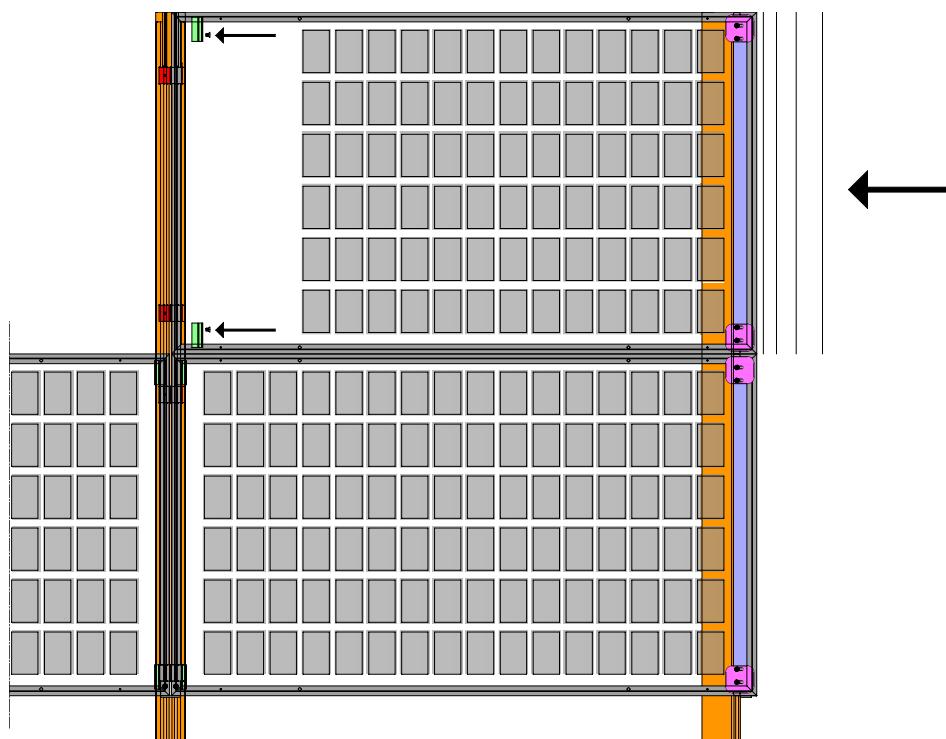
- C. Slide the lower corner bracket downward until it presses firmly against the inside of the module frame, securing the upper PV module in place.



- D. Push the upper PV module slightly forward so the **hex bolts** of the lower corner bracket are accessible with an open-end wrench. Once the bracket is correctly aligned horizontally and sits firmly against the inside of the lower frame leg, fully tighten the bolts.



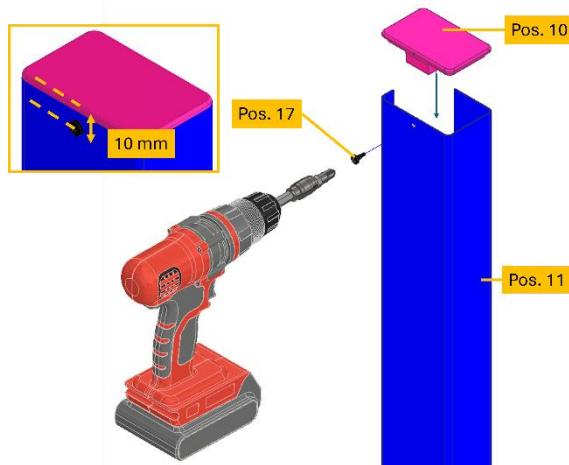
- E. Once the PV module is securely positioned on one side in both the upper and lower corner fastening, it can – as described in Chapter 2.15 be mounted on the opposite post. To do this, push the PV module back until it rests against the module port and can be securely fastened to the post using module clamps.



## 2.23 Fixing Edge Sheets (Fence End)

Side edge sheet provide cladding and ensure a clean and visually appealing end finish for the solar fence.

### Fastening the corner cover to the side edge plate



#### Required components:

- 1x Side edge plate
- 1x Side edge cap
- 1x Self-tapping screw 3,5 × 9,5 mm

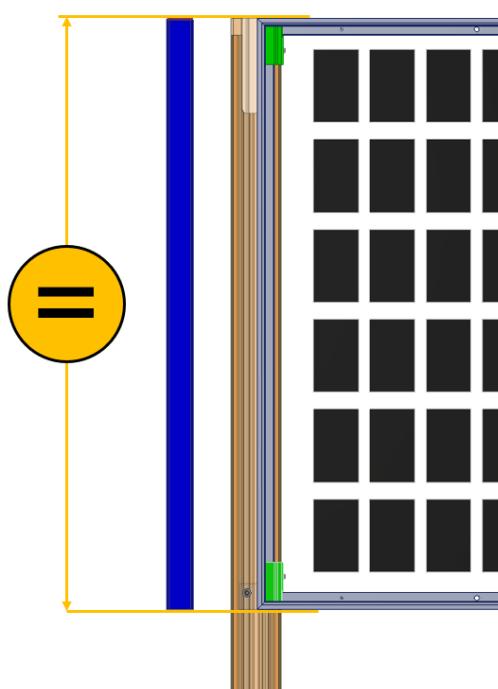
#### Required tools:

- Electrical screwdriver with cross-slot bit PH XX

#### Steps:

- Slide on:** Slide the corner cover cap from above onto the side edge plate until it sits firmly.
- Positioning:** Place the self-tapping screw in the center of the side edge plate surface. Position: 10 mm below the upper edge of the corner cover.
- Fixing:** Screw the self-tapping screw through the side edge plate into the wall of the corner cover cap and secure it.

### Cutting the side edge plates



#### Required components:

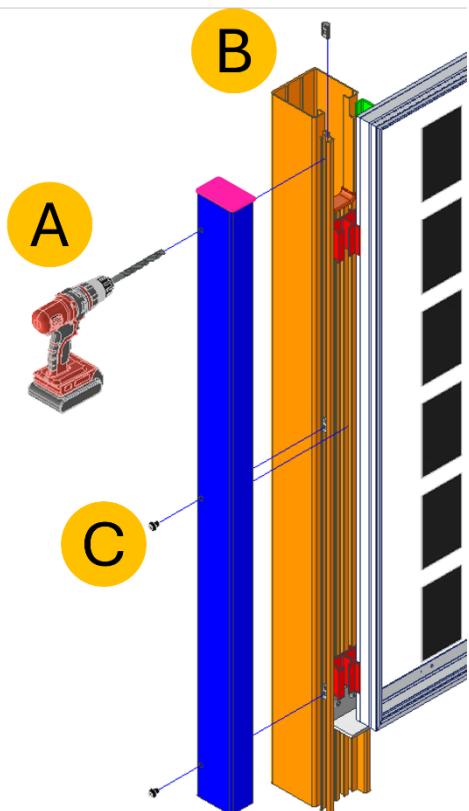
- PV-Module, Side edge sheet, Corner cover cap

#### Required tools:

- Hacksaw

The side edge sheet (blue) must be cut to a length that exactly matches the vertical length of the PV module (for single crosswise or portrait installation) or the combined length of two modules (for double crosswise installation), including the inserted cover cap.

## Drilling & fastening the side edge plate



### Required tools:

Electrical screwdriver with 9 mm metal drill bit

### Required tools and components:

3x Slot nuts

3x Screws M8x10

1x Side edge plate (blue)

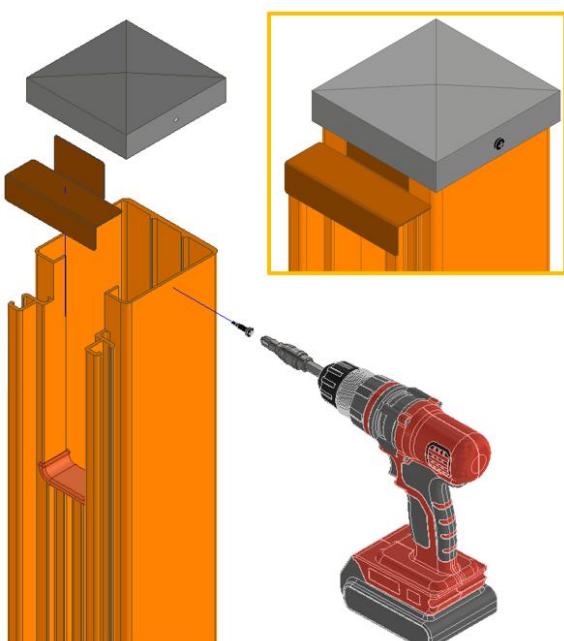
### Steps:

- Pre-drilling:** Pre-drill the side edge plate symmetrically in three places with a 9 mm drill bit. The center of each hole should be offset 10 mm from the outer edge of the short leg.
- Positioning:** Insert three slot nuts into the side screw channel of the post until their threads align with the drilled holes.
- Fastening:** Fasten the side edge plate to the post using three M8x10 screws.

### Note:

The side edge plate must be cut 3 mm shorter than the vertically mounted PV module or two vertically stacked modules. This ensures a clean finish with no overhang when the corner cover cap is mounted.

## 2.24 Fastening the cover plate and top cover cap



### Required components:

- Electric screwdriver
- 1x self-tapping screw 3,5 x 9,5
- 1x front cover plate
- 1x post cap

### Mounting steps:

- Mount front cover plate:** Slide the cover plate from above into the post profile until it is fully inserted and straight, as shown in the illustration.
- Mount post cap:** Place the top cap from above onto the post.
- Fasten cover cap:** Screw the self-tapping screw through the cover cap into the hole in the post and secure it.

## 2.25 System Grounding

### Protective Equipotential Bonding of the PV Modules with Solar Posts

#### Important Note:

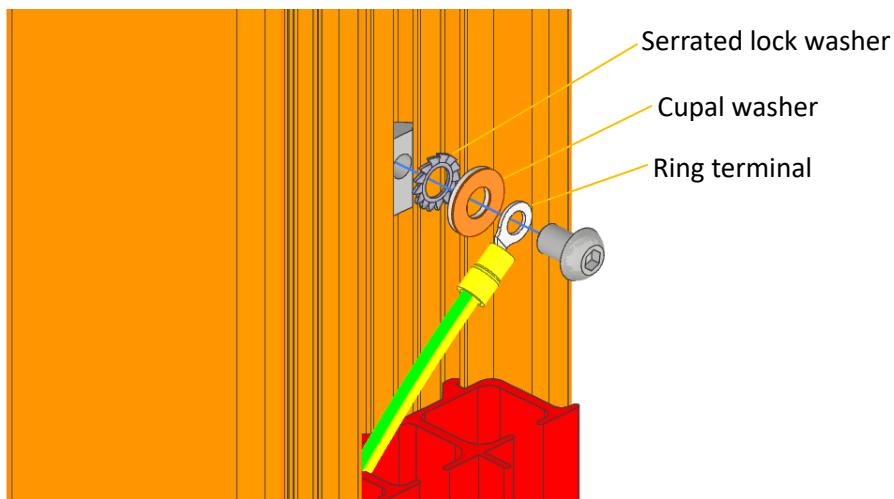
ClickCon only supplies a protective earthing connection cable for connecting each PV module to solar posts.

- A conductive connection between the solar posts and the post anchors, as well as the grounding of the entire solar fence, is **not** part of the ClickCon system.
- The planning, provision, design, installation, measurement, and documentation of these measures must be carried out on-site by **qualified electrical professionals**.
- ClickCon assumes no liability for the planning, execution, installation, testing, or compliance with legal regulations.

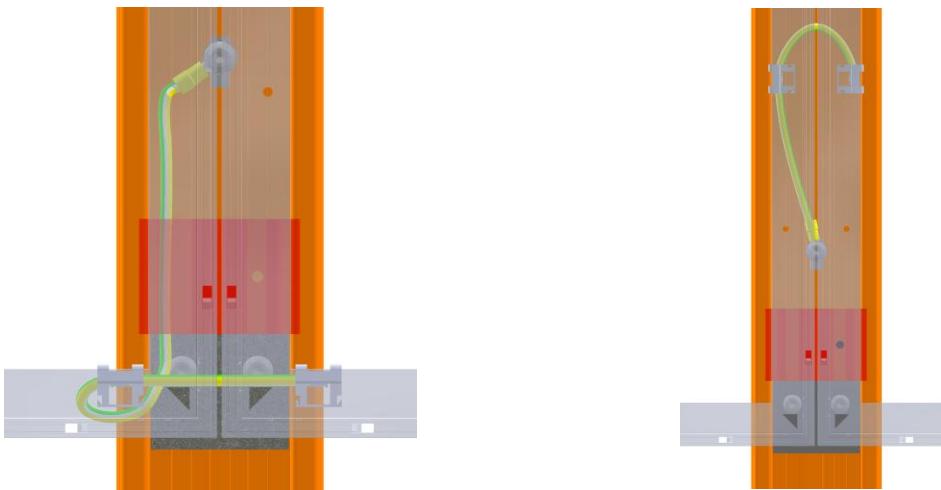
**Required Material:** Protective equipotential bonding cable with ring terminals and grounding clamps (connection PV module ↔ solar post).

#### Installation steps:

- A. The supplied bonding cable is conductively attached to the solar post using its ring terminal and the included serrated lock washer. The **copper-plated side (orange side)** must face the ring terminal, while the **aluminum face (gray side)** must face the serrated lock washer. Please ensure that the connection is not made the other way around, as this would increase the risk of corrosion. ClickCon recommends tightening the screws annually to ensure a secure connection.



- B. Then the cable is connected to the frame of the PV modules using grounding clip components. Depending on the module design, the clamps can be attached either to the horizontal or vertical frame sections of the PV modules. Ensure that all connections are secure, conductive, and show no visible damage. A **qualified electrical professional** must perform final inspection and measurement.



#### Additional requirements (on-site)

- The solar fence must be connected to at least one suitable grounding rod in accordance with applicable standards. This is not included in the delivery.
- All work on electrical components must be carried out exclusively by qualified electrical professionals.
- Relevant standards (especially national and local regulations, and manufacturer specifications) must be observed during planning and execution.
- For connections between cables and fence structures, materials that are permanently suitable must be chosen. The electrochemical series must be considered to avoid contact corrosion.
- Suitable components (e.g., lightning protection and earth components from other manufacturers) must be procured on-site.

#### Disclaimer:

ClickCon GmbH & Co. KG only supplies the bonding cable for connecting PV modules and solar posts. All further grounding measures are the responsibility of the executing company or electrician. ClickCon accepts no liability for planning, execution, installation, testing, or compliance with standards.