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Assembly Instruction

## COMPACTPITCH XT-R

Version : 3.1

Language : English

Important! Read carefully before installation!

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## **Legal Notice**

Subject to change due to technical modifications! These assembly instructions correspond to the technical status of the delivered product and not to the current development status at the manufacturer. If pages or parts of the assembly instructions are missing, please contact the manufacturer's address given below. The original language of these assembly instructions is German. Any assembly instructions in another language are a translation of the assembly instructions in German. Therefore, in case of doubt or contradiction, the authentic German version shall prevail. The installation instructions are protected by copyright. The installation instructions may not be copied, reproduced, microfilmed, translated or converted for storage and processing in computer systems, either in part or in full, without the written permission of AERCOMPACT Europe GmbH

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## **Creation date**

10/2024

# TOC

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<b>General</b> .....	<b>4</b>
Applicable documents .....	4
Limitation of liability .....	4
Explanation of symbols .....	4
<b>Safety</b> .....	<b>5</b>
Appropriate use .....	5
Personnel requirements .....	6
Working safely .....	6
Breakthrough protection .....	7
Personal protective equipment (PPE) .....	7
<b>System overview</b> .....	<b>8</b>
Basic components .....	8
System accessories .....	9
Mounting rails and accessories .....	9
Module accessories .....	9
Potential equalization .....	9
<b>Assembly</b> .....	<b>10</b>
Assembly preparation .....	10
Required tools for assembly .....	10
Measure the area .....	10
Align XT-R roof hook .....	11
Assembly preparation .....	11
Evaluate installation height .....	12
Mount XT-R roof hook .....	15
Mount base plate and bracket .....	15
Decentralized mounting of the base plate .....	16
Mount ground plate bridge (optional) .....	17
Re-complete the on-site roof covering .....	19
Mount XM-B metal replacement tiles (optional) .....	20
Rail connector .....	21
Mount rail .....	22
Installing modules .....	24
Assemble mounting rail in cross connection .....	26
Cable management .....	27
MLPE for mounting Mounting rail (optional) .....	31
Potential equalization .....	32
<b>Maintenance, disassembly and disposal</b> .....	<b>34</b>
Maintenance .....	34
Disassembly .....	34
Disposal .....	34
<b>Appendix</b> .....	<b>35</b>
Declaration of performance XT-R .....	35
Revision history .....	35

# GENERAL

These assembly instructions describe the assembly procedure and must be strictly adhered to. Read these installation instructions carefully before starting installation. The basic prerequisite for safe working is compliance with all the safety and handling instructions in these installation instructions. In addition, the local accident prevention regulations and general safety regulations for the area of application of the product apply. Illustrations in these instructions are for basic understanding and may differ from the actual design.

## APPLICABLE DOCUMENTS

In addition to this manual, you have received an AEROTOOL project report, planning documents and drawings. Always comply with the instructions and notes contained therein.

## LIMITATION OF LIABILITY

All information and instructions in these assembly instructions have been compiled taking into account the applicable standards and regulations, the state of the art and our many years of knowledge and experience. Liability provisions are stated in our **terms** and can be accessed at [www.aerocompact.com/downloads](http://www.aerocompact.com/downloads).

## EXPLANATION OF SYMBOLS

### SYMBOLS FOR INSTRUCTIONS



Prerequisites for action instruction



Results of action steps



Step by step action instruction



This note provides useful information for smooth installation

### SYMBOLS IN ILLUSTRATIONS - ACTIVITIES



Optional component, optional mounting variation



Activity by hand



Check AEROTOOL project report or planning documents



Visual inspection



Observe right angle

### SYMBOLS IN ILLUSTRATIONS - TOOLS



Measuring tape, measure



Pencil, mark



Chalk line



Scissors, tin snips, cut to size



Cordless screwdriver, screwdriver



Use a torque wrench, Observe torque



Use Allen key

# SAFETY

The following list serves as an indication of the most common safety risks that can occur when installing these products. There is no liability for the completeness of the risks presented. A specific check of the necessary safety measures must be carried out by an authorized specialist company before installation.

## APPROPRIATE USE

The CompactPITCH pitched roof system is intended exclusively for the installation of PV modules on tiled roofs or similar roof coverings. Proper use also includes correct installation in accordance with these installation instructions. Approval from the module manufacturer is required for the use of PV modules with the CompactPITCH system. AEROCOMPACT accepts no liability for loss of performance or damage of any kind to the PV modules. Any other use of the CompactPITCH system is considered improper use. Do not enter the mounting rails during installation. It is strictly forbidden to place any objects, such as pallets, on the mounting rails.

### ENSURING TIGHTNESS DURING INSTALLATION

**i** The following instructions are essential to ensure that the roof is watertight during the installation of roof hooks and hanger bolts and to prevent subsequent damage due to leaks.

**Correct positioning:** Roof hooks and hanger bolts must be positioned exactly in accordance with the planning documents and local building regulations. Incorrect positioning can impair the roof waterproofing and lead to water ingress. It is particularly important to look out for sharp-edged or protruding noses on roof tiles, which may need to be removed to ensure tightness - this applies especially when using replacement roof tiles.

**Correct torque setting:** Great care must be taken when tightening the fastening screws of both the roof hooks and the hanger bolts. Excessive tightening can damage the roof waterproofing and cause leaks. It is essential to adhere exactly to the torques specified in these installation instructions in order to maintain the structural integrity of the roof and the seal.

**Final check and inspection:** After the roof hooks and hanger bolts have been installed, a comprehensive inspection of the installed components must be carried out. Pay attention to damage to sealing materials or potential leaks. Incorrect installation can cause serious consequential damage to the building fabric and interior fittings.

**Legal notice:** By adhering to these installation instructions, responsibility is assumed for the correct installation of roof hooks and hanger bolts in accordance with regulations. Damage, in particular due to improper installation and resulting leaks, may result in liability claims. Careful observance of these recommendations makes a decisive contribution to the longevity and tightness of the roof.

### NOTE ON THE PROCESSING OF THIN SHEET METAL SCREWS

**i** The attachment of thin sheet metal screws with impulse or impact screwdrivers is not permitted. The high speeds can cause damage to the screw bodies, the flashing and the sealing. Thin sheet metal screws may **only** be used **once**, as their performance is not guaranteed if they are reused.

- Apply pressure to the thin sheet metal screw and screw in at low speed (< 500 rpm).
- Then reduce the pressure and screw in the thin sheet screw at a higher speed.

## PERSONNEL REQUIREMENTS

Installation may only be carried out by a specialist company and must be carried out strictly in accordance with the installation instructions, the project report and the planning documents. A specialist company is a company that is familiar with the installation and maintenance of photovoltaic systems as part of its normal business operations. National and local building regulations, standards and environmental protection must be complied with. Under no circumstances may the assembly personnel be under the influence of medication, alcohol, drugs or in any other condition that impairs consciousness (e.g. overtiredness). Trainee personnel may only carry out work under the instruction and supervision of specialist personnel who are authorized to train personnel.

## WORKING SAFELY

The contractual partner must ensure that the necessary safety measures and the relevant labor law and occupational safety regulations are observed when installing products from AEROCOMPACT Europe GmbH. Information from AEROCOMPACT Europe GmbH on the need to comply with security measures is provided without guarantee and without any claim to completeness and serves only to support the contractual partner. The contractual partner is obliged to inform himself about all relevant regulations concerning working safety and to comply with them. AEROCOMPACT Europe GmbH expressly assumes no responsibility and consequently no liability. Areas below the roof on which work is being carried out must be protected from falling objects. Where this is not possible, the affected areas must be closed to the public and unauthorized personnel. If the weather is unsuitable, work on the roof must not be continued for longer than necessary or must not be started at all. Never carry out installation work in strong winds. Strong winds exert particular enormous forces on the large-area PV modules. There is a risk of a module being torn off the roof and people being injured. Never work in wet conditions or at temperatures below freezing. Depending on the roof pitch, there is a risk of slipping. Only use suitable, intact and tested ladders. Set up and secure ladders according to specifications. Separate rules apply to mechanical climbing aids (elevators, cherry pickers, etc.). Never use the PV mounting system as a climbing support. Keep sufficient distance from overhead power lines. Equipotential bonding between the individual system components must be carried out in accordance with the respective country-specific regulations. When cutting materials to size, make sure there are no burrs, especially on edges and corners where there is a risk of injury.

# BREAKTHROUGH PROTECTION

Roof windows, skylights, large ventilation flaps, etc. generally cannot withstand the weight or impact of a person. Such objects must be secured in a similar way to the roof edge. Corrugated fiber-cement roofs can be at risk of breakthrough over the entire surface. Define routes and secure them with load distribution measures. Always use load distribution aids on roof coverings or roof structures (e.g. thin sheet metal, corrugated fiber cement) with insufficient load-bearing capacity.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal protective equipment is used to protect people from health and safety hazards at work. Personnel must wear personal protective equipment during installation. Personal protective equipment is explained below:



**Wear safety goggles when drilling and sawing**



**Wear cut-resistant work gloves during assembly**



**Wear safety shoes**



**Use fall protection**



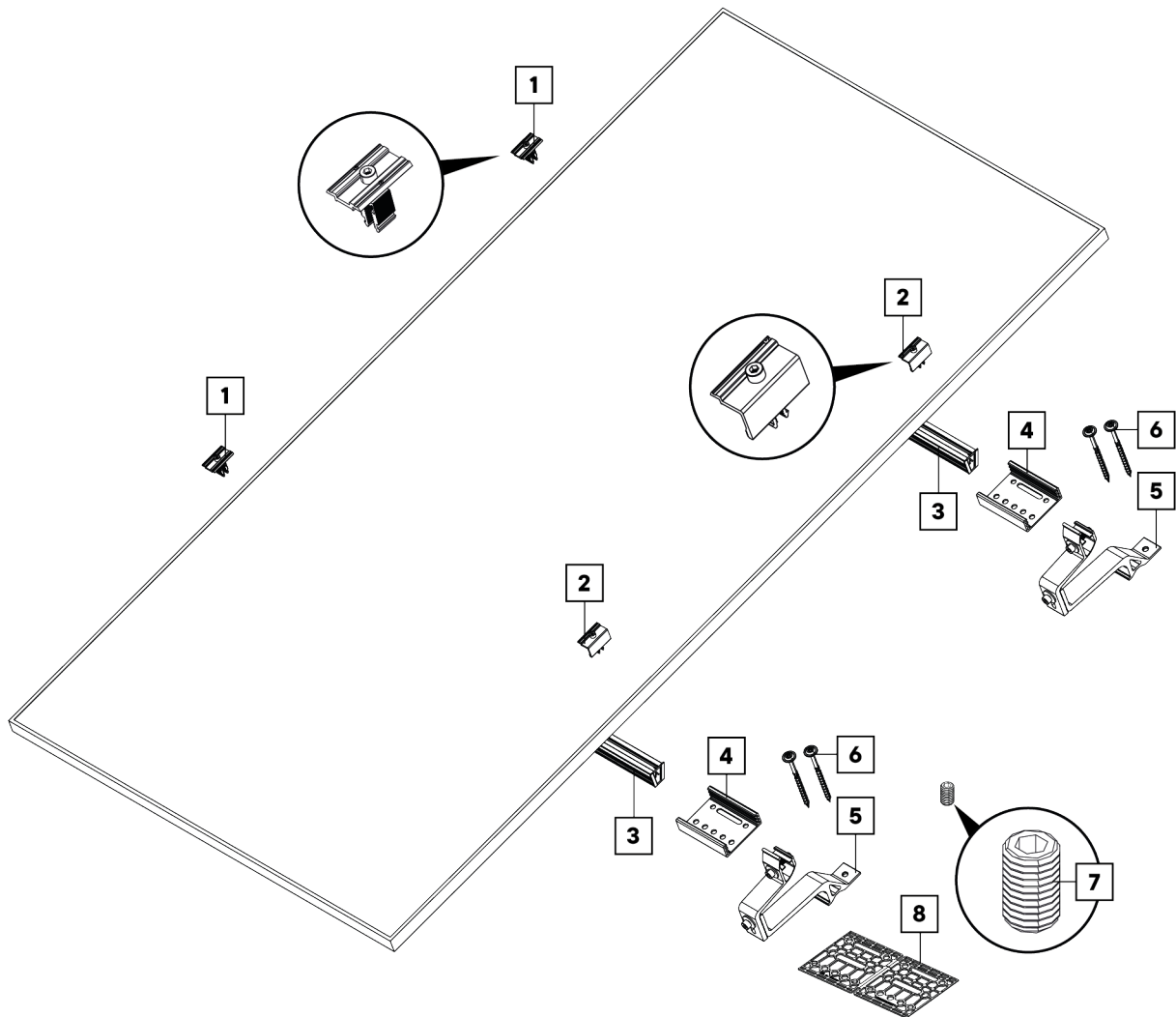
**Helmets must be worn by all persons working on the construction site**



**Wear hearing protection**

# SYSTEM OVERVIEW

## BASIC COMPONENTS



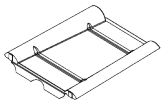
- 1 CLM10**  
Middle clamp Click 30 - 46 mm
- 3 X40 | X50 | X60**  
Mounting rail
- 5 XT-R**  
Roof Hook
- 7 GSC10x30**  
Grub screw M10x30

- 2 CLE10**  
End clamp Click 30-46
- 4 XT-R base plate 100**  
Base plate
- 6 SDS-W-6\*XXX | SDS-W-8\*XXX**  
Self-drilling screws\*
- 8 XDP**  
Distance plate

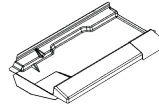
\*Screw length must be selected so that **sufficient** load-bearing thread length is screwed into the wood.



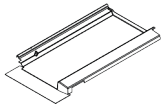
## SYSTEM ACCESSORIES



**XM-BC**  
Metal replacement tile for concrete tile with foam wedge



**XM-B26**  
Metal replacement tile for clay tile with foam wedge

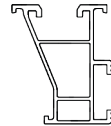


**XM-B25.1**  
Metal replacement tile for clay tile with foam wedge

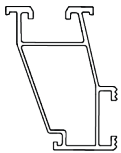
## MOUNTING RAILS AND ACCESSORIES



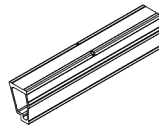
**X40-XXXX**  
Mounting rail X40 1980 mm 3300 mm 3550 mm 4400 mm 4750 mm 5500 mm 5850 mm



**X50-XXXX**  
Mounting rail X50 1980 mm 3300 mm 3550 mm 4400 mm 4750 mm 5500 mm 5850 mm



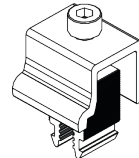
**X60-XXXX**  
Mounting rail X60 1980 mm 3550 mm 4750 mm 5850 mm



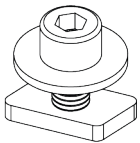
**XPCN60**  
Rail connector X60



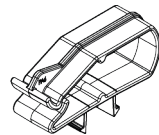
**XPCN-XX**  
Rail connector X40, X50



**XDL**  
Cross connector X40, X50, X60



**SCR-MA**  
Bolting set module accessories

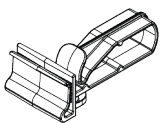


**CLP-R**  
Cable clip rail

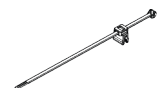


**XT-R-1980**  
Ground plate long XT 1980 mm

## MODULE ACCESSORIES

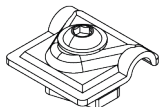


**CLP-U**  
Cable clip universal



**CLP-M**  
Cable tie clip for module frames with a thickness of 1 - 3 mm

## POTENTIAL EQUALIZATION



**WCL8-10**  
Wire clamp 8 - 10 mm

# ASSEMBLY

## ASSEMBLY PREPARATION

### Required tools for assembly

**i** Before starting the assembly, make sure that the assembly personnel are familiar with the proper use of the listed tools.



**Bit hexagon socket 6 mm**



**Bit hexagon socket 5 mm**



**Measuring tape**



**Bit TORX T40**



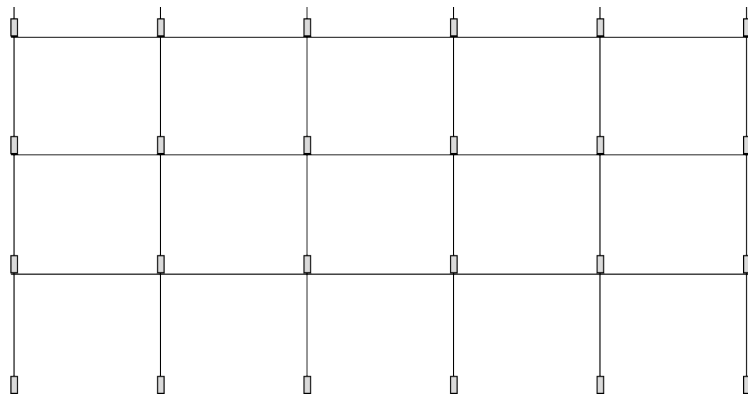
**Torque wrench 10 - 30 Nm with hexagon socket bit 6mm**



**Cordless screwdriver**

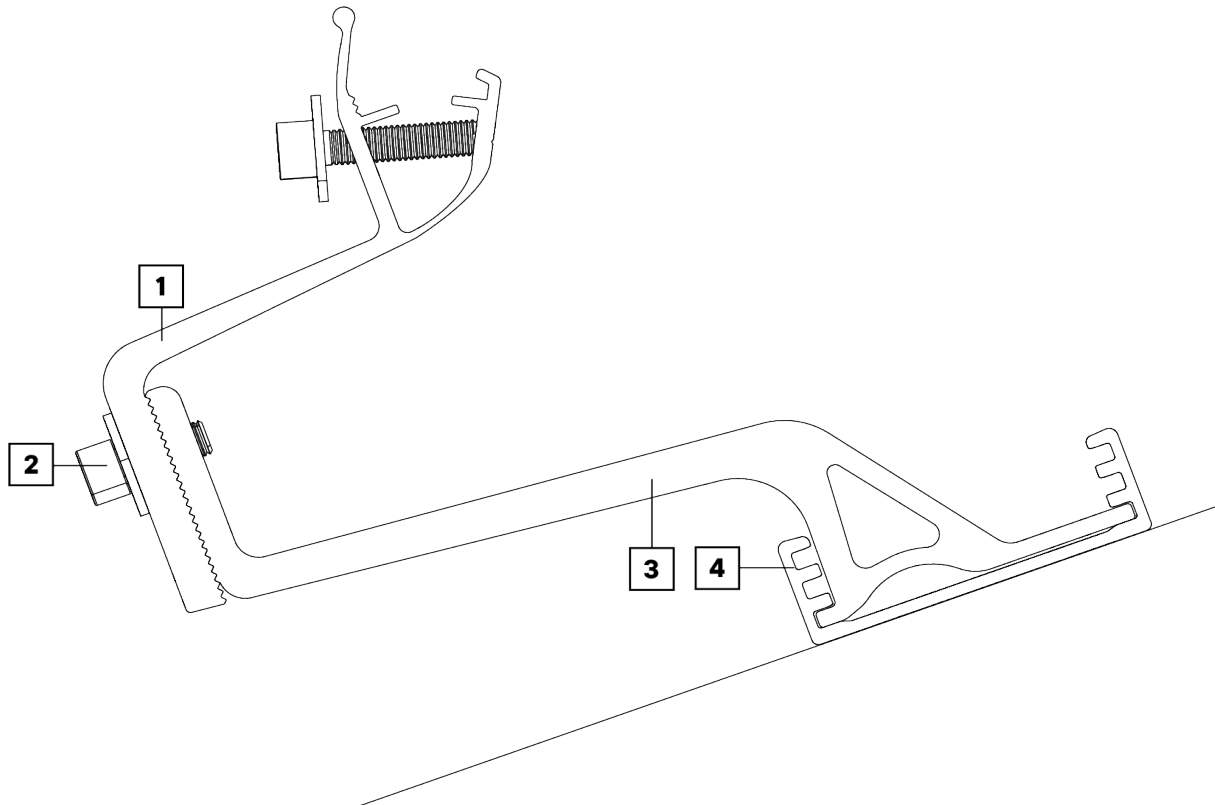
## MEASURE THE AREA

**i** The roof hooks are each screwed to the counter-battening.



- Take the dimensions of the array field from the planning documents.
- Determine module size.
- Check the position of the counter-battens.
- Determine and mark positions of roof hooks.

## ALIGN XT-R ROOF HOOK

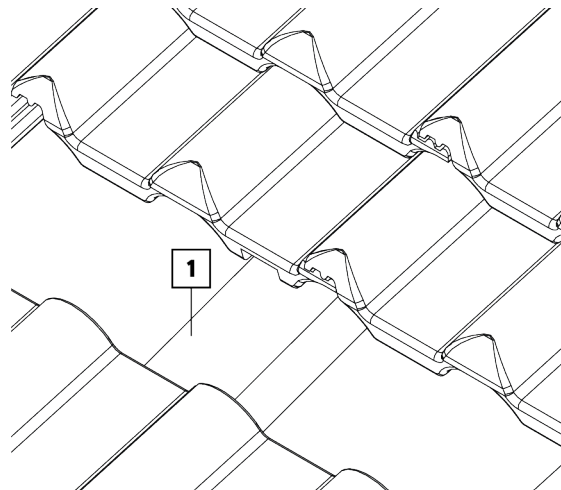


- 1 Hanger upper part with quick release
- 2 Carriage bolt M8x20
- 3 Hanger lower part
- 4 Base plate

### Assembly preparation



- ▣ Expose the roof battens (1).

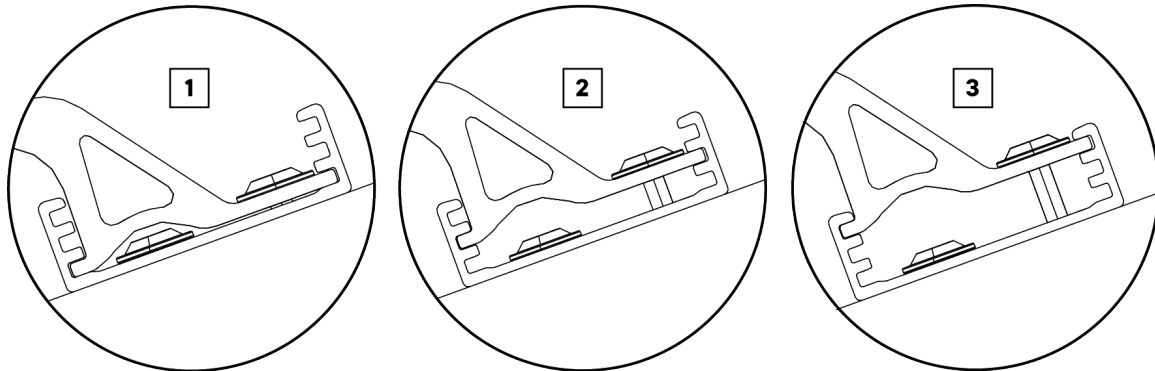


## Evaluate installation height

**i** The correct installation height of the roof hook can be achieved by using the **three height positions with the base plate** and by moving the base plate **vertically**.

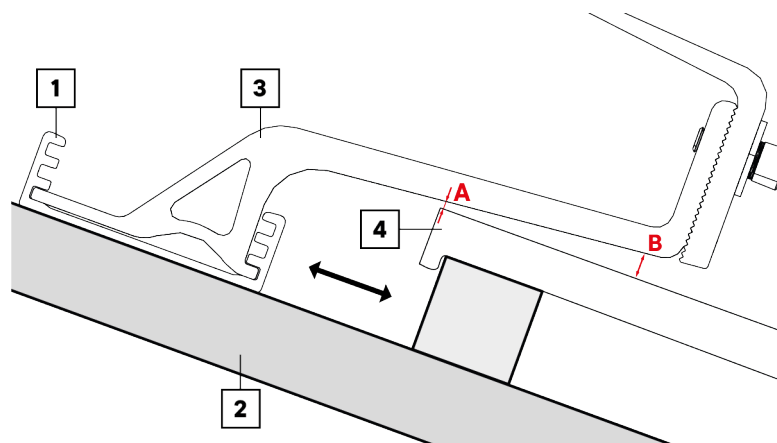
**Attention:** It is necessary to perform this procedure for each individual counter-batten.

### SELECT HEIGHT POSITIONS FOR THE BASE PLATE



**>** The base plate is height adjustable in **three steps**.

### VERTICAL SHIFTING OF THE BASE PLATE



**>** The installation height can be additionally adjusted by moving the base plate (1) vertically along the counter batten (2).

**>** The hanger (3) of the roof hook must have the following minimum distance to the on-site roof covering:

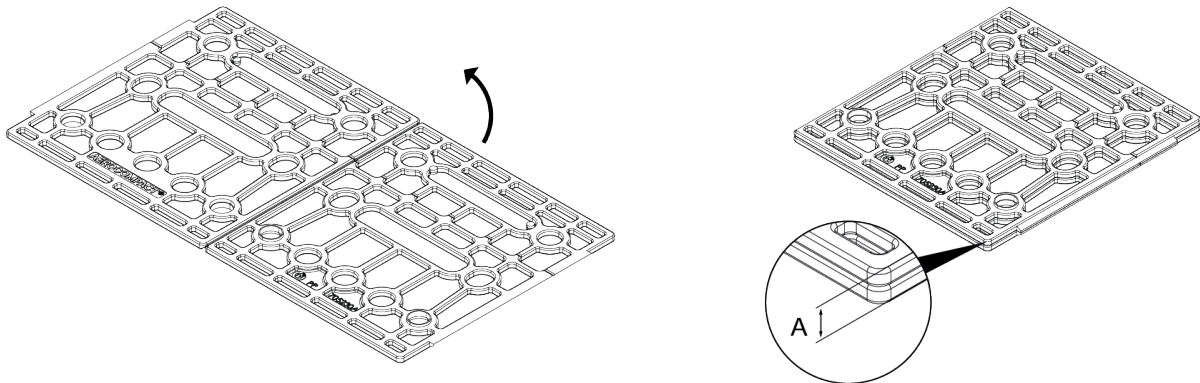
**A = 2 mm**

**B = 5 mm**

**i** If, despite the **three height positions for the base plate** and by **vertical displacement of the base plate** the installation height is not reached, the base plate must be underbuilt with one or more distance plates.

## PLACE DISTANCE PLATE

**i** If the desired installation height is not achieved despite the measures mentioned above, the base plate can be underlaid with distance plates. The distance plates are always delivered in pairs. There is an option to either separate or collapse the distance plates as needed.

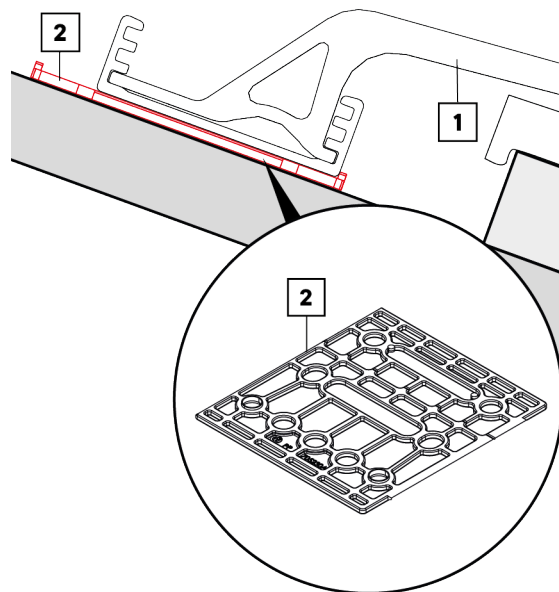


**➤** When the distance plates are folded together, the dimension is **A = 5 mm**. It is important to note that a maximum increase is allowed per roof hook by underlaying **10 mm**.



- To achieve the required installation height of the bracket (1), the distance plate (2) must be placed under the base plate.
- If required, the distance plate (2) can be broken off at the predetermined breaking point to prevent it from protruding.

**i** Select correct height position - see [Select height position for base plate](#)

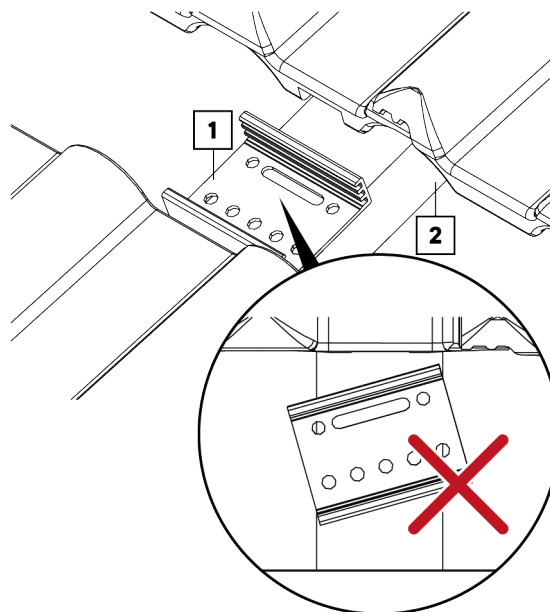


## HORIZONTAL ALIGNMENT OF THE BASE PLATE



➤ Before fastening the base plate (1) to the counter-batten (2), the horizontal alignment must be selected appropriately.

**i** If possible, use the **batten** as a guide.



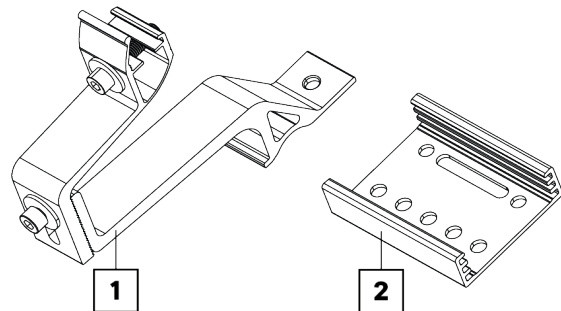
## MOUNT XT-R ROOF HOOK

### Mount base plate and bracket



- Insert the bracket (1) laterally into the base plate (2).

**i** Select correct height position - see [Select height position for base plate](#)

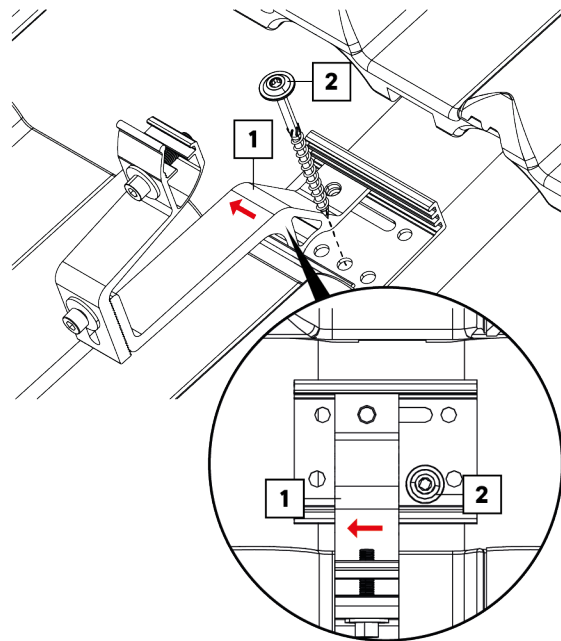


- Place the roof hook at the counter-battening and move the bracket (1) sideways.
- Screw in the first wafer head screw (2) at a suitable hole.
- Then check the **horizontal alignment** and **installation height**.

**i Attention:**

When selecting the screw length, it is important to ensure that sufficient load-bearing thread length is screwed into the wood.

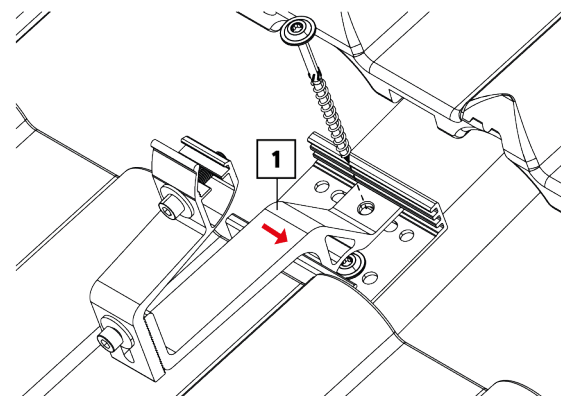
**i** Please select a suitable hole for fixing the base plate. Ensure that the minimum distance to the edges of the counter battens is maintained in accordance with the latest technical documentation (ETAs) from the manufacturer of the installed screws.



- Move the bracket (1) laterally so that it is centered in the trough of the roof tile.
- Screw in the second wafer head screw at the bracket.

**i Number of wafer head screws per roof hook:**

SDS-W-8\*XXX - 2 piece  
SDS-W-6\*XXX - 3 piece



## Decentralized mounting of the base plate



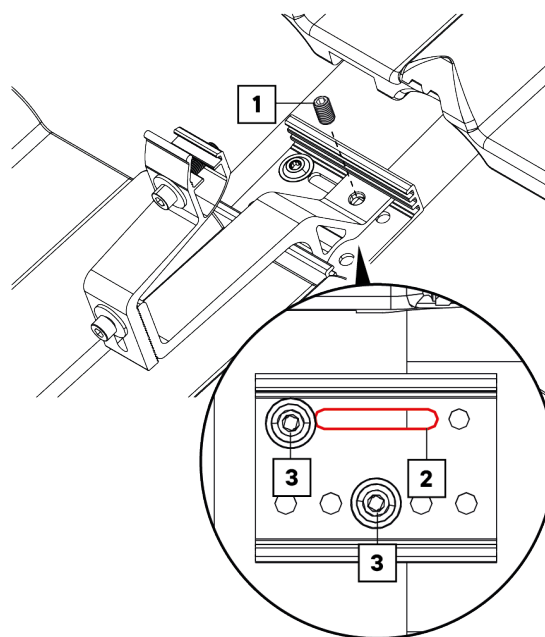
**i** Decentralized fastening of the base plate is used when the hanger cannot be positioned above the counter-battening. In this mounting situation, the XT-R bracket is fastened to the base plate with a grub screw (1).

- Screw in the wafer head screws (3) at the base plate.
- Position the bracket in the lower valley of the roof tile.
- Screw in the grub screw (1) in the roof hook and position it in the slotted hole (2) marked in red in the base plate.
- Then position the grub screw (1) precisely and tighten it hand-tight.

**i** **Number of wafer head screws per roof hook:**

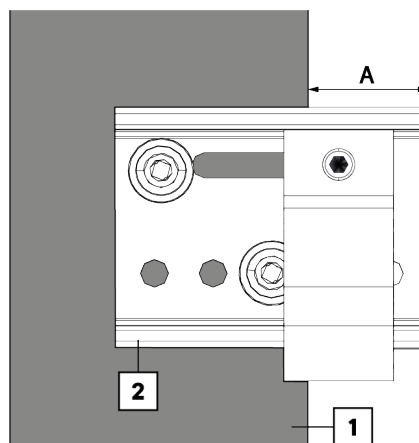
SDS-W-8\*XXX - 2 stk

SDS-W-6\*XXX - 3 piece



**i** **Important:**

In the case of decentralized mounting, the base plate (2) may protrude a maximum of **A = 4 cm** from the counter-battening (1).





## Mount ground plate bridge (optional)

**i** The use of the base plate bridge is required when the roof hook is mounted next to the counter-battening. The ground plate bridge is supplied in a length of **1980 mm**, which must be cut to size on site. The holes required for fastening must also be drilled on site. The maximum length of the ground plate bridge must not exceed **990 mm**.

### **! CAUTION!**

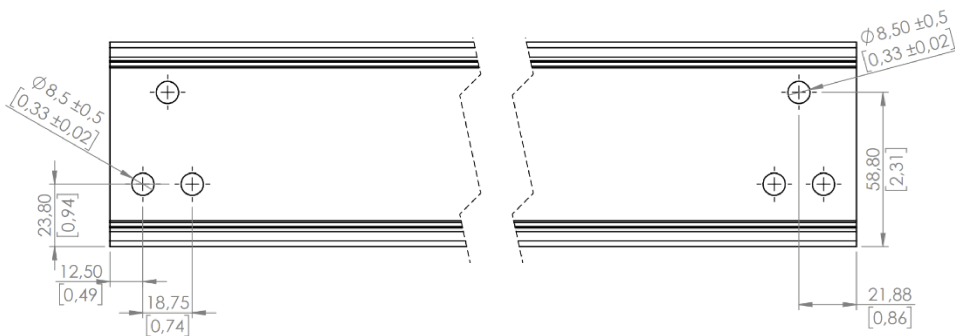


**Risk of injury from metal chips**

**Cutting injury due to contact**

- Wear safety gloves**
- Handle carefully.**

### HOLE PATTERN GROUND PLATE BRIDGE



**i** Dimensions are given in both millimeters and inches. Depending on the choice of screws, either two or three holes must be drilled per side. Care must be taken to ensure that **sufficient** load-bearing thread length is screwed into the wood.

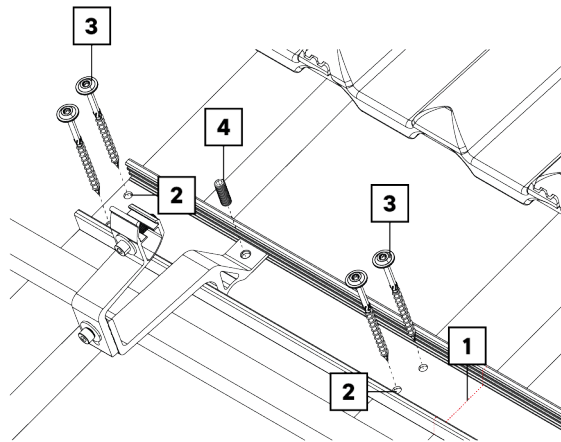
**Number of waver head screws per side:** SDS-W-8\*XXX - 2 pcs | SDS-W-6\*XXX - 3 pcs

## ASSEMBLY



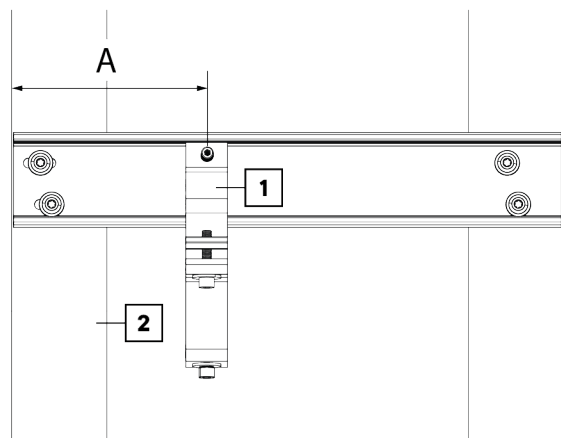
**i** It is important to ensure that the ground plate bridge is a maximum of **990 mm** long and is fully supported on both counter battens.

- Cut the ground plate bridge (1) to size.
- Drill holes (2) according to the hole pattern.
- Screw the ground plate bridge tight (3).
- Insert the roof hook into the side of the ground plate bridge.
- Tighten the grub screw (4) in the roof hook hand-tight so that the roof hook is fixed.



### **i Attention!**

Installation of the roof hook (1) on the ground plate bridge is permitted up to a maximum distance of **A = 150 mm or 5,9 in** from the outer rafter edge (2) to the center of the roof hook, provided that a metal replacement tile is used. For projects exceeding this distance, a separate load calculation by **Application Engineering** is required, as the system depends heavily on the load. For this, please contact our support department.



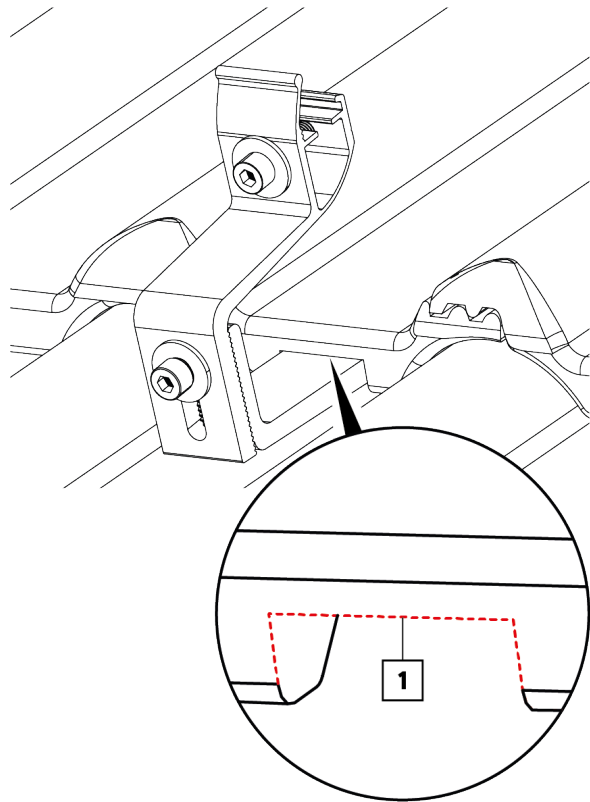
## Re-complete the on-site roof covering



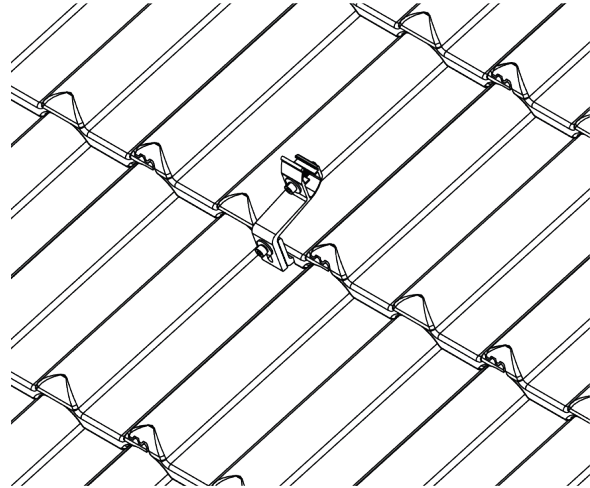
- ✓ Re-complete the on-site roof covering afterwards.
- If necessary, work on the roof tile that is above the mounted roof hook at the interlocking (1) so that the original position is achieved again.

### **i** Ensure roof tightness!

Make sure that the roof covering is properly closed around the roof hook.



- ✓ The roof hook is now mounted and ready for rail installation.

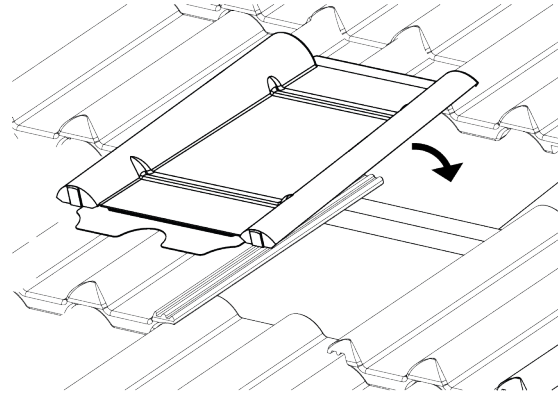


## Mount XM-B metal replacement tiles (optional)

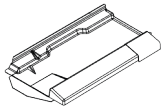
**i** As an option, an **XM-B metal replacement tile** can be used for this roof hook.



**i** The metal replacement tiles are made of galvanized sheet steel with a zinc-magnesium strip for easy installation. There are **three metal replacement tile variants** for this. The XM-B metal replacement tiles are certified and tested for watertightness in accordance with prEN15601.

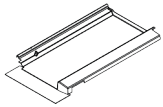


### VARIANTS OF METAL REPLACEMENT TILES



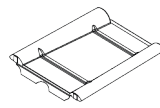
#### **XM-B26**

Metal replacement tile for clay tile with foam wedge



#### **XM-B25.1**

Metal replacement tile for clay tile with foam wedge



#### **XM-BC**

Metal replacement tile for concrete tile with foam wedge

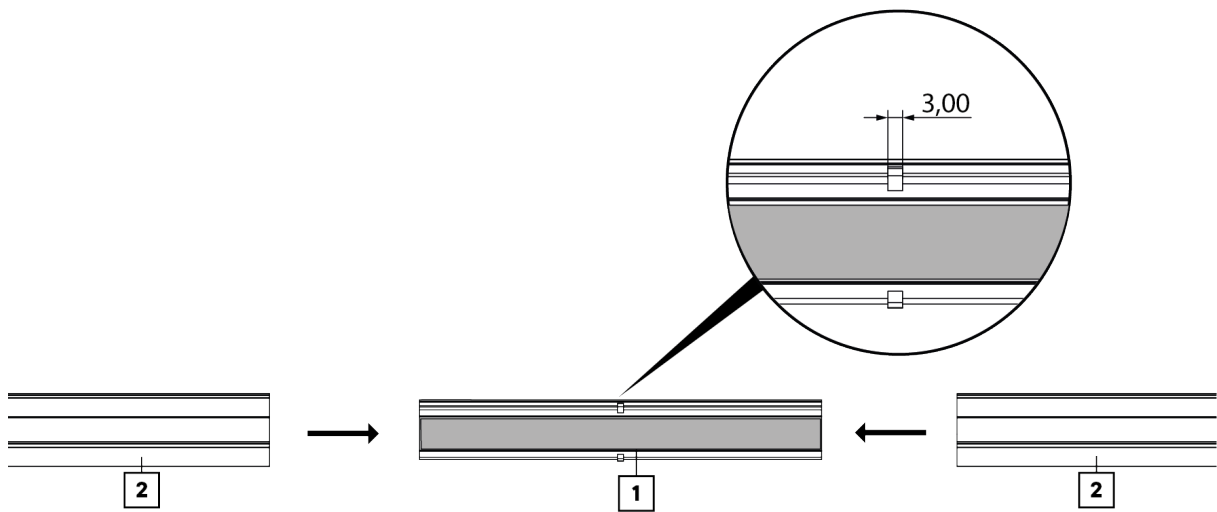
### COMPATIBILITY LIST AND ASSEMBLY INSTALLATION



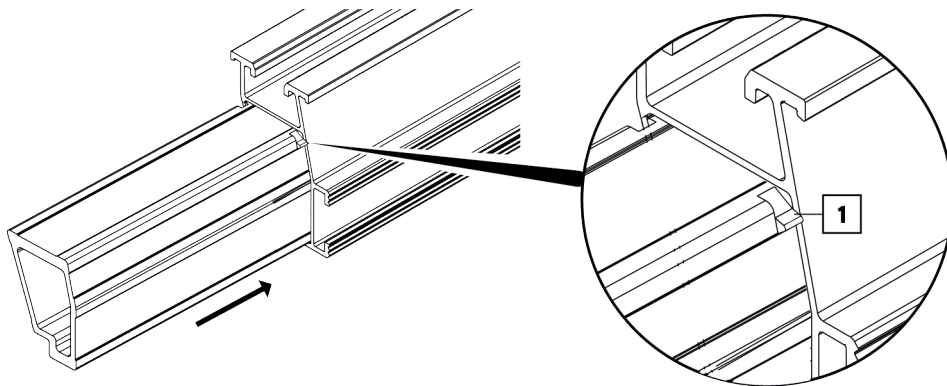
A list of compatible roof tiles is available to determine the suitable metal replacement tile for the project. The compatibility list and the XM-B installation instructions are available in the download area at [www.aerocompact.com/downloads](http://www.aerocompact.com/downloads).

## RAIL CONNECTOR

**i** The figures below show the procedure for connecting **X60** mounting rails with the rail connector **XPCN60**. The same process applies to rail connectors **XPCN50** and **XPCN40**.



➤ Insert the mounting rails (2) on the left and right at the rail connector (1).



➤ Insert the mounting rail up to the stop (1).

**i Important:**

The installation of components in the joint area of the mounting rail is prohibited.

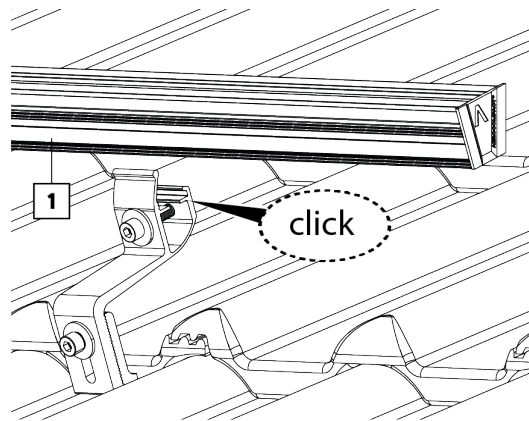
## MOUNT RAIL



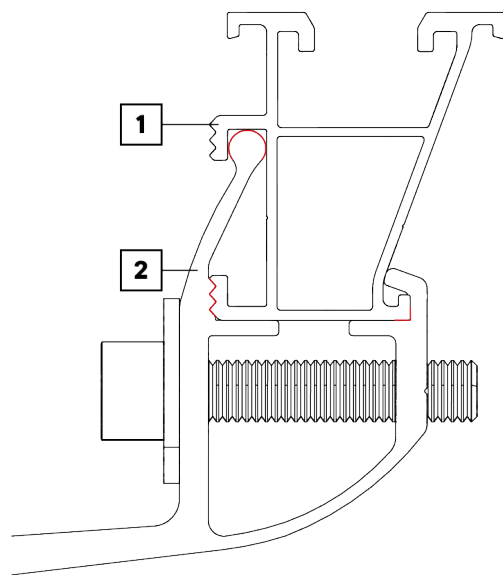
- ▶ Click the mounting rail (1) onto the XT-R roof hook.

**i Important:**

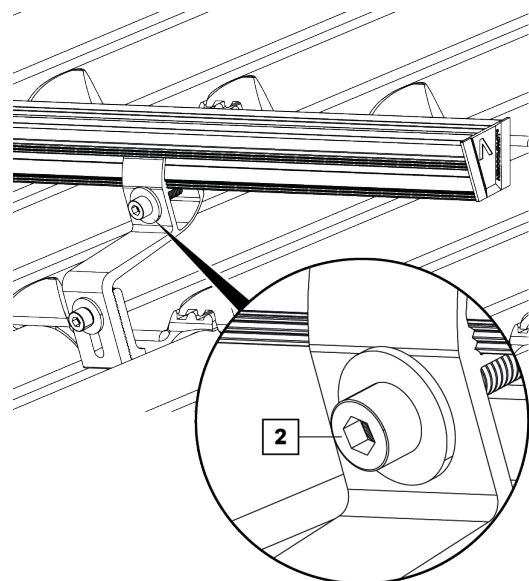
The installation of components in the joint area of the mounting rail is prohibited.



- ▶ Ensure that the mounting rail (1) is fully engaged with the quick adapter (2).

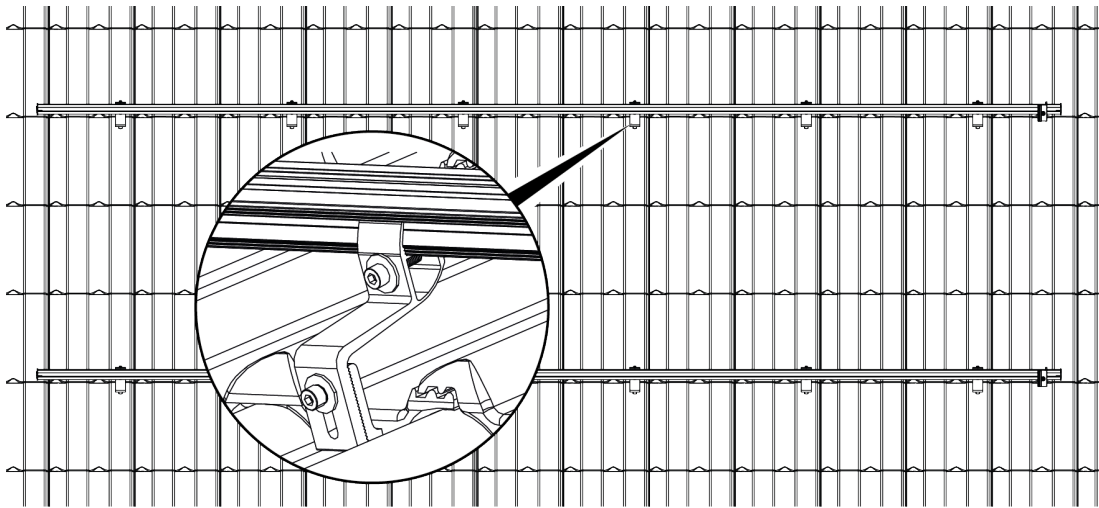
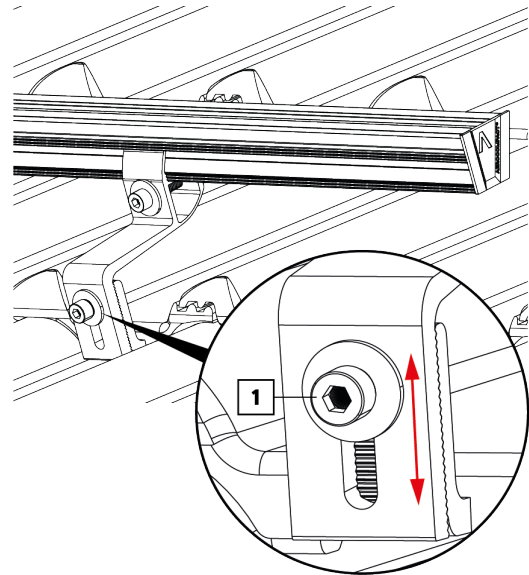


- ▶ Tighten the screw (2) on the quick-release to a torque of 10 Nm or 7.37 ft lb.





- ▶ Then check the horizontal alignment of the mounting rail.
- ▶ The height of the roof hook can be adjusted as required.
- ▶ Tighten the screw (1) with a torque of 10 Nm or 7.37 ft lb.



- ▶ Mount the other mounting rails and make sure that the mounting rail is fully engaged.

## INSTALLING MODULES

### **i** Wiring tip:

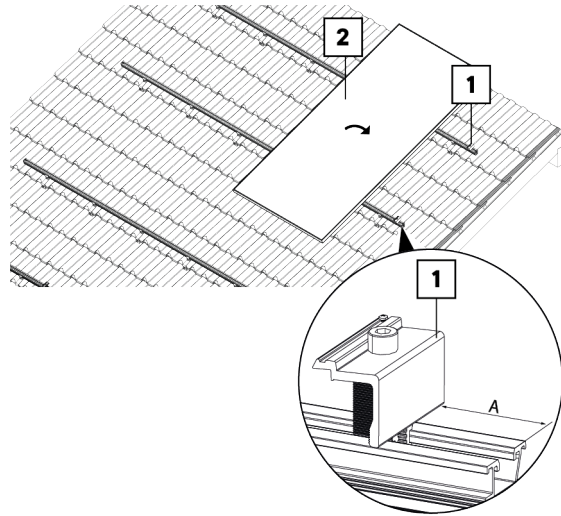
It is advisable to wire the modules simultaneously during installation. To do this, the cables can be securely fastened to the module using the cable tie clip (CLP-M).



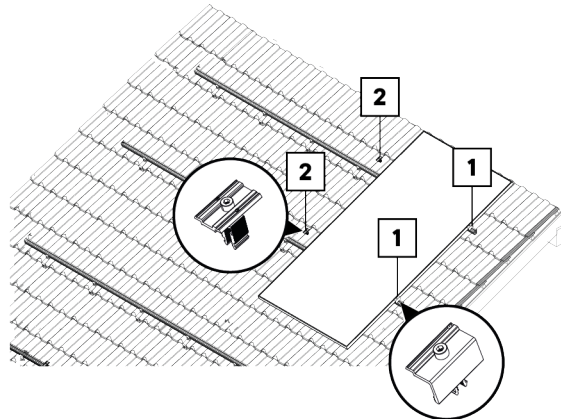
- Fit the end clamps (1) to the side edge of the mounting rail.

**i** The edge distance of the end clamp is **A = 40 mm**

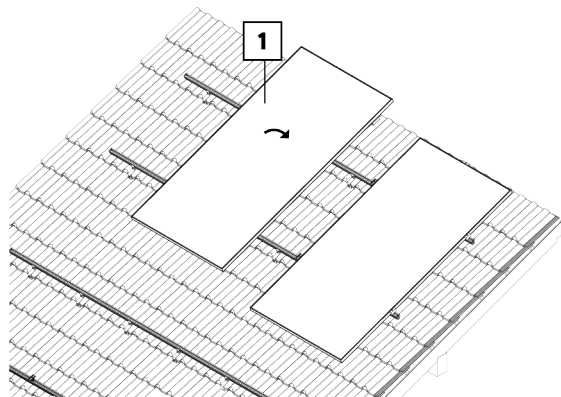
- Place the first module (2).



- Position the module so that the end clamps (1) are flush with the module.
- Tighten the end clamps (1) with a torque of 15 Nm or 11 lb-ft.
- Attach the middle clamps (2) on the opposite side of the module to the mounting rail.



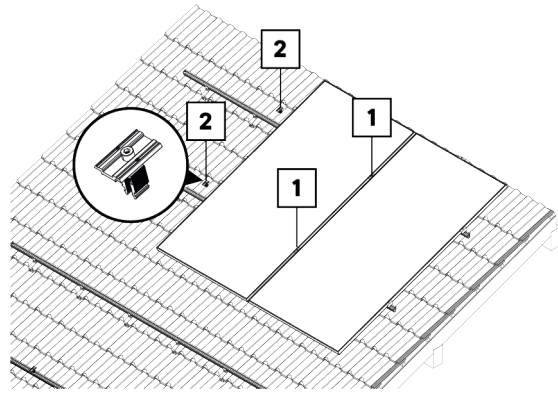
- Place the following module (1).



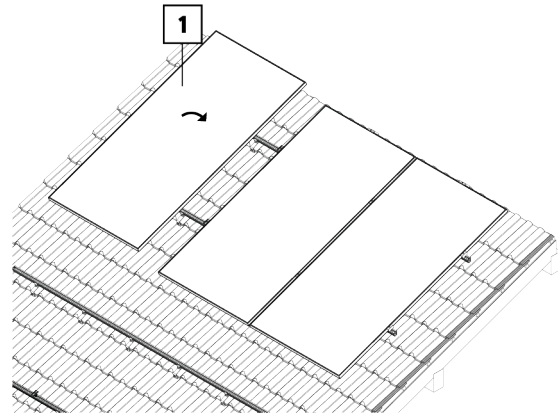




- ▶ Tighten the middle clamps (1) with a torque of 15 Nm or 11 lb-ft.
- ▶ Attach the middle clamps (2) on the opposite side of the module to the mounting rail.

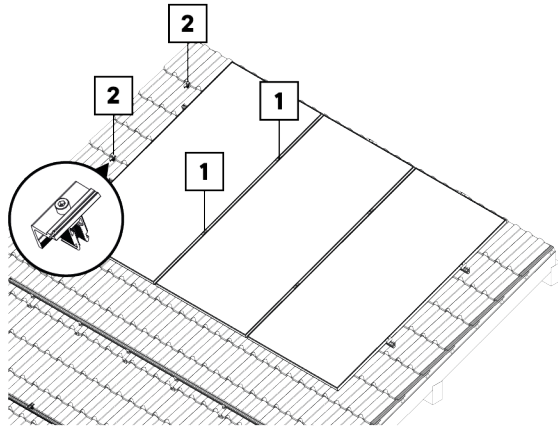


- ▶ Place the following module (1).



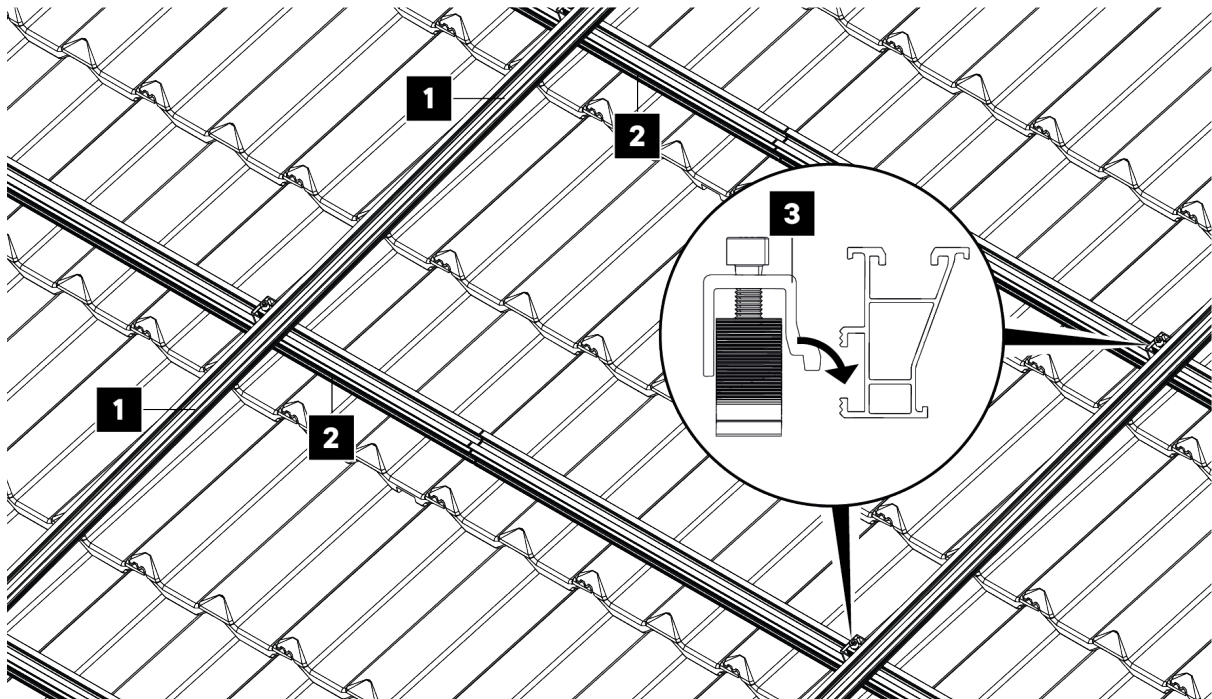
- ▶ Tighten the middle clamps (1) with a torque of 15 Nm or 11 lb-ft.
- ▶ Attach the end clamps (2) on the opposite side of the module to the mounting rail and then tighten to a torque of 15 Nm or 11 lb-ft.

**i** Install the other module rows in the **same sequence**.



## ASSEMBLE MOUNTING RAIL IN CROSS CONNECTION

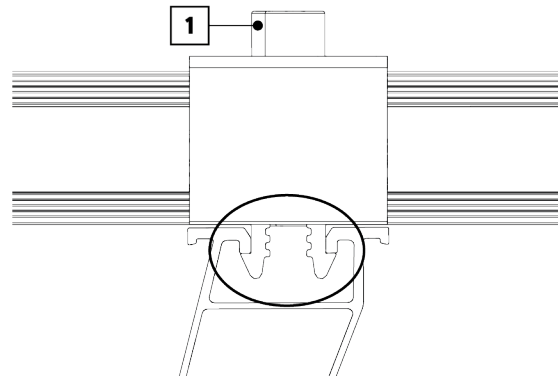
**i** At each point where the rails cross, the rails are joined together with a cross connector.



- Place the upper mounting rails (1) on the lower mounting rails (2).
- Then attach a cross connector (3) at each crossing point.



- Make sure that the cross connector is fully clicked into place.
- Tighten the Allen screw (1) with a torque of 15 Nm or 11 ft lb.



# CABLE MANAGEMENT

## CABLE CLIP CLP-M FOR MODULES

**i** The **CLP-M cable clip** is suitable for module frames with a sheet thickness of **1 - 3 mm**.



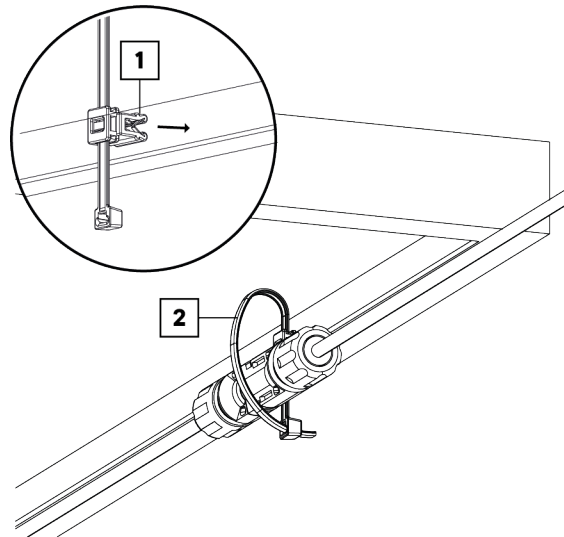
### CLP-M

Cable tie clip for module frames with a thickness of 1 - 3 mm

### ASSEMBLY

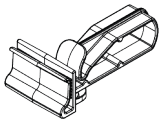


- ▶ Insert the CLP-M (1) into the module frame.
- ▶ The CLP-U is suitable for:
  - Solar plug (e.g. MC4)
  - Solar cable
- ▶ Then tighten the cable tie (2).



## CABLE CLIP CLP-U FOR MODULES

**i** The **CLP-U cable clip** is suitable for module frames with a sheet thickness of **1.5 - 3 mm**.



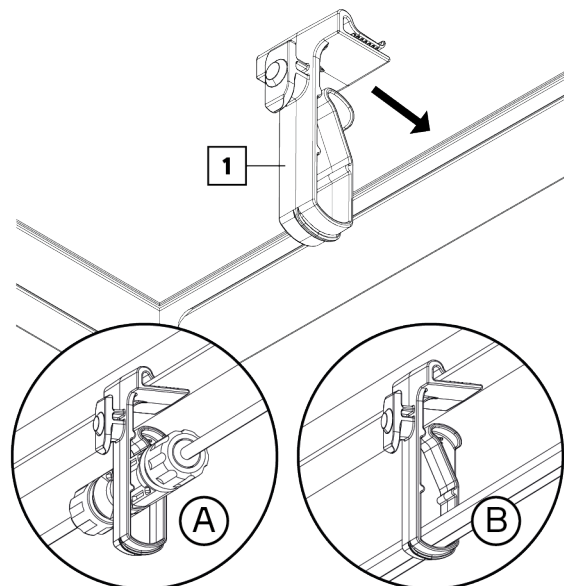
### CLP-U

Cable clip universal

### ASSEMBLY



- ▶ Insert the CLP-U (1) into the module frame.
- ▶ The CLP-U is suitable for:
  - A** - Solar connectors (e.g. MC4)
  - B** - Solar wire



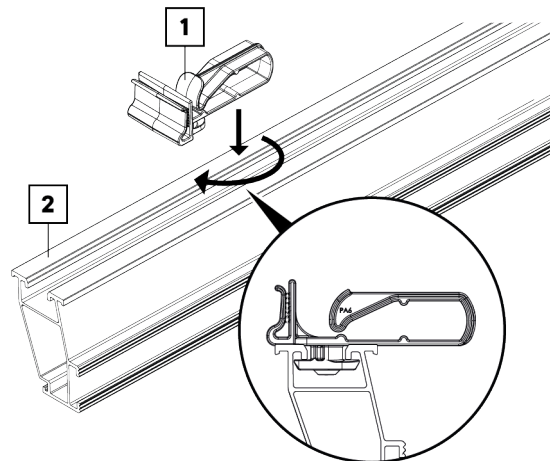
## MOUNT THE CLP-U CABLE CLIP TO THE MOUNTING RAIL



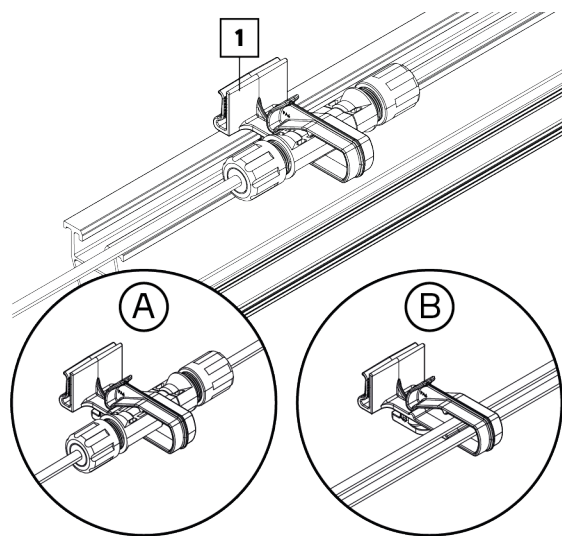
- Insert the cable clip (1) into the mounting rail (2) from above.
- Rotate the cable clip by 90°.

### **i Attention:**

Make sure that the cable clip is fully engaged in the rail channel.



- The CLP-U (1) is suitable for:
  - A** - Solar connectors (e.g. MC4)
  - B** - Solar wire



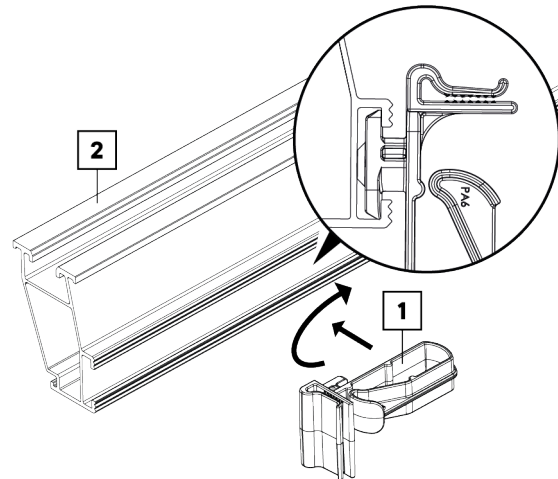
## MOUNT THE CLP-U CABLE CLIP ON THE SIDE OF THE MOUNTING RAIL



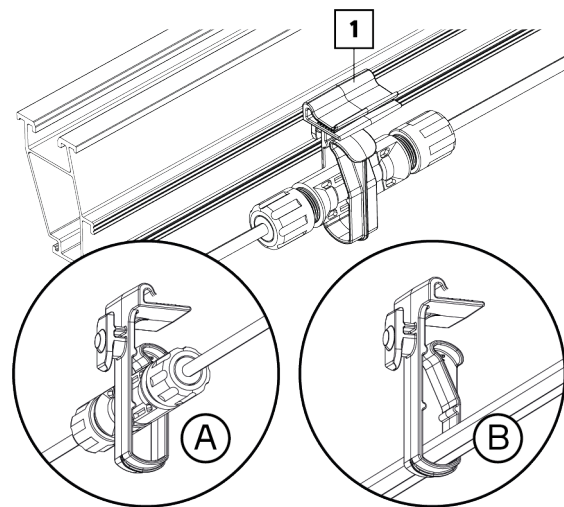
- Guide the cable clip (1) to the side of the mounting rail (2).
- Rotate the cable clip by 90°.

### **1 Attention:**

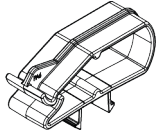
Make sure that the cable clip is fully engaged in the rail channel.



- The CLP-U (1) is suitable for:
  - A - Solar connectors (e.g. MC4)
  - B - Solar wire



## MOUNT THE CLP-R CABLE CLIP TO THE MOUNTING RAIL



**CLP-R**  
Cable clip rail

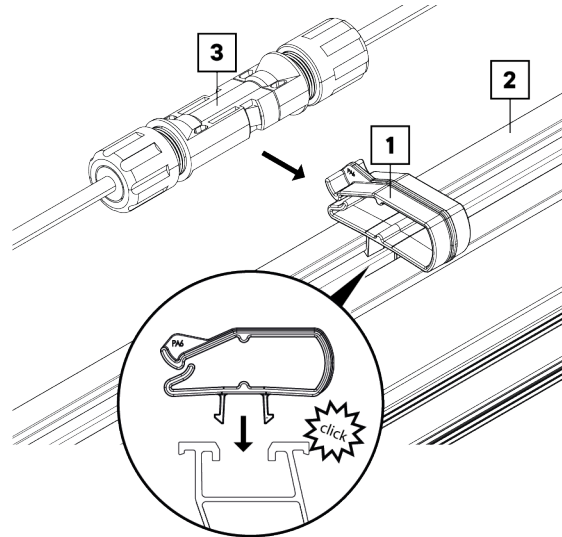
## MOUNT THE CLP-R



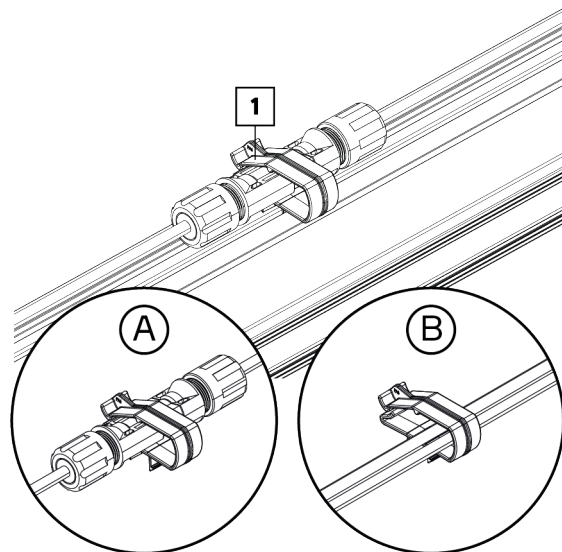
- ▶ Click the cable clip (1) into the mounting rail (2) from above.
- ▶ Insert the solar plug (3) from the side.

### **i Attention:**

Make sure that the cable clip is fully engaged in the rail channel.



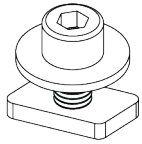
- ▶ The CLP-R (1) is suitable for:
  - A - Solar connectors (e.g. MC4)
  - B - Solar wire



## MLPE FOR MOUNTING MOUNTING RAIL (OPTIONAL)

**i** The **SCR-MA** screw connection is intended for the mounting rails **X40**, **X50** and **X60**. In the following steps, the assembly is shown using an **X40** mounting rail. The procedure is identical for **X50** and **X60** mounting rails.

### NECESSARY COMPONENTS



**SCR-MA**  
Bolting set module accessories

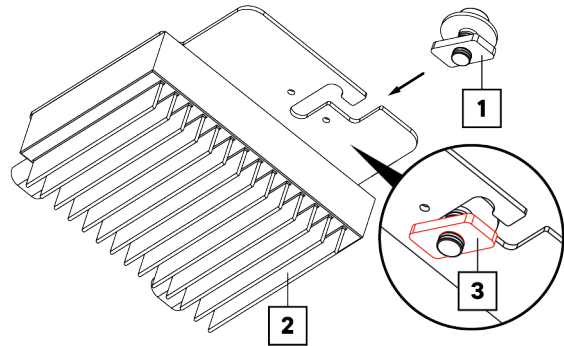


**X40-XXXX**  
Mounting rail X40 1980 mm 3300 mm 3550 mm 4400 mm 4750 mm 5500 mm 5850 mm

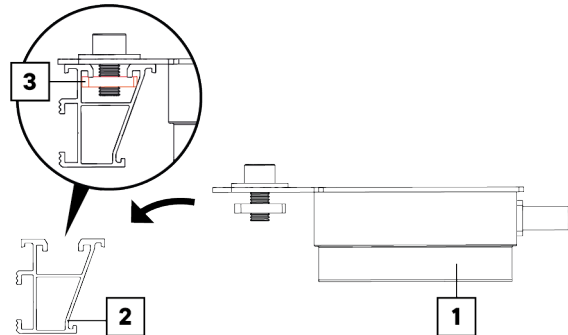
### ASSEMBLY (EXAMPLE MOUNTING RAIL X40)



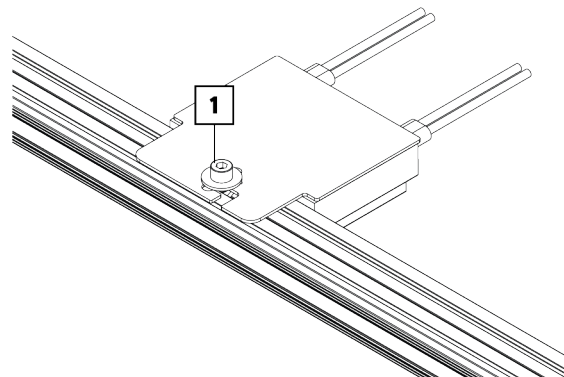
- Insert the screw connection (1) into the MLPE device (2) as shown in the illustration.
- Ensure that the plate (3) is pointing downwards.



- Guide the MLPE (1) with the screw connection to the top of the mounting rail (2).
- Insert the plate (3) as shown in the illustration.



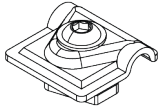
- Then tighten the Allen screw (1) with a torque of 15 Nm or 11 lb-ft.
- ☑ The MLPE is now mounted.



## POTENTIAL EQUALIZATION

**i** For potential equalization, **AEROCOMPACT Europe GmbH** provides the wire clamp as an accessory. These are each mounted on the mounting rail, depending on the mounting situation, the module rows are connected to each other by the module clamps.

### REQUIRED COMPONENTS



**WCL8-10**  
Wire clamp 8 - 10 mm



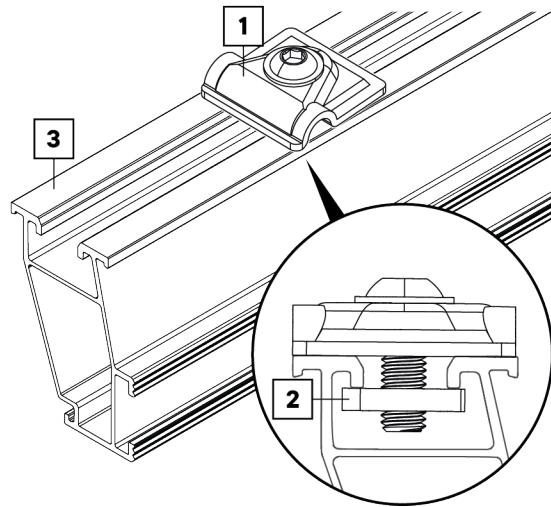
**X60-XXXX**  
Mounting rail X60 1980 mm 3550 mm 4750 mm 5850 mm

### MOUNTING WIRE CLAMP (EXAMPLE MOUNTING RAIL X60)



- Insert the wire clamp (1) into the mounting rail (3).
- Ensure that the threaded plate (2) is positioned as shown in the illustration.
- With the wire inserted, tighten the screw of the wire clamp (1) to a torque of 10 Nm or 7.38 lb-ft.

**i** In the following steps, the installation of the clamp is shown using an **X60** mounting rail. The procedure is identical for **X50** and **X40** mounting rails.



### MINIMUM CROSS-SECTIONS FOR EQUIPOTENTIAL BONDING

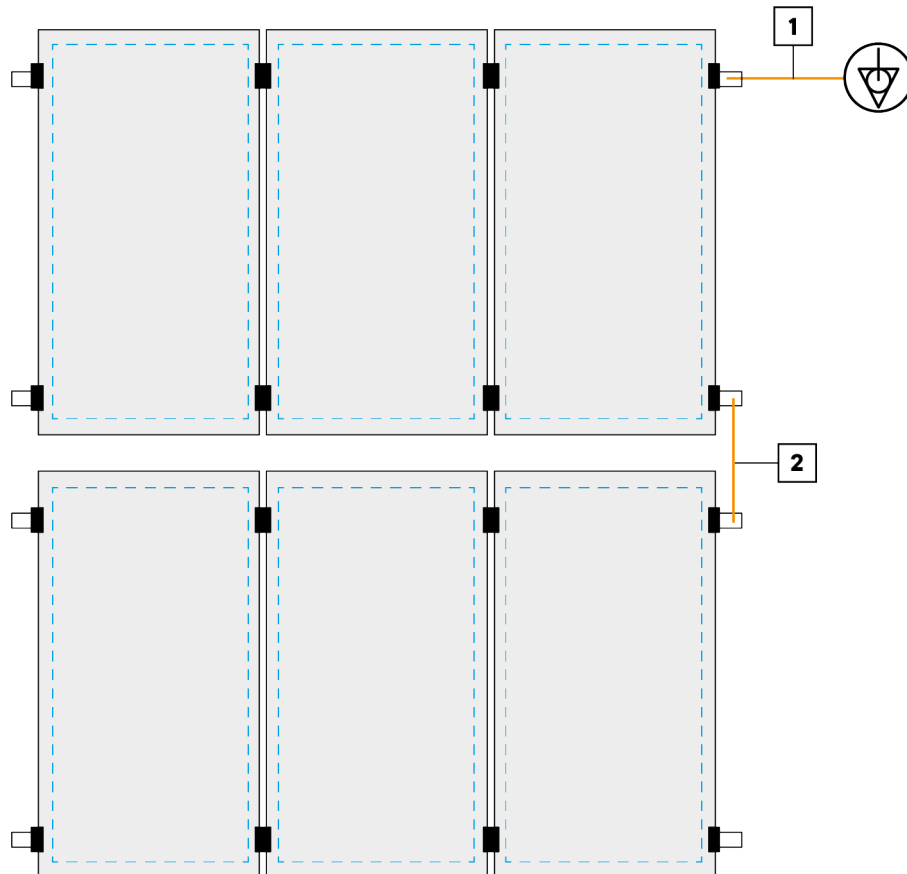
**i Caution!**

The specialist planner, contractor or installer is responsible for specifying the minimum cross-sections for equipotential bonding in accordance with the applicable legal requirements and standards. AEROCOMPACT Europe GmbH assumes no liability for this.





## WIRING DIAGRAM FOR EQUIPOTENTIAL BONDING



- Attach the on-site potential equalization (1) to a point on the system.
- Create a connection (2) for the module columns.

# MAINTENANCE, DISASSEMBLY AND DISPOSAL

## MAINTENANCE

To prevent personal injury and damage to property, the system must be checked regularly by qualified personnel and annual maintenance is required.

- Check all system components for damage. In the event of damage, replace the affected component immediately.
- Check all screw connections. Tighten loose screw connections, observing the tightening torque specified in the installation instructions.
- Checking all components for damage caused by the weather, animals, dirt, deposits, build-up, vegetation, roof penetrations, seals, stability and corrosion. In the event of damage, clean, repair or replace the affected component.

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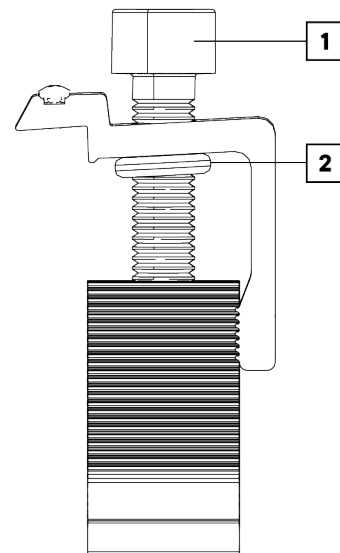
## DISASSEMBLY

### DISMANTLING THE CLAMPS (EXAMPLE)



**i** To disassemble the system, carry out the assembly steps in reverse order.

- ☒ Unscrew the screw (1) on the clamp.
- ☒ When reusing the clamp, ensure that the O-ring (2) is not lost.
- i** If the components are reused, it must be noted that these are wearing parts. Therefore, the AEROCOMPACT Europe GmbH cannot assume any responsibility for checking the degree of wear. For this reason, any liability or warranty of AEROCOMPACT Europe GmbH in case of reuse is excluded and reuse is at the installer's own responsibility.



## DISPOSAL

Unless a take-back or disposal agreement has been made, disassembled components should be recycled:

- Give metals and plastic elements for recycling.
- Dispose of remaining components sorted according to material composition.

**i** Incorrect disposal may result in hazards to the environment. In case of doubt, obtain information on environmentally sound disposal from the local municipal authority or from specialized disposal companies.

# APPENDIX

## DECLARATION OF PERFORMANCE XT-R



Manufacturer: **AEROCOMPACT Europe GmbH**  
**Gewerbestrasse 14**  
**A-6822 Satteins**

Designation: **CompactPITCH roof hook system XT-R for pitched roofs**

Identification code: **XT-R**

Standard applied: **EN 1090-1**

Certification body: **2397**



[To the declaration of performance](#)

## REVISION HISTORY

Version	Chapter	Modification
v3.1	"Cable management" on page 27	New chapter added

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