EMPOWERING OUR WORLD
WITH CLEAN ENERGY

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INSTALLATION MANUAL
INSTALLATIONSANLEITUNG

Solar Carport Mounting System V2.1
Solar-Carport Montagesystem V2.1

SC01-CP2-3x5-020-KS01

www.xmkseng.com

*Actual product may differ slightly from images, please refer to the physical product for details
*Das tatsächliche Produkt kann leicht von den Bildern abweichen. Details entnehmen Siebitte demphysischen Produkt.

1.Installation Tools
1.Werkzeuge für die Installation



Allen Key
(M8-M12)
Inbusschlüssel
(M8-M12)



Tape
Maßband



Adjustable Wrench
(M8-M12)
Rollgabelschlüssel



Drill
Elektrische Handbohrmaschine



Ratchet Tap Wrench
(M8-M12)
Knarrenschlüssel

Recommended Installation Torque for Bolts
Empfohlenes Anzugsmoment für Schrauben

- M8: 12–15 N·m
- M10: 24–30 N·m
- M12: 60–80 N·m
- ST6.3: 4–6 N·m

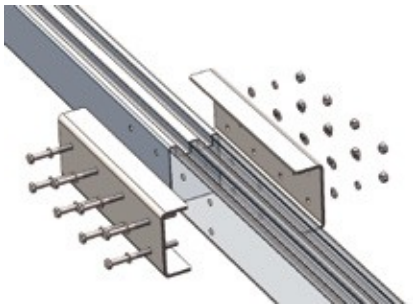
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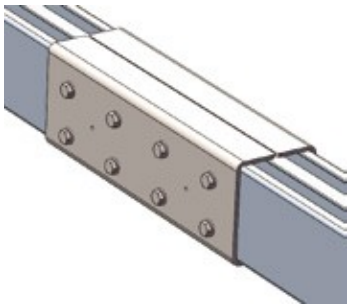
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2. Installation of Beam
2. Installation der unteren Halterung

2.1 Connect beam, lock M10x140 bolts as shown in the diagram, 4 bolts on each beam. (Skip if the design does not require beam connection)

2.1 Balken-Verbindung · Befestigen Sie die M10x140-Bolzen wie in der Abbildung gezeigt, 4 Schrauben pro Balken. (Überspringen Sie diesen Schritt, wenn für die Konstruktion keine Balken-Verbindung erforderlich ist.)





2.2 Base Bolt Installation. Position the base according to the drawing and drive expansion bolts (or embedded bolts) into the corresponding locations. The height of the thread exposed above the ground shall not be less than 36mm

2.2 Installation der Basisbolzen Positionieren Sie die Basis gemäß der Zeichnung und treiben Sie Dehnbolzen (oder eingebettete Bolzen) an den entsprechenden Stellen ein.Die Höhe des über dem Boden sichtbaren Gewindes darf nicht weniger als 36 mm betragen

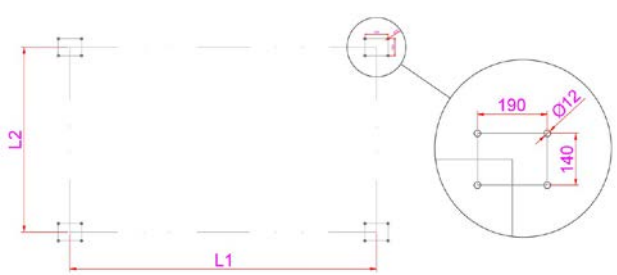
L1: Center-to-center distance between left/right bases (along the horizontal gutter direction)

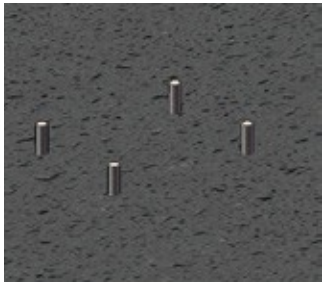
L1: Mitte-zu-Mitte-Abstand zwischen linken/rechten Sockeln (entlang der horizontalen Rinnenrichtung)

L2: Center-to-center distance between front/rear bases (along the inclined water flow direction)

L2: Mitte-zu-Mitte-Abstand zwischen vorderer/hinterer Basis (entlang der geneigten Wasserflussrichtung)

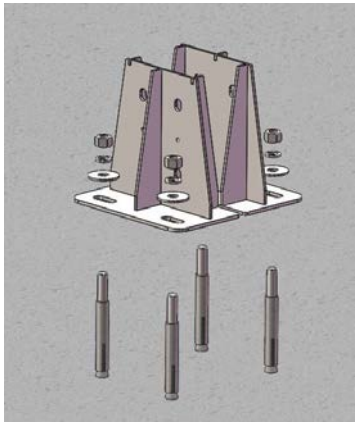
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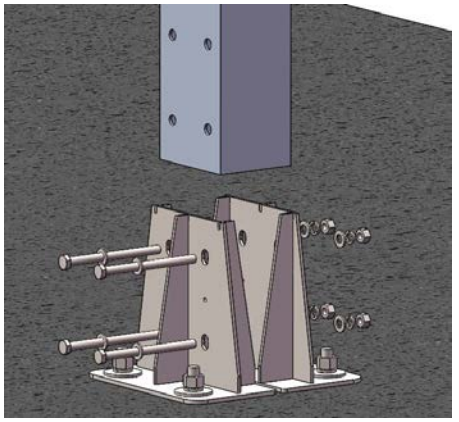




2.3 Secure the base. Install the base as shown and do not fully tighten the expansion bolts temporarily allow for minor adjustment.

2.3 Befestigen Sie die Basis und installieren Sie sie wie im Bild gezeigt. Ziehen Sie die Schrauben noch nicht vollständig fest, um die Feineinstellung zu erleichtern.

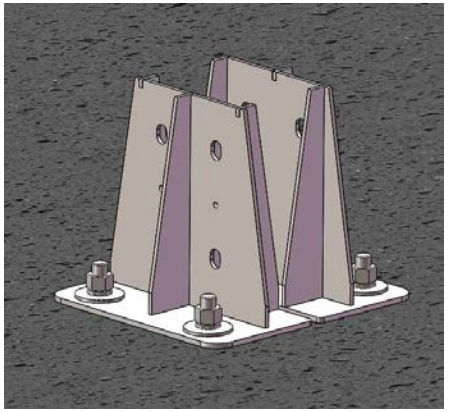


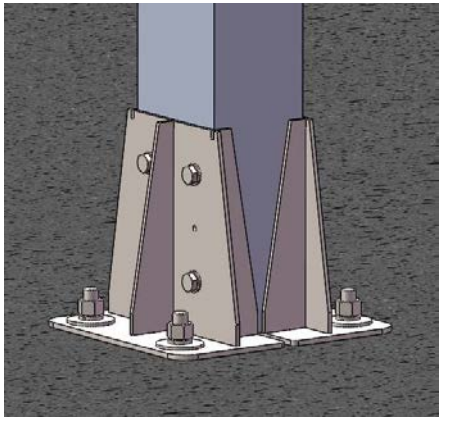


2.4 Connect the pillar to the base and tighten the M12x140 bolts, as shown in the diagram (4 bolts in total)

2.4 Verbinden Sie die Säule mit der Basis und ziehen Sie die M12x140-Bolzen wie in der Abbildung gezeigt fest (insgesamt 4 Schrauben)

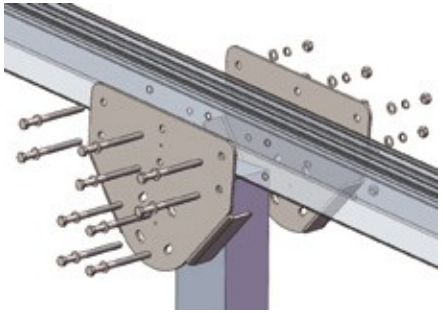
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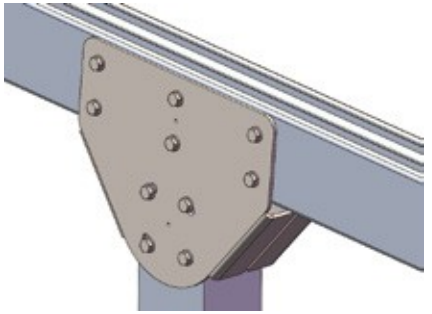




2.5 Connect the pillar and beam, then tighten the M10x140 bolts as shown in the diagram (6 bolts on the beam, 4 on the pillar)

2.5 Verbinden Sie die Säule und den Balken und ziehen Sie dann die M10x140-Bolzen wie in der Abbildung gezeigt fest (6 Schrauben am Balken, 4 an der Säule)





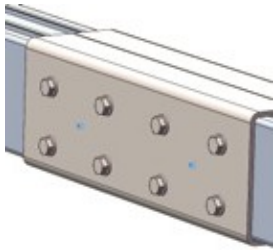
Note: Steps 2.3, 2.4, and 2.5 can be adjusted according to on-site installation habits and convenience. After checking that the installation is correct, tighten all bolts.

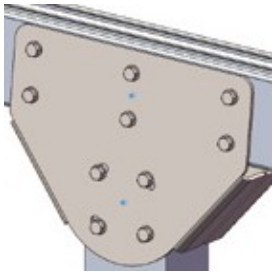
Hinweis: Die Schritte 2.3, 2.4 und 2.5 können gemäß den Installations-gewohnheiten und der Bequemlichkeit vor Ort eingestellt werden. Nach der Überprüfung der korrekten Installation alle Befestigungsschrauben fest anziehen.

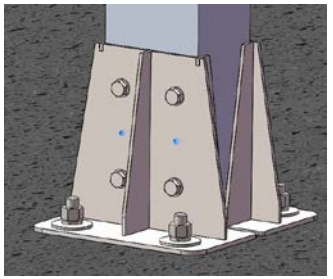
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The small holes on the connector and base are for grounding. If conductivity is required through the beam-pillar-base system,select a path and insert an ST6.3*25 self-tapping screw in each component to achieve full system conductivity. If not needed, ignore this step

Die kleinen Löcher auf dem Verbindung und der Basis dienen zum Erdung. Wenn die Leitfähigkeit durch das Säule - Balken-Basissystem erforderlich ist,wählen Sie einen Pfad aus und setzen Sie eine ST6.3*25-Selbstkippschraube in jede Komponente ein, um die vollständige Systemleitfähigkeit zu erzielen. Wenn nicht benötigt, ignorieren Sie diesen Schritt







Beam installation completed

Balkeninstallation abgeschlossen



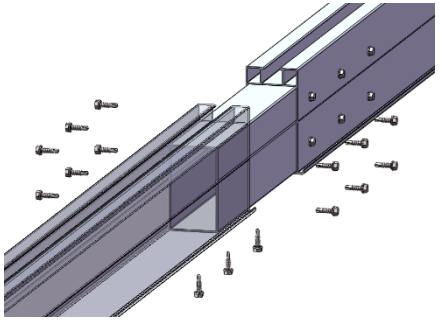
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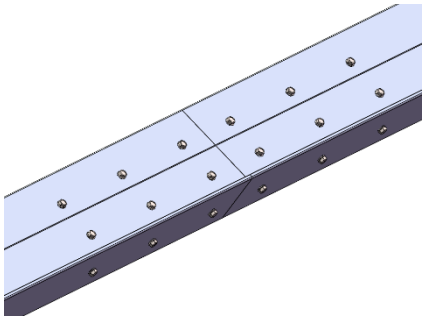
3. Installation of Rails and Waterproof System

3. Installation von Schienen und wasserdichtem System

3.1 Connect the rails with 30pcs ST6.3*25 self-tapping screws as shown inthe diagram.Pre-assembly on the ground is recommended. (Skip if thedesign does not required.)

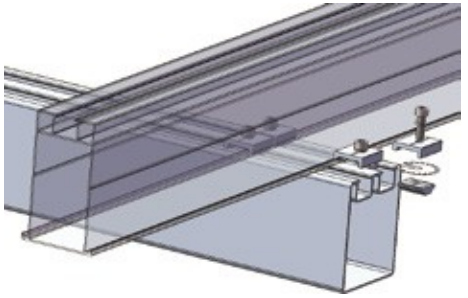
3.1 Verbinden Sie die Schienen mit 30 PCS ST6.3*25 Selbstkippschrauben wie im Diagramm gezeigt.Die Vorinstallation wird am Boden empfohlen. (Überspringen Sie, wenn kein Design erforderlich ist.)

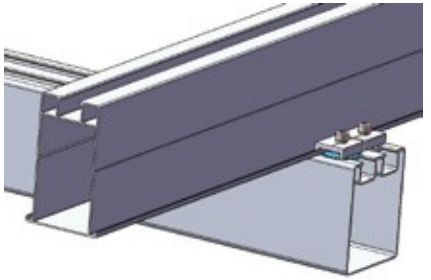




3.2 Install the rails. Secure rails to beams by using rail clamps (4 pcs rail clamps on each point).Select one of the four rail clamps and instrall earth clip between the beam and rail.

3.2 Die Schienen installieren. Schienen mit Schienenklemmen (4 pcs -Schienenklemmen an jedem Punkt) zu strahlen.Wählen Sie eine der vier Schienenklammern und einen instrengenden Erdclip zwischen Balken und Schiene.





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When inserting the clamps into the rail slots, retract the bolts to longest position as much as possible, then tilt them into the slots.slide them directly if the clamp at the end of rail. After adjusting the position, tighten the M8 hex bolts

Wenn Sie die Klemme in die Spurlücke einfügen, ziehen Sie die Bolzen so weit wie möglich in die längste Position zurück und legen Sie sie in die Spurspalte in einer Steigung (der Bolzen kann am Ende direkt in den Schienensteckplatz gleiten). Nach dem Einstellen der Position sperren Sie den M8 -Sechskantschrauben.



Note: If installing optional water guide gutter and sealing strips (Section III), ensure the rail installation positions for the first and last rails and beams are within the dimensions shown in the diagram. Otherwise, the water guide gutter or sealing strips may not fit.

HINWEIS: Wenn Sie optional die Dachrinnen- und Dichtungsstreifen (Section III) installiert haben, stellen Sie sicher, dass die Installationspositionen der beiden Schienen und Längsbalken an Kopf und Schwanz innerhalb der in der folgenden Abbildung gezeigten Abmessungen liegen.Andernfalls können sie nicht installiert werden.



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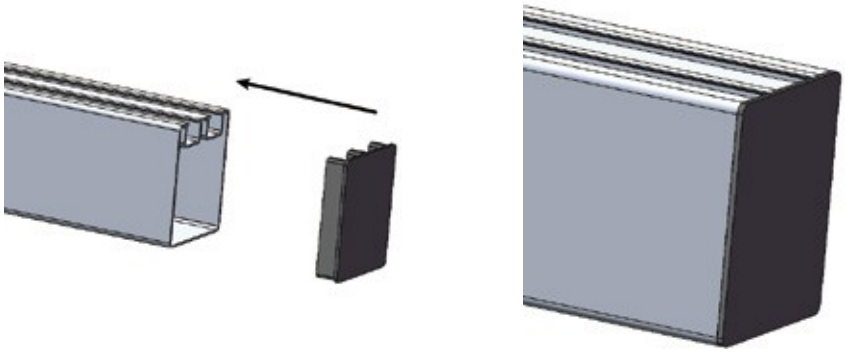
Rail installation completed

Schieneninstallation abgeschlossen



3.3 Install beam Cap,put caps to end of beam as shown in the diagram. (Skip if not selected.)

3.3 Balkenkappe installieren. Legen Sie die Kappen auf das Ende des Balken, wie im Diagramm gezeigt. (Überspringen Sie, wenn nicht ausgewählt.)

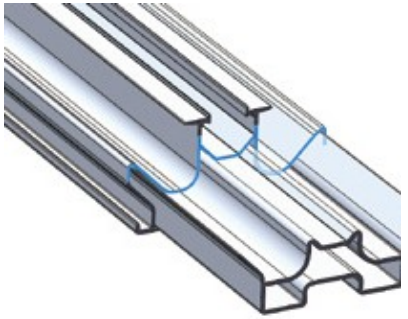


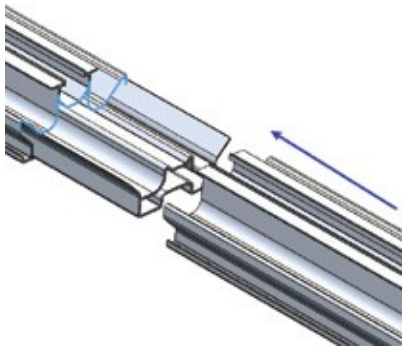
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3.4 Connect the waterproof rails as shown in the diagram.Insert rail splice and snap bottom clips onto rails.Apply waterproof sealant to the rail cross section, insert the second rail to ensure full sealant filling. (Skip if waterproof rail connection is not required.)

3.4 Verbinden Sie die wasserdichten Schienen, wie im Diagramm gezeigt.Setzen Sie einen Verbindung in die wasserdichte Schiene und lassen Sie den Splitter am Boden die Schiene klemmen.Tragen Sie den wasserdichten Klebstoff gleichmäßig auf den Wasserflussab schnitt im oberen Teil der Schiene auf und verbinden Sie eine andere Schiene, um sicherzustellen, dass die Verbindung zwischen den Schienen vollständig mit wasserdichtem Kleber gefüllt ist. (Wenn Sie keine wasserdichten Schienen anschließen müssen, ignorieren Sie diesen Schritt.)





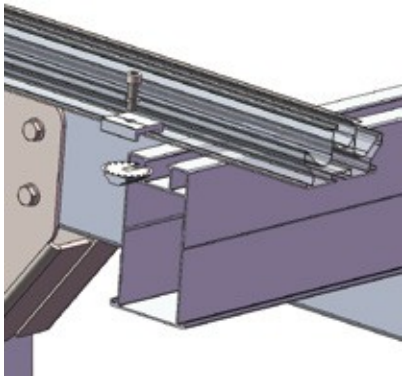


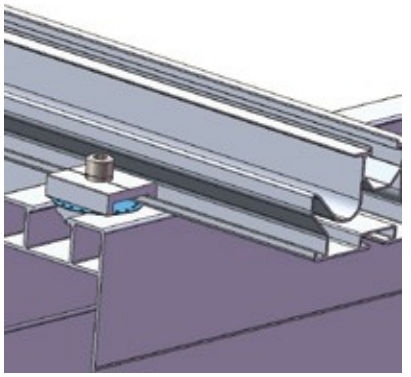


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3.5 Install the waterproof rails as shown in the diagram, fix waterproof rail to the rail by using rail clamp,Install 2 rail clamps on each position and fix 1 earth clip between the waterproof rail and rail.

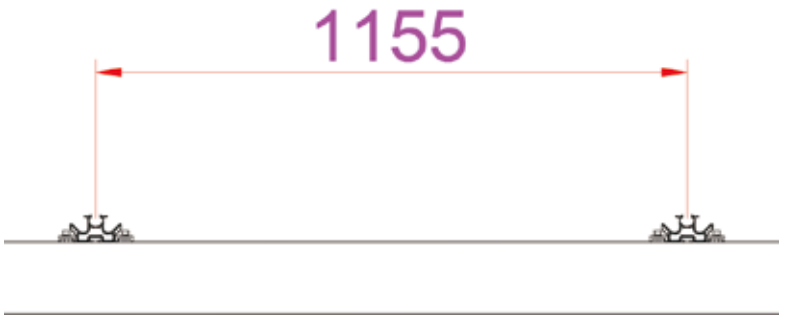
3.5 Installieren Sie die wasserdichten Schienen, wie im Diagramm gezeigt,verwenden Sie die Schienenklemme, um die wasserdichte Schiene an der Schiene zu sichern.Installieren Sie 2 Schienenklemmen in jeder Position und legen Sie 1 Erdungsclip zwischen die wasserdichte Schiene und die Schiene.





The spacing for the waterproof rails is: panel width + 21 mm
(e.g., solar module size 1722x1134, the spacing is 1134 + 21 = 1155 mm).

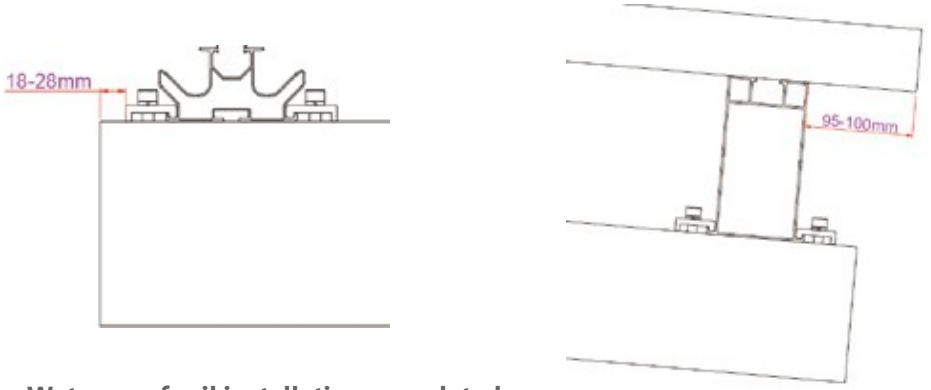
Der Abstand zwischen den wasserdichten Schienen beträgt: Panelbreite + 21 mm
(Zum Beispiel beträgt der Abstand der Solarmodulgröße 1722x1134 1134 + 21 = 1155 mm)



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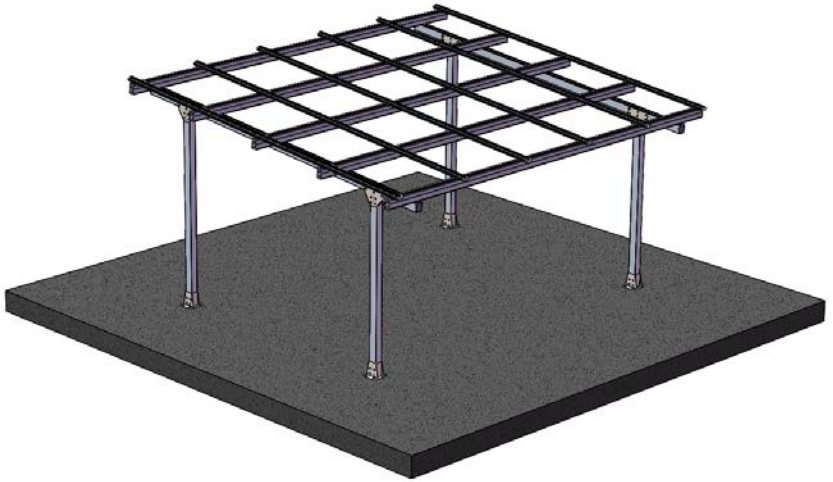
Note: If installing optional water guide gutter and edge sealing (Section III), ensure the waterproof rail installation positions are within the dimensions shown in the diagram.Otherwise, the water guide gutter or edge sealing may not fit.

HINWEIS: Wenn Sie optional die Rinnen- und Dichtungsstreifen (Section III) installiert haben, stellen Sie sicher, dass die Installationsposition der wasserdichten Schiene innerhalb des in der folgenden Diagramm gezeigten Abmessungsbereichs liegt.Andernfalls können sie nicht installiert werden.



Waterproof rail installation completed

Wasserdichte Schieneninstallation abgeschlossen



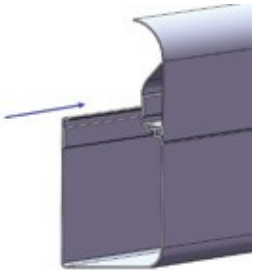
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4. Hidden drainage system and edge sealing installation (this step is Optional, skip if not selected)

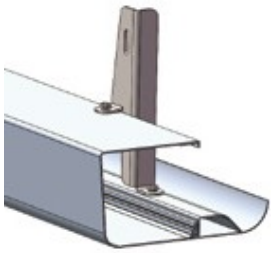
4. Versteckte Entwässerungssystem und Randdichtungsinstallation (dieser Schritt ist optional, überspringen Sie, wenn Sie nicht ausgewählt sind)

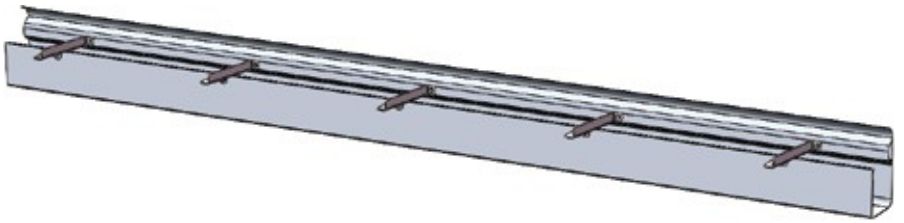
4.1 Assemble the gutter as shown in the diagram. Slide the upper water barrier into the gutter and align it. Then, install the gutter fixing part with self-tapping screws according to the drawing dimensions and quantities. (Skip if this step is pre-assembled.)

4.1 Die Installation der Rinne ist im Diagramm gezeigt dargestellt. Schieben Sie die obere Wasserbarriere in die Spüle und richten Sie sie aus.Montieren Sie anschließend die Rinnenbefestigungen mit selbstschneidenden Schrauben entsprechend der Größe und Menge auf der Zeichnung. (Wenn es vorinstalliert ist, überspringen Sie diesen Schritt.)





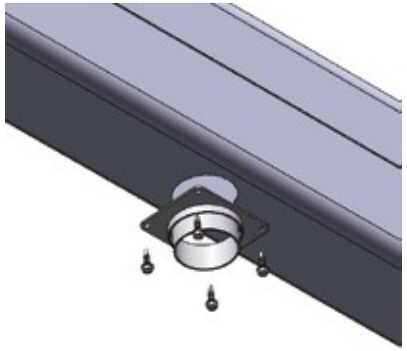


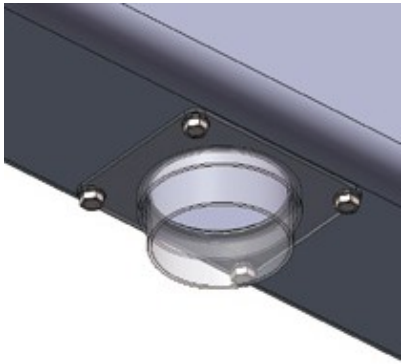


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4.2 Install the downpipes as shown in the diagram. Secure the down pipes to the gutter opening by using self-tapping screws. Apply waterproof sealant on the connection surface to prevent leakage.

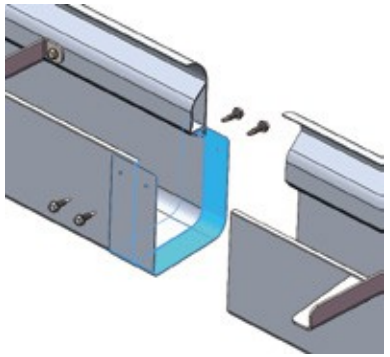
4.2 Installieren Sie die Regenfälle, wie im Diagramm gezeigt. Befestigen Sie die Regenfälle in der Rinnenöffnung, indem Sie Selbstkassetten schrauben verwenden.Die Kontaktfläche des Verbindungsteils muss mit wasserfestem Kleber beschichtet werden, um ein Austreten von Wasser zu verhindern

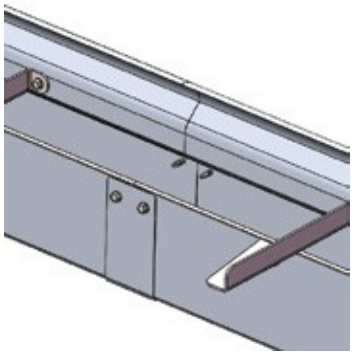




4.3 Connect the gutters as shown in the diagram, using self-tapping screws to secure the connection.Apply waterproof sealant on the connection surface to prevent leakage.(Skip if gutter connection is not required.)

4.3 Verbinden Sie die Dachrinnen wie im Diagramm gezeigt.Sichern Sie die Verbindung mit selbstschneidenden Schrauben. Tragen Sie auf die Verbindungsfläche ein wasserdichtes Dichtmittel auf, um ein Austreten von Wasser zu verhindern.(Überspringen, wenn kein Rinnenanschluss erforderlich ist.)

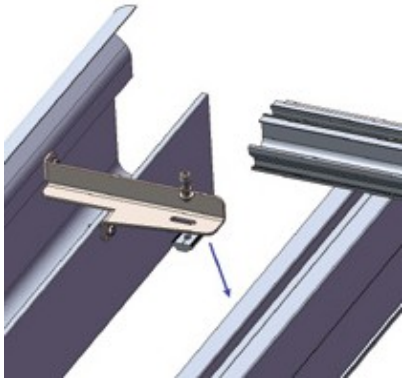


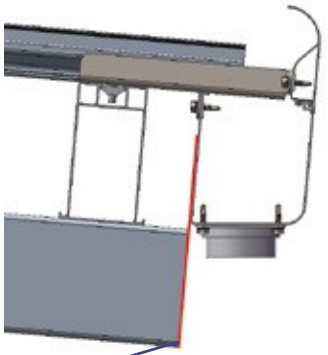


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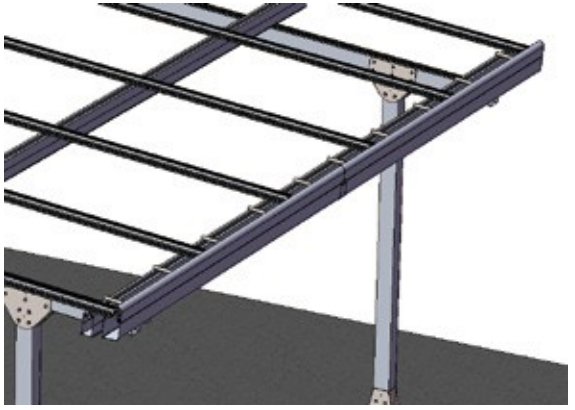
4.4 Install the gutter as shown in the diagram, using the bolt and gutter fixing part to secure it to the bottom rail.Pay attention to the size and distance to ensure the water from the waterproof rails flows into the gutter and facilitates subsequent installation.

4.4 Installieren Sie die Wasserrinne wie im Diagramm gezeigt und befestigen Sie sie mit der Bolzen und dem Rinnenbefestigungsteil an der unteren Schiene.Achten Sie auf die Größe und Abstände, um sicherzustellen, dass das Wasser von der wasserdichten Schiene in die Wasserrinne abfließen kann und so die spätere Installation erleichtert wird.





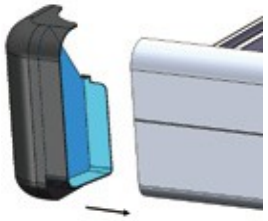
Flush with the beam
Bündig zur Balken



(Please continue reading the content on the back)

4.5 Install waterproof caps.Apply waterproof sealant evenly between the caps and gutter, then put the caps to the gutter ends and secure with 2 self-tapping screws.

4.5 Installieren Sie wasserdichte Kappen.Tragen Sie zwischen der Kappe und der Dachrinne gleichmäßig wasserdichtes Dichtmittel auf, montieren Sie die Kappe an beiden Enden der Rinne und befestigen Sie sie mit zwei selbstschneidenden Schrauben.



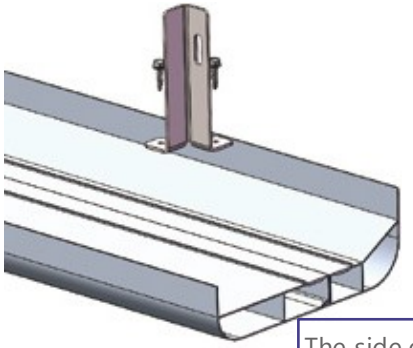


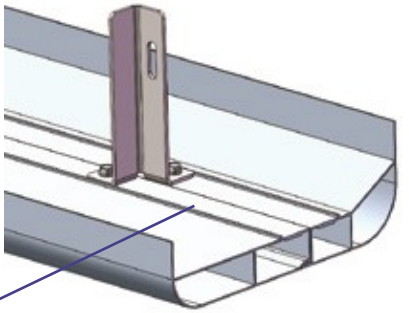


4.6 Assemble the side and rear edge sealing as shown in the diagram, aligning the upper and lower edge sealings. Install the edge sealing fasteners, using self-tapping screws according to the drawing dimensions and quantities. (Skip if this step is pre-assembled.)
Note: The side and rear edge sealing fasteners are similar but have different installation methods. Be careful not to mix them up.

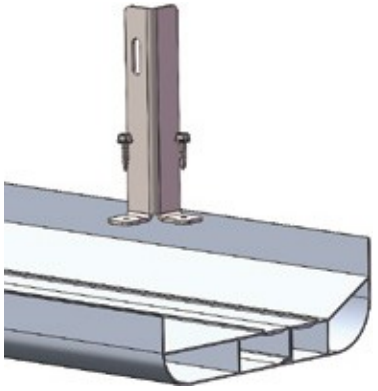
4.6 Montieren Sie die Seiten- und Hinterkantendichtung wie im Diagramm gezeigt und richten Sie dabei die oberen und unteren Kantendichtungen aus.Montieren Sie die Kantendichtungsbefesti gungen mit selbstschneidenden Schrauben gemäß den Maßen und Mengenangaben in der Zeichnung. (Dieser Schritt kann übersprun gen werden, wenn die Dichtung bereits vormontiert ist.)
Hinweis: Die Befestigungselemente für die Seiten- und Hinterkan tendichtung sind ähnlich, haben aber unterschiedliche Montage methoden. Achten Sie darauf, sie nicht zu verwechseln.

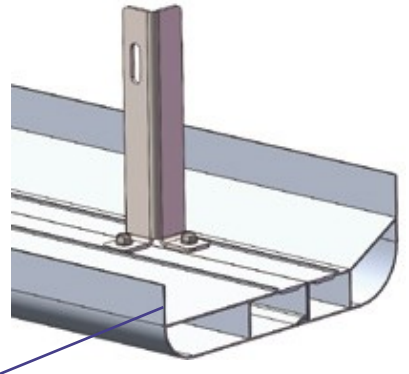
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The side edge sealing fastener is shorter(145mm), After installation, the long hole surface is bent toward the side with higher edge sealing.
Der seitliche Randversiegelungsverschluss ist kürzer (145 mm).Nach der Montage wird die Lang-lochfläche zur Seite mit höherer Randversiegelung gebogen.



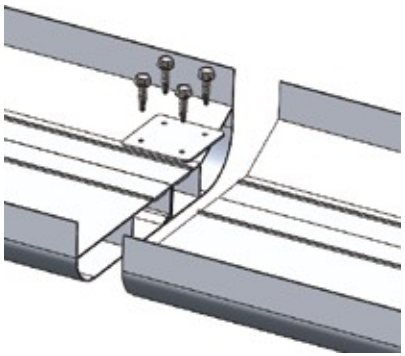


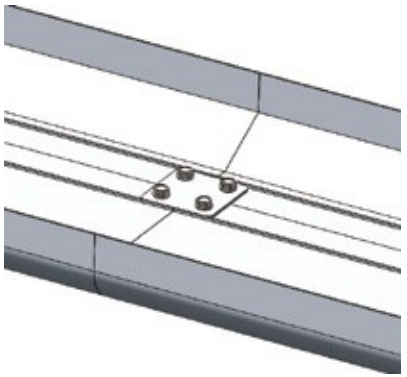
The rear edge sealing fastener is longer (180mm). After installation, the long hole surface is bent toward the side with lower edge sealing.
Der hintere Randdichtungsverschluss ist länger (180 mm). Nach der Montage wird das Langloch zur Seite der Unterranddichtung gebogen.

(Please continue reading the content on the back)

4.7 Connect the edge sealings as shown in the diagram. Align the edge sealings to be connected and secure them with self-tapping screws and connecting plates. The installation for side and rear edge sealings is the same. (Skip if connection is not required.)

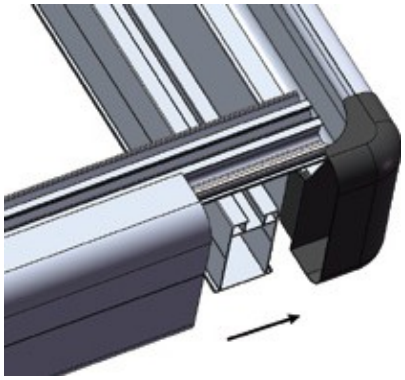
4.7 Schließen Sie die Randdichtungen wie im Diagramm gezeigt an. Richten Sie die anzuschließenden Randdichtungen aus und befesti gen Sie sie mit selbstschneidenden Schrauben und Verbindungsplat ten.Die Montage der seitlichen und hinteren Randdichtungen ist identisch. (Überspringen, falls kein Anschluss erforderlich ist.)

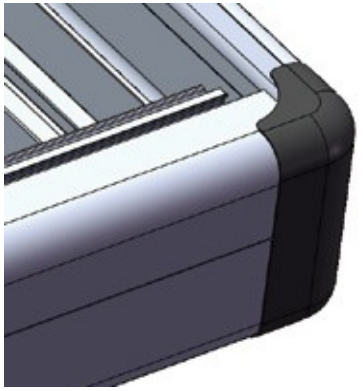




4.8 Align the waterproof caps and install the side edge sealings. Insert the side edge sealings into the waterproof caps of the gutter.

4.8 Richten Sie die Dichtungskappen aus und montieren Sie die Seitenk antendichtungen. Setzen Sie die Seitenkantendichtungen in die Dichtungskappen der Rinne ein.

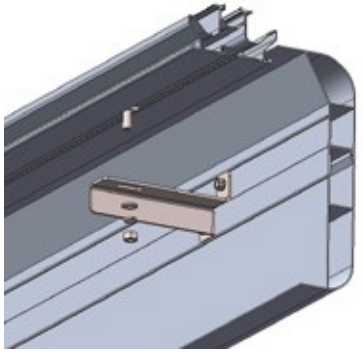


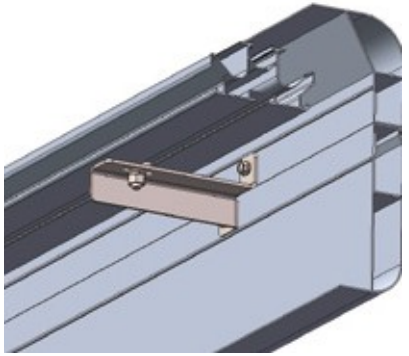


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4.9 Fix the side edge sealings with T-bolt to the bottom slot of the outermost waterproof rail, as shown in the diagram.

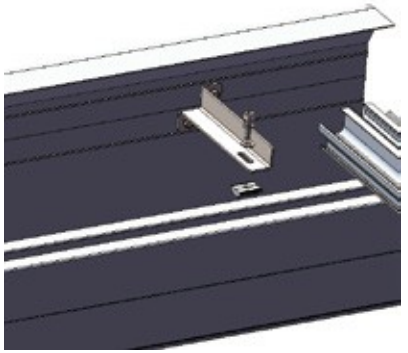
4.9 Befestigen Sie die Seitenkantendichtungen mit T-Bolzen am unteren Schlitz der äußersten wasserdichten Schiene, wie im Diagramm gezeigt.





4.10 Fix the rear edge sealings with bolt to the last rail, as shown in the diagram.

4.10 Befestigen Sie die Hinterkantendichtungen mit Bolzen an der letzten Schiene, wie im Diagramm gezeigt.

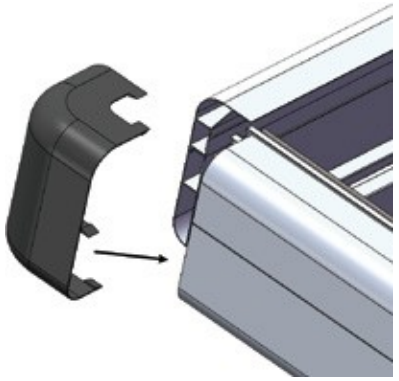


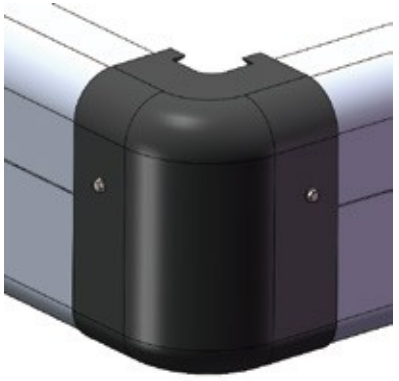


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4.11 Install the corner caps on the side and rear edge sealings as shown in the diagram. Fix them with 1 self-tapping screw on each side.

4.11 Die Eckkappen an den Seiten- und Hinterkantendichtungen wie im Diagramm gezeigt montieren. Befestigen Sie sie mit 1 selbstschneidenden Schraube auf jeder Seite.





5.Install solar Panels

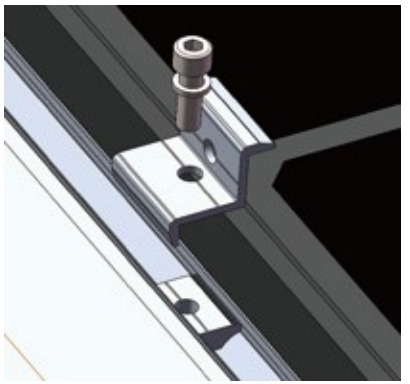
5. Installieren Sie Solarmodule

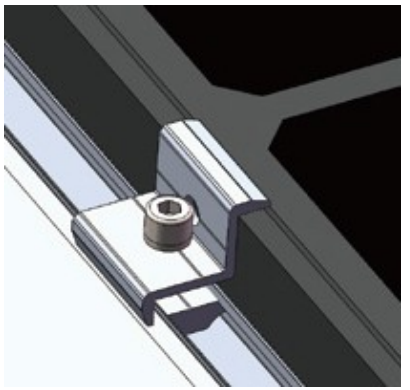
1. Install the end clamps. Place the panels between the waterproof rails, aligning the bottom with the rails to ensure water flows into the gutter.When inserting the clamps into the rail slots, retract the bolts to longest position as much as possible, then tilt them into the slots.After adjusting the position, tighten the M8 hex bolts.

1. Installieren Sie die Endklemmen. Platzieren Sie die Paneele zwischen den wasserdichten Schienen und richten Sie die Unterseite an den Schienen aus, um sicherzustellen, dass das Wasser in die Rinne abfließen kann.Wenn Sie die Klemmen in die Schienenschlitze einsetzen, ziehen Sie die Bolzen so weit wie möglich in die längste Position zurück und kippen Sie sie dann in die Schlitze. Ziehen Sie nach dem Anpassen der Position die M8-Sechskantbolzen fest.

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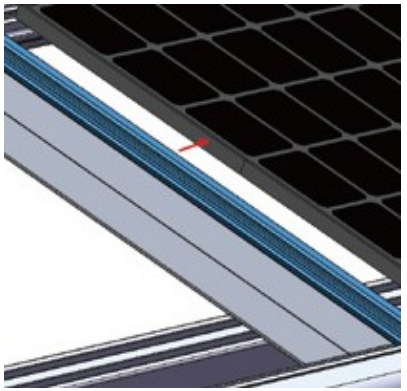


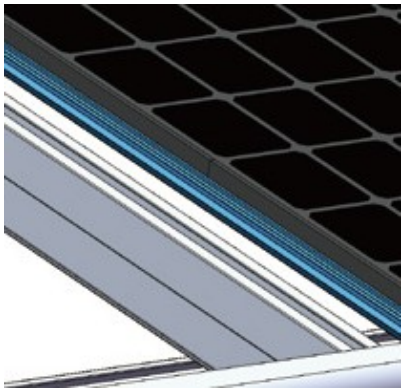


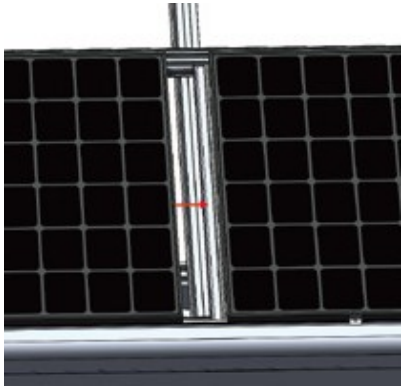
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5.2 Install the solar modules vertically.Place the horizontal gutter on the waterproof rails and slide it under the panel.Install another panel on the other side,close to the gutter.Fix the mid/ end clamps and insert a toothed rubber strip into the gap.

5.2 Installieren Sie die Solarmodule vertikal.Legen Sie die horizontale Rinne auf die wasserdichten Schienen und schieben Sie sie unter das Modul.Montieren Sie ein weiteres Modul auf der anderen Seite,nahe der Rinne.Befestigen Sie die Mittel-/Endklemmen und legen Sie einen gezahnten Gummistreifen in den Spalt.

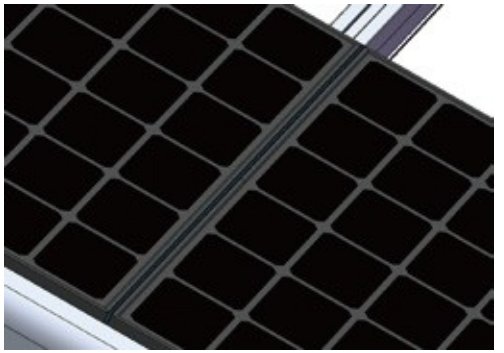






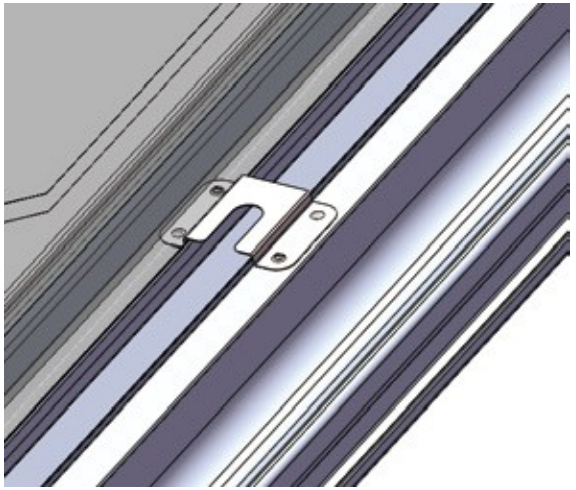


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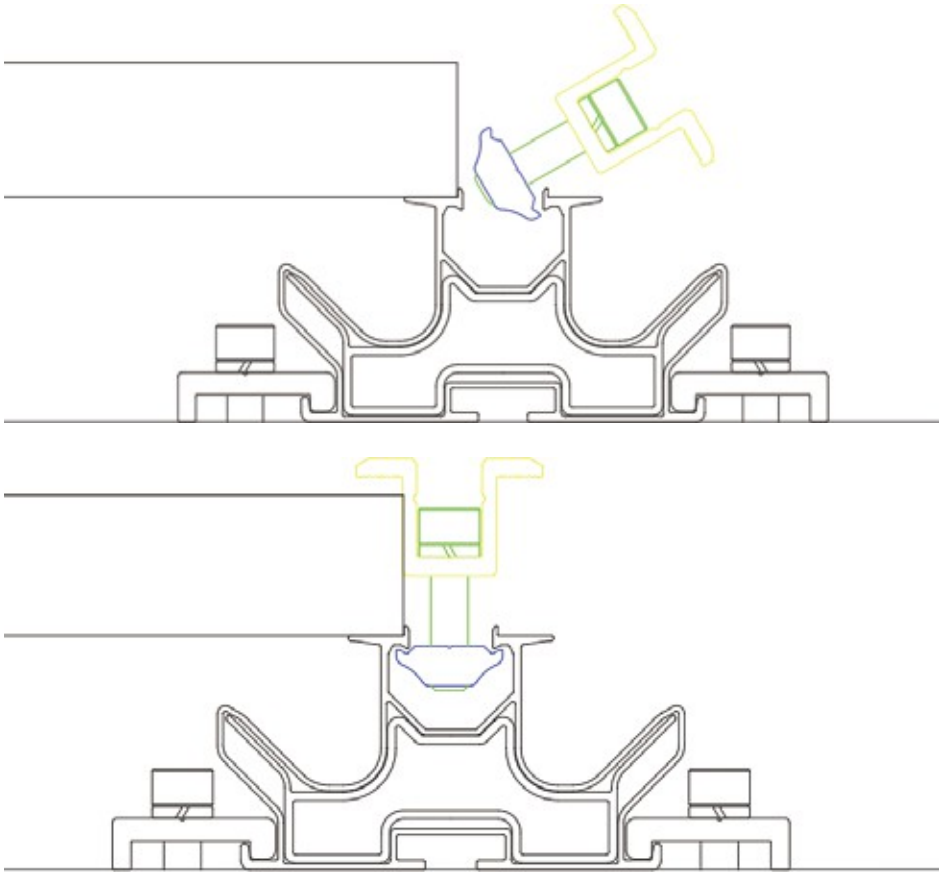


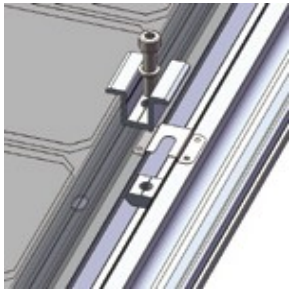
5.3 Install the solar modules Horizontally.Place earth clip under the panel, 1 earth clip for each mid-clamp. Tilt the mid-clamp into place, slide the earth clip under it, and install the other panel.Adjust the panel and mid-clamp position, then tighten the bolts.

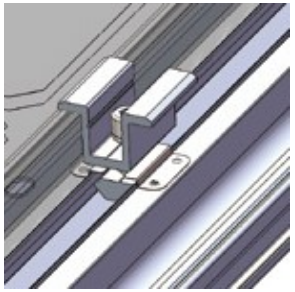
5.3 Installieren Sie die Solarmodule horizontal.Platzieren Sie Erdungsk lammen unter der Paneel und installieren Sie eine Erdungsklammer pro Mittelklamme.Platzieren Sie die Mittelklemme schräg an ihrem Platz, schieben Sie die Erdungsklemme darunter und installieren Sie dann das andere Panel.Passen Sie die Position von Paneel und Mittelklemme an und ziehen Sie dann die Schrauben fest.

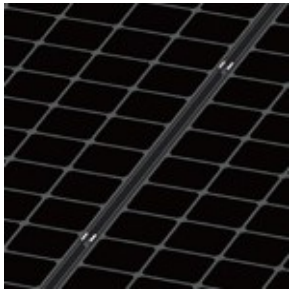


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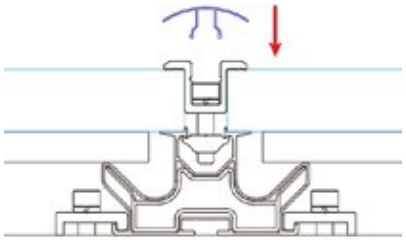


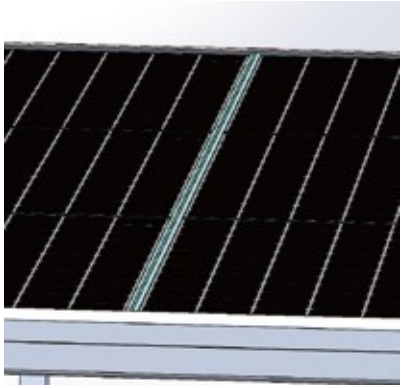


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5.4 Install the mid-clamp covers. After all mid-clamps in a row are completed, place the covers on top and fix them.

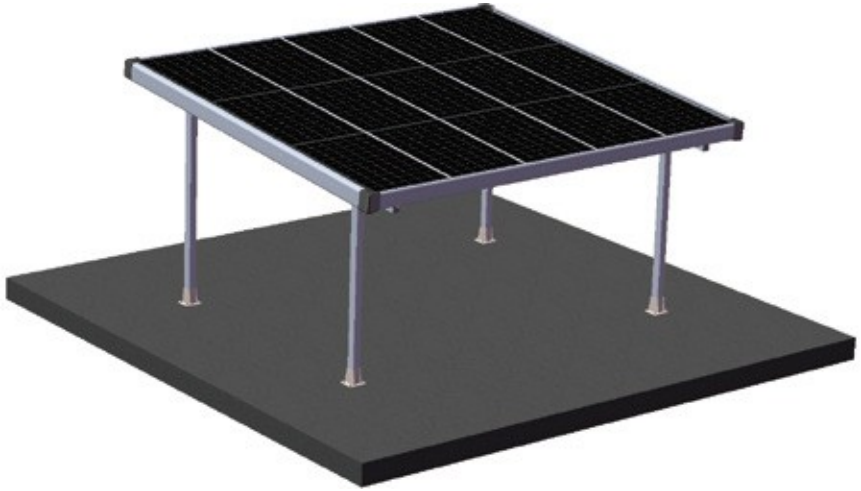
5.4 Montieren Sie die Mittelklemmenabdeckungen. Nachdem alle Mittelklemmen einer Reihe fertiggestellt sind, legen Sie die Abdeck ungen auf und befestigen Sie sie.





Repeat these steps until all modules are installed.

Wiederholen Sie diese Schritte, bis alle Module installiert sind.

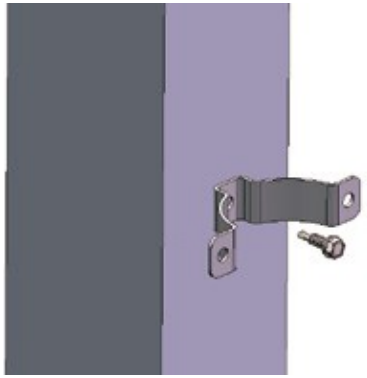


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6.Installation of Hidden Drainage System (Skip if not selected)

6. Installieren Sie Solarmodule

1. As shown in the diagram, fix hoop to pillars for downpipe installa tion.
2. Befestigen Sie den Rahmen für die Fallrohrinstallation wie im Diagramm gezeigt an den Säulen.

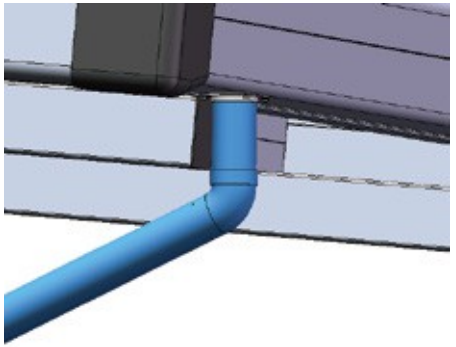




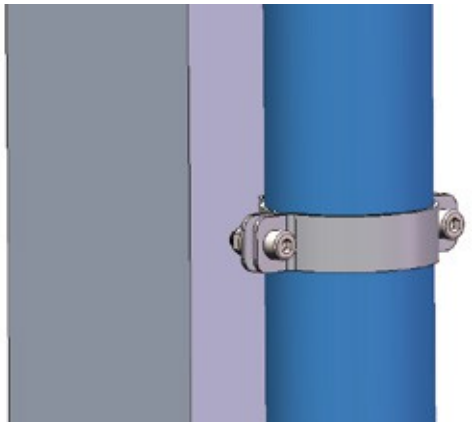
Connect the downpipe and corner joint. Apply waterproof sealant to all connection surfaces, fix the downpipe to the hoop with bolts and tighten the bolts.

Beim Verbinden von Abflüssen, Fallrohren und Eckverbindungen müssen die Verbindungsflächen mit wasserfestem Kleber bestrichen, die Fallrohre an den Fallrohrbügeln befestigt und die Schraubenkomponenten festgezogen werden.





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Installation Complete.

Installation abgeschlossen.



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Purchaser/End User/Installer Notice:

Purchasers should confirm whether they are able to install this product and obtain relevant permits in accordance with local laws and regulations, including but not limited to government, community, adjacent property owners, and property rights holders.

Purchasers should engage qualified installers, professionals, or self-install only where permitted by law.

Purchasers should also ensure that the installation supports the building or its accessories safely and meets installation requirements, and is sufficient to support the product and its photovoltaic power generation system for over 20 years.

Purchasers should not install or use this product in environments with corrosive air or water, such as acids or alkalis in the vicinity.

Purchasers should fully assess and bear the consequences of product installation and usage and their impact on the surroundings, including but not limited to potential lightning strikes, electrical or magnetic conduction, light reflection/pollution, obstruction of passage, collision with people, snow accumulation and ice shedding, depreciation of buildings, and their consequences.

Purchasers are solely responsible for safety during installation, throughout the installation process, and subsequent usage, and/or any impact on third parties.

After installing the product, purchasers or their appointed installers should carry out waterproof, leak-proof, and anti-seepage construction at the junction of the product and the building to protect the building supporting the product, and conduct periodic inspections and maintenance in the future (at intervals not exceeding 1 year).

Purchasers should be aware that nothing other than the photovoltaic power generation system should be supported on this product, and no additional weight should be placed on the product during installation or subsequent usage, particularly human suspension or leaning. It should not be used for any purpose other than supporting photovoltaic brackets. Purchasers should be aware that nothing other than the photovoltaic power generation battery system should be supported on this product, and no additional weight should be placed on the product during installation or subsequent usage,

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particularly human suspension or leaning. It should not be used for any purpose other than supporting photovoltaic brackets.

We shall not be liable for any consequences resulting from failure to comply with local legal requirements and/or failure to follow instructions, warnings, etc., during the installation of this product, nor shall we be liable for any losses to the supporting building or any third party resulting from the installation process or subsequent usage, nor shall we be liable for any multiple installations, disassembly and reuse, or second-hand purchases of this product.

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INSTALLATION MANUEL

MANUALE DI INSTALLAZIONE

Système de Montage pour Carport Solaire V2.1

Sistema di montaggio per parcheggio fotovoltaico V2.1

SC01-CP2-3x5-020-KS01

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*Le produit réel peut différer légèrement des images, veuillezvous référer au produit physique pour les détails

*Il prodotto effettivopuò differire leggermente dalle immagini, fareriferimento al prodottofisicoper i dettagli.

1.Outils d'Installation

1.Strumenti per l'installazione



Clé Allen
(M8-M12)
Chiave esagonale interna
(M8-M12)



Mètre à Ruban
Metro a nastro



Clé à Molette
(M8-M12)
Chiave inglese regolabile



Perceuse à Main
Trapano elettrico



Trapano elettrico
(M8-M12)
Chiave a cricchetto

Couple de serragerecommandé pour lesboulons

Forza di serraggioconsigliata

- M8: 12–15 N·m
- M12: 60–80 N·m
- M10: 24–30 N·m
- ST6.3: 4–6 N·m

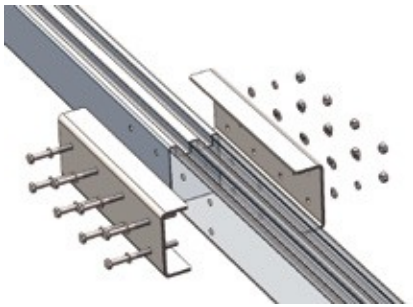
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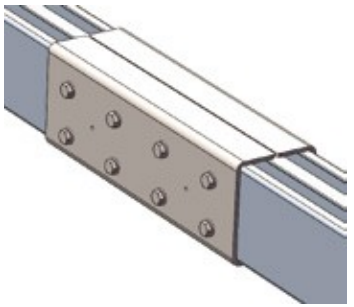
2. Installation du support inférieur

2. Installazione della trave

2.1 Connecter la poutre, fixer les boulons M10x140 comme indiqué sur le schéma, 4 boulons sur chaque poutre. (sautez cette étape si le project ne nécessite pas de connexion de poutre)

2.1 Collegare la trave e serrare i bulloni M10x140 come mostrato nel diagramma. Ogni trave richiede 4 bulloni. (Saltare questo passaggio se il progetto non prevede il collegamento delle travi.)





2.2 Installation des boulons de base. Positionnez la base conformément au schéma et vissez les boulons expansibles (ou les boulons encastrés) aux emplacements correspondants. La hauteur du filetage exposé au-dessus du sol ne doit pas être inférieure à 36 mm.

2.2 Installazione dei bulloni di base. Posizionare la base secondo il disegno e inserire i bulloni ad espansione (o i bulloni annegati) nei punti corrispondenti.

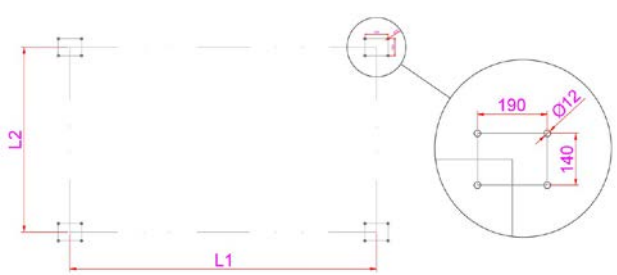
L1: Distance centre à centre entre les bases gauche/droite (le long de la direction horizontale de la gouttière)

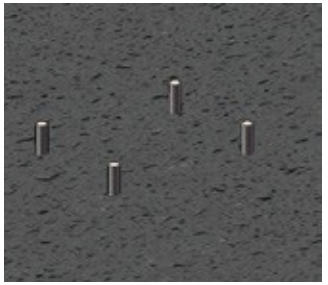
L1: Distanza tra i centri delle basi sinistra e destra (lungo la direzione orizzontale della grondaia)

L2: Distance centre à centre entre les bases avant/arrière (le long de la direction inclinée de l'écoulement de l'eau)

L2: Distanza tra i centri delle basi anteriore e posteriore (lungo la direzione inclinata del deflusso dell'acqua)

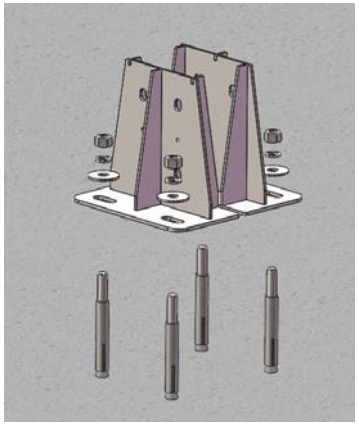
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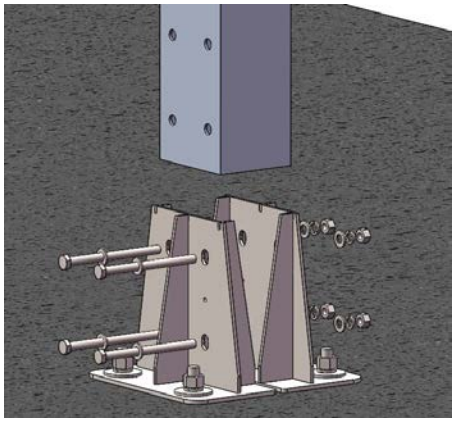




2.3 Fixation de la base
Installez la base comme indiqué sur la figure. Ne serrez pas complètement les boulons afin de permettre un réglage fin.

2.3 Fissaggio della base: installare la base come mostrato in figura, senza serrare completamente i bulloni, per facilitare le regolazioni.

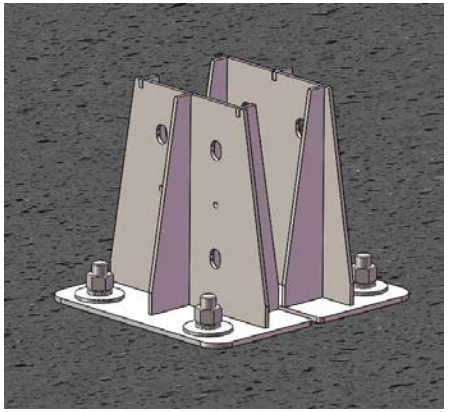


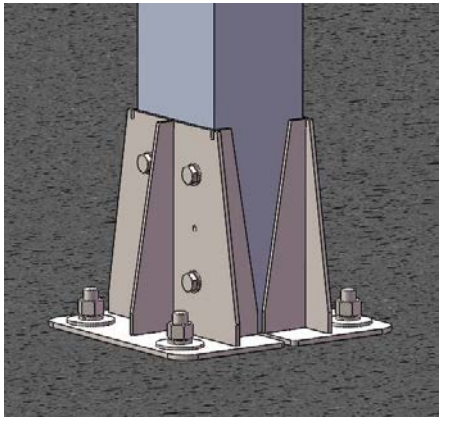


2.4 Connectez le pilier à la base et serrez les boulons M12x140, comme indiqué sur le schéma (4 boulons au total).

2.4 Collega il pilastro alla base e stringi i bulloni M12x140, come mostrato in figura (4 bulloni in totale).

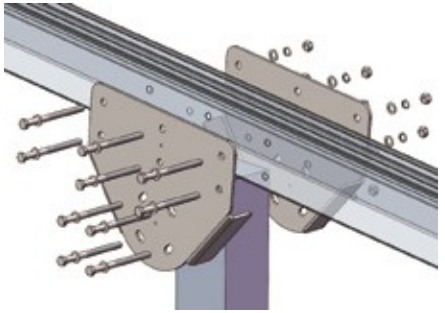
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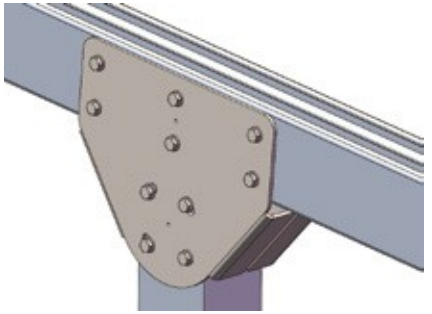




2.5 Connectez le pilier et la poutre, puis serrez les boulons M10x140 comme indiqué sur le schéma (6 boulons sur la poutre, 4 sur le pilier).

2.5 Collega il pilastro e la trave, stringi i bulloni M10x140 come mostrato in figura (6 bulloni sulla trave, 4 sul pilastro).





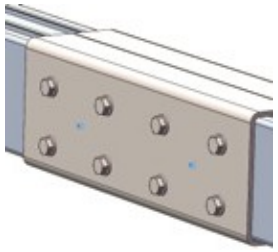
Remarque : les étapes 2.3, 2.4 et 2.5 peuvent être ajustées en fonction des habitudes d'installation sur site et de la commodité. Après avoir vérifié que l'installation est correcte, serrez tous les boulons.

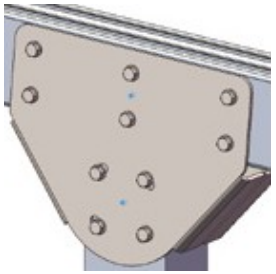
Nota: I passaggi 2.3, 2.4 e 2.5 possono essere adattati in base alle abitudini e alla praticità dell'installazione in loco. Dopo aver verificato la corretta installazione, serrare tutti i componenti dei bulloni.

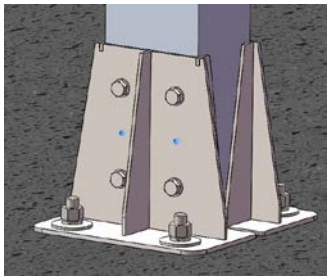
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Les petits trous sur le connecteur et la base servent à la mise à la terre. Si une conductivité est requise via le système poutre-pilier-base,sélectionnez un chemin et insérez une vis autotaraudeuse ST6.3*25 dans chaque composant pour obtenir une conductivité complète du système. Si ce n'est pas nécessaire, sautez cette étape.

I piccoli fori sul connettore e sulla base sono per la messa a terra. Se è richiesta la conduzione elettrica attraverso il sistema trave-pilastro-base,selezionare un percorso e inserire una vite autofilettante ST6.3*25 in ciascun componente per ottenere la conduzione elettrica dell'intero sistema. Se non necessaria, ignorare questo passaggio







Installation de la poutre terminée

Installazione della trave completata



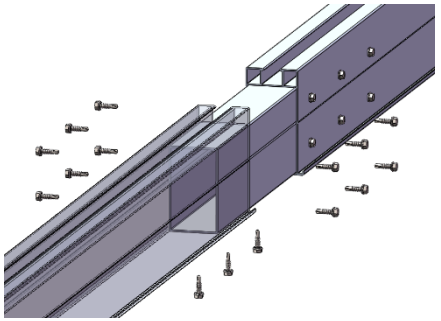
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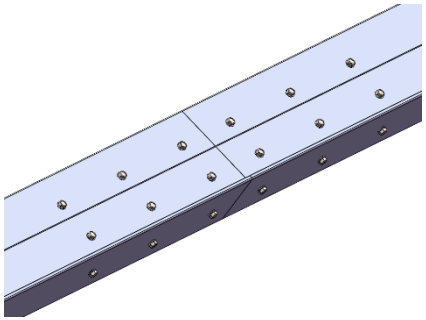
3. Installation de rails et de système d'étanchéité

3. Installazione dei binari e del sistema impermeabile

3.1 Connectez les rails avec 30 vis autotaraudeuses ST6.3*25 comme indiqué sur le schéma,Il est recommandé de pré-assembler le produit au sol. (Sautez cette étape si le project n'est pas nécessaire.)

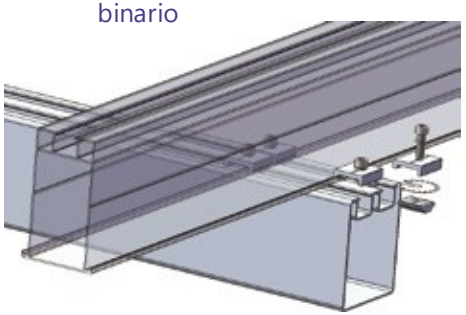
3.1 Connessione dei binari: come mostrato in figura, utilizzare 30 viti autofilettanti ST6.3x25 per collegare i binari.Si consiglia il preassemblaggio a terra per una maggiore facilità di operazione. (Se il progetto non richiede il collegamento, ignorare questo passaggio.)

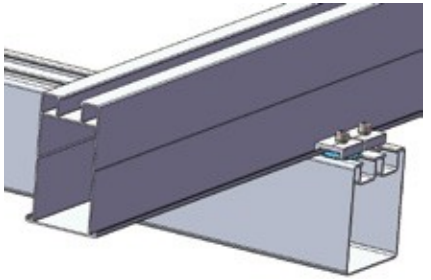




3.2 Installer the rails. Utilisez les pinces de rails pour fixer les rails aux poutres (4 pièces pinces de rails à chaque point).Sélectionnez l'une des quatre pinces de rail et installez le clip de terre entre la poutre et le rail.

3.2 Installazione dei binari. Fissare i binari alle travi utilizzando i morsetti per binario (4 morsetti per ogni punto).Selezionare uno ogni quattro morsetti e installare la piastra conduttiva tra la trave e il binario





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Lors de l'insertion des pinces dans les fentes du rail, rétractez les boulons dans la position la plus longue autant que possible, puis inclinez-les dans les fentes. Faites-les glisser directement depuis la pince située à l'extrémité du rail. Après avoir ajusté la position, serrez les boulons hexagonaux M8.

Quando inserisci i morsetti nelle fessure dei binari, è necessario spingere il bullone il più indietro possibile nella posizione più lunga, e inclinarlo per inserirli nella fessura.Se il morsetto si trova all'estremità del binario, possono essere inseriti direttamente lateralmente. Dopo aver regolato la posizione, stringi i bulloni esagonali M8.



Remarque : Si vous installez une gouttière de guidage d'eau et des bandes d'étanchéité en option (Section III), assurez-vous que les positions d'installation des rails pour les premier et dernier rails et poutres sont conformes aux dimensions indiquées dans le schéma.Dans le cas contraire, la gouttière de guidage d'eau ou les bandes d'étanchéité risquent de ne pas convenir.

Nota: Se è prevista l'installazione della grondaia e della bordatura circostante (parte terza), assicurarsi che la posizione di installazione dei binari alle estremità e delle travi rientri nelle dimensioni come indicate nella figura sottostante, altrimenti potrebbe non essere possibile installare la grondaia o la bordatura.



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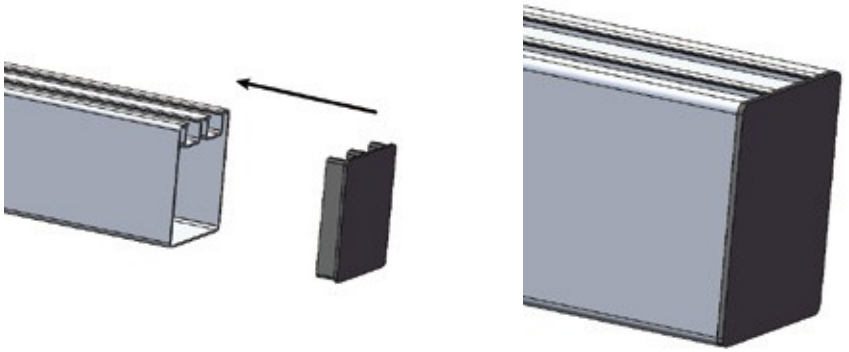
Installation du rail terminée.

Installazione dei binari completata.



3.3 Installez le capot de poutre, placez les capot à l'extrémité de la poutre comme indiqué sur le schéma. (Sautez si non sélectionné.)

3.3 Installazione dei tappi della trave: fissare i tappi alle estremità della trave come mostrato in figura. (Se questo prodotto non è stato selezionato, ignorare questo passaggio.)

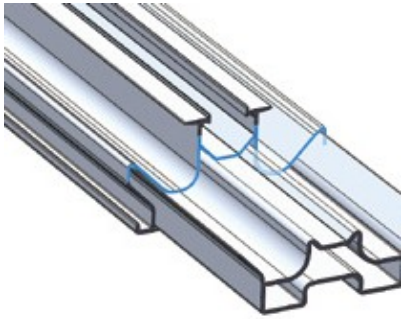


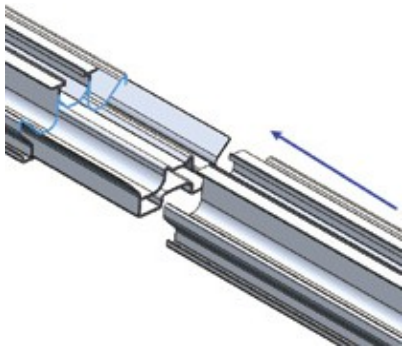
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3.4 Connectez les rails étanches comme indiqué sur le schéma.Insérez le connecteur et les clips inférieurs sur rails.Appliquer un colle imper méable sur la section transversale du rail, insérez le deuxième rail pour assurer un remplissage complet du colle imperméable. (sautez cette étape, si une connexion de rail étanche n'est pas nécessaire.)

3.4 Collegare i binari impermeabili come mostrato in figura. Inserire il connettore, e fissare le clip inferiori sui binari. Applicare uniformemente la guarnizione impermeabile sulla sezione superiore del binario, inserire l'altro binario, assicurandosi che la guarnizione impermeabile sia ben distribuita nella giunzione. (Se la connessione del binario impermeabile non è necessaria, ignorare questo passaggio.)





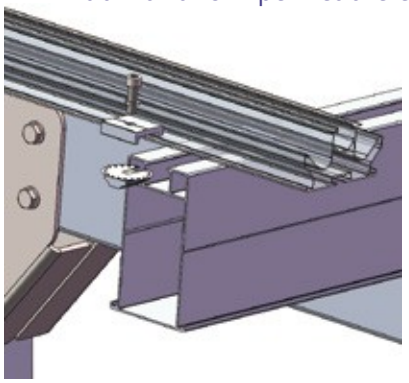


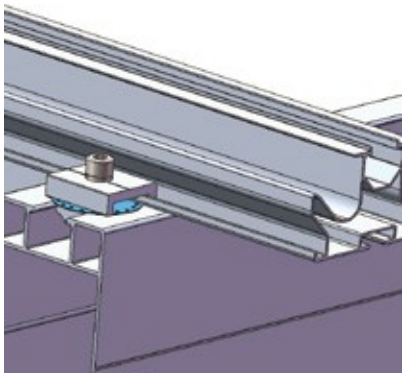


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3.5 Installez les rails étanches comme indiqué sur le schéma, fixez le rail étanche au rail par utiliser la pince de rail.Installer 2 pinces de rails sur chaque position et fixer 1 clip de terre entre le rail étanche et le rail.

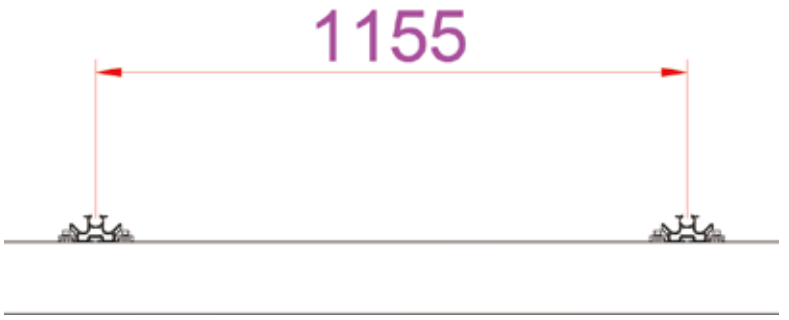
3.5 Installare le rotaie impermeabili come mostrato in figura. Fissare il binario impermeabile sul binario principale utilizzando i morsetti per binari. Installare 2 morsetti per ogni punto di fissaggio, per ogni coppia di morsetti, selezionarne uno e inserire una piastra conduttiva tra il binario impermeabile e il binario principale.





L'espacement des rails étanches est : largeur du panneau + 21 mm
(par exemple, taille du module solaire est de 1722x1134, l'espacement est de 1134 + 21 = 1155 mm).

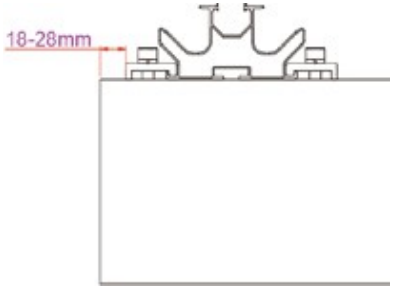
La distanza tra i binari impermeabili è: larghezza del pannello + 21 mm (esempio: modulo solare di dimensioni 1722x1134, la distanza sarà 1134 + 21 = 1155 mm).

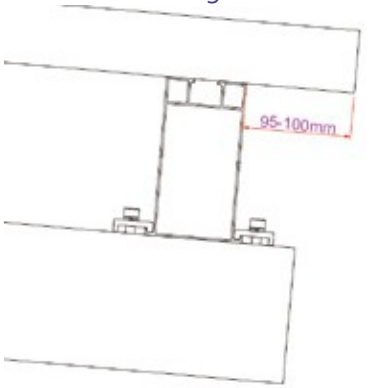


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Remarque : Si vous installez une gouttière de guidage d'eau et un joint d'étanchéité en option (Section III), assurez-vous que les positions d'installation du rail étanche sont conformes aux dimensions indiquées sur le schéma.Sinon, la gouttière de guidage d'eau ou le joint d'étanchéité risquent de ne pas convenir.

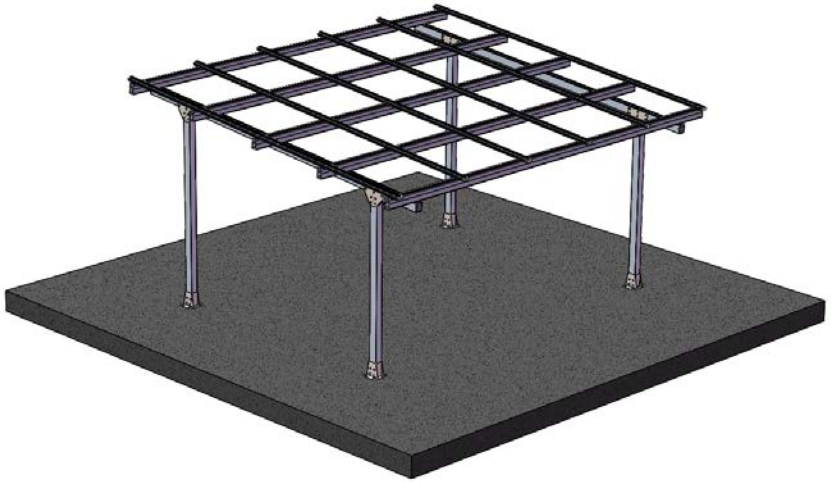
Nota: Se è prevista l'installazione della grondaia e della bordatura circostante (parte terza), assicurarsi che la posizione di installazione dei binari alle estremità e delle travi rientri nelle dimensioni come indicate nella figura sottostante, altrimenti potrebbe non essere possibile installare la grondaia o la bordatura.





Installation du rail étanche terminée.

Installazione del binario impermeabile completata.



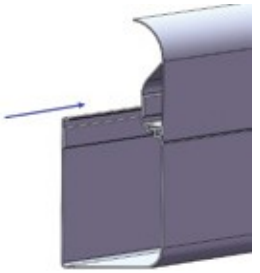
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4. Installation du système de drainage caché et de l'étanchéité des bords (sautez cette étape, si vous n'avez pas sélectionnr ce produit)

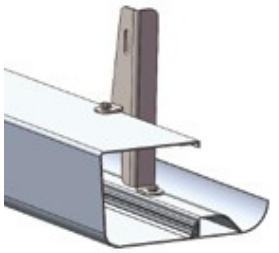
4. Installazione del sistema di drenaggio e della bordatura circostante (questo passaggio è opzionale, se non selezionato, ignorare questo passaggio di installazione).

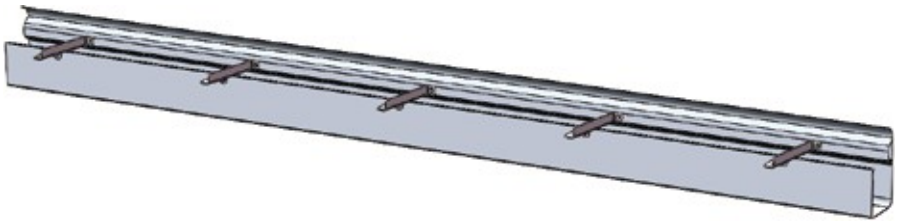
4.1 Assemblez la gouttière comme indiqué sur le schéma. Glissez le pare-eau supérieur dans la gouttière et alignez-le.Installez ensuite la fixation de la gouttière à l'aide de vis autotaraudeuses, conformément aux dimensions et aux quantités indiquées sur le dessin. (Ignorez cette étape si elle est pré-assemblée.)

4.1 Assemblare la grondaia come mostrato in figura.Inserire il pannello superiore di protezione contro l'acqua nella grondaia e allinearlo. Successivamente, installare i fissaggi della grondaia utilizzando viti autofilettanti, seguendo le dimensioni e le quantità indicate nel disegno. (Saltare se questo passaggio è già pre-assemblato.)





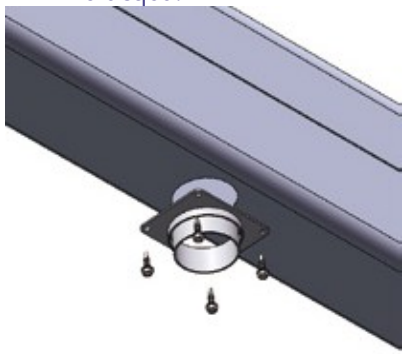


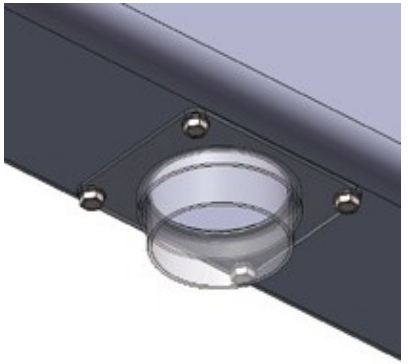


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4.2 Installez les tuyaux de descente comme indiqué sur le schéma. Fixez-les à l'ouverture de la gouttière à l'aide de vis autotaraudeus es.Appliquez le mastic imperméable sur la surface de connexion pour éviter les fuites.

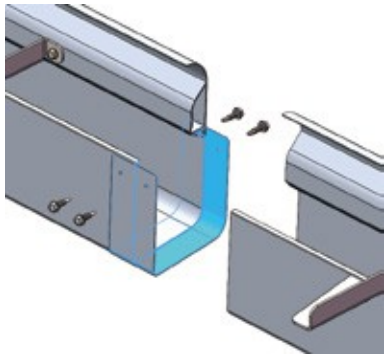
4.2 Installazione del tubo di scarico: come mostrato in figura, fissare il tubo di scarico all'apertura della grondaia utilizzando viti autofilet-tanti. La superficie di connessione deve essere ben rivestita con la guarnizione impermeabile, altrimenti potrebbero verificarsi perdite d'acqua.

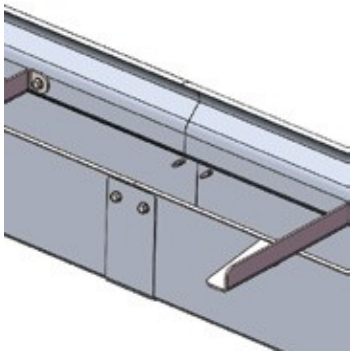




4.3 Connectez les gouttières comme indiqué sur le schéma, en utilisant des vis autotaraudeuses pour sécuriser la connexion.Appliquez le mastic imperméable sur la surface de connexion pour éviter les fuites.(Si ce n'est pas nécessaire, sautez cette étape.)

4.3 Collegare le grondaie come mostrato in figura, utilizzando viti autofilettanti per fissare la connessione. Applicare la guarnizione impermeabile sulla superficie di connessione per prevenire perdite. (Saltare se la connessione della grondaia non è necessaria.)

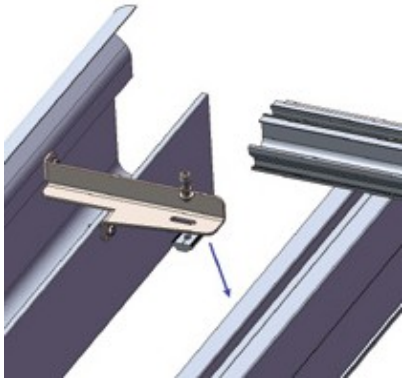


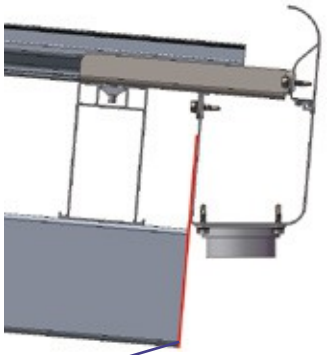


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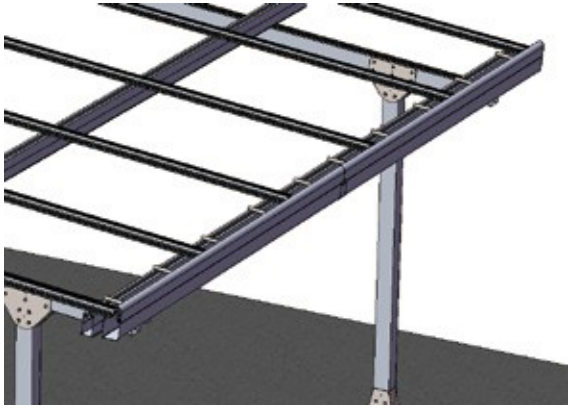
4.4 Installez la gouttière comme indiqué sur le schéma, en utilisant le boulon et la pièce de fixation de la gouttière pour la fixer au rail inférieur.Faites attention à la taille et à la distance pour garantir que l'eau des rails étanches s'écoule dans la gouttière et facilite l'instal lation ultérieure.

4.4 Installare la grondaia come mostratoin figura, utilizzando il bullone e il morsetto della grondaia per fissarla al binario inferiore. Prestare attenzione alle dimensioni e alla distanza per garantire che l'acqua dai binari impermeabili scorra correttamente nella grondaia e faciliti le successive operazioni di installazione.





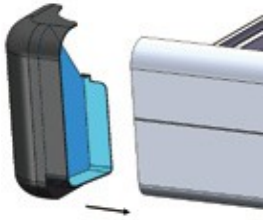
Au ras de la poutre
A livello con la trave portante



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4.5 Installer des capots étanches.Appliquez le mastic imperméable entre les capots et la gouttière, puis placez les capots aux extrémités de la gouttière et fixez-les avec 2 vis autotaraudeuses.

4.5 Installare i tappi impermeabili sui lati. Applicare uniformemente la guarnizione impermeabile tra i tappi e la grondaia, poi posizionare i tappi alle estremità della grondaia e fissarli con 2 viti autofilettanti.



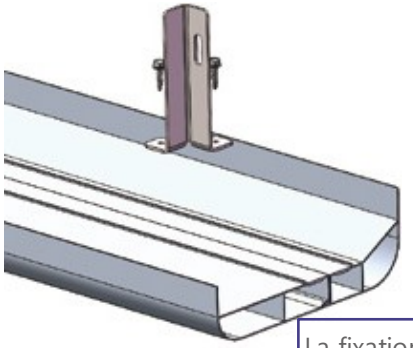


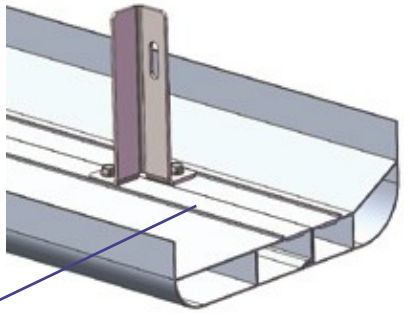


4.6 Assemblez les joints des bords latéraux et arrière comme indiqué sur le schéma, en alignant les joints des bords supérieur et inférieur.In stallez les fixations d'étanchéité des bords à l'aide de vis auto taraudeuses conformément aux dimensions et aux quantités du dessin. (Sautez cette étape si il est pré-assemblée.)
Remarque : les fixations d'étanchéité des bords latéraux et arrière sont similaires mais ont des méthodes d'installation différentes. Attention à ne pas les mélanger.

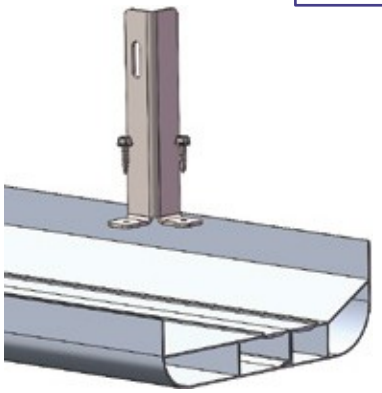
4.6 Assemblaggio dei bordi laterali e posteriori: come mostrato nella figura, allineare i bordi superiori e inferiori. Successivamente, installare i fissaggi dei bordi utilizzando viti autofilettanti, seguendo la distanza e il numero indicati nella figura (Se il prodotto è già pre-assemblato, ignorare questo passaggio).
Nota: I fissaggi per i bordi laterali e posteriori sono simili, ma il metodo di installazione è diverso, quindi prestare attenzione a non confonderli.

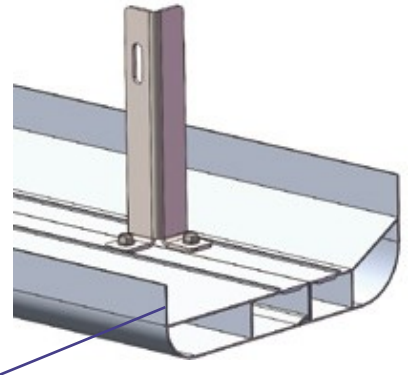
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La fixation d'étanchéité des bords latéraux est plus courte (145 mm). Après l'installation, la surface du trou long est pliée vers le côté avec une étanchéité des bords plus élevée.
Il fissaggio del bordo laterale è più corto, 145 mm. Dopo l'installazione, la piega della superficie del foro lungo deve essere rivolta verso il lato più alto del bordo.



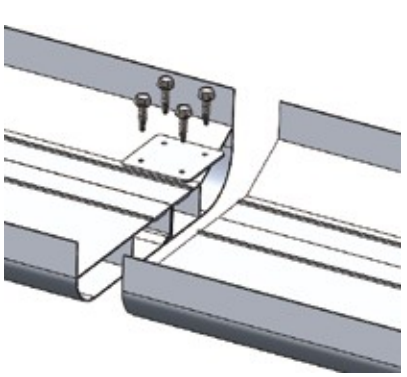


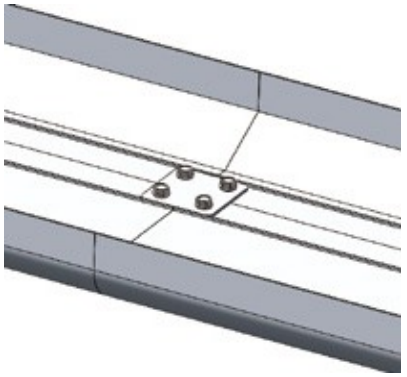
La fixation du bord arrière est plus longue (180 m m). Après l'installation, la surface du trou long est pliée vers le côté du bord inférieur.
Il fissaggio del bordo posteriore è più lungo, 180 mm. Dopo l'installazione, la piega della superficie del foro lungo deve essere rivolta verso il lato più basso del bordo.

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4.7 Raccordez les joints de bord comme indiqué sur le schéma. Alignez les joints de bord à connecter et fixez-les avec des vis autotaraude uses et des plaques de connexion.L'installation des joints de bord latéraux et arrière est la même. (Sautez si la connexion n'est pas requise.)

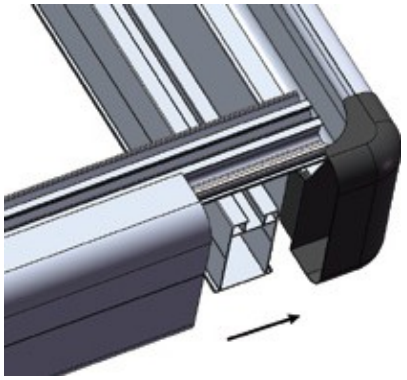
4.7 Connessione dei bordi: come mostrato in figura, allineare i bordi da connettere e fissarli con viti autofilettanti e piastre di collegamento. Il metodo di connessione per i bordi laterali e posteriori è lo stesso. (Se la connessione non è necessaria, ignorare questo passaggio.)

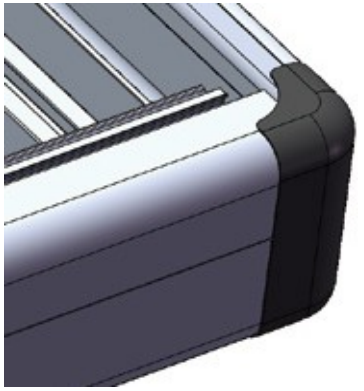




4.8 Alignez les capots étanches et installez les joints des bords latéraux. Insérez les joints des bords latéraux dans les capots étanches de la gouttière.

4.8 Allineare il tappo impermeabile e installare il bordo laterale, inserendo il bordo laterale nel tappo impermeabile della grondaia.



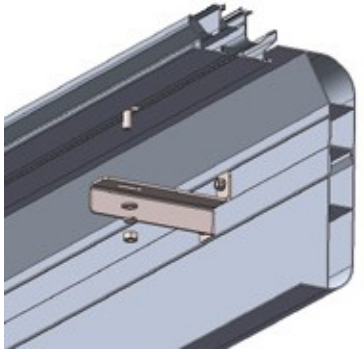


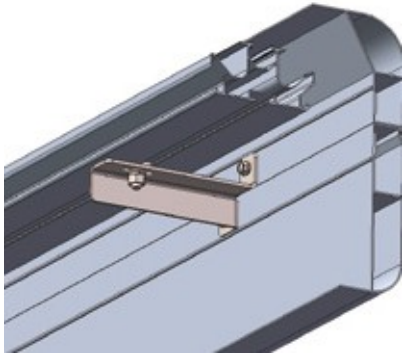
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4.9 Fixez les joints des bords latéraux avec un boulon en T à la fente inférieure du rail étanche le plus à l'extérieur, comme indiqué sur le schéma.

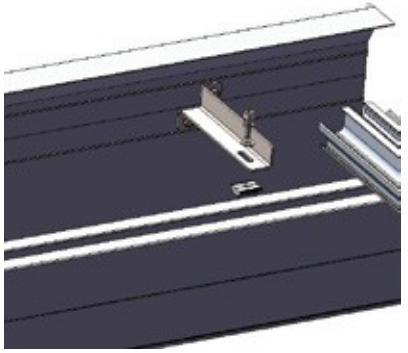
4.9 Fissaggio del bordo laterale: il bordo laterale deve essere fissato con un bullone a T nella fessura inferiore del binario impermeabile più esterna, come mostrato in figura.





4.10 Fixez les joints de bord arrière avec un boulon sur le dernier rail, comme indiqué sur le schéma.

4.10 Fissaggio del bordo posteriore: il bordo posteriore deve essere fissato con un bullone e morsetto, posizionandolo sull'ultimo binario laterale, come mostrato in figura.

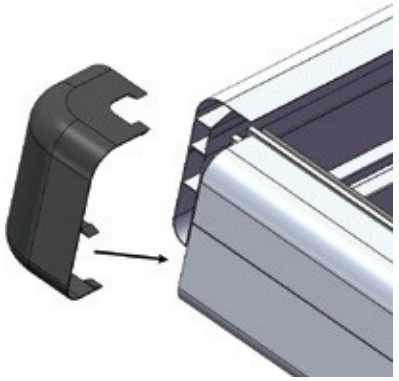


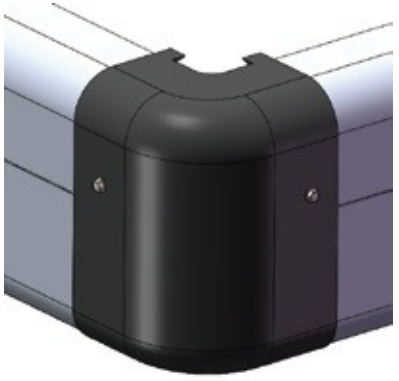


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4.11 Installez les capots d'angle sur les joints des bords latéraux et arrière comme indiqué sur le schéma. Fixez-les avec 1 vis autotaraudeuse de chaque côté.

4.11 Installazione dei tappi angolari sui bordi laterali e posteriori: come mostrato in figura, posizionare i tappi angolari e fissarli con 1 vite autofilettante su ciascun lato.





5. Installer des panneaux solaires

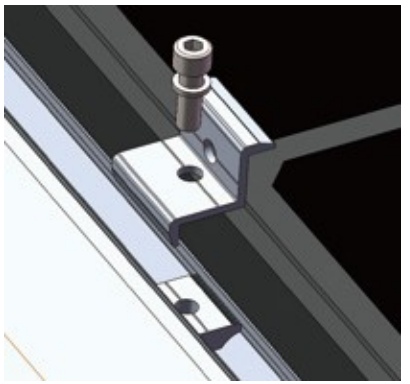
5. Installazione dei pannelli solari

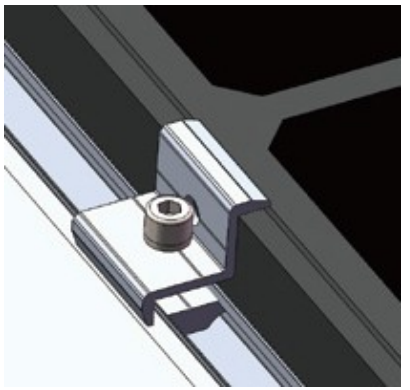
1. Installer les pinces d'extrémité. Placez les panneaux entre les rails étanches, en alignant le bas avec les rails pour assurer l'écoulement de l'eau dans la gouttière.Lors de l'insertion des pinces dans les fentes du rail, rétractez les boulons jusqu'à la position la plus longue autant que possible, puis inclinez-les dans les fentes. Après avoir réglé la position, serrez les boulons hexagonaux M8.

2. Installare i morsetti finali. Posizionare i pannelli tra i binari impermeabili, allineando la parte inferiore con il binario per garantire che l'acqua scorra correttamente nella grondaia. Quando inserisci i morsetti nelle fessure dei binari, è necessario spingere il bullone il più indietro possibile nella posizione più lunga, e inclinarlo per inserirli nella fessura. Dopo aver regolato la posizione, stringi i bulloni esagonali M8.

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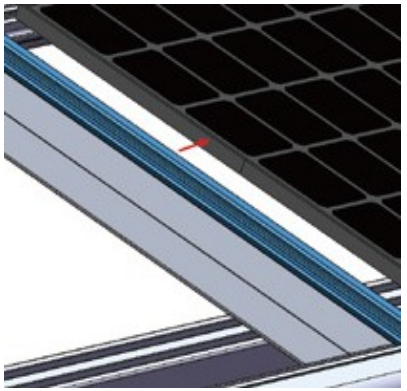


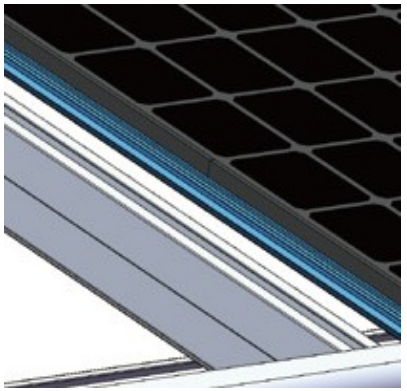


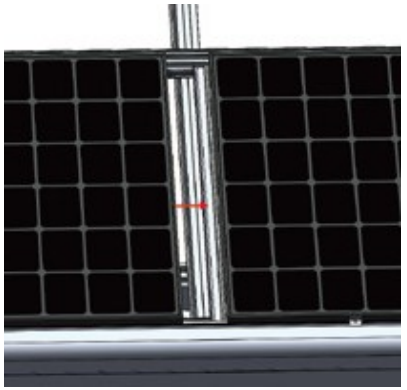
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5.2 Installer les modules solaires verticalement.lacez la gouttière hori zontale sur les rails étanches et glissez-la sous le panneau.Installez un autre panneau de l'autre côté, près de la gouttière.Fixez les pinces centrales/d'extrémité et insérez une bande de caoutchouc dentée dans l'espace.

5.2 Installare i moduli solari in posizione verticale. Posizionare la grondaia orizzontale sui binari impermeabili e farla scivolare sotto il pannello. Installare un altro pannello dall'altro lato, vicino alla grondaia. Fissare i morsetti centrali/finali e inserire una striscia di gomma dentata nella fessura.



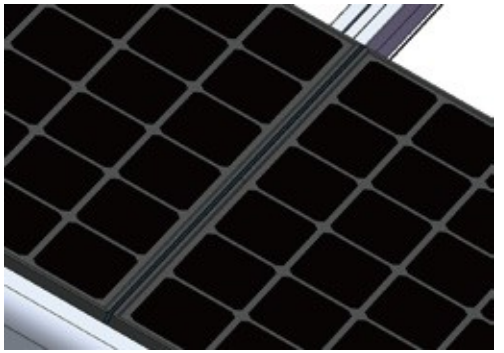






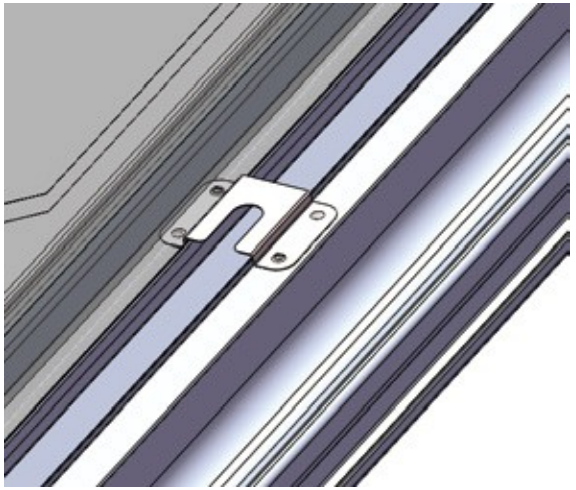
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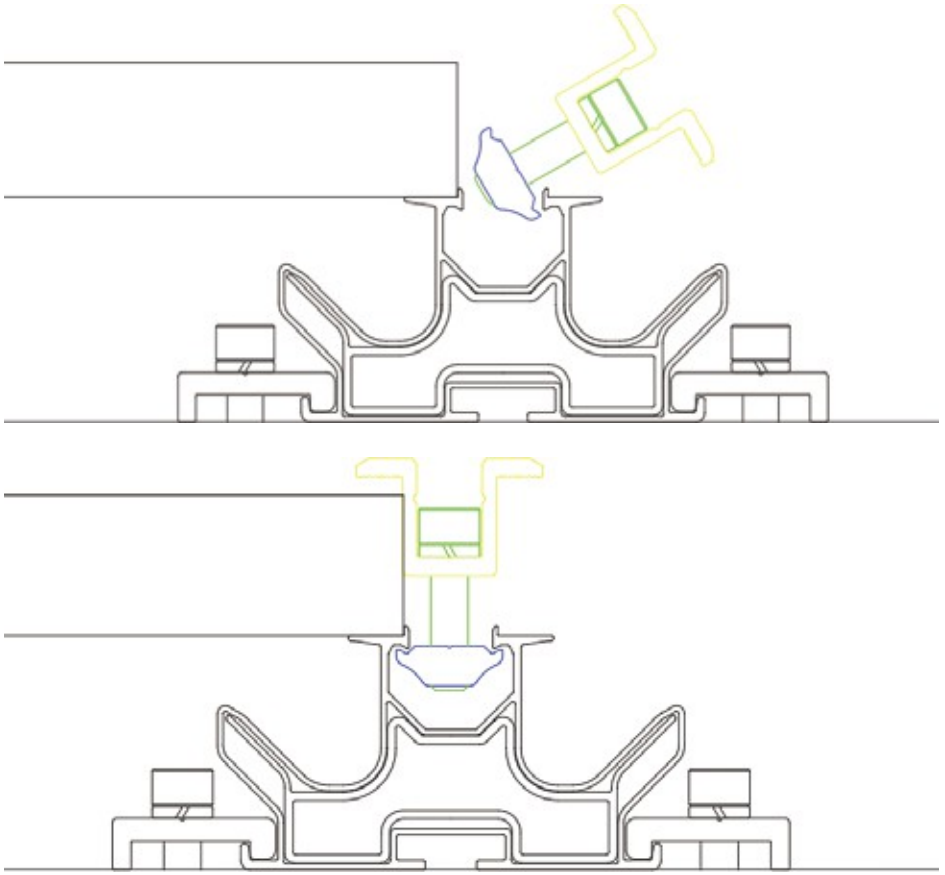


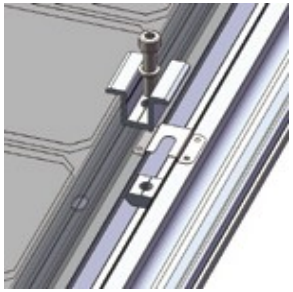
5.3 Installer les modules solaires horizontalement.Placez le clip de terre sous le panneau, 1 clip de terre pour chaque pince intermédiaire.In clinez la pince centrale en place, faites glisser le clip de terre en dessous et installez l'autre panneau.Ajustez la position du panneau et de la pince centrale, puis serrez les boulons.

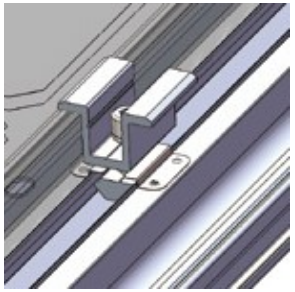
5.3 Installare i moduli solari orizzontalmente.Posizionare la piastra conduttiva sotto il pannello, 1 piastra conduttiva per ogni morsetto centrale. Inclinare il morsetto centrale in posizione, far scivolare la piastra conduttiva sotto di esso e installare l'altro pannello. Regolare la posizione del pannello e del morsetto centrale, e stringere i bulloni.

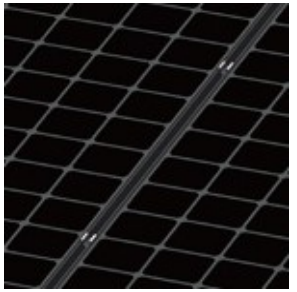


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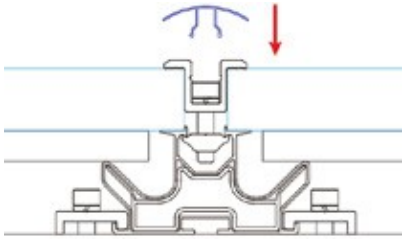


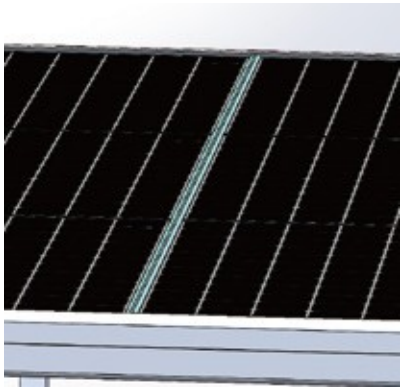


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5.4 Installez les capots de la pince de centrale. Une fois toutes les pinces intermédiaires d'une rangée terminées, placez les capots dessus et fixez-les.

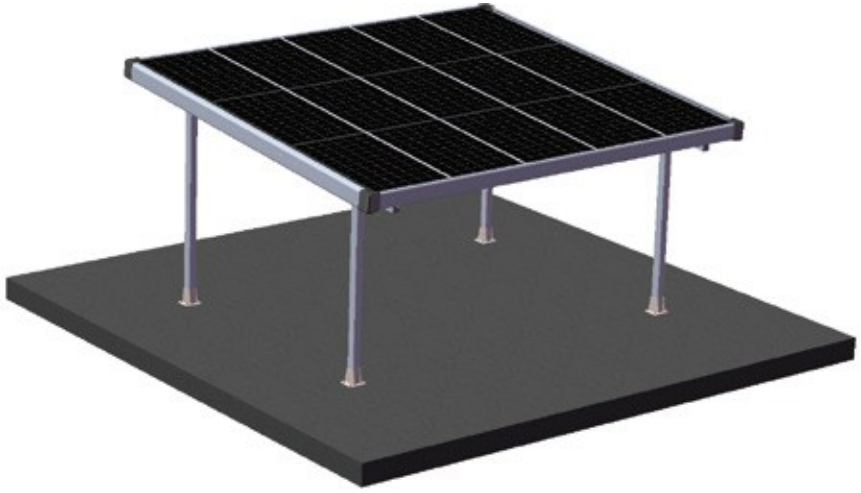
5.4 Installazione del coperchio del morsetto centrale: quando tutta la fila di morsetti centrali è stata installata, è possibile montare il coperchio del morsetto centrale, allineandolo e agganciandolo correttamente.





Répétez ces étapes jusqu' à ce que tous les modules soient installés.

Ripetere questo passaggio fino a quando tutti i moduli fotovoltaici non sono completamente installati.

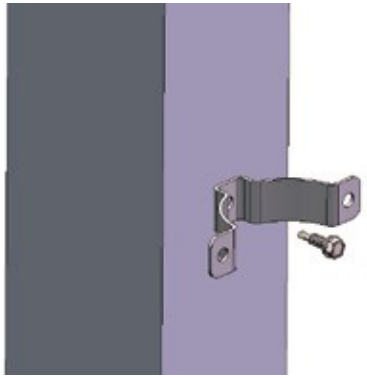


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6.Installation d'un système de drainage caché (Sautez si non sélectionné)

6. Installazione del sistema di drenaggio. (Se non selezionato, ignorare questo passaggio.)

1. Comme indiqué sur le schéma, fixez le cerceau aux piliers pour l'installation du tuyau de descente.
2. Come mostrato in figura, fissare il morsetto per tubo ai pilastri dove deve essere installato il tubo di drenaggio.

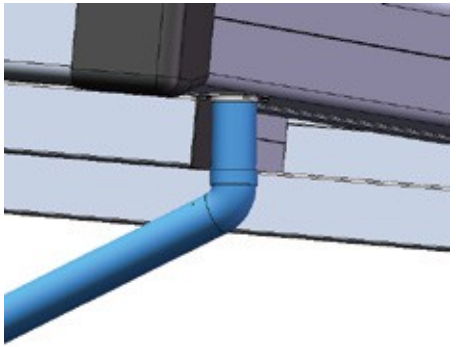




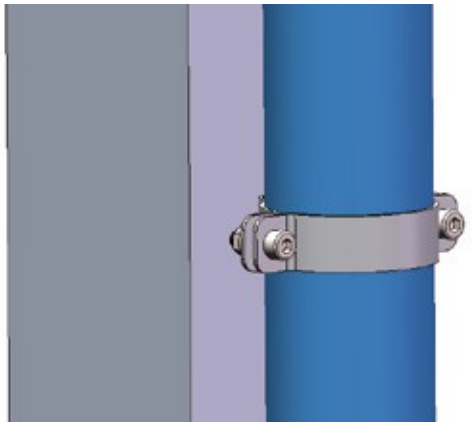
Connectez le tuyau de descente et le joint d'angle. Appliquez le colle imperméable sur toutes les surfaces de connexion, fixez le tuyau de descente au cerceau avec des boulons et serrez les boulons.

Collegare il tubo di drenaggio e il giunto angolare. Applicare la guarnizione impermeabile su tutte le superfici di connessione, fissare il tubo di drenaggio al morsetto per tubo con i bulloni e serrarli.





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Installation terminée.

Installazione completata.



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Purchaser/End User/Installer Notice:

Purchasers should confirm whether they are able to install this product and obtain relevant permits in accordance with local laws and regulations, including but not limited to government, community, adjacent property owners, and property rights holders.

Purchasers should engage qualified installers, professionals, or self-install only where permitted by law.

Purchasers should also ensure that the installation supports the building or its accessories safely and meets installation requirements, and is sufficient to support the product and its photovoltaic power generation system for over 20 years.

Purchasers should not install or use this product in environments with corrosive air or water, such as acids or alkalis in the vicinity.

Purchasers should fully assess and bear the consequences of product installation and usage and their impact on the surroundings, including but not limited to potential lightning strikes, electrical or magnetic conduction, light reflection/pollution, obstruction of passage, collision with people, snow accumulation and ice shedding, depreciation of buildings, and their consequences.

Purchasers are solely responsible for safety during installation, throughout the installation process, and subsequent usage, and/or any impact on third parties.

After installing the product, purchasers or their appointed installers should carry out waterproof, leak-proof, and anti-seepage construction at the junction of the product and the building to protect the building supporting the product, and conduct periodic inspections and maintenance in the future (at intervals not exceeding 1 year).

Purchasers should be aware that nothing other than the photovoltaic power generation system should be supported on this product, and no additional weight should be placed on the product during installation or subsequent usage, particularly human suspension or leaning. It should not be used for any purpose other than supporting photovoltaic brackets. Purchasers should be aware that nothing other than the photovoltaic power generation battery system should be supported on this product, and no additional weight should be placed on the product during installation or subsequent usage,

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particularly human suspension or leaning. It should not be used for any purpose other than supporting photovoltaic brackets.

We shall not be liable for any consequences resulting from failure to comply with local legal requirements and/or failure to follow instructions, warnings, etc., during the installation of this product, nor shall we be liable for any losses to the supporting building or any third party resulting from the installation process or subsequent usage, nor shall we be liable for any multiple installations, disassembly and reuse, or second-hand purchases of this product.