

EN

DE



## **INSTALLATION MANUAL** **INSTALLATIONSANLEITUNG**

**R059 with hook to pitch roof**  
R059 mit Haken

## 1. Installation tools

### 1. Werkzeuge



Allen wrench  
(M8-M12)  
Innensechskantschlüssel  
(M8-M12)



Tape Measure  
Meßband



Twist Wrench  
(M8-M12)  
Schraubenschlüssel  
(M8-M12)



Wood Hammer  
Holzhammer



Electric Screw Machine  
Elektrische Schraubenmaschine



Wrench  
(M8-M12)  
Schlüssel  
(M8-M12)



Rope  
Seil



Sleeve  
Hülse



Awning Turned  
Markise gedreht

## Hook Installation

### Hakeninstallation

Hook Positioning: Based on the roof wooden beam structure, installation array, and rail mounting position, locate and mark the hook installation points on the corresponding tiles.

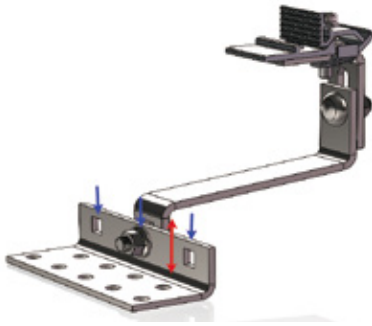
Hakenposition: Suchen Sie je nach Dachbalkenstruktur, Plattenanordnung, Einbauposition der Schiene usw. die Stelle, an der der Haken installiert werden muss, und markieren Sie die entsprechenden Ziegel.



Hook Installation: Lift or remove the tile at the corresponding position to expose the roof structure. Pre-install the hook, selecting the appropriate holes (usually central, or side holes if central installation is obstructed). Adjust the height, then secure the base plate and bolts. Secure the hook to the wooden beam using wood screws. Pre-drill pilot holes if screws cannot penetrate directly. After securing, adjust its top height, tighten the top assembly bolts, and ensure all hooks align horizontally for rail installation. Reinstall the tile properly to prevent water leakage.

Heben Sie den entsprechenden Dachziegel vorsichtig nach oben oder nehmen Sie ihn heraus, um den darunterliegenden Bereich freizulegen. Wählen Sie dann die passende Bohrposition des Hakens (vorzugsweise die mittlere Öffnung). Falls die Mitte nicht zugänglich ist, können Sie seitliche Öffnungen nutzen. Stellen Sie den Biegearm auf die benötigte Höhe ein und ziehen Sie die Schraubverbindung zwischen Grundplatte und Biegearm fest. Befestigen Sie den Haken mit Holzschrauben an der Dachlatte. Bei sehr harten Latten empfiehlt es sich, zunächst ein Führungsloch vorzubohren. Nach der Montage passen Sie die obere Höhe der Haken an und ziehen die Schraubverbindung zwischen

Biegearm und Oberteil fest. Alle Haken müssen auf gleicher Höhe liegen, um eine ebene Fläche zu gewährleisten. Setzen Sie abschließend den Dachziegel wieder ein und prüfen Sie, ob er vollständig und dicht sitzt, um Wassereintritt zu vermeiden.

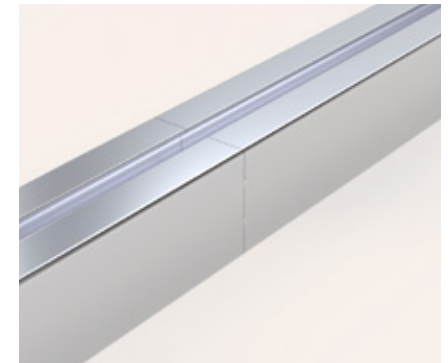
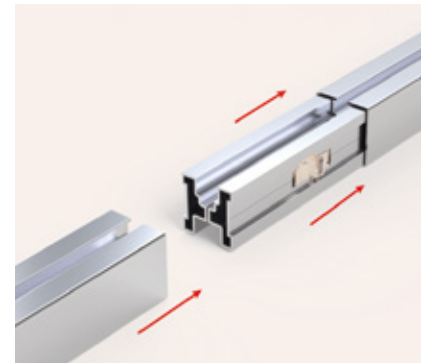


## Rail Installation

### Schienenmontage

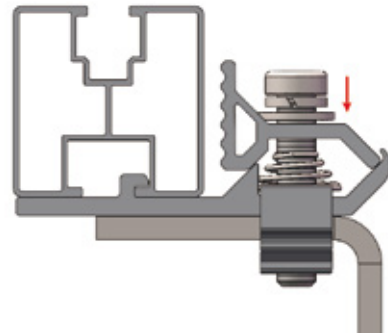
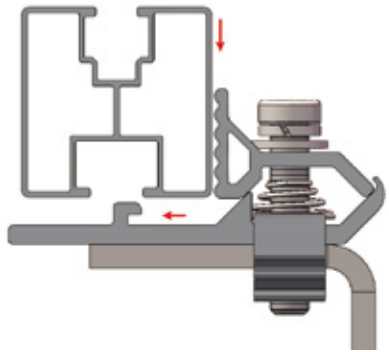
Rail Connection: Connect two rails using rail connectors (2 per joint). Insert the connectors firmly into place, the spring clips will lock the rails securely.

Schienenverbindung: Verbindung zweier Schienen mithilfe von Schienenverbindern. Pro Stoßstelle werden 2 Verbinder benötigt. Die Verbinder werden einfach mit Kraft in die Schienen eingeschoben – die Federklammern sorgen für einen sicheren Halt.



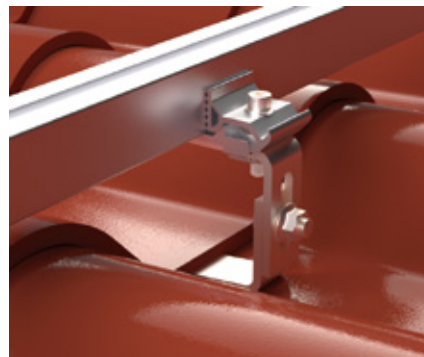
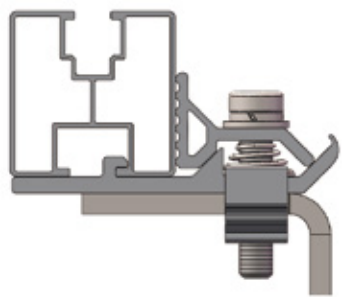
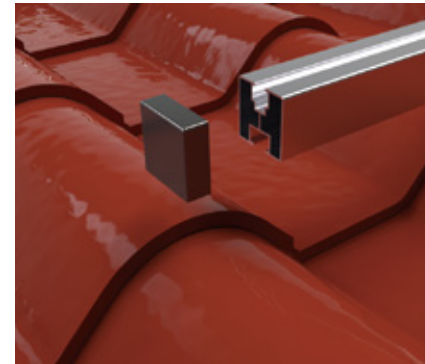
Rail Installation: Loosen the bolts to release the clamp. Insert the rail, ensuring the bottom hooks catch the rail. Tighten the bolts to secure the rail from the side.

Schienenmontage: Lösen Sie die Schraube leicht, sodass der Klemmbacke nach oben frei beweglich ist. Setzen Sie die Schiene ein – der untere Haken muss dabei in die Schiene einrasten. Ziehen Sie die Schraube fest. Der Klemmbacke drückt die Schiene nun seitlich sicher an.



End Cap Installation: Attach end caps to both ends of the rail, ensuring a secure fit. (End cap designs may vary slightly, please refer to the actual one).

Endkappen-Montage: Stecken Sie die Endkappen an beiden Seiten der Schiene ein und drücken Sie sie fest ein, bis sie einrasten (Hinweis: Die Form der Endkappen kann je nach Modell leicht variieren).



Rail Installation Complete.  
Schienenmontage fertiggestellt.

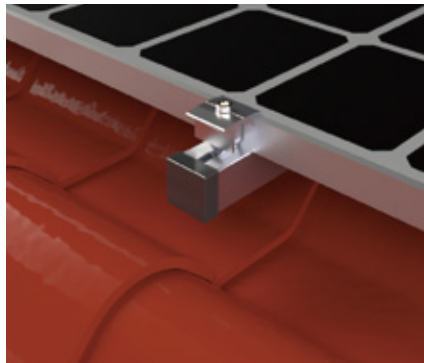
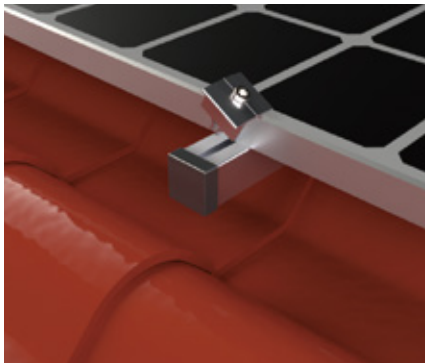
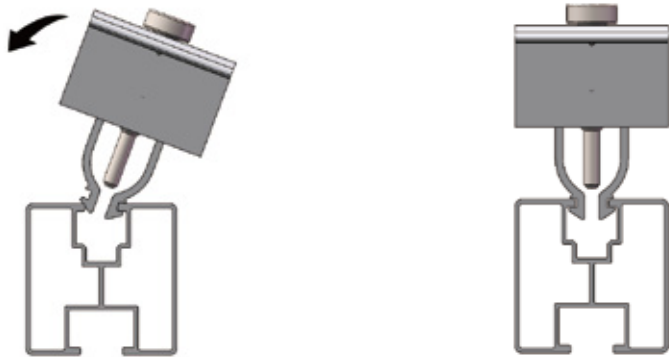


## Solar Panel Installation

### Modulinstallation

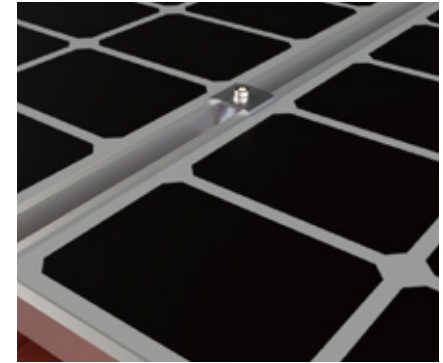
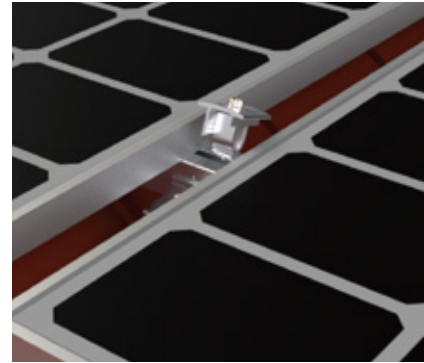
Side Clamp Installation: Insert one side of the side clamp to the rail, rotate it into place, adjust to secure the panel, and tighten the bolts.

Endklemmen-Montage: Setzen Sie eine Seite der Endklemme an der Schiene an. Dann drehen Sie die Klemme mit leichtem Druck in die Schiene, bis sie vollständig einrastet. Positionieren Sie die Klemme so, dass sie den Modulrahmen sicher umgreift. Dann Ziehen Sie die Befestigungsschraube fest.

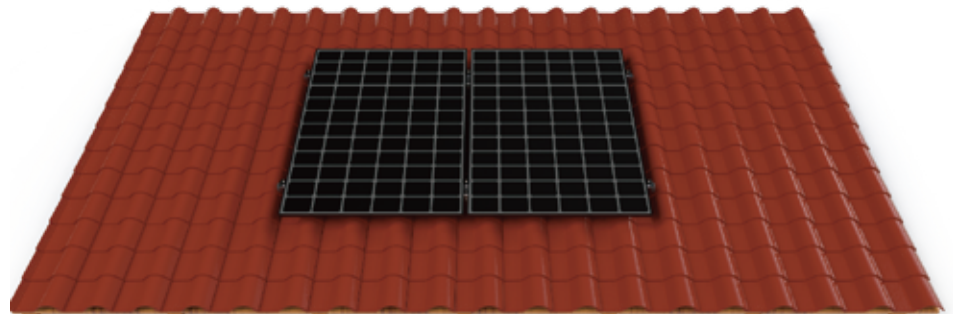


Mid Clamp Installation: Leave a gap, insert the mid clamp into the rail, push the panel tightly against it, and secure with bolts.

Mittelklemmen-Montage: Lassen Sie zwischen den Modulen zunächst einen kleinen Spalt für die Klemme. Setzen Sie die Mittelklemme mittig in die Schiene ein. Dann schieben Sie die angrenzenden PV-Module fest zusammen. Positionieren Sie die Mittelklemme so, dass sie beide Modulrahmen gleichmäßig erfasst. Ziehen Sie die Befestigungsschraube gleichmäßig an.



Installation Complete.  
Installation abgeschlossen.



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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.

FR

IT



## **MANUEL D'INSTALLATION** **MANUALE DI INSTALLAZIONE**

**Solutions de Crochets pour Toit en Pente avec Rail 59**  
R059 con gancio per fissaggio al tetto

## 1. Outils

### 1. Strumenti



Clé allen  
(M8-M12)

Chiave esagonale interna  
(M8-M12)



Mètre à ruban  
Metro a nastro



Clé à molette  
(M8-M12)

Chiave elicoidale  
(M8-M12)



Marteau en bois  
Martello di legno



Machine à vis électrique  
Avvitatore elettrico



Clé  
(M8-M12)  
Chiave inglese regolabile  
(M8-M12)



Corde  
Cordone di sicurezza



Manchon  
Chiave a bussola



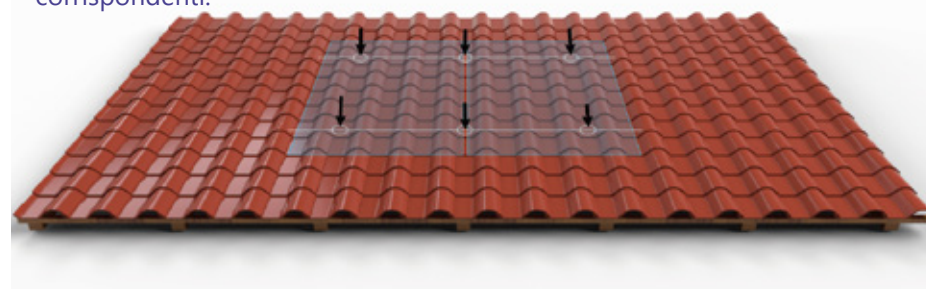
Auent tourné  
Punta dell'avvitatore

## Installation des crochets

### Installazione dei ganci

Positionnement des crochets: En fonction de la structure des poutres en bois du toit, de la disposition des panneaux et de l'emplacement prévu pour les rails, identifiez la position d'installation des crochets et marquez les tuiles correspondantes.

Posizionamento dei ganci: In base alla struttura delle travi in legno del tetto, alla disposizione dell'impianto e alla posizione prevista dei binari, si individuano i punti in cui installare i ganci e si segnano le tegole corrispondenti.



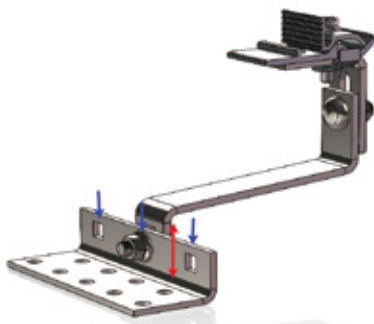
Installation des crochets : Selon la structure des tuiles correspondantes, soulevez la tuile pour la dégager ou retirez-la. Pré-installez le crochet, puis choisissez le trou de fixation en fonction de la position de la poutre et des tuiles (normalement au centre, sinon utilisez les trous latéraux si l'installation au centre est impossible). Ajustez la hauteur du bras coudé vers le haut ou le bas, puis serrez les boulons reliant la plaque de base et le bras. Fixez le crochet sur la poutre en bois à l'aide de vis à bois. Si la poutre ne permet pas un vissage direct, percez d'abord un trou de guidage avant de visser.

Une fois les crochets fixés, ajustez la hauteur du sommet du crochet et serrez les boulons afin que tous les crochets soient à la même hauteur, garantissant ainsi l'installation correcte des rails.

Après l'installation des crochets, remettez les tuiles en place et assurez-vous qu'elles sont correctement replacées pour éviter toute infiltration d'eau.

Installazione dei ganci: Aprire le tegole corrispondenti in base alla loro struttura (spingendole verso l'alto oppure rimuovendole); preassemblare il gancio e, in base alla posizione del punto di installazione, alla trave in legno e alla situazione delle tegole, scegliere il foro corretto per il

fissaggio del gancio (normalmente quello centrale; se la posizione non lo consente, è possibile utilizzare i fori laterali); regolare il braccio curvo fino all'altezza desiderata, quindi serrare i bulloni tra la piastra di base e il braccio curvo. Fissare il gancio alla trave corrispondente con viti da legno. Nel caso in cui alcune travi non permettano l'inserimento diretto delle viti, è possibile praticare preventivamente dei fori guida con una punta da trapano, e poi inserire le viti da legno. Dopo aver fissato i ganci, è necessario regolare l'altezza della parte superiore dei ganci e serrare i bulloni di collegamento tra il braccio curvo e il componente superiore, assicurandosi che tutti i ganci siano allo stesso livello orizzontale, in modo da garantire una corretta installazione delle guide. Dopo aver fissato i ganci, è necessario regolare l'altezza della parte superiore dei ganci e serrare i bulloni di collegamento tra il braccio curvo e il componente superiore, assicurandosi che tutti i ganci siano allo stesso livello orizzontale, in modo da garantire una corretta installazione delle guide. Dopo l'installazione dei ganci, è necessario riposizionare le tegole, assicurandosi che siano rimesse correttamente per evitare infiltrazioni d'acqua.



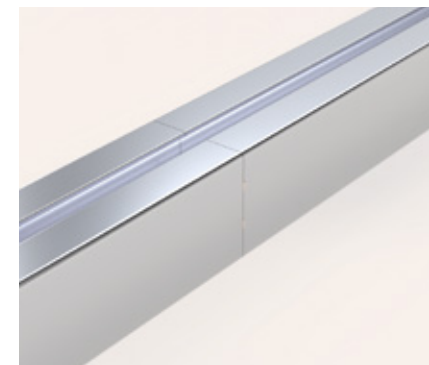
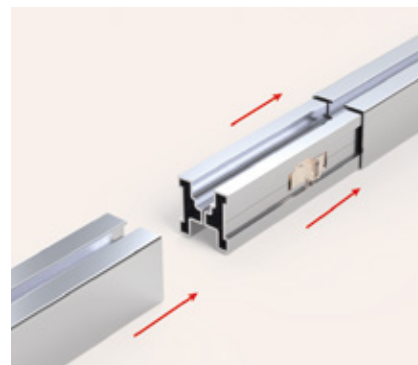
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## Installation des rails

### Installazione dei binari

Connectez deux rails à l'aide des connecteurs prévus: chaque jonction nécessite deux connecteurs. Insérez-les fermement, le système à ressort maintiendra le rail en place.

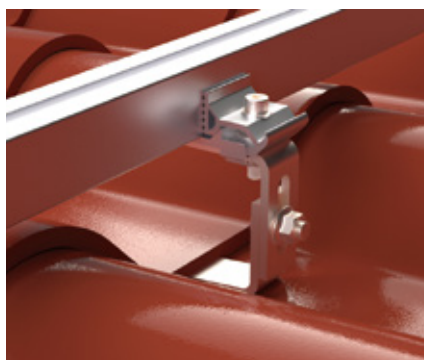
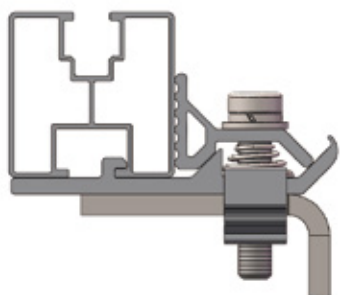
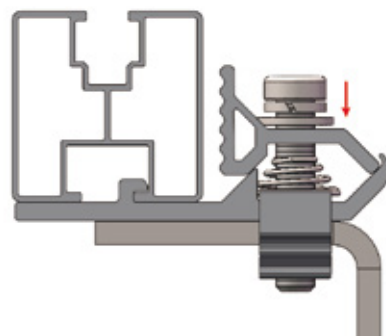
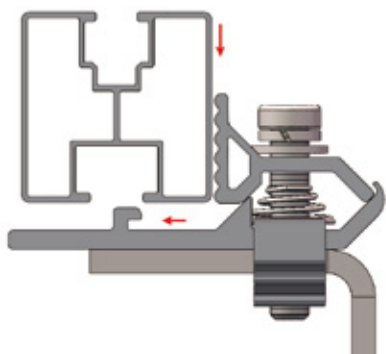
Collega due binari utilizzando i connettori: per ogni punto di giunzione sono necessari 2 connettori. I connettori vanno inseriti con forza nelle guide, e le molle a scatto li bloccheranno automaticamente.



Installation du rail : desserrez le boulon pour libérer le bloc de serrage vers le haut, insérez le rail en veillant à ce que le crochet inférieur accroche le rail, puis serrez le boulon afin que le bloc de serrage comprime le rail latéralement.

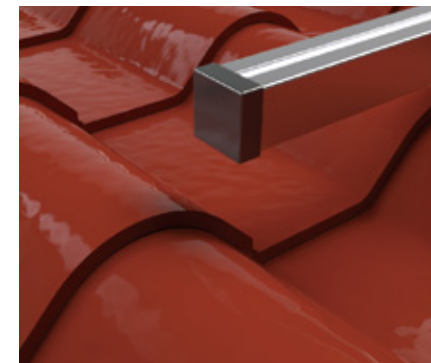
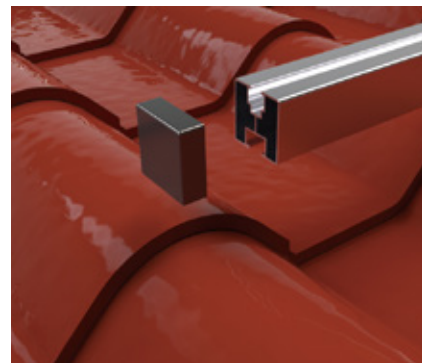
Allenta il bullone in modo che il blocco di fissaggio possa sollevarsi, inserisci la guida facendo in modo che il gancio inferiore si agganci correttamente alla guida. Una volta serrato il bullone, il blocco premerà lateralmente contro la guida, fissandola saldamente.

( Please continue reading the content on the back)



Installation des capuchons :Installez les capuchons aux deux extrémités du rail et assurez-vous qu'ils s'enclenchent correctement (le style des embouts peut varier légèrement, veuillez vous référer au produit réel).

Inserire i tappi terminali su entrambi i lati dei binari, assicurandosi che siano ben fissati (il modello dei tappi potrebbe variare leggermente, fare riferimento al prodotto reale).



L'installation des rails est terminée.  
Installazione dei binari completata.

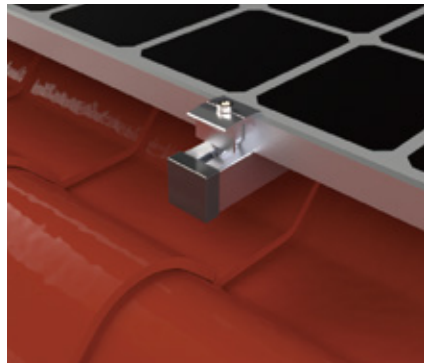
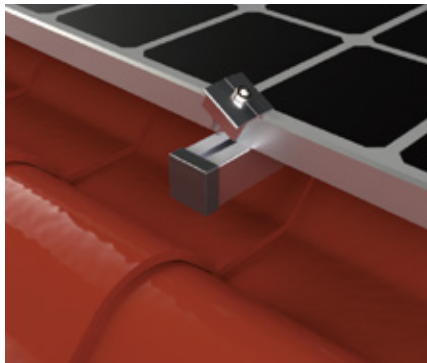
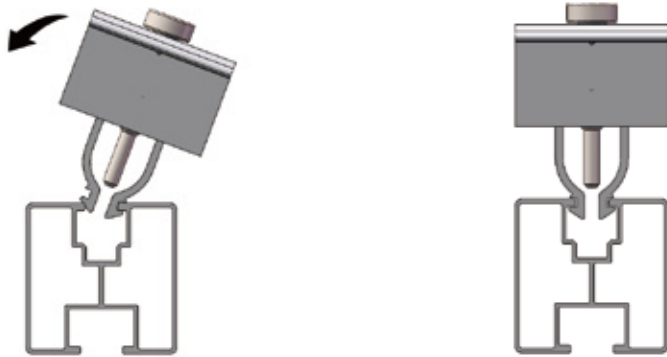


## Installation des panneaux

### Installazione dei pannelli

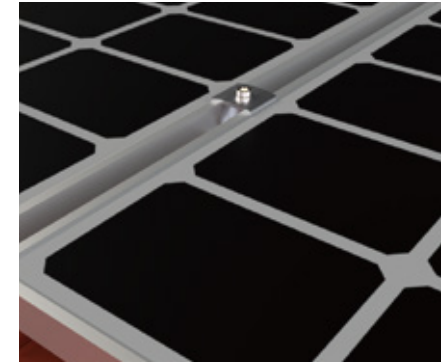
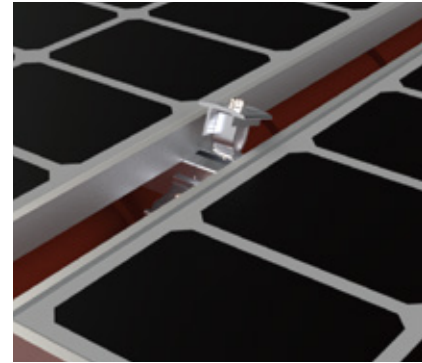
Installation par pression latérale: fixez d'abord un côté du bloc de pression latérale sur le rail, puis faites-le pivoter pour l'enclencher dans le rail, ajoutez la position pour maintenir le panneau en place, et serrez les boulons.

Installazione con morsetti laterali: Per prima cosa, aggancia un lato del morsetto laterale al binario, poi ruotalo per inserirlo completamente. Regola la posizione in modo che blocchi il pannello, e serra il bullone.

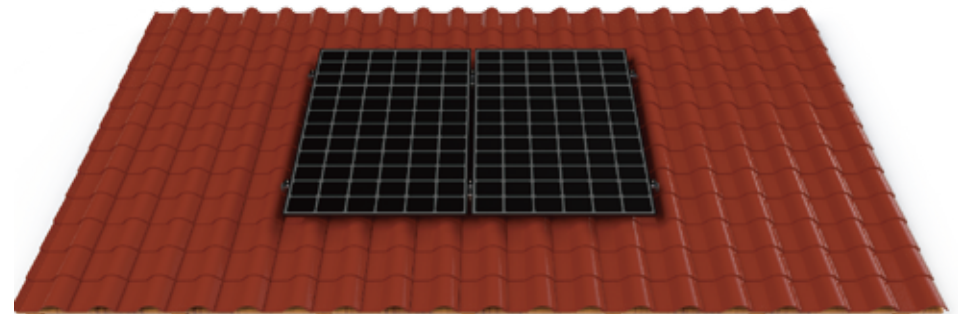


Installation par pression centrale: laissez d'abord un certain jeu, clipsez la pression centrale dans le rail, puis poussez les panneaux pour que la pression centrale maintienne les deux panneaux, enfin serrez les boulons.

Installazione con morsetto centrale: Lasciare un piccolo spazio, poi inserire il morsetto centrale nel binario. Poi spingere i pannelli verso il morsetto in modo che li blocchi entrambi, e serrare il bullone.



Installation terminée.  
Installazione completata.



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