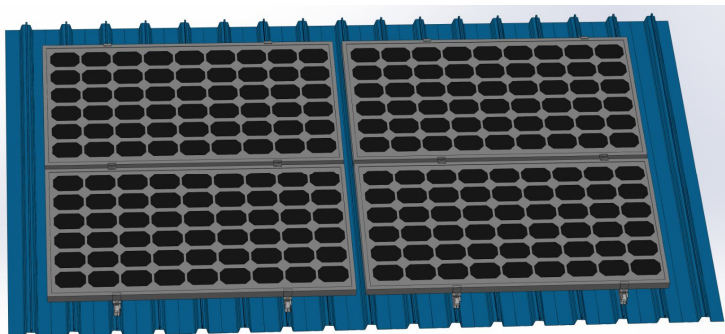


Installation manual for Metal roof assembly system



1. Description

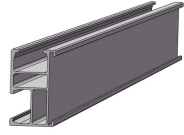
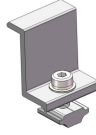
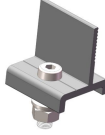
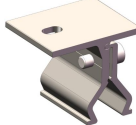
Goomax metal roof mounting system composes of aluminum clips, rails and clamps, which are applicable to various kinds of metal roofs. Our system has penetrated and non-penetrated clamps for selection. Most of the parts are pre-assembled before shipment, which can save the installation time and cost dramatically.

Please read this instruction manual carefully prior to installation.

2. Installation Tools

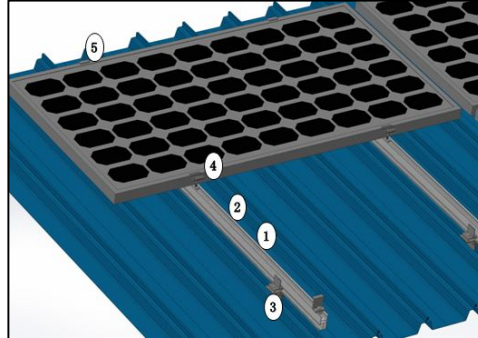
Installation Tool				
				
Allen Key 6mm	Electric Drill	Tape Measure	Rope	Level Ruler 1~2m

3. Product Components

System components				
				
rail	rail connector	middle clamp	end clamp	rail clamp
				
clamp #1	clamp #2	clamp #3	L hook	Double teeth screw

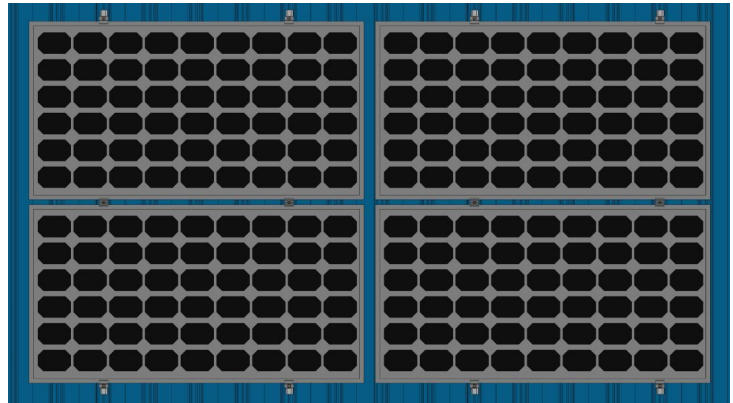
Component illustration

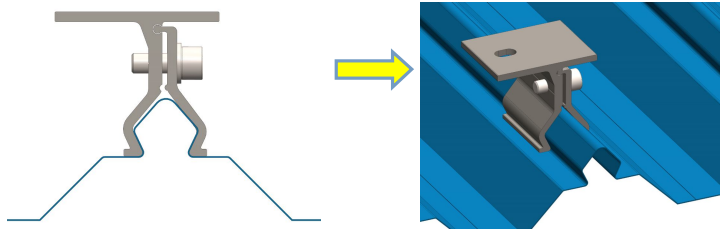
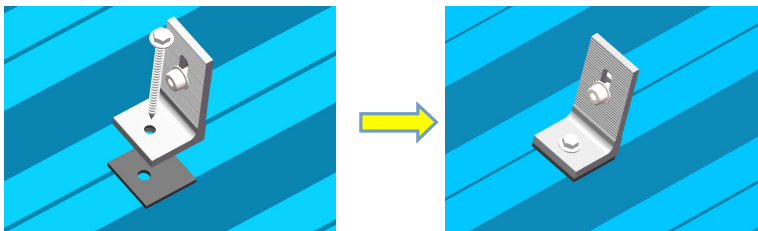
1. rail
2. rail connector
3. clamp
4. mid clamp
5. end clamp

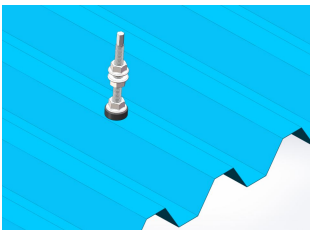
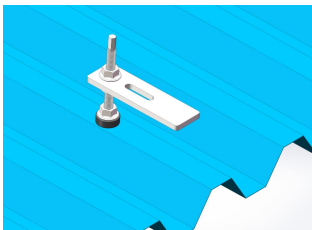
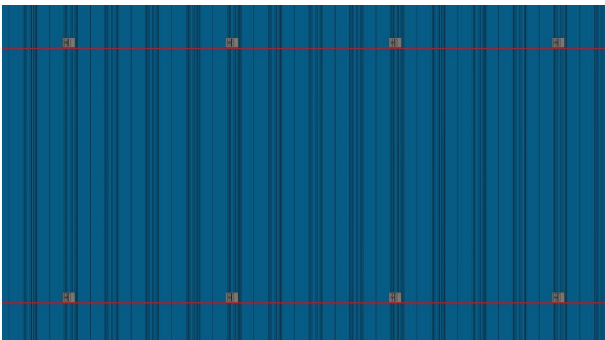
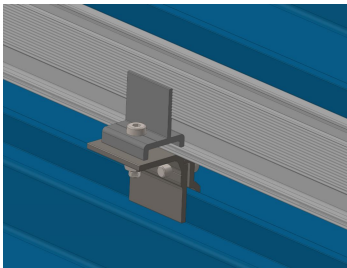
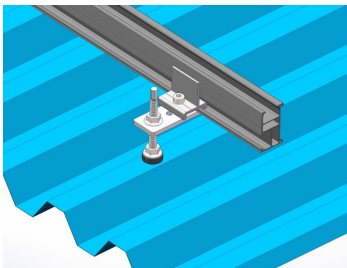
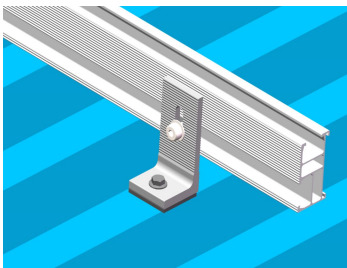
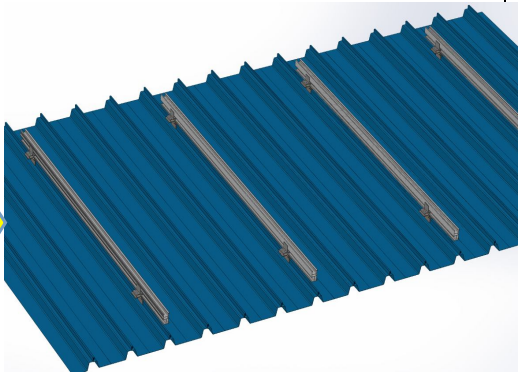


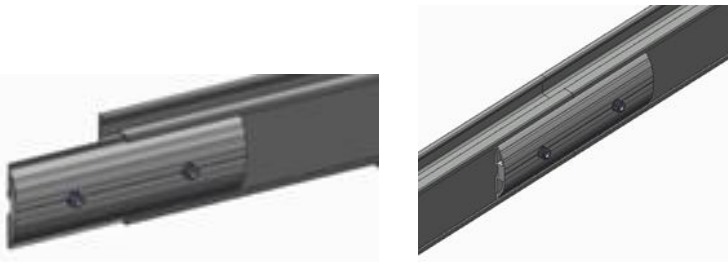
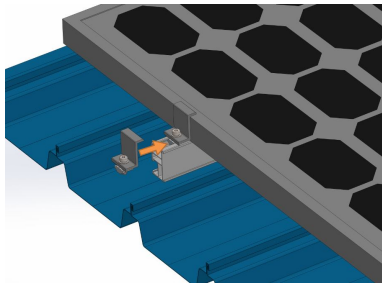
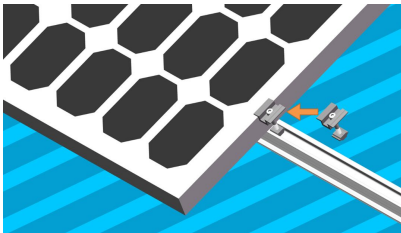
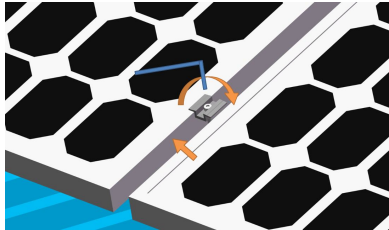
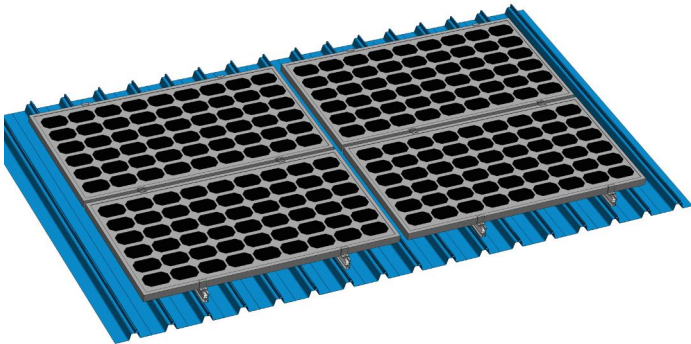
4. Planning

1. The length of the rail in portrait is evaluated as follows: panel quantity * (panel width +21mm) + 50mm
2. The length of the rail in landscape is evaluated as follows: panel quantity * panel length (Please refer to panel installation instruction and the size of metal roof also.)
3. The Clamps' span can be 2.0m maximally in portrait.
4. Clamps' span can be about 1/2---3/4 of panel's length in landscape.



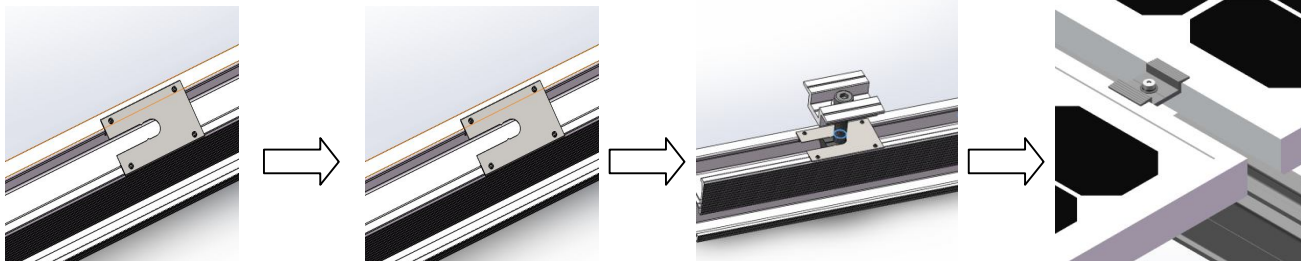
1. clamp installation	
A. clamp #1 Loosen the clamp's screw, slide it onto the ridge of the metal roof and fasten the clamp with the Allen Key.	
B. clamp #2 Loosen the clamp's screw, slide it onto the ridge of the metal roof and fasten the clamp with the Allen Key.	
C. clamp #3 Loosen the clamp's screw, slide it onto the ridge of the metal roof and fasten the clamp with the Allen Key.	
D. L hook Penetrate M6*80 blunt screw through L hook, water-proof rubber and metal roof, fasten the screw into the rafter.	

E. Double teeth screw Penetrate the double teeth screw through the metal roof and secure it into the rafter; Assemble the support base and adjust the height before secure the screw.	 	
1. Install the clamps as the right shown.		
2. Rail installation Option A for clamp & double teeth screw solution: Fix the rails by rail clamp unit, which consist of rail clamp, M8*30MM hexagon socket screw, flat washer, spring lock washer and M8 bolt. B. L-hook solution: Fix the rails onto the L-hook with M8*25mm hexagon socket screw, spring lock washer and M8 bolt.	   	

3. Rail connector installation As the right shown, insert each half of rail connector into the rails, and fix it with M8 flat top fastening bolt.		
4. End clamp installation As the right shown, slide the end clamp into the rail, then fix the panel with 8N.m torque force as suggested.		
5. Mid clamp installation As the right shown, slide the mid clamp into the rail and fasten the panel.		
6. As the right shown, slide the mid clamp into the rail and fasten the panel. .		
7. Installation is completed.		

2.6.3 Installation of Mid Clamp Conducting Plate

In case mid clamp conducting plates are required for the project, please place conducting plates beneath the mid & end clamps, and install as per step 5



Place conducting plate on 1 Rail

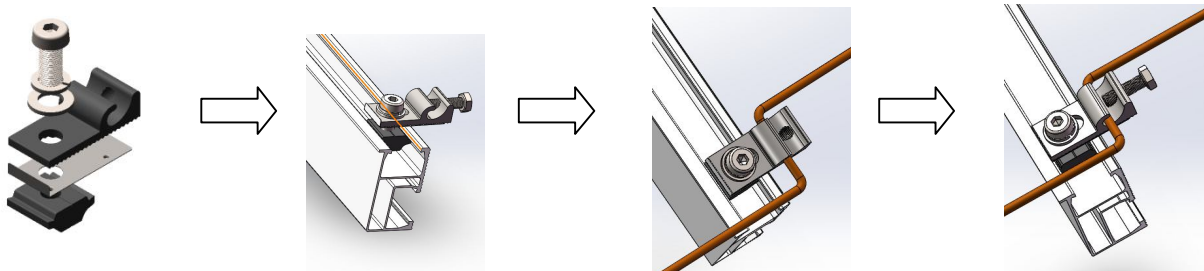
Place solar panel on one side of the plate

Install mid clamp as per step 5.

Fix another panel on the other side of the conducting plate

2.7 Installation of Ground Lug

Ground lugs might be needed in some projects.



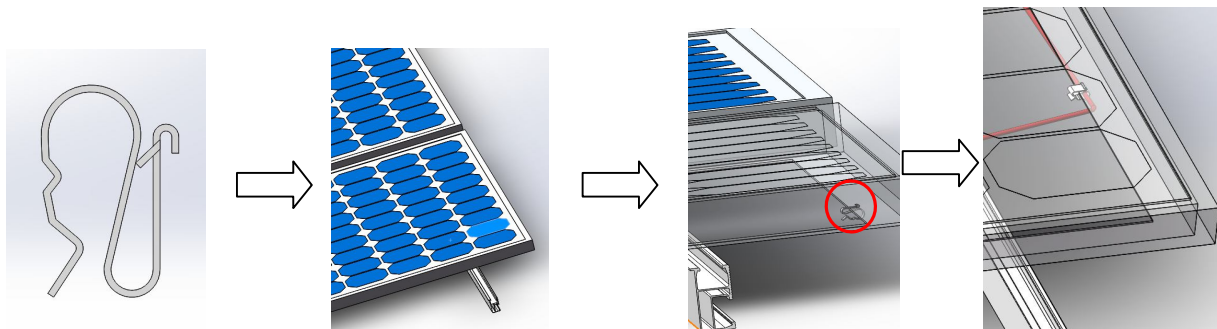
Ground lug is pre-assembled as above

Insert the T-shaped block into the rail slot properly, and fasten

Insert grounding cables into the lug's duct

Fasten the cables with the accessory hexagon screw

2.8.1 Cable clip installation for panel



Panel wire clip as the above

Fasten panels onto the rails.

Clamp the wire clips onto the aluminum frame of panels

Pass the wires through wire clips



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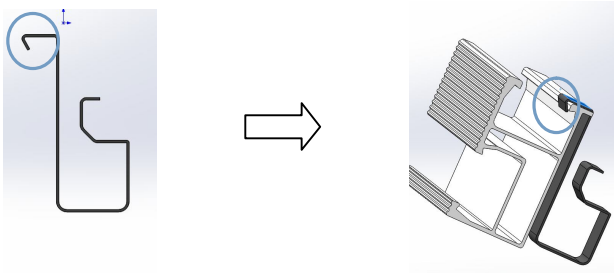
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Tel: +86-592-2938661

Fax: +86-592-2938662

2.8.2 Cable clip installation for rail



Insert the cable clips into the rail groove as per the pictures, and put the cables into the clips.