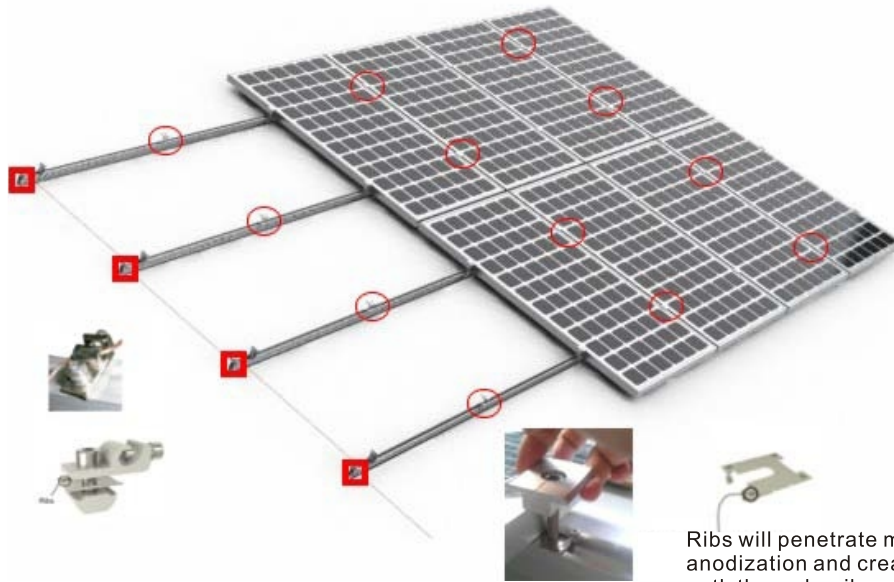




# VS GROUNDING SYSTEM INSTALLATION

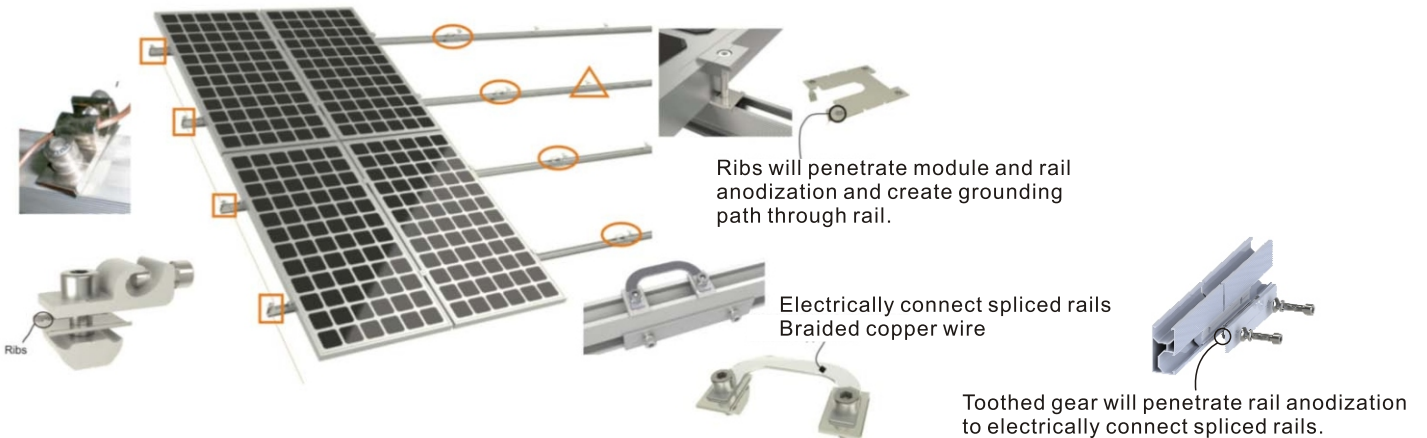
## TOOLS FOR INSTALLATION

Voslar grounding system has the special solution to lead the electron accumulated in the module to the ground. The grounding clips with special ribs is installed between two panels and lead the electron from modules to the rail. Then the grounding lugs connect the rails to the ground by the copper wire. It will be a cycle to keep the PV array safe.



Ribs will penetrate module and rail anodization and create grounding path through rail.

Solution 1 (no bonding jumper)



Ribs will penetrate module and rail anodization and create grounding path through rail.

Electrically connect spliced rails  
Braided copper wire

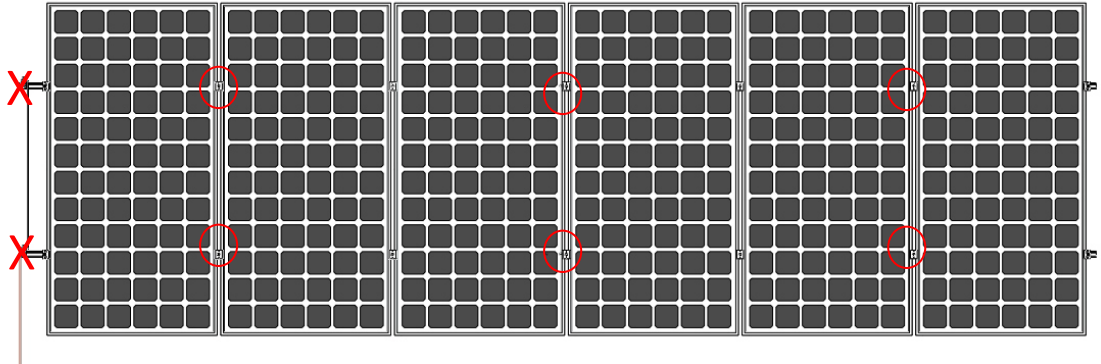
Toothed gear will penetrate rail anodization to electrically connect spliced rails.

Solution 2 (with bonding jumper or using rail splice kit with toothed gear)

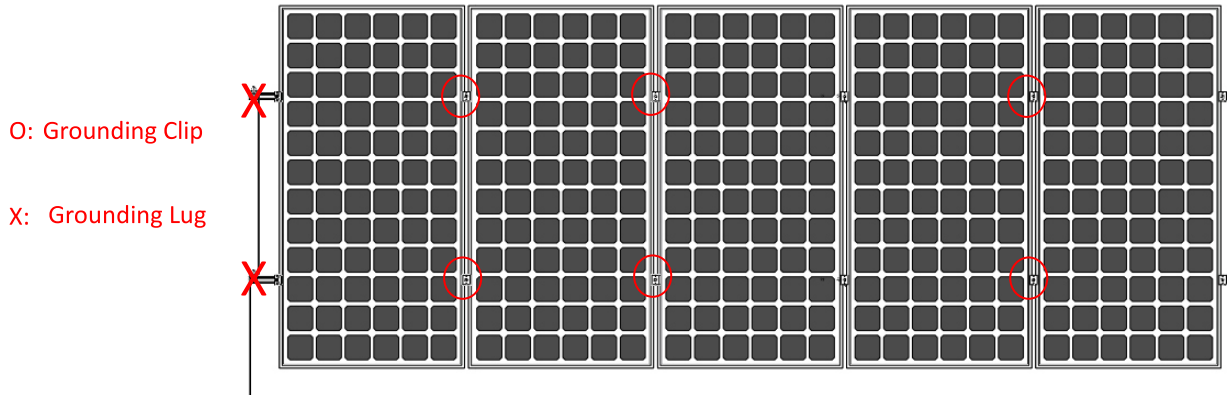


# PLANNING

## Solution 1 : no bonding jumper:

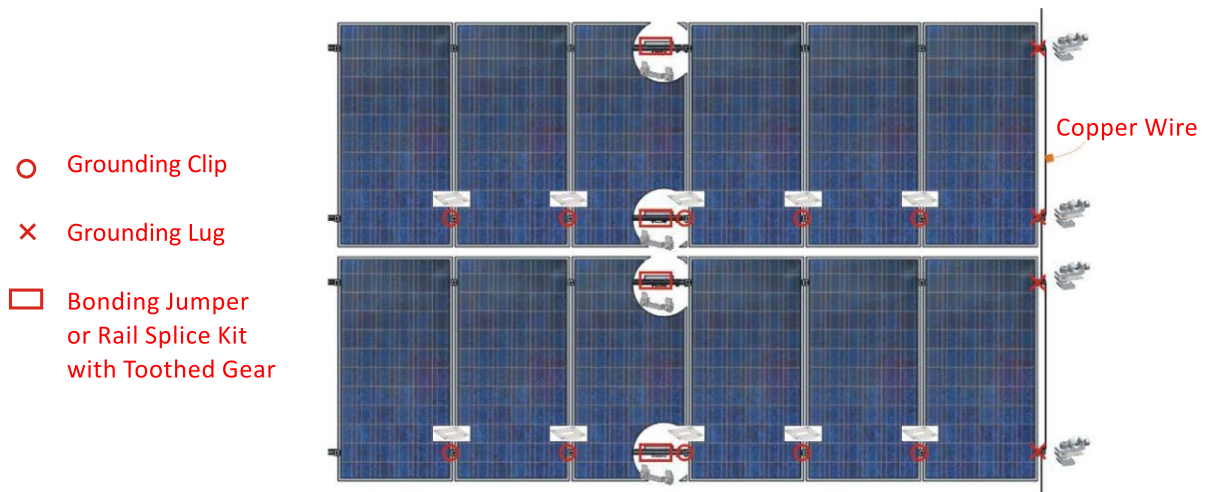


Even Number of Modules in row



Odd Number of Modules in row





## Solution 2 : with bonding jumper or using rail splice kit with toothed gear



The above is the single grounding wire for entire array. Please family with the install position of the parts on the PV system.



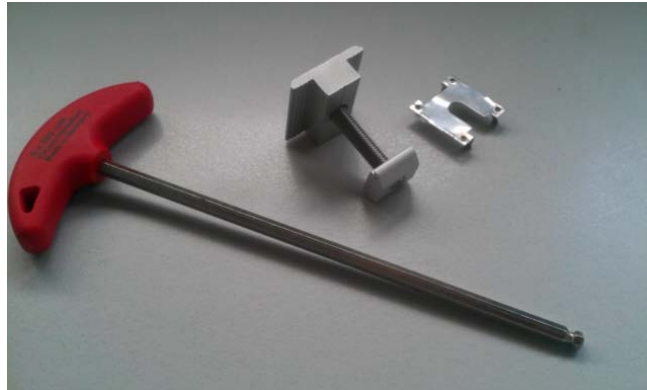
## »»» COMPONENTS DESCRIPTION

<p><b>Grounding Lug</b></p> <ul style="list-style-type: none"> <li>※ Fix the wire</li> <li>※ Material:Cu</li> <li>※ Include 1pc M8*25 bolt,1pc M8 spring washer, 1pc M8,OD18 lock washer,1pc nut,1pcM6*15 bolt</li> </ul>	
<p><b>Grounding Clip</b></p> <ul style="list-style-type: none"> <li>※ Electric Conduction</li> <li>※ Material:Stainless steel</li> </ul>	
<p><b>Bonding Jumper</b></p> <ul style="list-style-type: none"> <li>※ Electric Conduction</li> <li>※ Material:Stainless Steel;Cu</li> <li>※ Include 2pcs M8*25 bolts,2pcs nuts,2pcs grounding clips, 2pcs connecting clips, 2pcs M8 Spring washers</li> </ul>	
<p><b>Rail Splice Kit with Toothed Gear</b></p> <ul style="list-style-type: none"> <li>※ Electric Conduction</li> <li>※ Material:Aluminum;Stainless Steel</li> <li>※ Include 2pcs M8 toothed gears,2pcs M8*20 bolts, 2pcs M8 spring washers,2pcs M8,OD18 lock washers</li> </ul>	



## INSTALL STEP

### Install the Grounding Clip



1. Prepare the tool and the parts  
Tool: Allen key 6mm  
Parts :Inter Clamp Kit and Grounding Clip



Tilt in

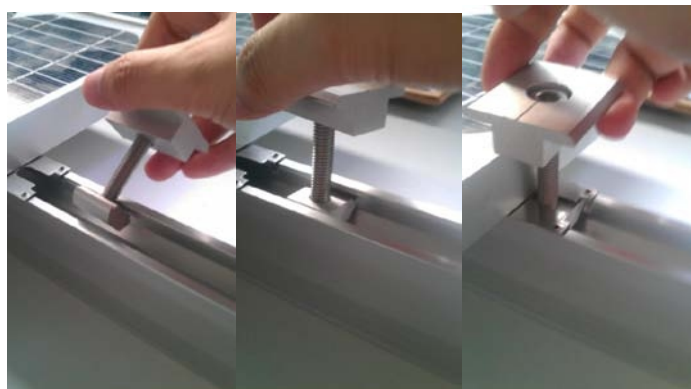
press

move



Uplift

down



install inter clamp

2. Insert the open of the Grounding Clip into the bolt of the Inter clamp. Adjust and press the Clip to fit with the Module.

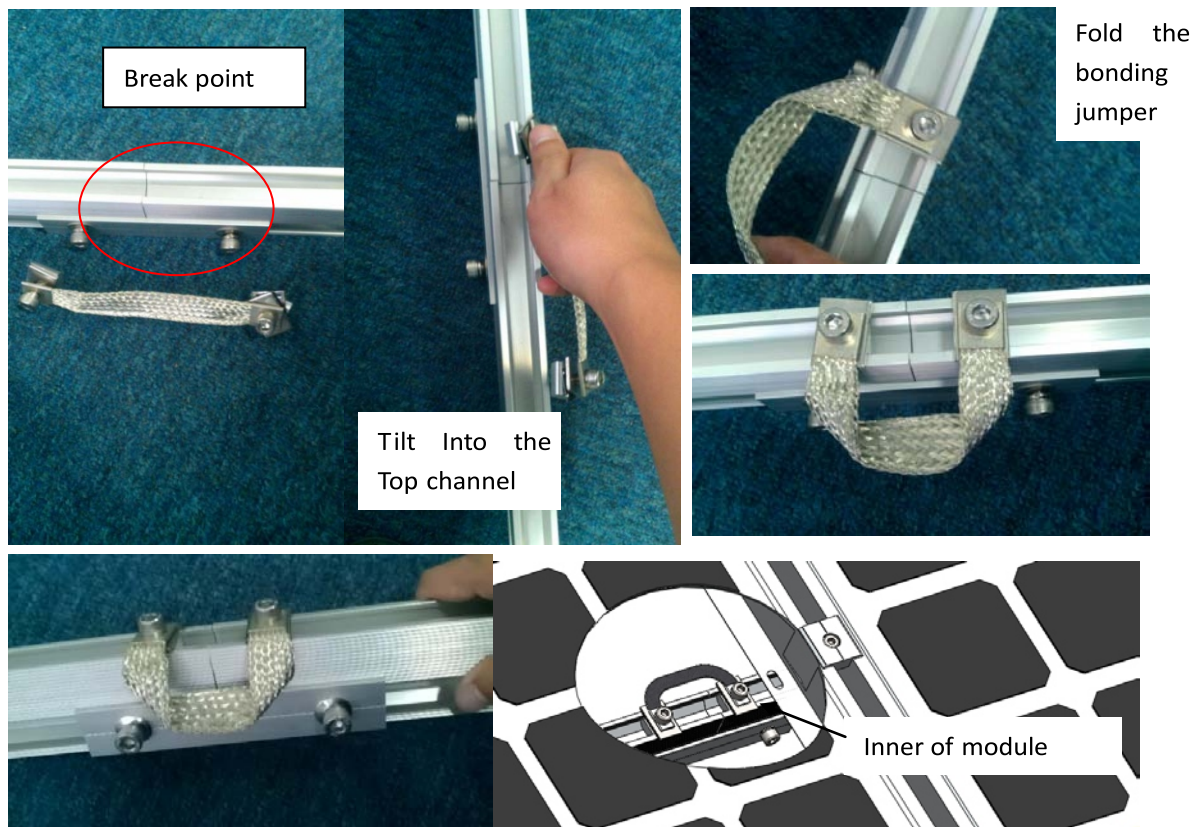


## »»» INSTALL STEP



3. Put the other panels into the other side of the inter clamp. On the right position, fasten the bolt by Allen Key

### Install the Bonding Jumper



Bonding Jumper is installed on the break point of the rail which is in a line.

At first, put one side of the Bonding jumper into the top channel of Rail. Adjust the distance from the break point. Then, fasten the screw.

Second, Put the other side into the other side channel of Rail. Adjust and fasten.

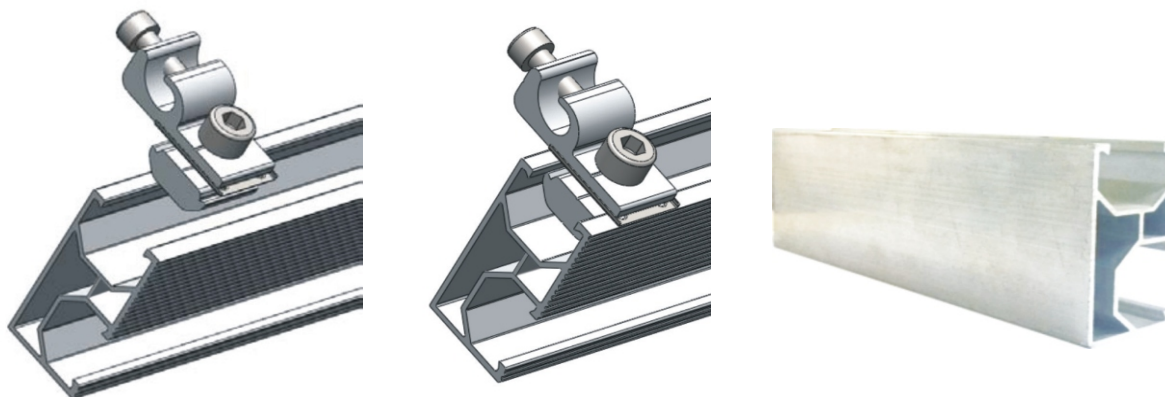
Please note the bonding jumper must be installed under the inner of the module.

Torsion: 23-25N.m



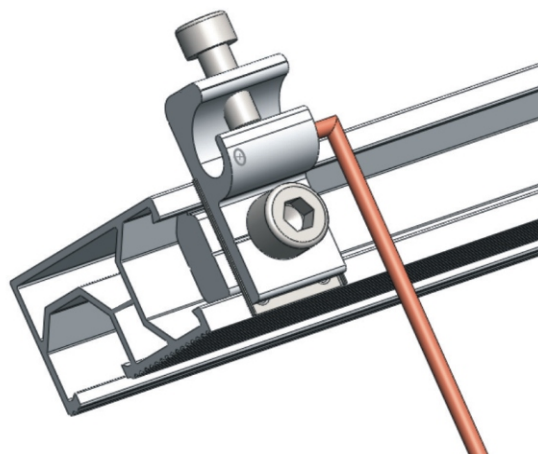
## INSTALL STEP

### Install the Grounding Lug

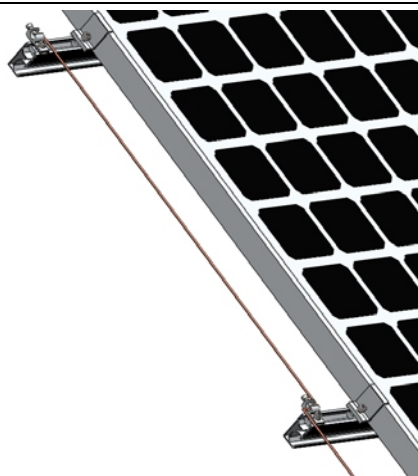


1. Put the Grounding Lug into the planning position of the top channel of Rail where has a grounding mark.  
Torsion: 23-25N.m

※Copper wire specifications:4mm<sup>2</sup>  
Maximum temperature:90℃



2. Insert the copper wire into the open of the Grounding lug . And fasten the side bolt M6 to fix the wire.



3. Comply with the Step 2 to install the wire into the other Grounding Lug.