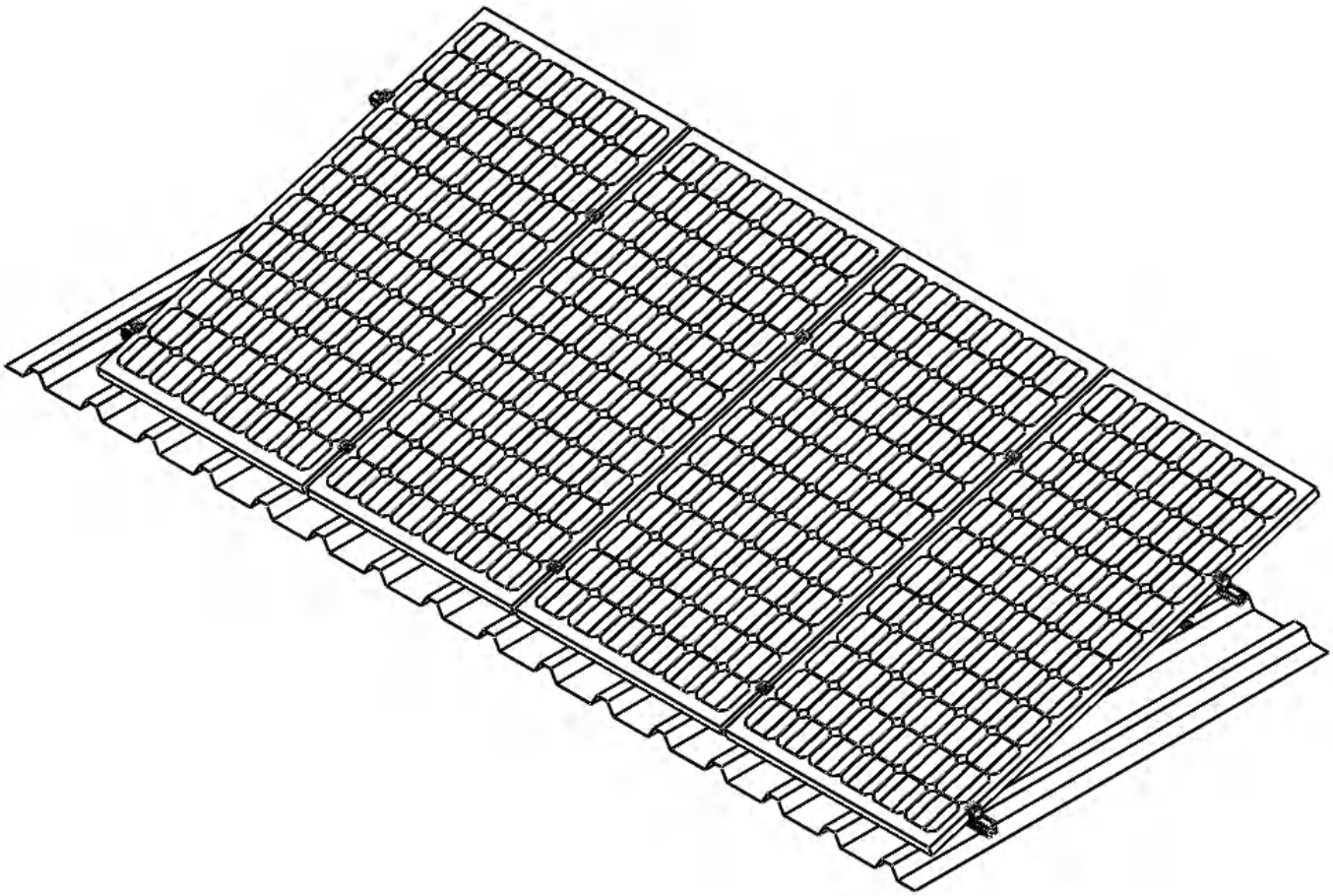
CHIKO

Solar Mounting Solutions



Model NO.: KIT CHAPA1530V2

Tilt Kit System
Installation Manual

Version No.: CHIKO-20180822-V.02

I. Installation Rule

Installation of the framing shall comply with relevant local government standards, manufacturer's specifications and good building practices. The roof which the panels to be installed shall comply with the relevant local government standards.

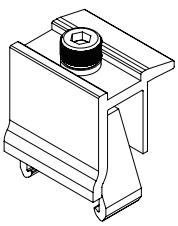
- Follow the risk management process prior to commencing work – including identify hazards, assess risks, eliminate or control them.
- Consult with those involved in the work.
- Develop safe work procedures for installing solar panels, using information from the risk management process, which would include reviewing the following information:
  - Provide appropriate information and training to those involved in performing the work.
  - Provide appropriate tools and personal protective equipment (PPE).
  - Ensure that a system is in place to prevent or arrest falls.
  - Ensure there are adequate first aid facilities.
  - Ensure all employees are aware of the emergency procedures.

II. Installation Tools

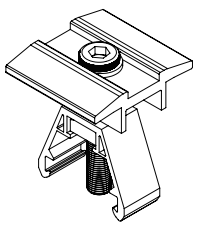
☐ Tape Measure

☐ Chalk Line

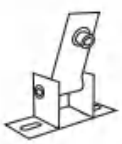
☐ Labor Protection Products



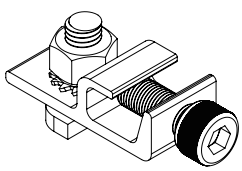
End Clamp



Mid Clamp



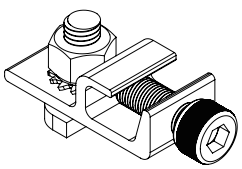
Front leg



Grounding Lug

☐ Allen Key

Rear leg



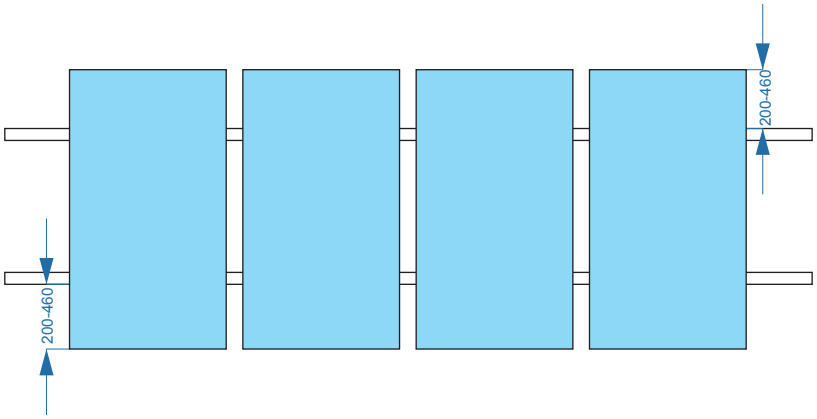
Grounding Lug

☐ Open-end Spanner

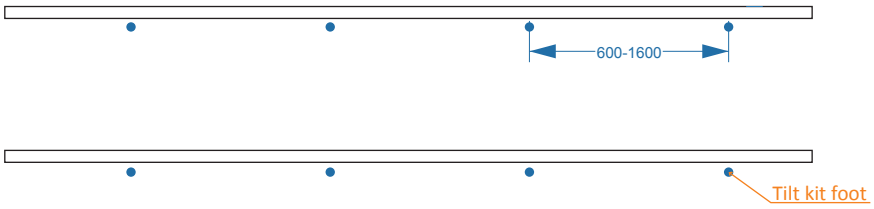
III. NOTICE

This manual is for a non-integral module or panel, assembly to be mounted over a fire resistant roof covering rated for the application.
Re-inspect the installation in case of loose components, loose fasteners or any corrosion, the affected components should be replaced immediately.

1. Rail spacing's are as follows:
- When installing in portrait profile, rails should keep 200mm to 460mm from the module edge.



- The distance between Chiko Tilt kit foot on tile roof could be 600-1600mm.



2. Minimum design load for Chiko Tile Roof Mounting System:
   a) Downward Pressures - 10 psf allowable load.
   b) Upward Pressure - 5 psf allowable load.
   C) Down-Slope Load - 5 psf allowable load.

3. System Fire Class Rating: A

4. Max. Rated Current: 30A

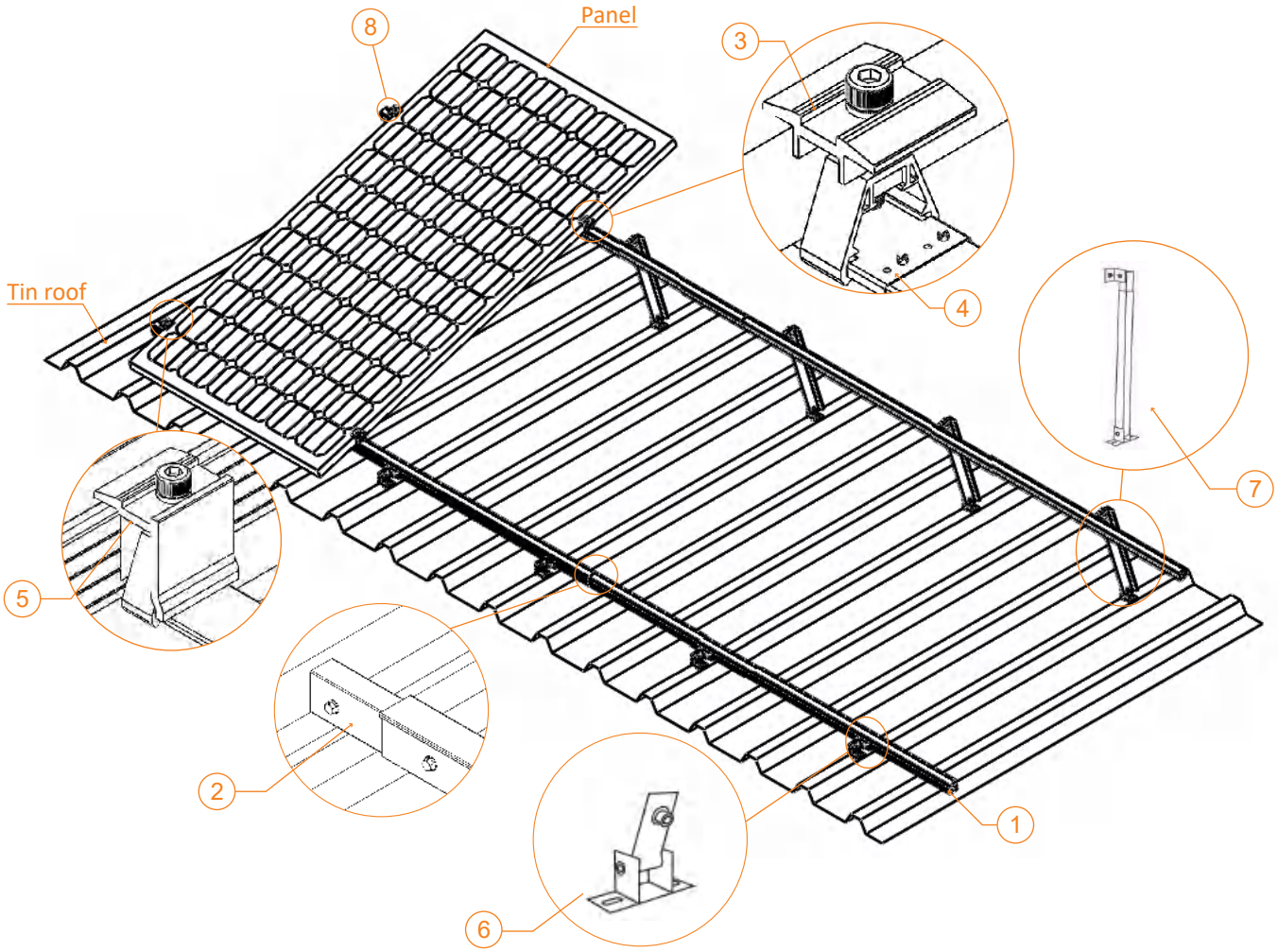
5. The test solar panel is UL Listed CHAN GZHOU TRINA SOLA R ENERGY CO., LTD: TSM-290PD14,TSM-295PD14,TSM-300PD14,TSM-305PD14,TSM-310PD14,TSM-315PD14,TSM-320PD14,TSM-325PD14, TSM-330PD14, module fire performance type 1

6. This racking system may be used on steep-sloped roofs with slopes greater than or equal to 2 in/ft. (167mm/m or 9.46°), and the installed PV module complying with UL 1703 only when the specific module has been evaluated for grounding or installed in compliance with the included instructions.

7. The CK -TR System is intended to be mounted to a roof using the components listed in the manual.

If any component is added or changed, it may affect the UL listing or the System Fire Class rating.

IV. Components

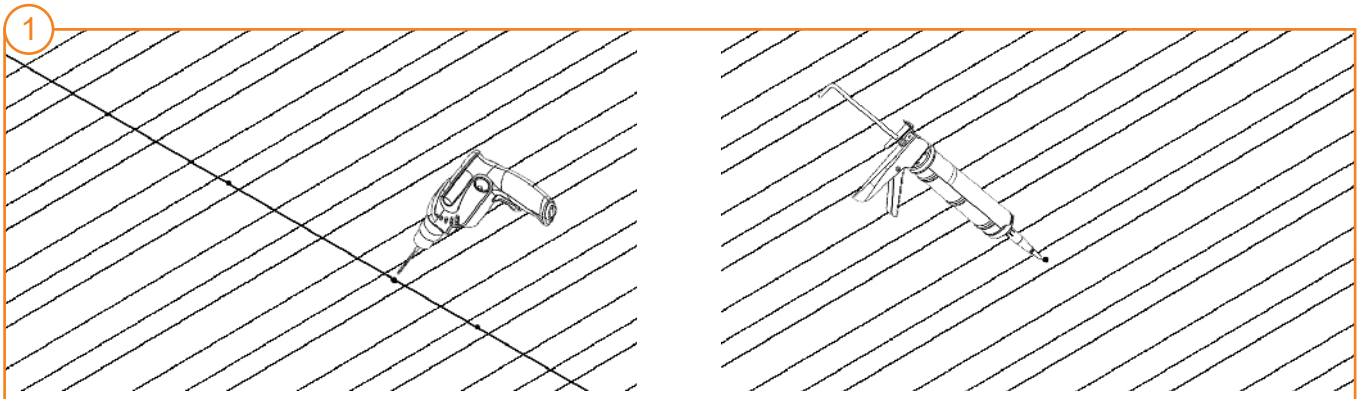


Item	Sales NO.	Description	Picture	Quantity
				4PCS/Kit
1	CK-FT-43R-2400	CHIKO standard #43 Rail 2400mm		4
2	CK-SKA	CHIKO Solar Standard 43R Rail Splice Kit		4

3	CK-FTM-T40	CHIKO Solar T adjustable Mid Clamp Kit 30-40mm		6
4	CK-IS-136	CHIKO Grounding clip		6
5	CK-FTE-T40	CHIKO Solar T Adjustable End Clamp Kit 30- 40mm		4
6	CK-FTA-FL	CHIKO Solar adjustable front leg		5
7	CK-FTA-BL500	CHIKO Solar Adjustable rear leg 15-30degree		5
8	CK-GTC-R2	CHIKO Grounding Lug		2

VI. Installation Steps

1

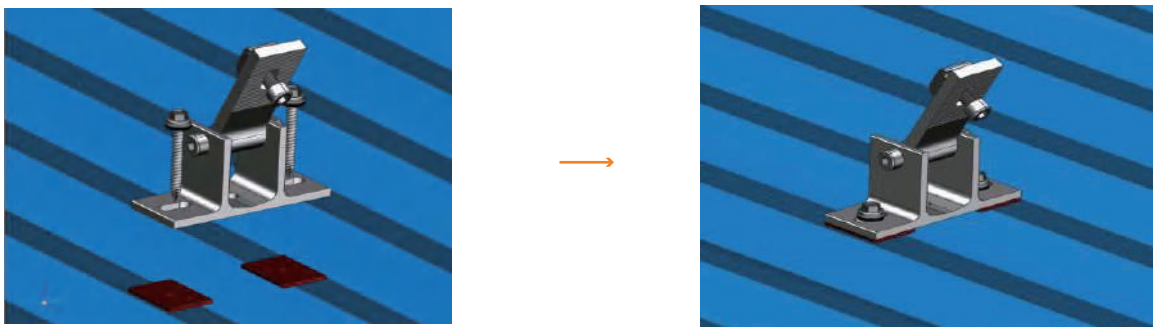


1.1 1.2

Determine where the roof mounts will be positioned based on position of existing roof screws, and mark it with a chalk line. Determined a position where the L foot will be attached on a unused crest. Drill a single 6mm pilot hole. Backfill the pilot hole with sealant.

Installation of the front leg

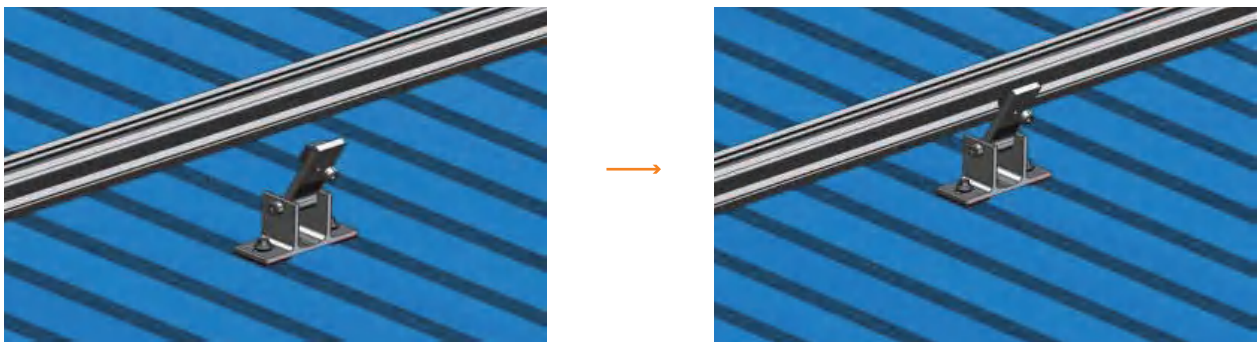
2



2.1 2.2

Attach the front leg onto roof by 1 X 6.3*100mm screw, high quality rubber pad is used to provide waterproof function.

3

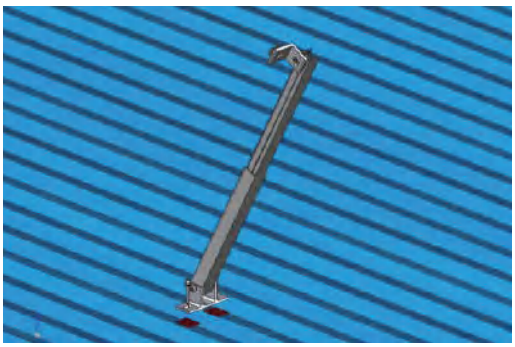


3.1 3.2

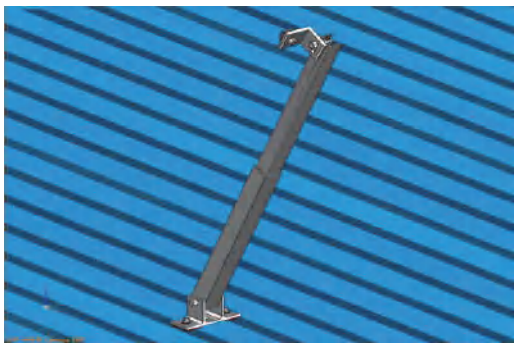
Attach the rail to the front legs by bolts T4x25.

Installation of the rear leg

4



4.1

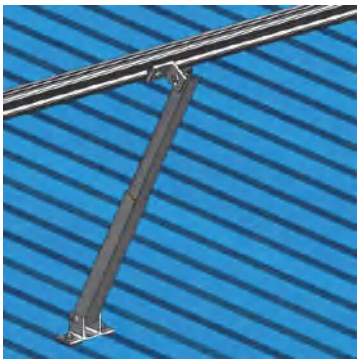


4.2

Attach the rear leg onto roof by 1 X ϕ6.3*100mm screws, high quality rubber pad is used to provide waterproof function.

5

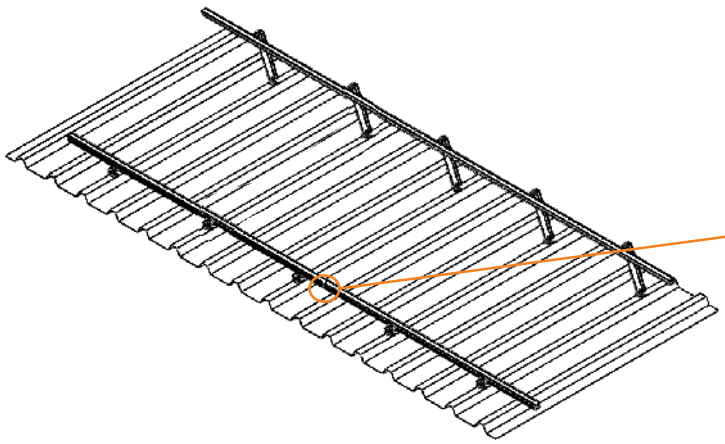
5.1

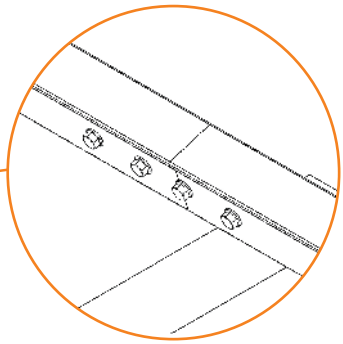


5.2

Attach the rail to the rear legs by bolts T4x25.

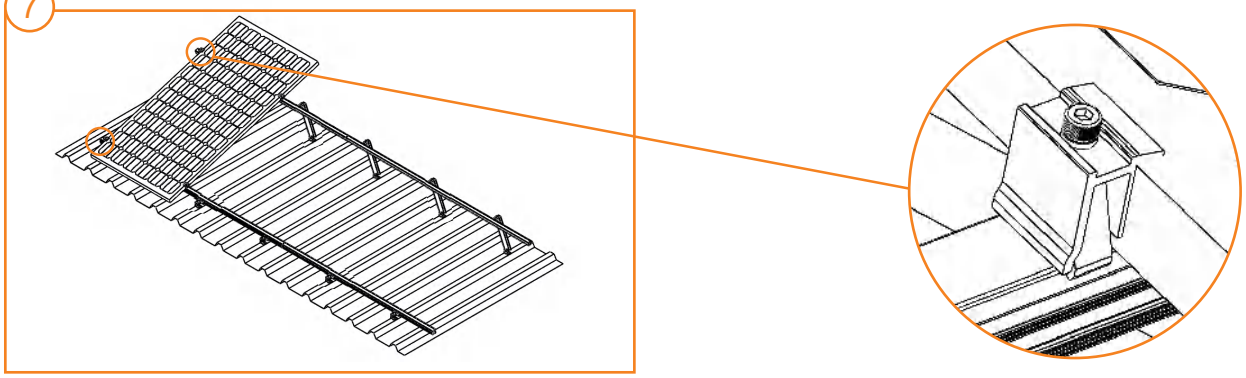
6





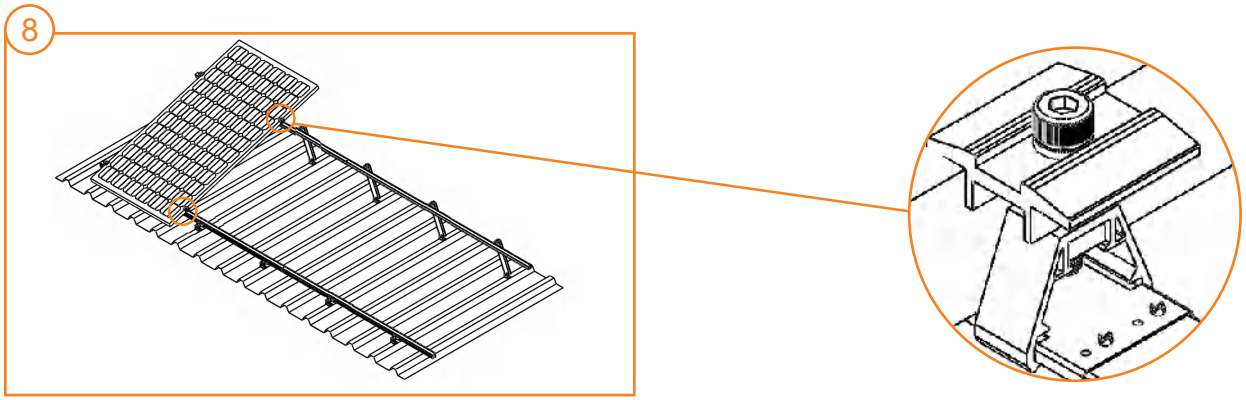
As the requirement of planning the array layout attach front leg & rear leg and rail on the roof. The standard length of rail is 2.4m,3.6m,4.8m, if need connect rail together, need use the rail splice kits to fix it .

7



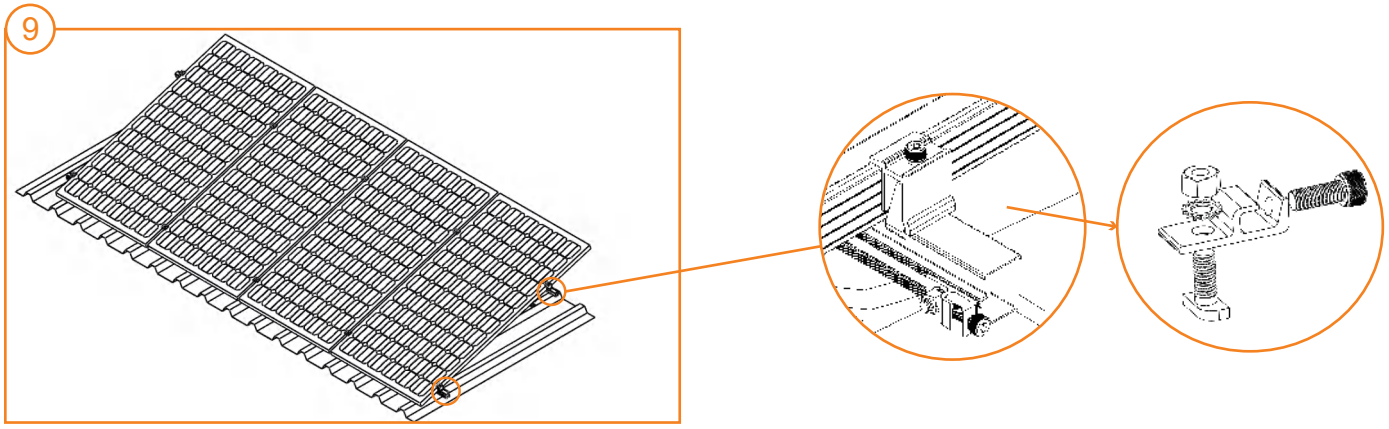
Attach the solar panel on the rail, fasten the end clamp with a hex bolt M8 to secure one side of the panel.

8



Put the second panel on the rail,fasten the mid clamps with inner hex bolts M8 at all positions where two panles.

9



Install a grounding lug onto each rail end edge with an inner hex bolt M8*25 and a stainless steel nut, then connect 8.4mm^2 (greater than or equal to 8AWG) copper wire through all the grounding lugs (fixed by M8*20 inner he x bolt), finally connect a copper wire to the ground. The grounding lug has a grounding function when fastened tight to the rail and copper grounding wire.

WORLDLEADING

MANUFACTURE

CHIKO
Solar Mounting Solutions

Shanghai CHIKO Solar Technology Co., Ltd.

Add: No.680 Xingwen Road, Jiading District, Shanghai 201815 China

Tel: +86-21-59972267 / 59973712 / 59973713

Fax: +86-21-59972938

Email: sales@chikolar.com

www.chikosolar.com / www.chikolar.com