

**AIMS POWER™**

[www.aimscorp.net](http://www.aimscorp.net)

**Ground Mounting System Installation Manual**



**PV6X120RACK**  
**PV6X250RACK**

## ***Thank You For Choosing AIMS Power!***

AIMS Power is a leading supplier of solar products, specializing in PV mounting systems. We have been providing products for back up and off grid power applications for over 20 years. AIMS Power has DC to AC power inverters, deep cycle batteries, solar charge controllers, generators and cables. We guarantee our products are of the highest quality.



**AIMS Power's innovative ground mount assembly is fast, convenient and secure. Attach clamps and brackets to rails in one sliding motion. The racking system includes pre-assembled legs that unfold quickly, allowing for easy bolt connection, minimizing labor. Various types of bases may be used. Check with local regulatins.**

**When unpacking the system familiarize yourself with all components and confirm all parts arrived in good condition. Use proper safety precautions.**



The racks are durable and made of Aluminium 6005-T5 and stainless steel SUS304 hardware, includes a 25 year warranty.

Compliant with the following standards:

**GB50009-2001**

**GB50011-2001**

**GB/T 13912-92**

**GBT 14846-2008**

**GB-T 6892-2006**

**GB50429-2007**

**GB50017-2003**

**AS NZS 1170**

**ASCE/SEI 7-05**

**ASCE/SEI 7-010**

**2007 California Administrative Code**

**IBC 2006**

**Euro Code 8**

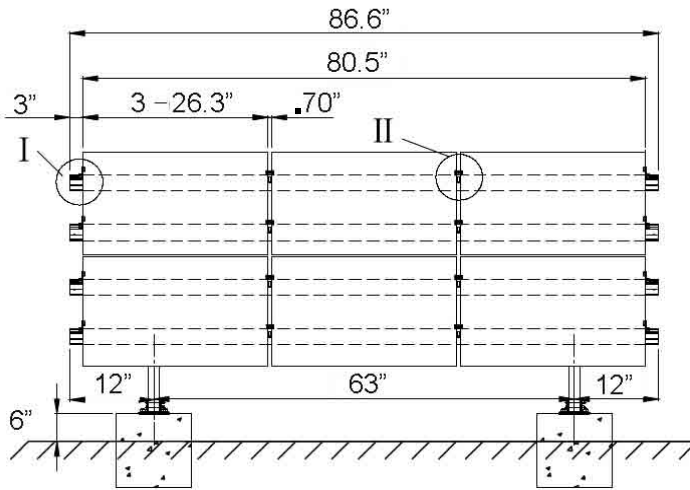
**DIN1055**

**EN 1991-1-3 - Snow Load**

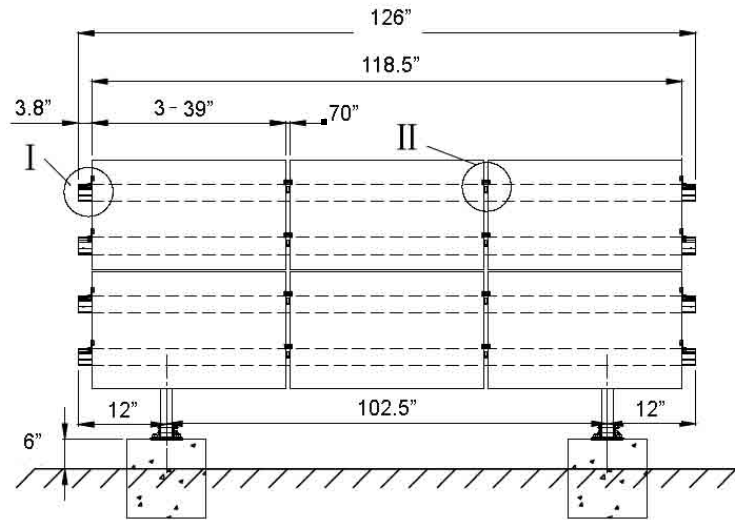
**EN 1991-1-4 - Wind Actions**

# Planning the Array Layout

\*Solar panel orientation is portrait when viewing rack from the front.



**PV6X120 - Fits @120-170 Watt Panels**



**PV6X250 - Fits @190-330 Watt Panels**



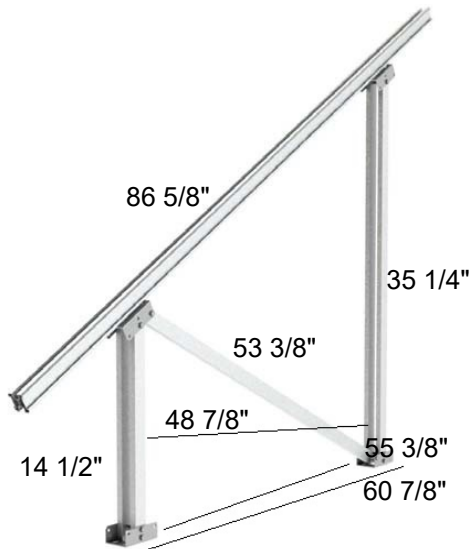
87"L x 4 1/2"H x 2 1/4"W

**PV6X120RACK RAIL**

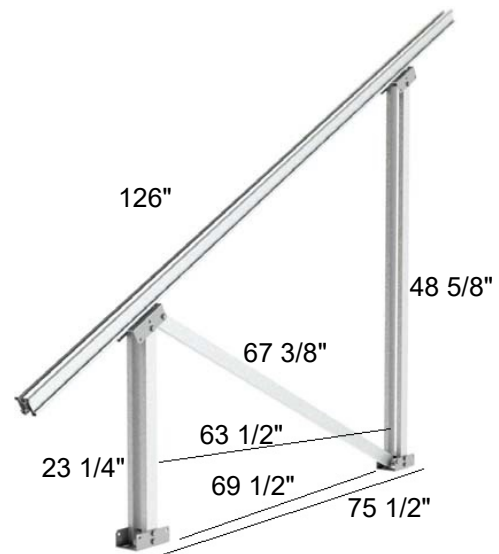


126"L x 3 7/8"H x 2 3/8"W

**PV6X250RACK RAIL**

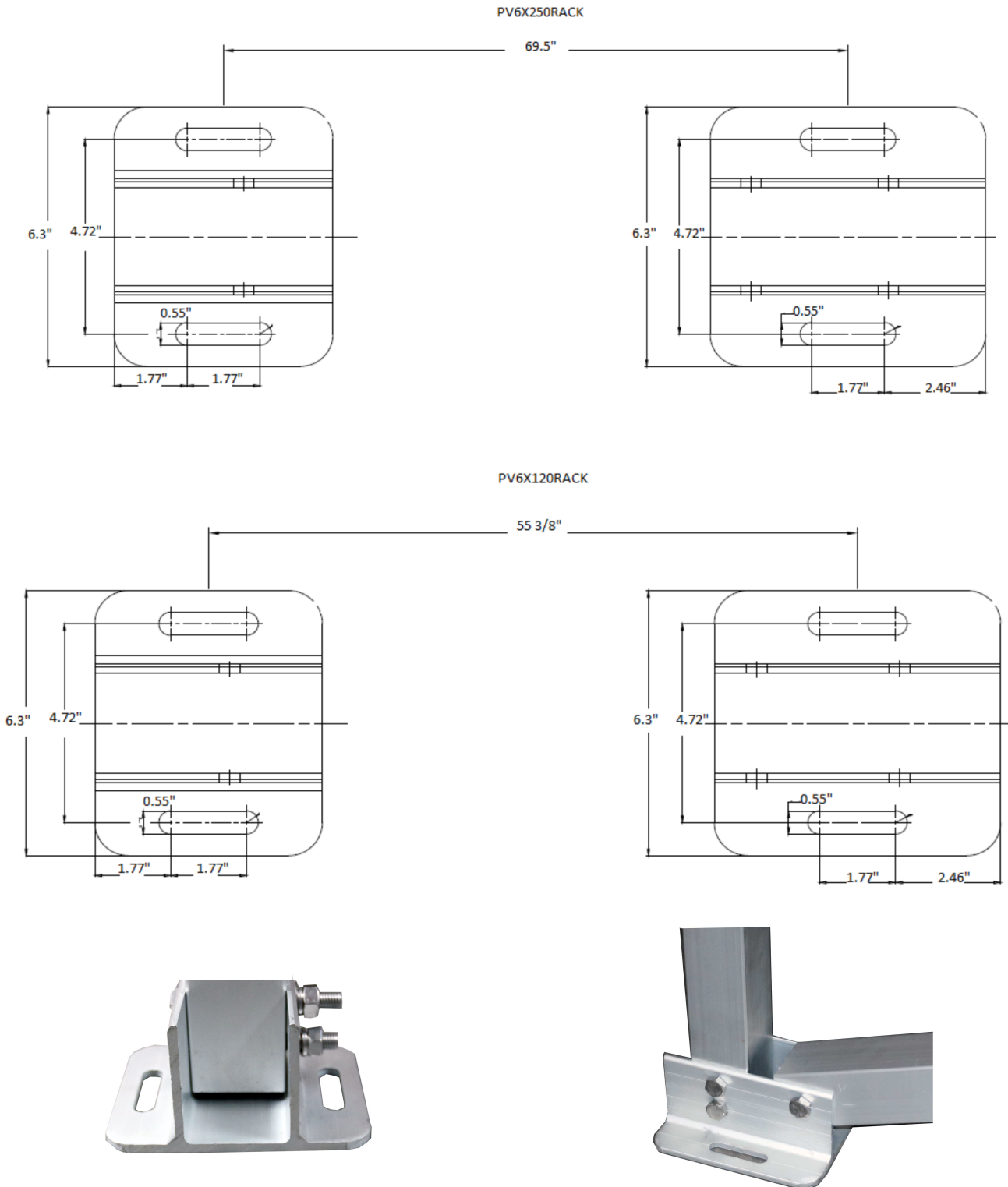


**PV6X120RACK**



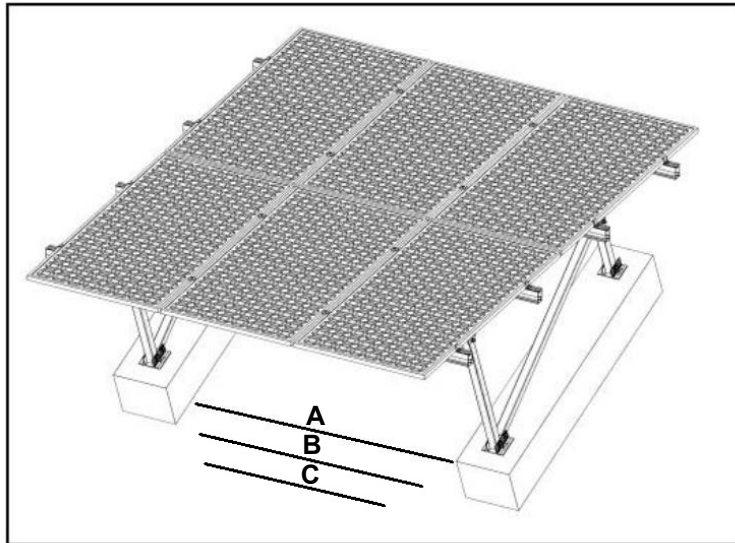
**PV6X250RACK**

# Base Foot Dimension:



Using M10 Grade 5.8 Carbon Steel anchor studs with Ramset Chemset REO502 chemical injection anchoring system. Minimum anchor embedment depth of 90mm with concrete strength of 32MPa. There are several ways to mount the racks depending on application and structural guidelines. Check with local area.

## Maximum spacing between legs:








<b>PV6X250RACK</b>	A	B	C
Wind Speed (mph)	101	118	145
Max Foot Spacing	102"	67.5"	44"
<b>PV6X120RACK</b>	A	B	C
Wind Speed (mph)	101	118	145
Max Foot Spacing	63"	42"	28"

## Features:

<b>Design Life</b>	<b>25 years</b>
<b>Importance Level</b>	<b>Type 2: Ordinary</b>
<b>Annual Probability of Exceedance</b>	<b>1/250</b>
<b>Terrain Category to AS1170.2</b>	<b>2</b>
<b>Maximum Pitch</b>	<b>20°</b>
<b>Aluminum Rails</b>	<b>6005 - T5</b>
<b>Maximum Solar panels</b>	<b>6</b>

## Components List

	Product Name	Picture	Material	Description
1	HD Rail		AL 6005-T5	Quantity 4
2	End Clamp		AL 6005-T5	Includes: Quantity 9 a. A2-70 M8 Hexagon screw b. Aluminum fixing nut
3	Mid Clamp		AL 6005-T5	Includes: Quantity 9 a. A2-70 M8 Hexagon screw b. Aluminum fixing nut
4	HD Rail Clamp		AL 6005-T5	Includes: Quantity 16 a. A2-70 M8 Hexagon screw b. Aluminum fixing nut
5	Pre-assembled Leg		AL 6005-T5 & SUS 304	Quantity 2

\*\*The 18 panel rack system includes 12 rails, 27 mid clamps, 48 rail clamps and 4 pre-assembled legs.

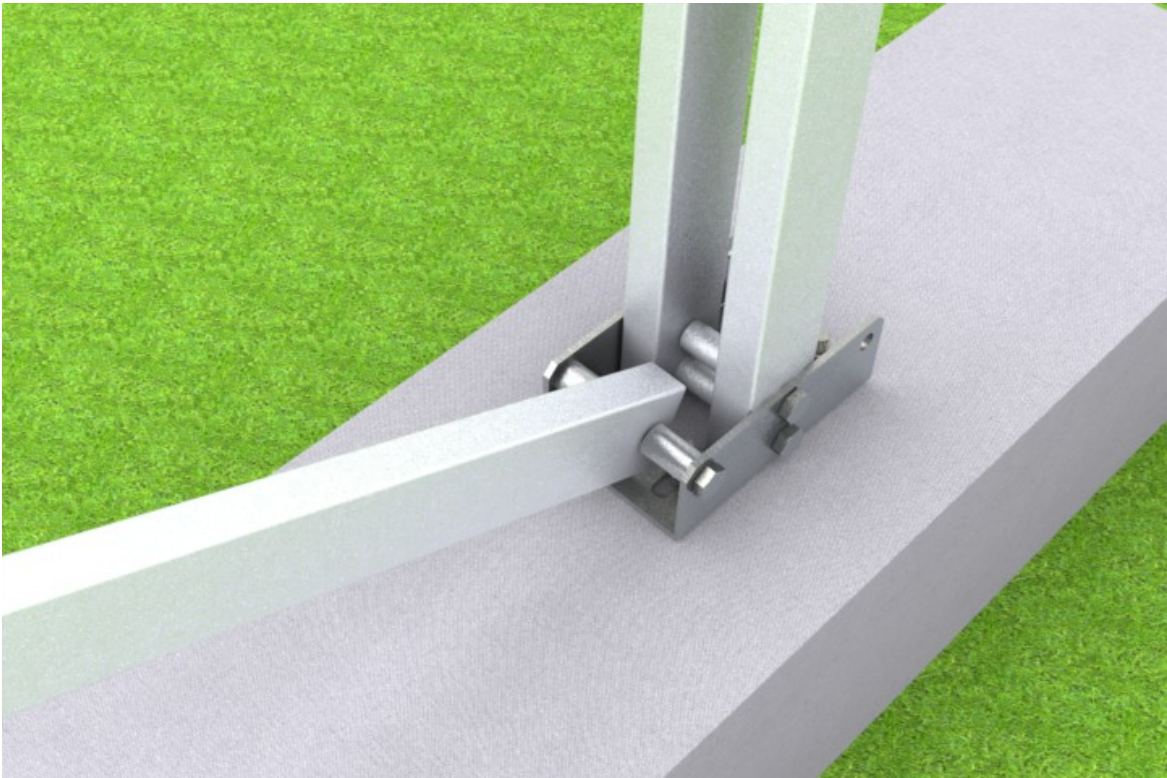
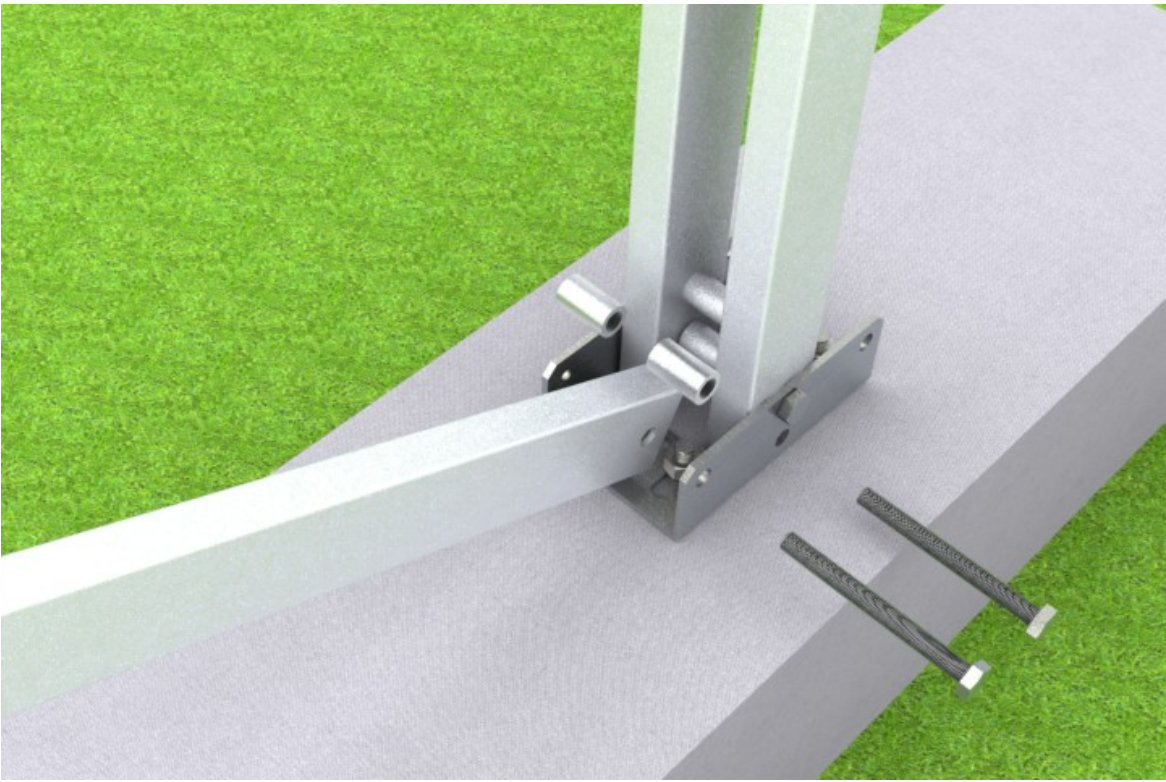


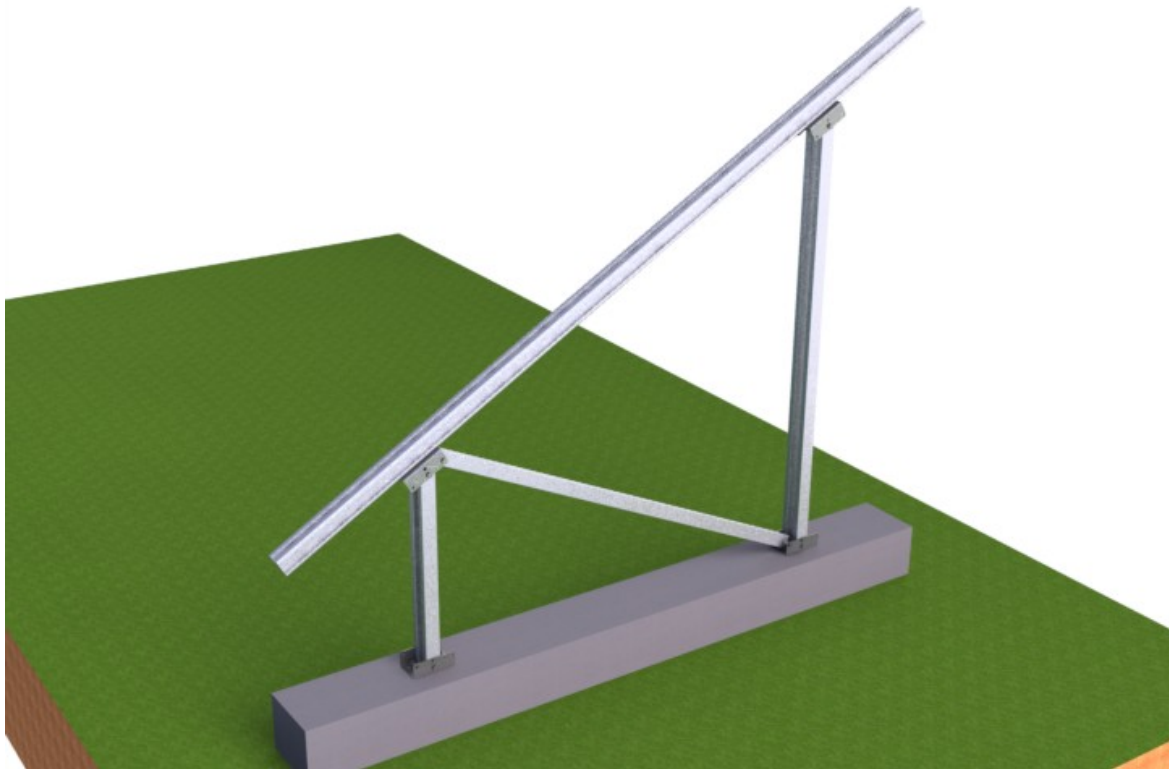
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## Installation Steps

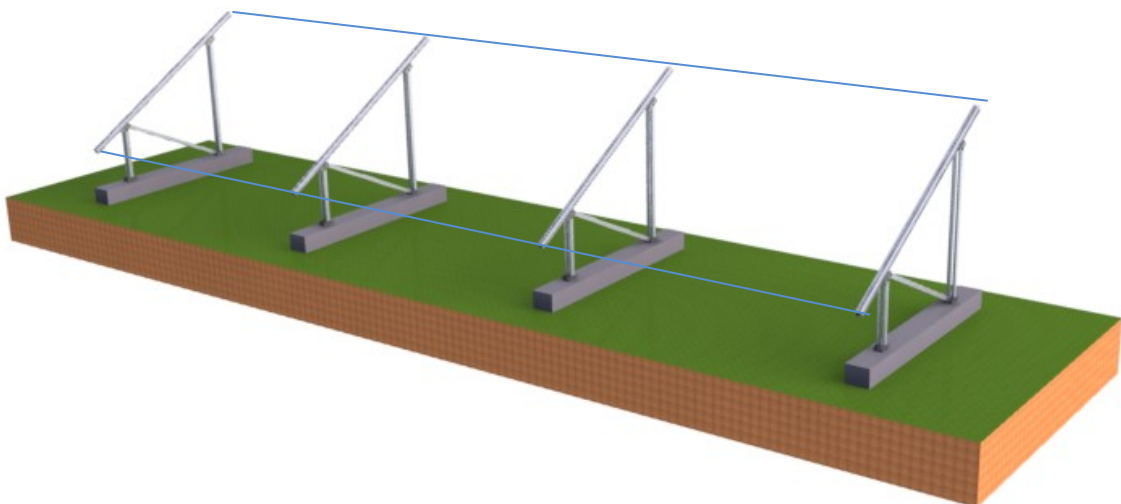
1. Unfold the pre-assembled leg and connecting upright. Fasten the base of the legs to the attached anchor bolts. Tighten all anchor bolts to secure leg and upright.



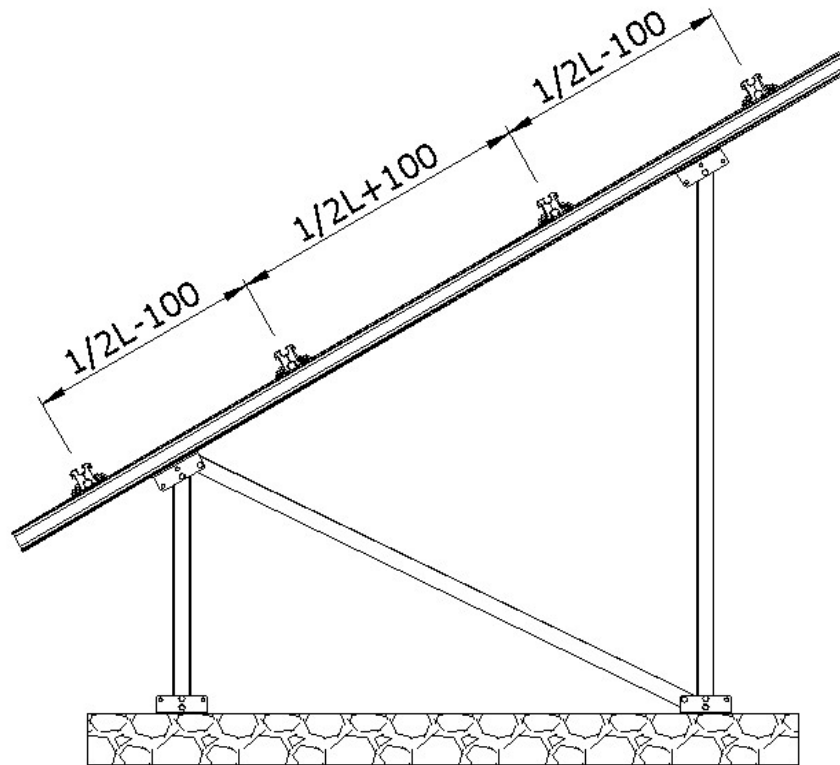




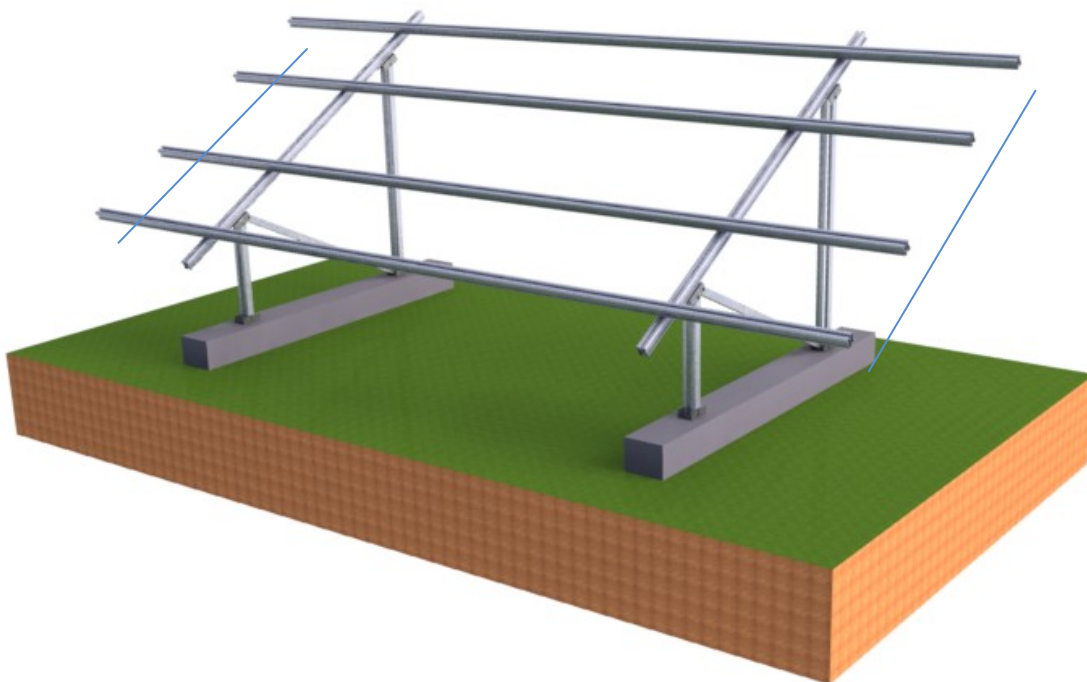
2. Once legs are secure, ensure the legs and uprights are aligned before installing the cross rails.

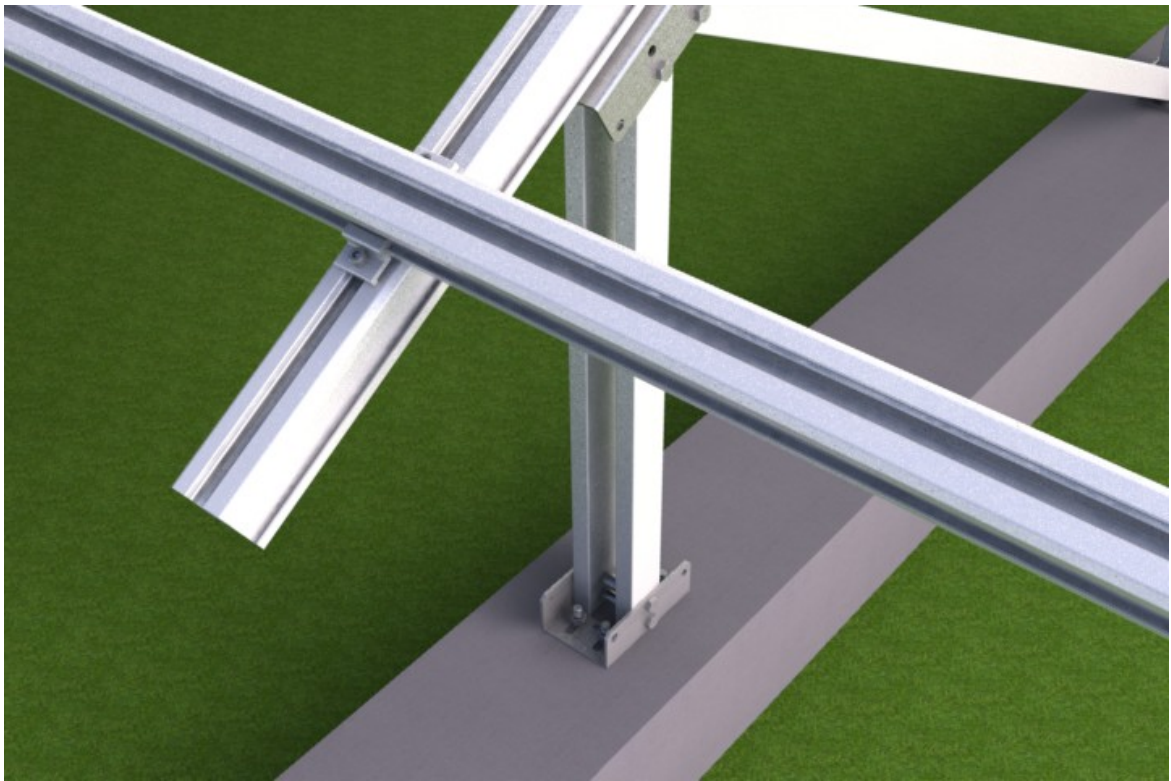
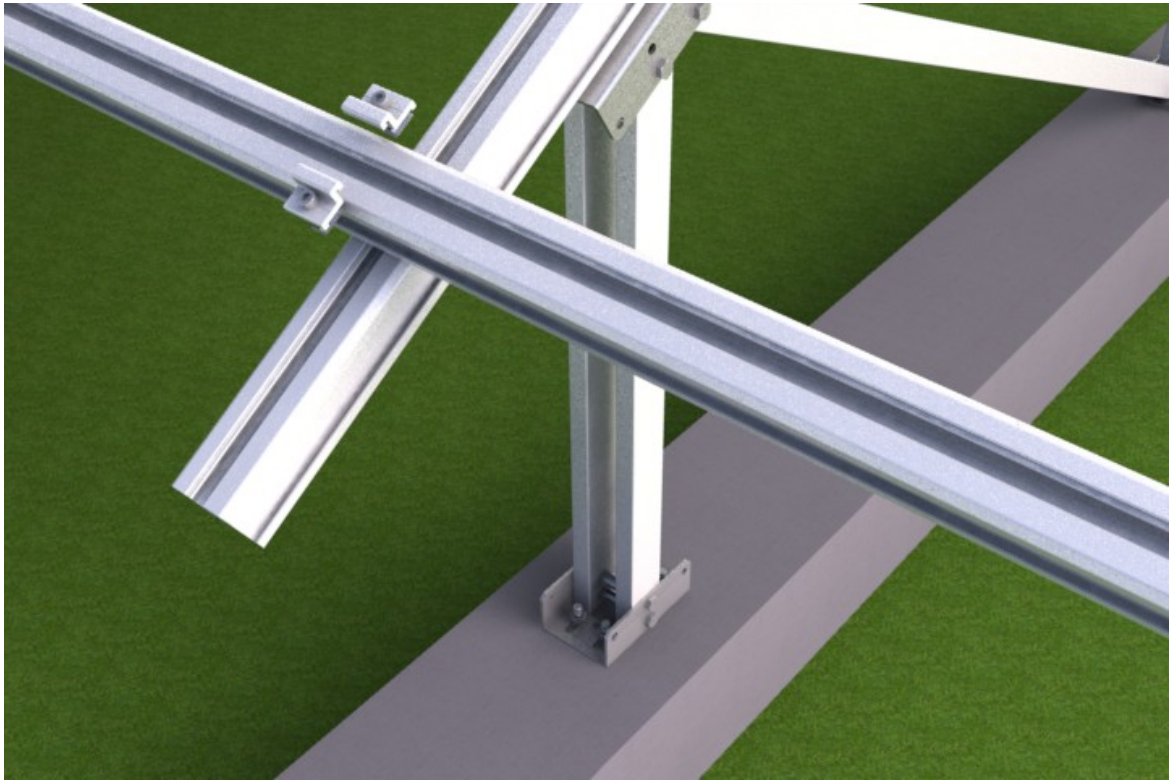


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3. Before installing the rails, mark the position of the rails on the upright. To assist installers, the bottom rail clamps are pre-assembled in the recommended position. Adjust as required. L=Solar Panel length.



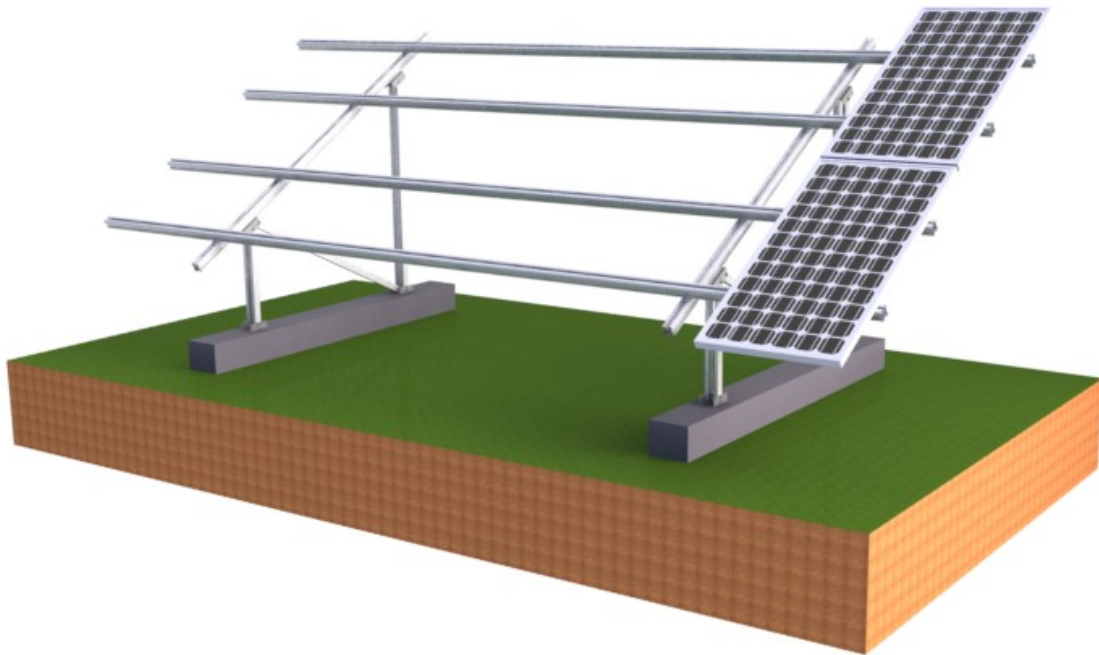
4. Place the rails on the pre-assembled legs, adjust the rails so they are evenly aligned. Tighten clamps to secure.



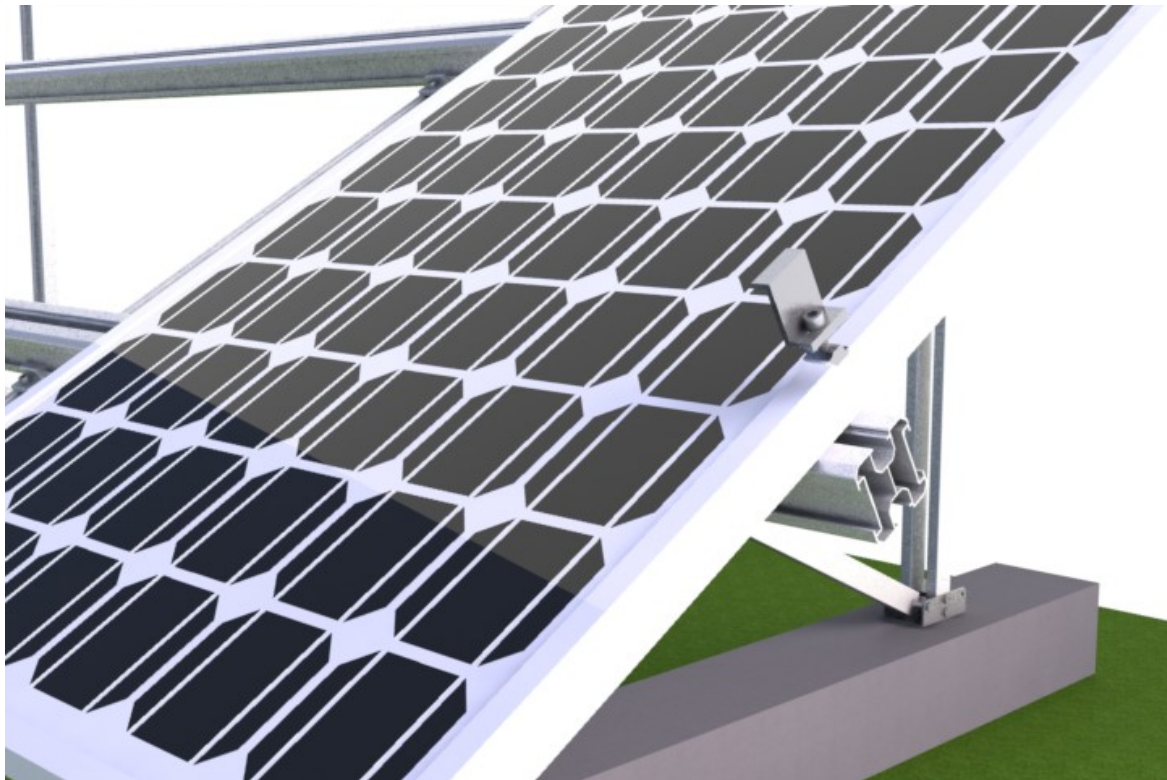


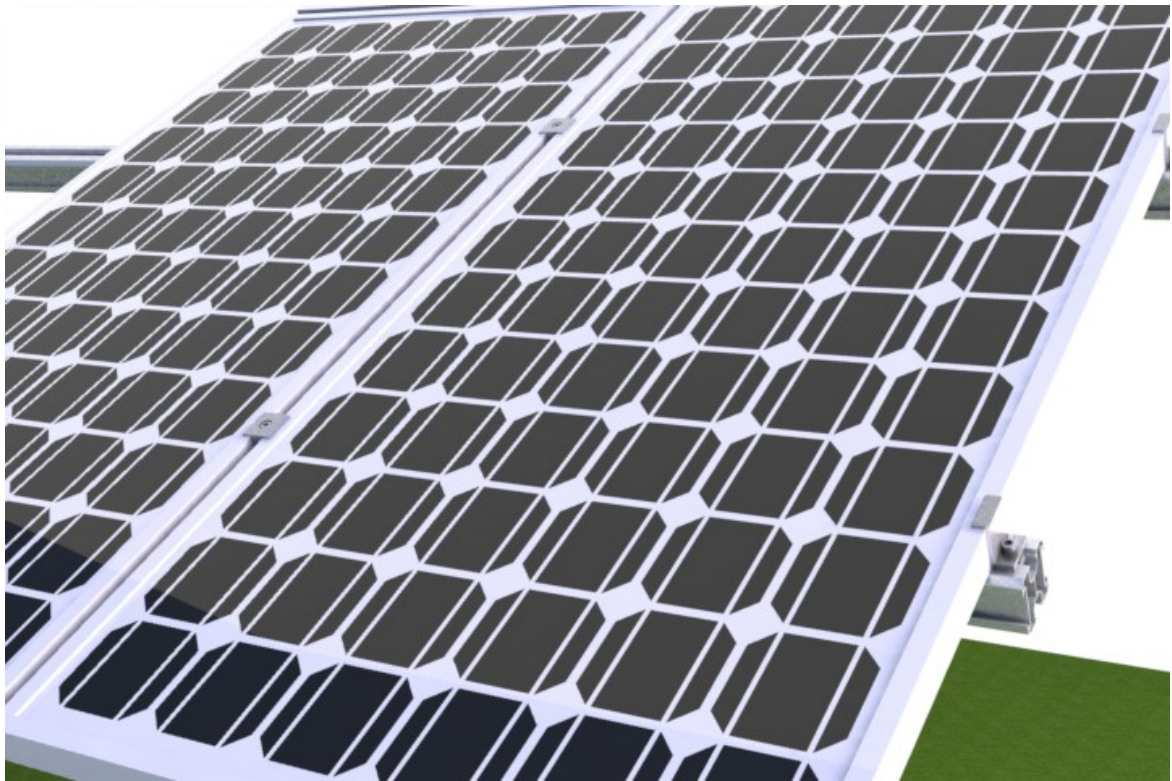
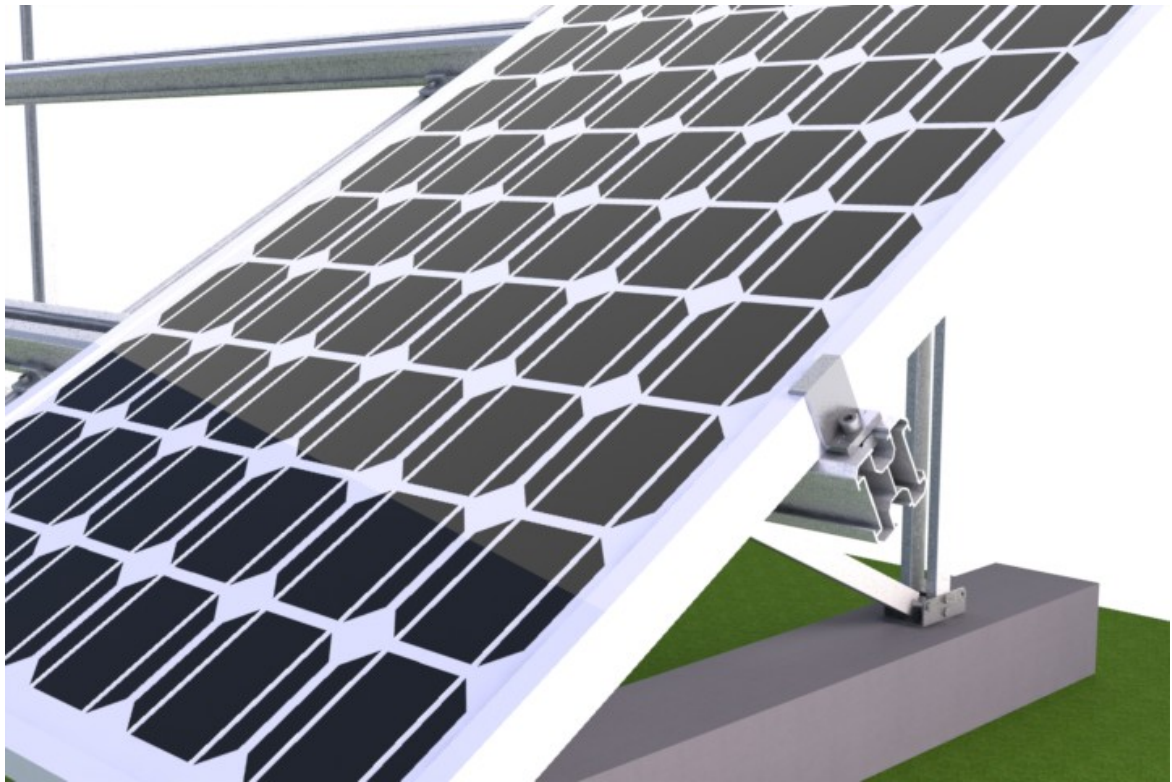
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**5. Place solar panels on the rails.**



**6. Use end clamps with, M8\*25 Hexagon screws and fixing nuts to attach solar panels to the rails. Adjacent solar panels are attached by using mid clamps with M8 Hexagon screws. (The hexagon screw length is determined by the solar panel's thickness)**





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8. Repeat steps until installation is completed.



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