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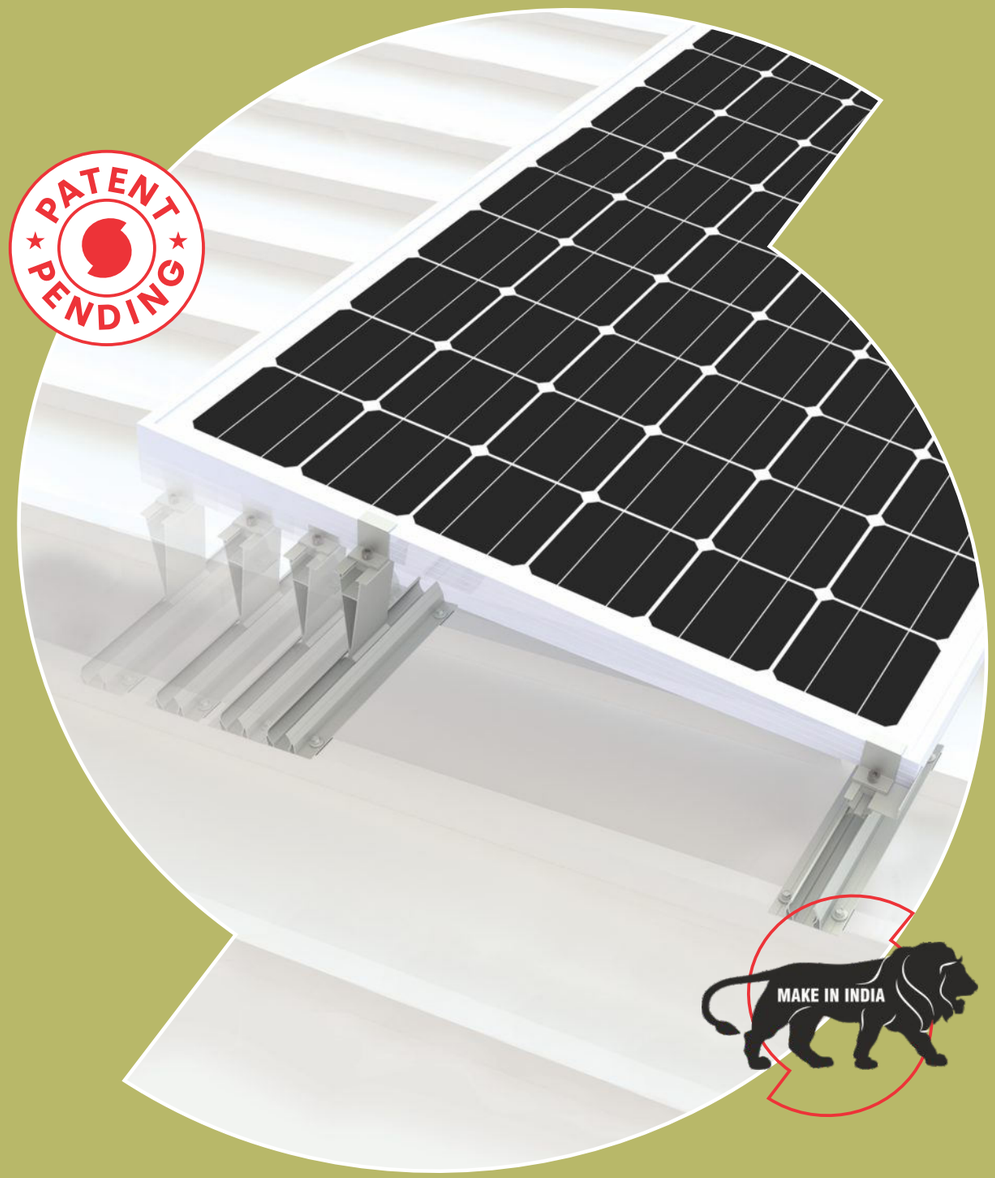
Sanpada, Navi Mumbai
Maharashtra 400705

Social networks

SOLAR KIT™
INNOVATIVE SYSTEMS INDIA

FlexTilt Pro™



Mounting Solar Kit Pvt Ltd
WhatsApp business account

All images shown are for illustration purpose only and may not be an exact representation.
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SOLAR KIT™
INNOVATIVE SYSTEMS INDIA

EUROPEAN UNION
European Regional Development Fund
Operational Programme Enterprise and Innovations of Competitiveness
No. of project: CZ.01.2.111/0.0/0.0/18_167/0014065

BEST IN MARKET WARRANTY*

DESIGN WIND SPEED 120 KMPH

QUICK INSTALLATION

Our Goals

- **Online Service :** Our team of experts is always ready to help you.
- **Certified Products :** Quality verified by leading institutes of India.
- **Make In India :** We manufacture & supply Solar-Kit products in India.
- **Best In Market Warranty :** We offer upto 10yrs warranty on our products.
- **Quick Installation :** The Solar-Kit solution saves upto 50% installation time.

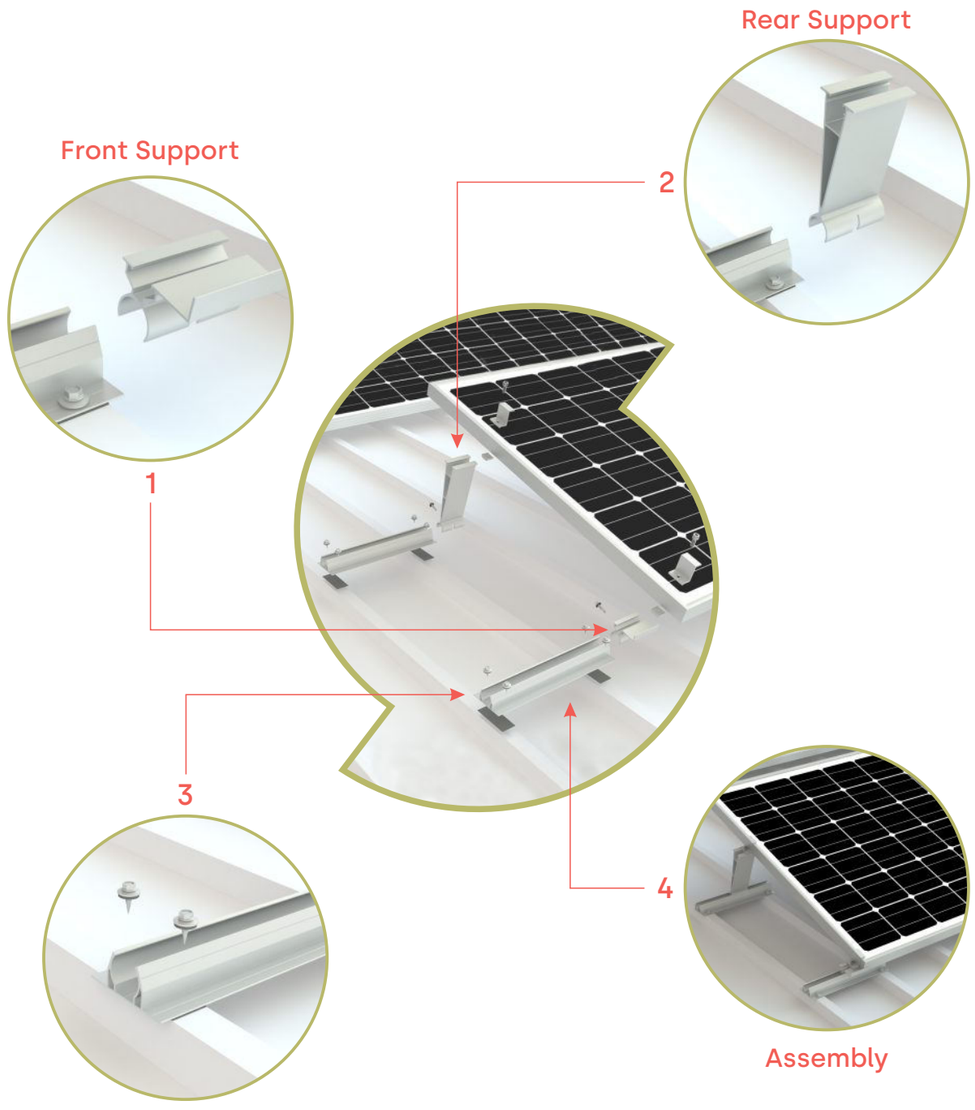
Why Us ?

Since our origin in this market, we are actively committed towards providing our prestigious patrons with a remarkable range of products.

- Quick delivery
- Huge warehouse
- Strong vendor base
- Professionally managed services
- Pan India distribution network
- Highly experienced team
- Competitive pricing structure
- Reliable range of products
- Strict quality standards
- Customized packaging

What is the novelty of the FlexTilt Pro?

The novelty part of the product is same no. of components which can rotate & slide inside each other enables flexible angle of the structure.

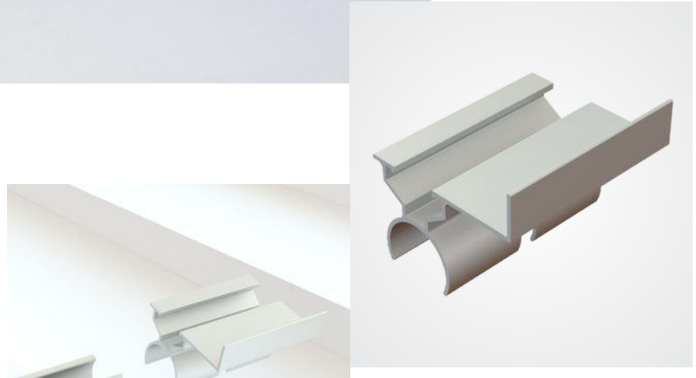


1. Front Support

Slides & rotate inside front base rail.

Provided with a slot at the center of rotating circular part to insert stopper screw through that. This enables to adjust & fix sliding motion as per panel length. It also has Unique profile to enable sliding of Special Nut.

- **Available lengths**
  70 mm Sharing two consecutive panels
- **Thickness**
  1,5 mm
- **Raw material used**
  Aluminium 6063 T6



2. Rear Support

Slides & rotate inside rear base rail.

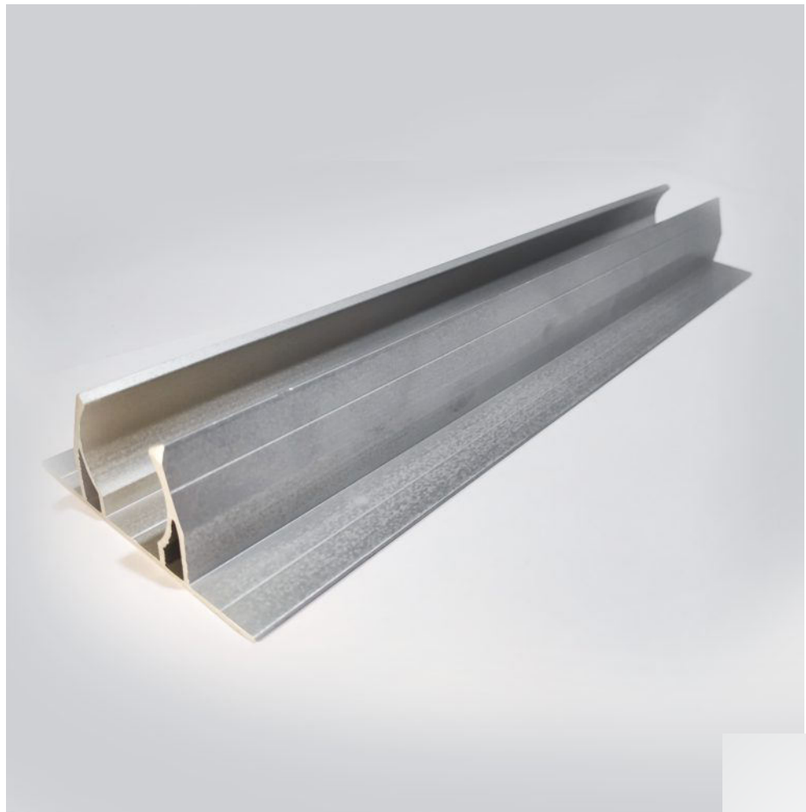
Provided with a slot at the center of rotating circular part to insert stopper screw through that. This enables to adjust & fix sliding motion as per panel length. It also has Unique profile to enable sliding of Special Nut.

- **Available lengths**
  70 mm Sharing two consecutive panels
- **Thickness**
  3 mm

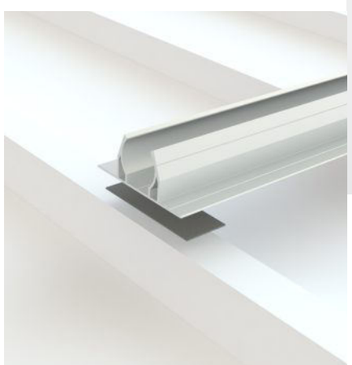
3. Base Rail

Base rail is firmly attached to the crest of the roof.

Unique circular profile enables sliding and rotation of the front & rear supports. Distance between base rails should be adjusted as per tilt of the structure required.



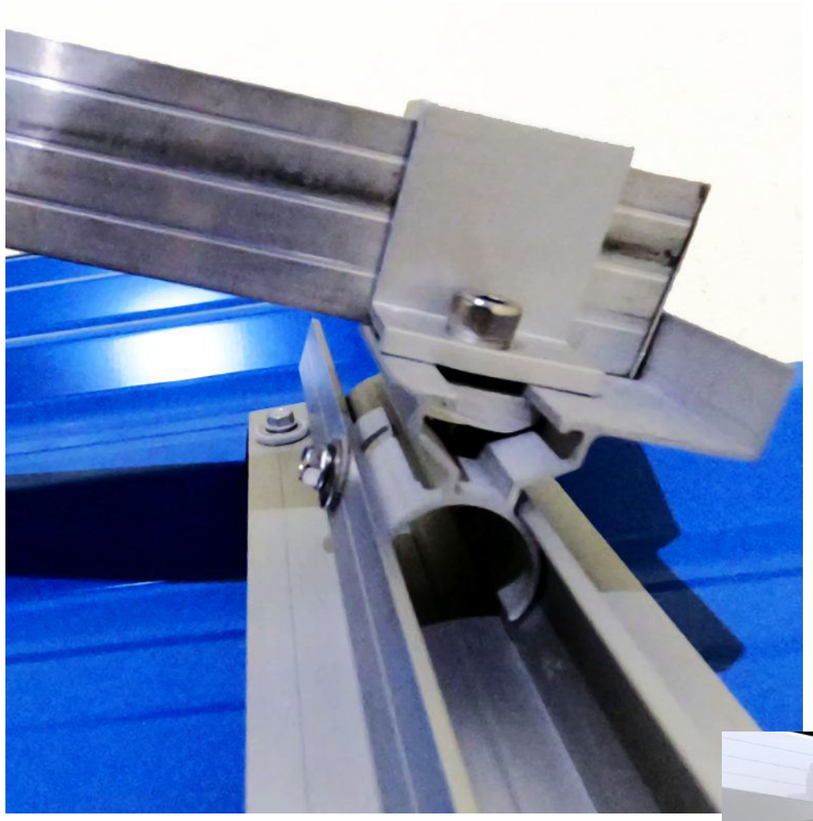
- **Available lengths**
  250 mm, 300 mm, 350mm, 400 mm Depending on crest to crest distance
- **Thickness**
  1.5 mm
- **Raw material used**
  Aluminium 6063 T6

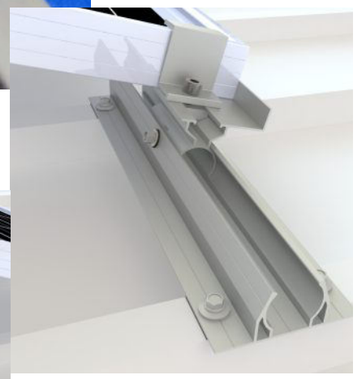


4. Assembly

As there are two rotating parts at front & rear so these connection point angles are dynamic.

As panel resting surfaces at front & rear should always be at right angle to the panel, this right angle is achieved by the rotation of the front & rear supports. Angle is decided by the distance between front & rear base rail. This arrangement of surfaces right angle to the panel fulfils the law of Degree of Freedom of used in structural engineering.

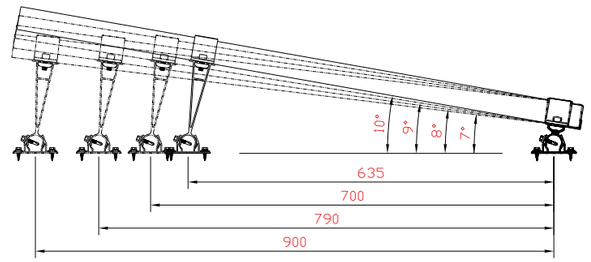




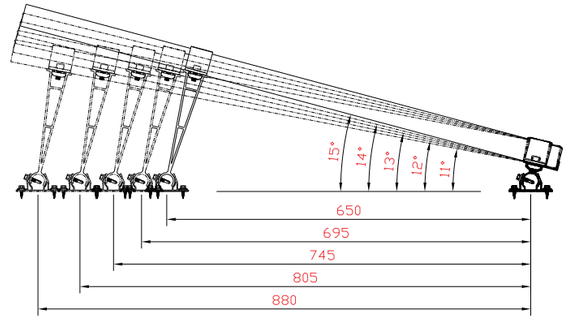
How Flexible Tilt with same components works?

FlexTilt Pro is designed to use as tilted structure where desired angle can be achieved. These angle variations can be achieved be changing rear support and distance between front and rear Base Rails. There is possibility of changing angles from 7° to 15°. These angles can be achieved in group 7° to 10° and 11° to 15° by using different Rear Support. Possible permutation combinations are shown below.

(All dimensions are in mm)



"Rear Support 10D"



"Rear Support 15D"

Features of FlexTilt Pro structure

Patent applied product with slide & Rotate action to achieve flexible tilt angles without changing its components.

Automatically adjustable structure tilt varies from 7° to 15°

Lower shading distance due to landscape orientation of the solar panel.

Low Rise of panel due to single Landscape panel Tilt which results in less wind pressure acting on panel surface.

It can be installed on both South-north & East-West Shed.

Design windspeed 120 kmph*.

Lightweight

Thermal & Mechanical compensation.

Roofing sheet mounted solution enables equal panel to panel row distance.

Durable

Patent Applied

Self Stitching Screw of A2 stainless steel with hardened steel drill point for extreme fastening.

EPDM Rubber Sheet for Excellent Water/UV/High Temperature resistance.

Panel to Panel earthing by means of grounding plate.

Faster installation due to Less connection points of the structure

Easy stocking of material - same structure components can be used for multiple tilt angles/Location /shed designs etc.

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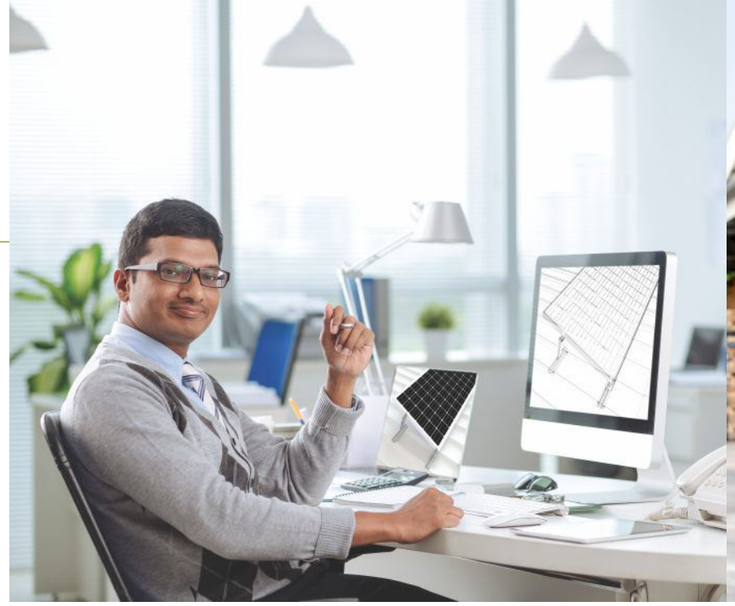
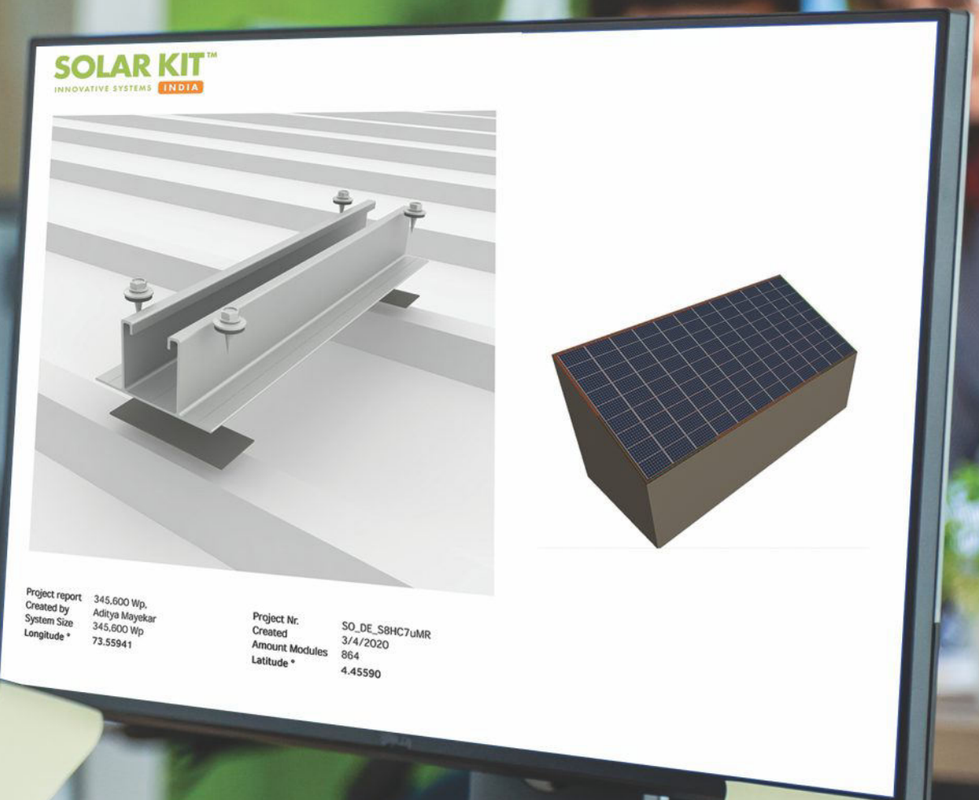
Quality Assurance :

Our success continues to be driven through our team experience and expertise, as well as a complete approch to quality assurance that is supported by comprehensive project management principle during all stage of the design, production and quality assurance stages which helps us to deliver projects on time.



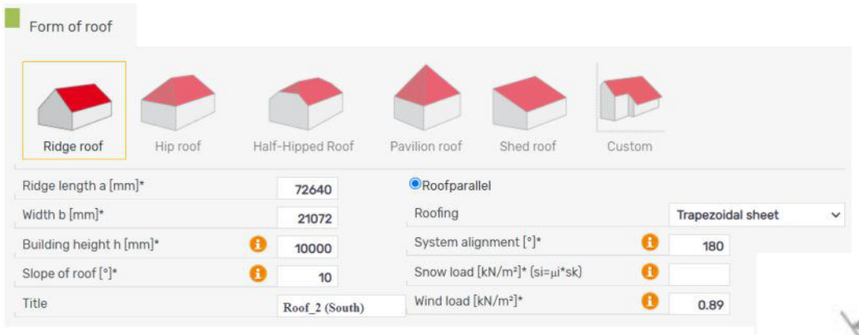
EkoTool

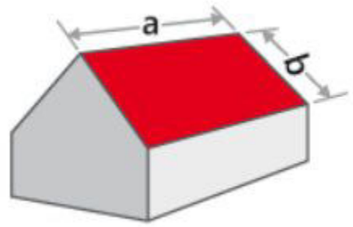
EkoTool is our online web-based tool which is operated by our employees who are professional in solar. We can plan project for Geo location anywhere in the world. A detailed Project Report is generated from this tool for a particular site. This tool is loaded with required wind zones, Snow loads, solar radiation & country specific standards. Product specific details like wind study, static study is integrated to the tool thus able to prepare solar plant design in no time.

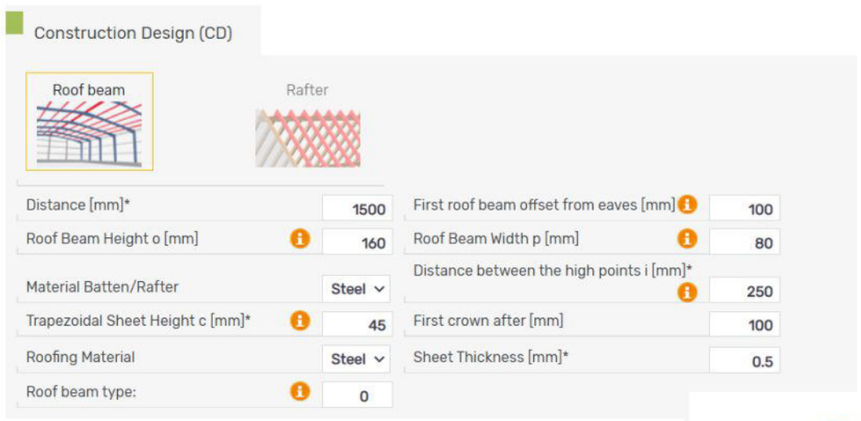


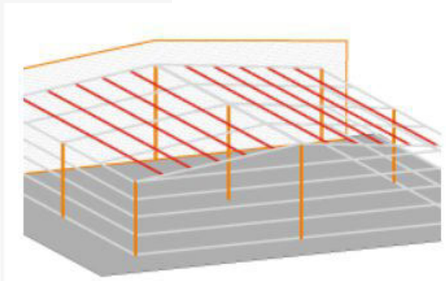
1. Roof Analysis

In roof analysis, required project location is studied thoroughly. It starts from determining latitude & longitude of the project location followed by type of roof, Building height, Slope of roof, roof alignment as per compass. Then wind load and snow load are calculated automatically by determining wind zones, Terrain category, Topography factor etc.









Wind load

Roof height (mm) 10000

Wind speed (m/s) 44

Risk level Structures with low degree of v

○ Terrain category I

Exposed terrain with few or no obstacles.
The average height of an object is less than 1.5m.

○ Terrain category II

Open terrain with scattered obstructions and a height between 1.5 and 10m.

○ Terrain category III

Terrain with numerous closely spaced obstructions with a height of up to 10m.

○ Terrain category IV

Terrain with numerous closely spaced obstacles.

Topography factor

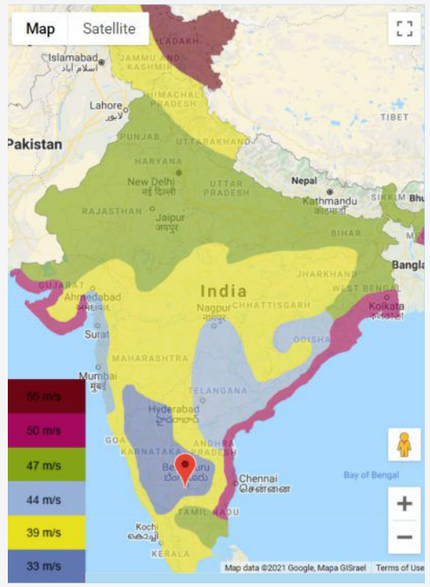
The topography factor at the project site is in a topography slope of less than 3" in the first case an angle about 3° the value increases significantly up to 1.36.

1

Importance factor for the cyclonic region

Not cyclonic regions (coastal v)

Calculate

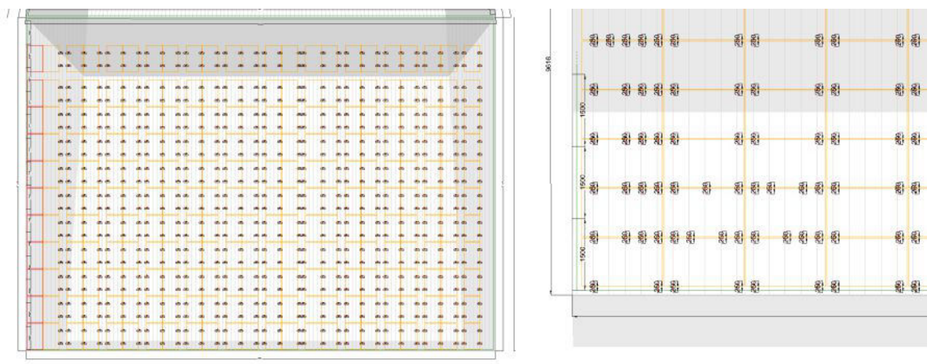


2. PV Layout

PV layout is created considering roof dimensions, edge zone, obstruction and their shading. Auto panels planner can plan panels on roof according to required capacity or to fill roof with optimum modules possible. PV Layout can be seen and managed by having 3D View of the site. This reduces resources required & error while calculation.

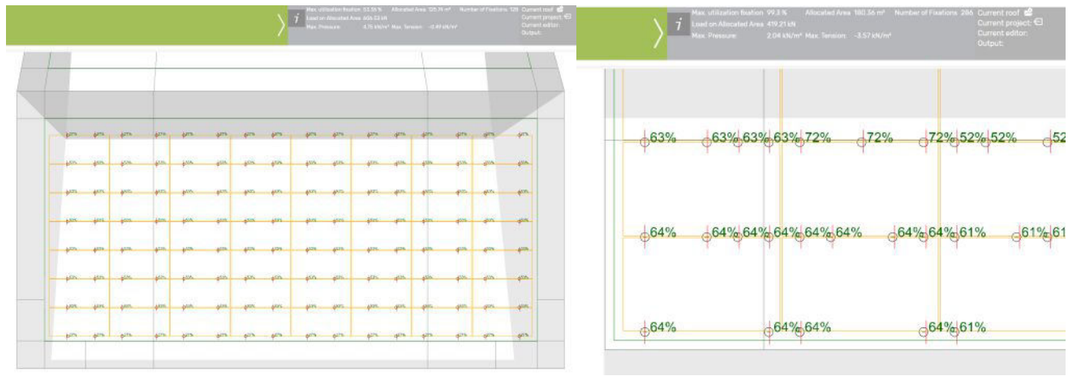
3. CAD Planning

Cad Planning for each roof can be done using automatic CAD Plotter. This allow us to create tailored solution for customer which is fast and accurate. Detailed output can be generated in the form of DWG/DXF/PDF.



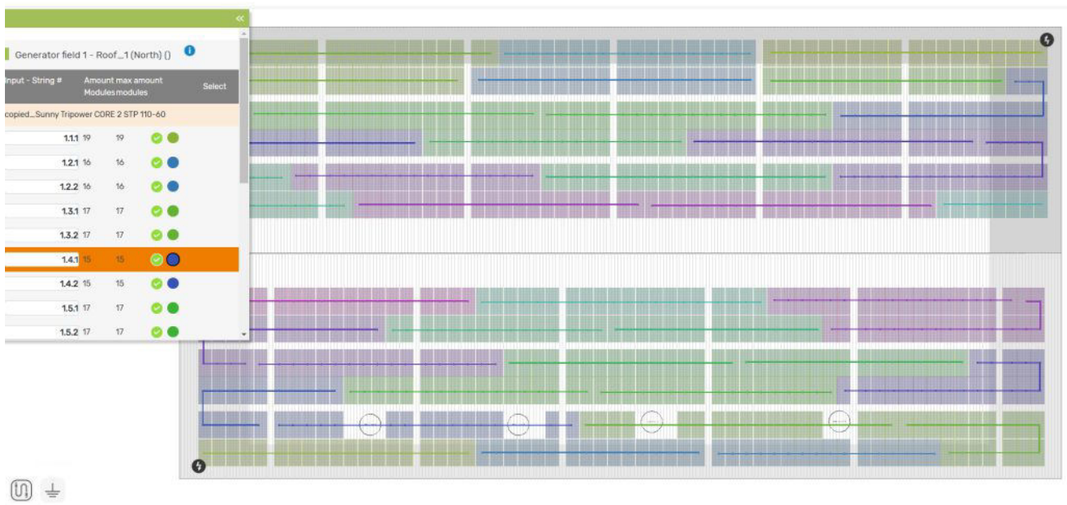
4. Static Calculation

Static calculation is done base on the structure fixation's nomenclature, design and properties. This includes load calculation and maximum load utilization of fixation at each node of the structure. As per this values product combination and its components are selected.



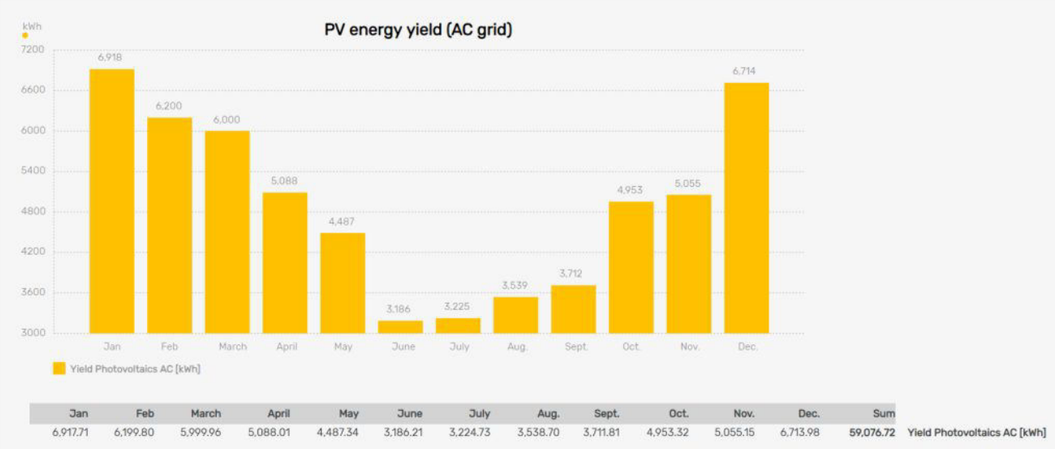
5. Electrical Designer

For complete plant analysis and documentation EkoTool provides electrical and string layouts. This allows us to design inverter layouts, panels, string diagrams easily, without error and fast.



6. PV Energy Yield

We offer you optimally designed system solutions for any type of project. This includes yield calculation and consumption throughout the year. This helps you to manage your economic activities.



Jan	Feb	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sum	
6,917.71	6,199.80	5,999.96	5,088.01	4,487.34	3,186.21	3,224.73	3,538.70	3,711.81	4,953.32	5,055.15	6,713.98	**59,076.72**	Yield Photovoltaics AC [kWh]

7. Bill of Material

Bill of material is automatically created based on PV layout and project design. This helps you to save time required for calculation by providing you automatic, fast and accurate results.

Material List

Image	Modified	Part Number	Description	Matchcode	Packaging	Total Nr.	Total Nr. Exact
	No	202-01-0102	Short Rail (H41mm, L250mm)		1	286	286
	No	202-03-0124	Panel Clamp		1	432	432
	No	202-04-0125	Self Stitching Screw 4.8X19 A		1	1144	1144
	No	202-07-0130	EPDM Tape Roll		1	8	8

8. Project Report

We offer you complete report and summery of PV system design with detailed information on individual aspects of the PV plant.

Select / Deselect all

- [x] Project master data
- [x] Roof data
- [x] Restricted areas
- [x] PV module data
- [x] Design data
- [x] Interpretation plan
- [x] Arrangement - with Backgroundimage
- [x] Assembly plan
- [x] Roof coordinates
- [x] Static CAD
- [x] Structural details - Base stats
- [ ] Structural details - Extended
  - [ ] Structural details - Loads modules
  - [ ] Seemed static - Details
- [x] Bill of materials
- [x] E - Designer
- [x] Inverter Layout and String Calculations
- [ ] Technical Drawing as an appendix (CAD)
- [ ] Static CAD as appendix

Reports & Certifications

Component Analysis:
1. FEA analysis of All Rails.
2. FEA analysis of All supports
3. FEA analysis of All Fixations.
4. FEA analysis of All Fasteners.

Wind Analysis Report:
1. Rear Support 10D (South - North)
2. Rear Support 15D (South - North)
3. Rear Support 10D (East - West)
4. Rear Support 15D (East - West)

Pullout test Report:
1. Pullout Test report - SSS
2. Pullout Test report - Rivet AL
3. Pullout Test report - Rivet SS
4. Pullout Test report - Adhesive Glue

Technical Specification

Scope of Application	Pitched Roof with Trapezoidal sheet metal
Rail to Roof Fixation	Self Stitching Screw / Self Drilling Screw / Rivet / Adhesive Glue
Panel to Rail Fixation	End Clamp / Mid Clamp
Roof Slope	5° to 25°
Min. Sheet Thickness	0.4 mm Steel and t 0.5 mm Aluminium
Crest to Crest Distance	200 mm to 350 mm
Crest Width	At least 22 mm
Building Height	Up to 20 meter
PV - Modules	Framed
Module Orientation	Landscape
Tilt Degree	7 to 15
Size of Module Array	Any Size Possible
Materials	EN AW 6063 T6 / SS 304 / EPDM
Design Windspeed	Up to 120 kmph *