

PROJECT DESIGN INPUT SHEET

Project Design Input Sheet

Site wind profile

Snow zoning

Module datasheet

Corrosion class C3/C4/C5

Railing section

Wall/concrete condition

Module count

Local authority rule

Engineering Output Definition

Item	Specification
Design load envelope	Wind, snow and seismic basis defined for project review.
MTO / BOM	Material take-off and component list prepared by layout.
Drawing pack	Layout, section/detail drawings and installation reference by order scope.
System matching	Accessory compatibility checked against Apex system BOM.

Balcony Model Focus

Railing/wall capacity, clamp interface, module count and local authority limits define the safe installation scope.

Engineering calculation entry

Submit design inputs to define load envelope, model assumptions, MTO and drawing pack.

Request Apex EPC review for load envelope, structural assumptions, MTO and drawing pack.

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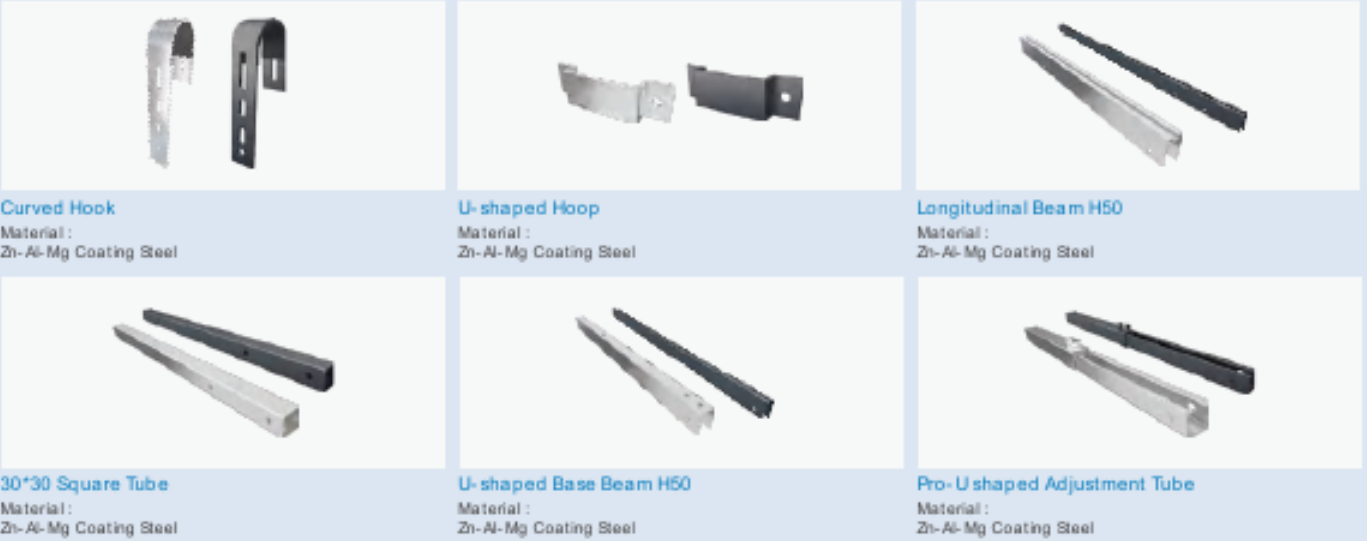
Engineering Technical Controls

Item	Specification
Wind	Up to 30 m/s; railing / wall capacity and local authority review required
Snow	Up to 1.0 kN/m2 by local requirement
Tilt	10-30 deg adjustable installation angle
Material	AL6005-T5 anodized aluminium with SUS304 fasteners
Design Basis	ASCE 7-16 / 7-22; IBC 2021 / 2024; EN 1991 / EN 1993 / EN 1999; AS/NZS 1170; JIS C8955 / GB 50009 by project
Warranty Profile	Mechanical structure: 12-year limited; corrosion protection and design life target by exposure class and order scope.

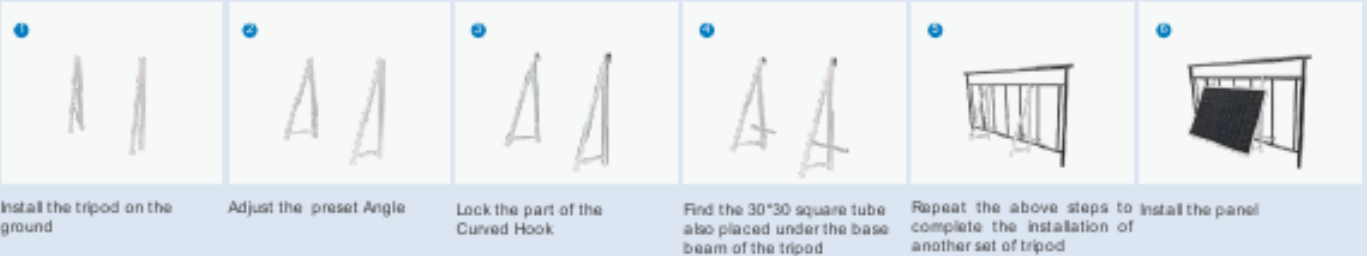
Structure



Component Details



Installation Guide



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Parking layout

Vehicle clearance

Foundation condition

Drainage requirement

Engineering Output Definition

Item	Specification
Design load envelope	Wind, snow and seismic basis defined for project review.
MTO / BOM	Material take-off and component list prepared by layout.
Drawing pack	Layout, section/detail drawings and installation reference by order scope.
Structural layout	Column spacing, clearance, drainage and foundation interface reviewed.

Carport Model Focus

Column spacing, beam span, vehicle clearance, drainage and foundation reactions define the project model.

Engineering calculation entry

Submit design inputs to define load envelope, model assumptions, MTO and drawing pack.

Request Apex EPC review for load envelope, structural assumptions, MTO and drawing pack.

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Engineering Technical Controls

Item	Specification
Wind	Up to 45-50 m/s by span, column spacing and local code
Snow	Up to 1.2-1.6 kN/m2 by span and drainage design
Foundation	Concrete foundation with single-column steel structure by local design
Clearance	1800-3000 mm review range; vehicle clearance by project
Material	Q235B / Q355B HDG steel; AL6005-T5 rails; SUS304 / HDG fasteners
Design Basis	ASCE 7-16 / 7-22; IBC 2021 / 2024; EN 1991 / EN 1993 / EN 1999; AS/NZS 1170; JIS C8955 / GB 50009 by project
Warranty Profile	Mechanical structure: 12-year limited; corrosion protection and design life target by exposure class and order scope.

Structure



Component Details



76 steel tube
Material : HDG Steel



Mono post with welding plate
Material : Zn-Al-Mg Coating Steel



Splice for Rail
Material : Zn-Al-Mg Coating Steel



Rail Connector
Material : Zn-Al-Mg Coating Steel



H-shape Steel
Material : HDG Steel



H-shape Steel with Welding Plate
Material : HDG Steel



Pull Rod kit-A
Material : Zn-Al-Mg Coating Steel



Pull Rod kit-B
Material : Zn-Al-Mg Coating Steel



Inter Clamp kit
Material : AL6005-T5(Anodized) SUS304



End Clamp kit
Material : AL6005-T5(Anodized) SUS304

Installation Guide



1
Fix the H-shape Steel Welding Plate



2
Install the H-shape Steel



3
Install the 76 steel tube



4
Install the Pull Rod kit A&B



5
Install the module



6
The installation is done

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Engineering Output Definition

Item	Specification
Design load envelope	Wind, snow and seismic basis defined for project review.
MTO / BOM	Material take-off and component list prepared by layout.
Drawing pack	Layout, section/detail drawings and installation reference by order scope.
Structural layout	Column spacing, clearance, drainage and foundation interface reviewed.

Carport Model Focus

Column spacing, beam span, vehicle clearance, drainage and foundation reactions define the project model.

Engineering calculation entry

Submit design inputs to define load envelope, model assumptions, MTO and drawing pack.

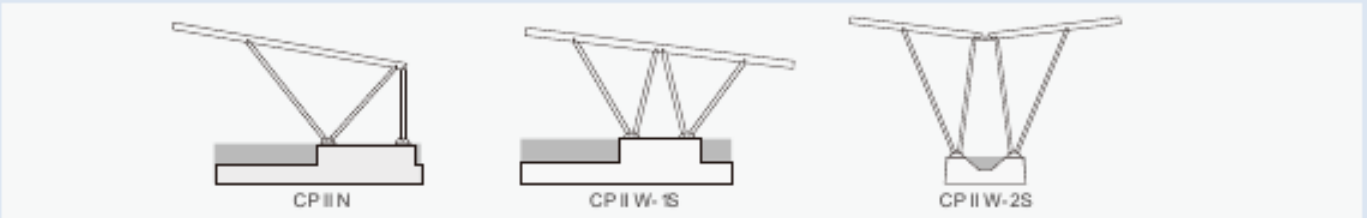
Request Apex EPC review for load envelope, structural assumptions, MTO and drawing pack.

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Engineering Technical Controls

Item	Specification
Wind	Up to 45-50 m/s by span, column spacing and local code
Snow	Up to 1.2-1.6 kN/m2 by span, drainage design and purlin spacing
Foundation	Concrete foundation with steel column and beam structure by local design
Clearance	1800-3000 mm review range; custom clearance by vehicle type
Material	Q235B / Q355B HDG steel and AL6005-T5 aluminium module interface
Design Basis	ASCE 7-16 / 7-22; IBC 2021 / 2024; EN 1991 / EN 1993 / EN 1999; AS/NZS 1170; JIS C8955 / GB 50009 by project
Warranty Profile	Mechanical structure: 12-year limited; corrosion protection and design life target by exposure class and order scope.

Structure



Component Details

Conical Symmetric Cross Beam 135
Specification : L*58*135
Standard Length: 3300mm 5000mm

Splice for Conical Symmetric Cross Beam 135
Specification : L280mm
Components : Hexa Self-Tapping Screw With EPDM Washer ST6.3*19

Beam 160
Specification : L*100*100
Material : AL6005-T5(Anodized)

C Clamp Kit
Components : C Clamp
Symmetric Cross Module
Spring Washer M8
Hexagon Socket Bolt

Wide End Clamp Kit
Components : Wide End Clamp
Symmetric Cross Module
Spring Washer M8
Hexagon Socket Bolt

U25 Inter Clamp Kit
Components : U25 Inter Clamp
Symmetric Cross Module
Spring Washer M8
Hexagon Socket Bolt

Anchor Plate for Carport(L250)
Specification : 62*49*L250
Material : AL6005-T5(Anodized)

Square Tube
Specification : L*100*100
Material : AL6005-T5(Anodized)

Anchor Plate for Carport(L450)
Specification : 62*49*L450
Material : AL6005-T5(Anodized)

Waterproof for Cross Beam
Specification : L*100*100

Installation Guide

1 Grout the bolt embedded on the concrete foundation based on project solution.

2 Fix Corrugated T Anchor Plate Kit on the concrete foundation.

3 Connect the Pre-assemble Support with the Anchor Plate Kit on the concrete foundation.

4 The installation of Pre-assemble Support is done.

5 Install beam

6 The installation of beam is done

7 Fix the solar module with Inter Clamp Kit & End Clamp Kit.

8 Installation is done

