

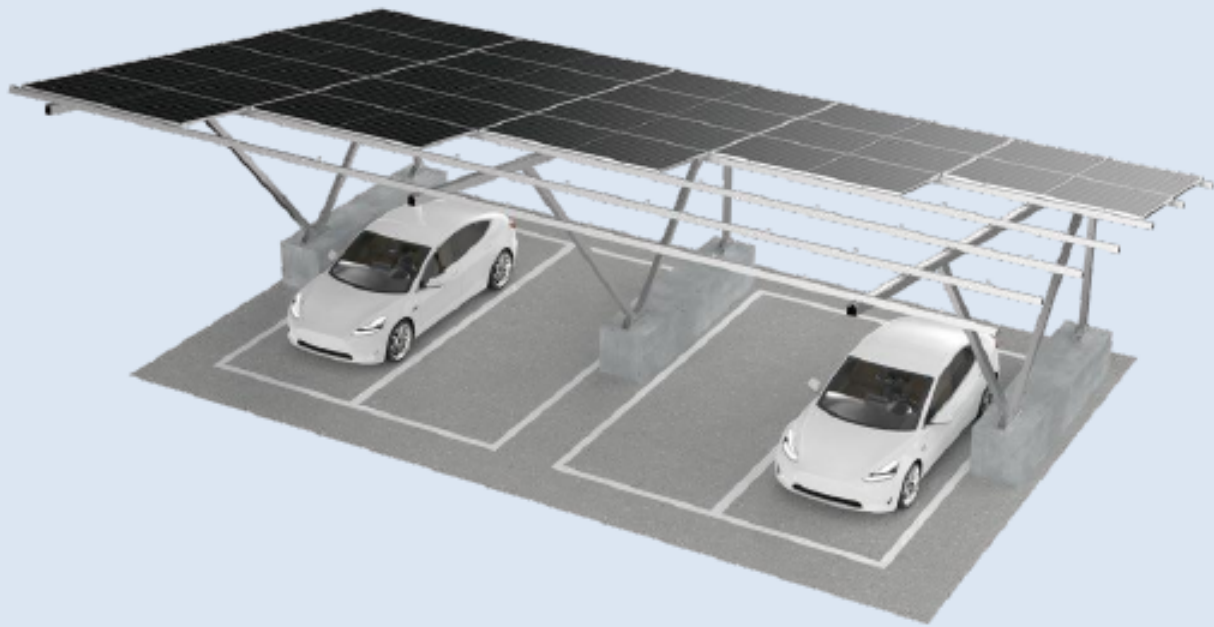
APEX CUSTOMER TECHNICAL DATASHEET | REV E

ApexCarport CP II System

Solar carport structure for parking assets, combining PV generation, shade coverage and engineered column spacing.

APPLICATION Double-parking or commercial carport PV structures	FOUNDATION Concrete foundation with steel column and beam structure by local design
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

Ground Mounting System 30° Angle Custom Clearance Adjustable for Wind or Snow Exposure Steel Structure Layout Warranty



Advantages

Customized Solution
Design case by case, making a good utilization of ground resource and pursuit for easy and quick installation.

Apex Advantage

Any Scale, Any Solution. Apex provides project-ready mounting structures, optimized BOM support, engineering documentation and dependable material control for global PV projects.

Reliable Structures. Faster Project Review. Global PV Support.

CUSTOMER TECHNICAL DATASHEET | REV E 2026

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TILT -	WARRANTY 12-year product warranty

Design Envelope

Parameter	Min	Max	Condition
Clearance	1800 mm	3000 mm	Vehicle type and local code
Column spacing	Project	Span review	Parking layout and drainage
Wind review	Project	45-50 m/s	Span and exposure dependent
Drainage	Open	Waterproof option	Order scope dependent

Core Specification

Item	Specification
Application	Double-parking or commercial carport PV structures
Foundation	Concrete foundation with steel column and beam structure by local design
Clearance	1800-3000 mm review range; custom clearance by vehicle type
Wind	Up to 45-50 m/s by span, column spacing and local code

Materials / Compliance / Warranty

Item	Specification
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.

Apex engineering support: layout drawing, structural calculation basis, optimized BOM, packing list and material documentation.

PROJECT DESIGN INPUT SHEET

Project Design Input Sheet

Site wind profile

Snow zoning

Module datasheet

Corrosion class C3/C4/C5

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.

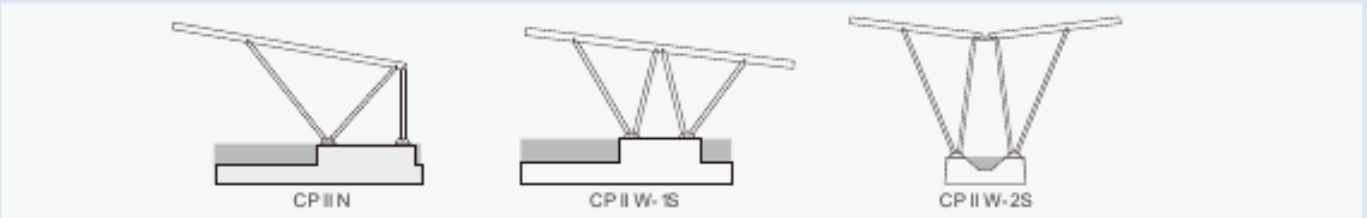
Request Apex EPC review for load envelope, structural assumptions, MTO and drawing pack.

info@apexsolarmount.com | www.apexsolarmount.com

Engineering Technical Controls

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Wind	Up to 45-50 m/s by span, column spacing and local code
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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