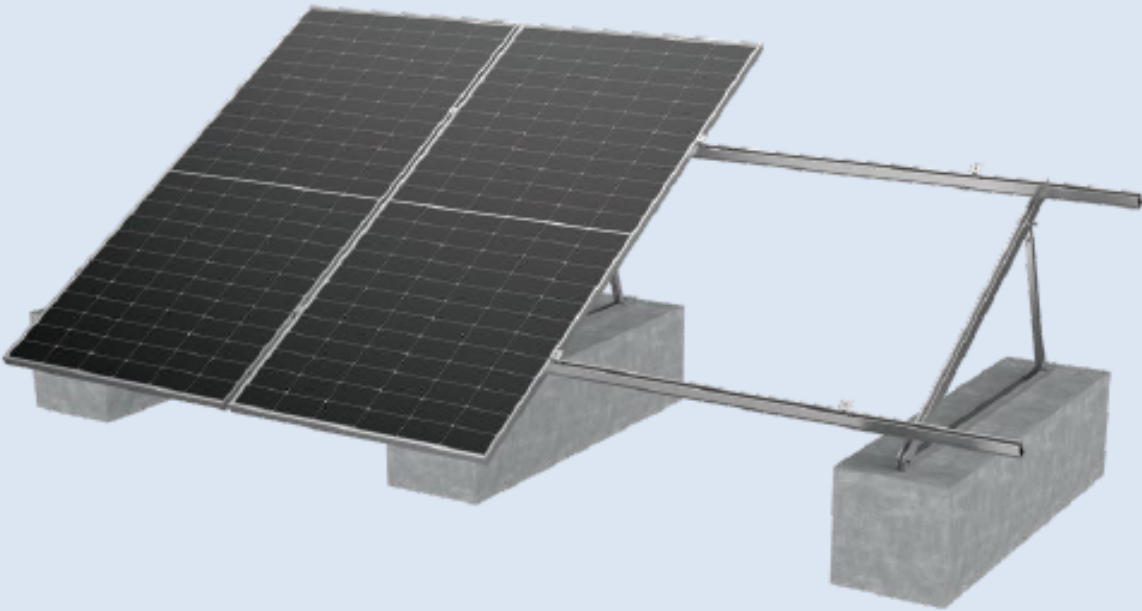


APEX CUSTOMER TECHNICAL DATASHEET | REV E

ApexRoof Tripod Matrix System

Roof-mounted PV racking engineered for fast installation, clean load transfer and project-specific fixing review.

APPLICATION Metal roof or low-slope roof projects requiring raised module angle	INTERFACE Tripod / double-row support fixed to roof interface or ballast by project
TILT 10-45 deg common range	WIND Up to 60 m/s



Advantages

System Compatibility
Components mostly pre-assembled in factory to assure quick and reliable installation on site. Suitable for different flat rooftop, and compatible to different types of solar modules.

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

ApexRoof Tripod Matrix System

Roof-mounted PV racking engineered for fast installation, clean load transfer and project-specific fixing review.

WIND Up to 60 m/s	SNOW Up to 1.6 kN/m2
TILT 10-45 deg common range	WARRANTY 12-year product warranty

Design Envelope

Parameter	Min	Max	Condition
Tilt	0 deg	45 deg	Flush/tilt system by roof type
Rail span	Project	By calculation	Purlin, hook or ballast spacing
Wind uplift	Project	60 m/s basis	Roof zone and edge distance
Interface	Clamp/hook	Ballast/fixing	Roof profile verification

Core Specification

Item	Specification
Application	Metal roof or low-slope roof projects requiring raised module angle
Interface	Tripod / double-row support fixed to roof interface or ballast by project
Tilt	10-45 deg common range; higher angle only by project engineering review
Wind	Up to 60 m/s; row spacing, uplift and roof fixing by structural review

Materials / Compliance / Warranty

Item	Specification
Material	AL6005-T5 anodized aluminium support structure; 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.

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

Roof profile

Purlin/rafter layout

Roof zone

Waterproofing condition

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.
Fixing schedule	Roof zone, clamp/hook spacing and waterproofing interface reviewed.

Roof Model Focus

Uplift load path, roof interface, rail span, purlin/rafter spacing and waterproofing detail control final fixing schedule.

Engineering calculation entry

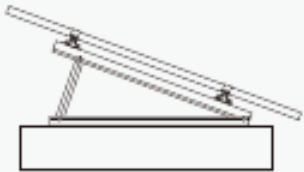
Submit design inputs to define load envelope, model assumptions, MTO and drawing pack.

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

info@apexsolarmount.com | www.apexsolarmount.com

Engineering Technical Controls

Item	Specification
Wind	Up to 60 m/s; row spacing, uplift and roof fixing by structural review
Snow	Up to 1.6 kN/m2; final by tilt angle, rail span and roof capacity
Tilt	10-45 deg common range; higher angle only by project engineering review
Material	AL6005-T5 anodized aluminium support structure; 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.



Component Details



Pro Rail 50
Specification : 3100/ 4100/ 5100mm
Material : AL6005-T5(Anodized)



Splice for Pro Rail 50
Specification : Standard length 260mm
Range Head Self-taping Screw ST6.3*19
Material : AL6005-T5(Anodized)



End Clamp Kit
Components : End Clamp
Cross Module
Spring Washer M8
Hex Socket Head Bolt



Inter Clamp Kit
Components : End Clamp
Cross Module
Spring Washer M8
Hex Socket Head Bolt



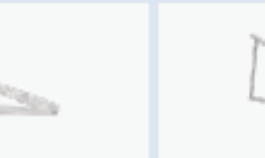
C Clamp Kit
Components : C Clamp
Cross Module
Spring Washer M8
Hex Socket Head Bolt



Angle Aluminum Tripod Support
Components : Angle Aluminum Beam
Angle Aluminum Mud sill
Angle Aluminum Side Beam
flat washerM8
spring washerM8
Hexagon Bolt M8*25



Single Tripod Support
Components : Tripod Support Beam
Tripod Support Mud sill
Tripod Support SquareTubeA
H.Jointer
Flat Washer M10
Spring Washer M10
Hexagon Bolt M10*65



Double Tripod Support
Components : Tripod Support Beam
Tripod Support Mud sill
Tripod Support Square Tube A/ B
H.Jointer
Flat Washer M10
Spring Washer M10
Hexagon Bolt M10*65



Adjustable Tripod
Components : Tripod Support Beam
Tripod Support Mud sill
Tripod Support Square Tube A
H.Jointer
Flat Washer M10
Hexagon Bolt M10*65

Installation Guide



1
Place the concrete base at the position indicated on the solution drawings



2
Fasten the preassembled supports on the expansion bolts by C Clamps



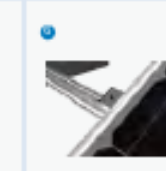
3
Install splices



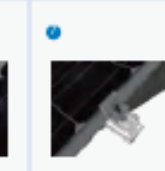
4
Fasten the rails by C Clamp Kits



5
Install modules on the rails



6
Fasten modules by Inner Clamp Kits



7
Fasten modules by End Clamp Kits



8
Complete installation