

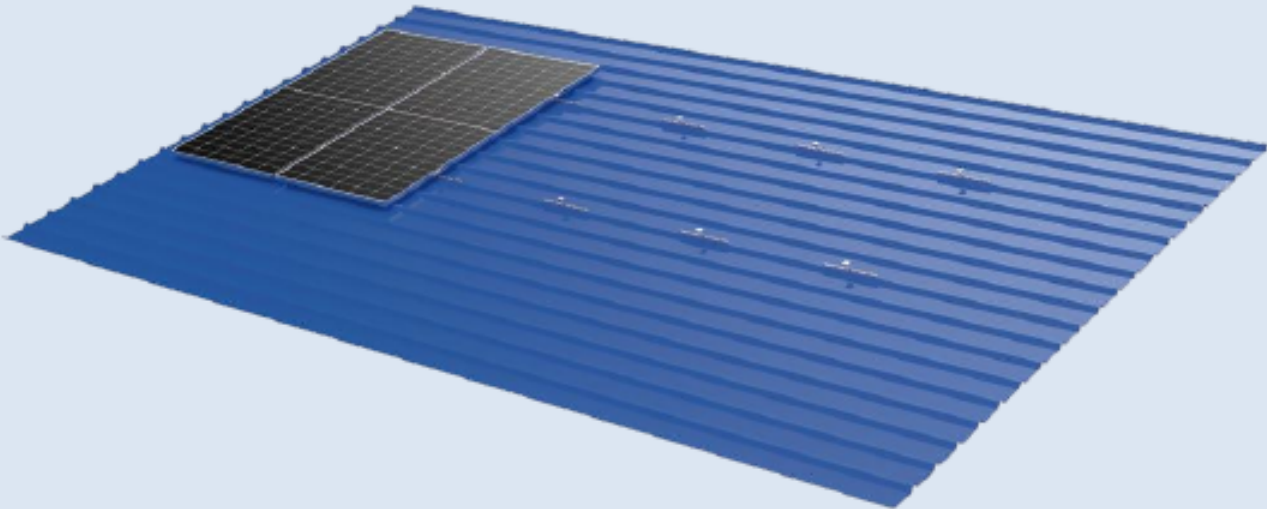
APEX CUSTOMER TECHNICAL DATASHEET | REV E

ApexRoof MiniRail Metal Roof System

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

APPLICATION Compact metal roof PV arrays where short rails reduce material scope	INTERFACE Mini-rail direct fixing to trapezoidal or corrugated roof profile
TILT Flush mount / 0 deg typical	WIND Up to 60 m/s

Approved: Top Steel on Roof / Trapezoidal Roof / 0° Angle / Available with Modules / Transfer to Top Structure / Roof Load on Top Structure / Warranty



Advantages

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 MiniRail Metal Roof 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 Flush mount / 0 deg typical	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	Compact metal roof PV arrays where short rails reduce material scope
Interface	Mini-rail direct fixing to trapezoidal or corrugated roof profile
Tilt	Flush mount / 0 deg typical
Wind	Up to 60 m/s; final screw spacing by roof zone and sheet thickness

Materials / Compliance / Warranty

Item	Specification
Material	AL6005-T5 anodized aluminium mini rails and clamps; 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.

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Engineering Technical Controls

Item	Specification
Wind	Up to 60 m/s; final screw spacing by roof zone and sheet thickness
Snow	Up to 1.6 kN/m2; final by roof purlin and module layout
Tilt	Flush mount / 0 deg typical
Material	AL6005-T5 anodized aluminium mini rails and clamps; 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
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Components



Optional Hook Type

