



PRODUCT CATALOGUE

Solar Balcony Mount



Product Overview



- **Essence:** Integrated plug-and-play home solar system
- **Core components:** Balcony bracket, micro-inverter, solar panels, accessories
- **Advantages:** Flexible, applicable to most balconies, and can be used on balconies, floors and walls

Our solar balcony mount equipped with this single-panel mounting requires connection to the mains electricity (the national power grid).

System Components



Bracket



Solar Panel



Microinverter



Cables & Connectors



Solar Fasteners

Common Applications



1 Panel Balcony System



2 Panels Balcony System



4 Panels Balcony System



1 Panel Wall System



2 Panels Wall System



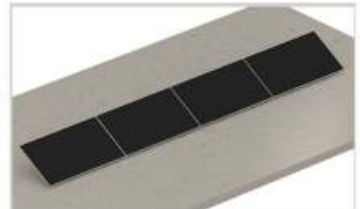
4 Panels Wall System



1 Panel Flat System



2 Panels Flat System



4 Panels Flat System

Specification

ITEM	1-Panel System	2-Panel System	4-Panel System
Installation Type	Balcony / Wall / Flat		
Solar Panel Power	620W	450W*2	620W*4
Array Mode	Horizontal		
Power of Micro-inverter	500W	800W	2000W
Rated Output Voltage	220V-240V/50Hz		
Material of Bracket	ZAM Steel + Spray		
Adjustable Angle	10-30 degrees		
8-Hour Total Power Output	3.47~4.46kWh	5.04~6.48kWh	13.89~17.86kWh

SOLAR TILE ROOF MOUNTING SYSTEM



- **Essence:** Specially designed for tile roofs
- **Installation:** Uses various hooks to fix to roof beams without damaging tiles
- **Advantages:** Stable installation & excellent waterproofing

■ Aluminum Hook Structure


HNSHOOK001

HNSRAIL001

HNSSCREW01

HNSMCP001

HNSECP001

HNSGLUG01

■ Stainless Steel Hook Structure


HNSHOOK002

HNSRAIL002

HNSSCREW01

HNSMCP002

HNSECP002

HNSGLUG02

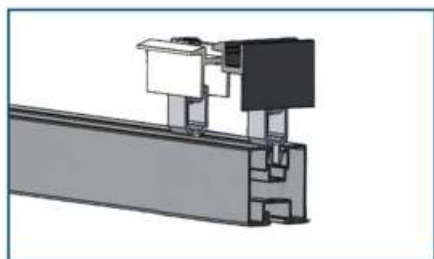
■ Solar Roof Hooks

HAINA has many types of tile roof hooks, suitable for most roof types of tile, slate tile, asphalt shingle tile, etc.



■ Solar Clamps

We mainly use two types of mid/end clamps: the quick-clip type and the slider type.



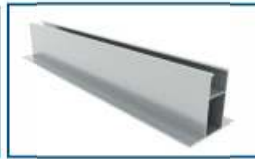
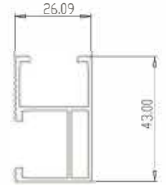
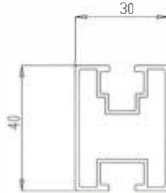
SOLAR METAL ROOF MOUNTING SYSTEM



- **Essence:** Suitable for metal roofs (corrugated steel, trapezoidal tiles)
- **Installation:** Directly fixed with clamps or self-tapping screws
- **Advantages:** Quick installation & strong load-bearing capacity

■ Solar Rails

Our solar mounting system features different rail profiles, designed to accommodate various roof types and load conditions.



■ Solar Clamps

HAINA offer many roof clamps to fit different standing-seam metal roof profiles.



■ L Feet with Hanger Bolt

■ L Feet with Screw


HNSRAIL001



HNSLSET001



HNSLSET002



HNSMCP001



HNSECP001



HNSGLUG01

■ Plate with Hanger Bolt

■ Trapezoid Clamp with Rail


HNSRAIL002



HNSLSET003



HNSKLC001



HNSMCP002



HNSECP002



HNSGLUG02

■ Aluminum Rail with Screw
■ Aluminum Rail with Screw


HNSRAIL003



HNSRAIL004



HNSSCREW02



HNSMCP002



HNSECP002

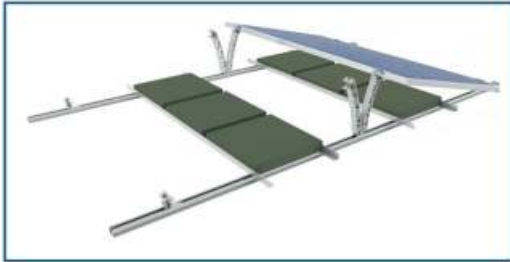


HNSGLUG02

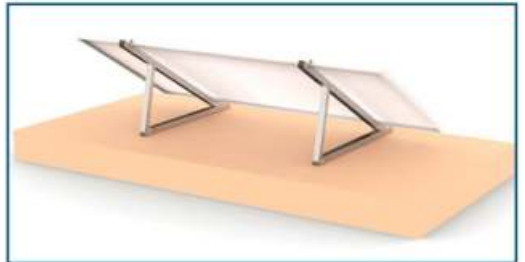
SOLAR FLAT ROOF MOUNTING SYSTEM



- **Essence:** Specially designed for flat roofs
- **Installation:** Adopts ballast or adjustable bracket structure, no roof penetration
- **Advantages:** Stable, waterproof, flexible angle adjustment


HNSFLATROOF001

HNSFLATROOF002

HNSFLATROOF003

HNSFLATROOF004

HNSFLATROOF005

HNSFLATROOF006

SOLAR CARPORT MOUNTING SYSTEM



- **Essence:** Specialized solar mounting system for carports
- **Core components:** Support structure, rails, clamps, foundation parts
- **Advantages:** High stability, strong wind resistance, durable & long service life



■ I Type Solar Carport Mount

■ V Type Solar Carport Mount



- ITEM: 2-Parking-Space Solar Carport
- Panel Layout: Vertical
- Solar Panel Power: 590W~620W
- Number of Modules: 15PCS
- Tilt Angle: 5 degrees
- Structure Material: S355B(HDG/Surface Spraying)/ZAM Steel
- Dimension: 5.9*6.8m
- Advantage: Space-saving perfect for parking lots/EV charging stations

- ITEM: 2-Parking-Space Solar Carport
- Panel Layout: Vertical
- Solar Panel Power: 590W~620W
- Number of Modules: 15PCS
- Tilt Angle: 5 degrees
- Structure Material: ZAM Steel
- Dimension: 5.9*6.8m
- Advantage: Multi-functional ideal for industrial & commercial parks

■ N Type Solar Carport Mount



- ITEM: 2-Parking-Space Solar Carport
- Panel Layout: Vertical
- Solar Panel Power: 590W~620W
- Number of Modules: 15PCS
- Tilt Angle: 5 degrees
- Structure Material: ZAM Steel
- Dimension: 5.9*6.8m
- Advantage: Stable and cost-efficient solution for medium to large parking areas.

■ W Type Solar Carport Mount



- ITEM: 2-Parking-Space Solar Carport
- Panel Layout: Vertical
- Solar Panel Power: 590W~620W
- Number of Modules: 15PCS
- Tilt Angle: 5 degrees
- Structure Material: ZAM Steel
- Dimension: 5.9*6.8m
- Advantage: High-strength W structure ideal for large-scale projects.

■ Y Type Solar Carport Mount



- ITEM: 2*2-Parking-Space Solar Carport
- Panel Layout: Vertical
- Solar Panel Power: 590W~620W
- Number of Modules: 30PCS
- Tilt Angle: 5 degrees
- Structure Material: S355B(HDG/Surface Spraying)/ZAM Steel
- Dimension: 5.9*13.8m
- Advantage: High-performance suitable for industrial & residential communities

■ VV Type Solar Carport Mount

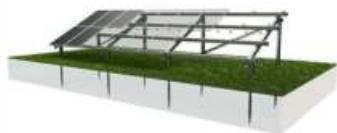


- ITEM: 2*2-Parking-Space Solar Carport
- Panel Layout: Vertical
- Solar Panel Power: 590W~620W
- Number of Modules: 30PCS
- Tilt Angle: 5 degrees
- Structure Material: ZAM Steel
- Dimension: 5.9*13.8m
- Advantage: Easy installation suitable for commercial buildings/factory parking lots

■ Foundation Options

Ground Screw Foundation

Suitable for most soil conditions
Fast installation, no concrete



C-Channel Foundation

Stable soil conditions
Cost-efficient large projects



Concrete Foundation

Suitable for rocky or special soil
High-load requirements



■ Structure Options

Single-Post Structure

Small layouts
Residential & small commercial



Dual-Post Structure

Medium layouts
Commercial & industrial projects



Multi-Post Structure

Large layouts
Utility-scale projects



■ Post Design Options

W Type

Medium layouts
Enhanced structural stability



N Type

Sloped or uneven terrain, Additional lateral support



A Type

High wind areas
High-strength requirements



Y Type

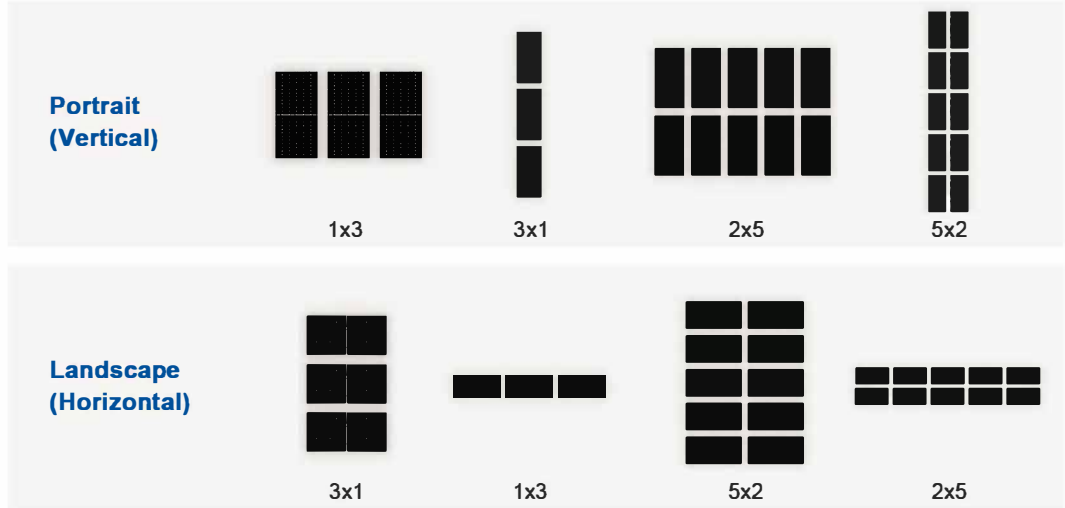
Large-span, high-load systems
Utility-scale projects



With flexible foundation, structure, and post options, our ground mounting systems can be configured in multiple ways to match different PV layouts and application scenarios.

■ PV Module Layout Overview

PV module layout refers to how solar panels are arranged on a mounting structure, defined by module orientation and the number of rows and columns. Different layouts lead to different structural designs and system configurations.



■ Ground Screw Ground Mounting



- Layout: Portrait 2x6
- Foundation: Ground Screw
- Structure: Dual-post
- Post: A-Type
- Structure Material: ZAM/HDG Steel
- Tilt Angle: 5-60 degrees
- Feature: Soft soil, farmland, grassland and open fields

■ C-Channel Ground Mount System



- Layout: Portrait 2x7
- Foundation: C Channel Steel
- Structure: Dual-post
- Post: A-Type
- Structure Material: ZAM/HDG Steel
- Tilt Angle: 5-60 degrees
- Feature: Cost-effective solution for large projects

■ Concrete Foundation Ground Mount



- Layout: Portrait 2x7
- Foundation: Concrete
- Structure: Dual-post
- Post: A-Type
- Structure Material: ZAM/HDG Steel
- Tilt Angle: 5-60 degrees
- Feature: For hard soil or rocky sites and cost-effective

■ Single-Post Ground Mount System



- Layout: Portrait 2x6
- Foundation: Channel Steel
- Structure: Single-post
- Post: Y-Type
- Structure Material: ZAM/HDG Steel
- Tilt Angle: 5-60 degrees
- Feature: Small-scale solar projects, uneven or sloped land

■ Multi-Post Ground Mount System



- Layout: Portrait 3x8
- Foundation: Ground Screw
- Structure: Multi-Post
- Post: A-Type
- Structure Material: ZAM/HDG Steel
- Tilt Angle: 5-60 degrees
- Feature: Medium / large-scale projects, suitable for larger arrays

■ Vertical Ground Mounting



- Layout: Landscape (single-row / double-row)
- Foundation: U Channel Steel
- Structure: Vertical Post
- Structure Material: ZAM/HDG Steel
- Tilt Angle: 90 Degrees
- Feature: Agrivoltaic & fencing use, space-saving design