



Solar Mounting Buyer Guide

A practical guide for installers, EPCs, and distributors

Introduction

Buying a solar mounting system is rarely just a procurement task. In many projects, it becomes a key factor that determines whether installation goes smoothly—or turns into a series of small but costly problems.

From our experience, most issues don't come from the main equipment like modules or inverters. They come from the details: mismatched components, unclear design assumptions, or systems that don't fully fit the project conditions.

Many buyers assume all solar mounting structures are similar. On the surface, they often are. But in real projects, small differences in design, material, or engineering support can have a big impact.

This guide is written to help you look beyond the catalog—and make better, lower-risk decisions.



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What you'll learn from this guide

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Product Categories

Understanding product categories is the first step. Not just broadly, but in a way that connects to real project needs.

1. By Usage

Different applications require very different solar mounting systems.

Roof Mounting Systems

- Tile roofs (hook-based, non-penetrative options)
- Metal roofs (clamp systems)
- Flat roofs (ballasted or anchored)

In real projects, tile roofs often require the most care. Many installers overlook how installation method affects waterproofing and tile integrity.



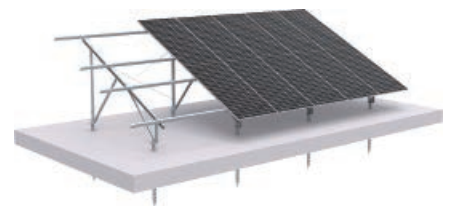
Ground Mounting Systems

- Fixed tilt structures
- Adjustable tilt systems

Suitable for:

- Utility-scale projects
- Large commercial installations

Foundation choice (ground screws vs concrete) is a critical factor here.



Solar Carport Systems

- Commercial parking areas
- Industrial facilities

These systems combine structure + waterproofing + energy generation. Structural strength and drainage design are especially important.

Tracking Systems

- Single-axis
- Dual-axis

Used when maximizing energy yield is the priority. However, they require more maintenance and precise engineering.



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Product Categories

2. By Material

Material choice affects not just cost—but installation, durability, and long-term performance.

Aluminum Mounting Systems

- Lightweight
- Corrosion-resistant
- Easy to install

Common in rooftop applications.



Steel Mounting Systems

- Higher strength
- Cost-effective for large structures
- Suitable for ground-mounted projects

Surface treatment (galvanization or coating) is critical.



From our experience, the decision is not “which is better,” but “which fits the project conditions.”

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Solar Mounting System

The Key Points

When evaluating a solar mounting system, focus on these core factors:

1. Structural Safety

- Wind load resistance
- Snow load capacity
- Design compliance

This is non-negotiable.

2. Corrosion Resistance

Especially important in:

- Coastal areas
- Industrial zones
- Humid climates

Material quality + surface treatment both matter.

3. Installation Efficiency

- Number of components
- Pre-assembly level
- Ease of alignment

Many installers overlook this, but it directly affects labor cost.

4. Compatibility

- With different module sizes
- With roof types
- With project layouts

Poor compatibility often leads to on-site adjustments.

5. Engineering Support

From our experience, this is one of the most underestimated factors.

A strong supplier should help with:

- Layout design
- Load calculations
- Problem-solving during installation.



Greater Flexibility



More Solar Production



Easier Maintenance

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Industry Standards for Mounting Systems

Standards are not just paperwork—they define safety and reliability.

Common references include:

- Wind load standards (e.g., ASCE, Eurocode)
- Structural design codes
- Corrosion protection standards



In real projects, you should always confirm:

- Whether calculations follow recognized standards
- Whether test reports are available
- Whether documentation is complete and clear

If a supplier cannot clearly explain their compliance, that's a risk signal.

Country/Region	Core Certification/Mark	Mandatory	Key Standards & Highlights
EU	CE (RCM)	Mandatory	EN 1090 (steel structure), EN 1990/1993 (structural design & loads); Notified Body (TÜV, etc.) required
UK	MCS 012	Mandatory	Required for grid connection & subsidies; covers structure, corrosion, earthing & installation
USA	UL Certification	Market mainstream	UL 1703 (PV mounting/support system safety); CEC listing required in California
Canada	UL / CSA	Market mainstream	CSA C22.1 series; high mutual recognition with UL
Australia New Zealand	RCM (REA)	Mandatory	AS/NZS 1170 (wind/snow loads), AS/NZS 4680 (hot-dip galvanizing); AS/NZS 3820 (electrical)
China	CQC	Market mainstream	GB/T 37409, GB 50017, GB 50009; widely accepted for project acceptance
Japan	PSE (Diamond) / JET	Mandatory	JIS C 8953/8990; strict environmental & reliability tests
South Korea	KC / KCS	Mandatory	KS C IEC 61215/61730; KS B structural standards
Middle East (GCC)	G-Mark	Mandatory	GSO standards; Saudi Arabia requires SABER (PCoC + SCoC)
Southeast Asia	SIRIM (MY), TISI (TH)	Partial mandatory	Mostly IEC/ISO equivalent; local agent & testing required

Common Business Models in the Industry

Different buyers operate differently. Understanding cooperation models helps you choose the right supplier relationship.

Distributors

- Focus on product availability and pricing
- Require stable supply and consistent quality
- Standardized solar mounting systems
- Low return rates and minimal after-sales issues
- Easy-to-understand product configurations

Wholesalers

- Competitive bulk pricing
- Stable supply capacity
- Consistent product quality
- Predictable lead times

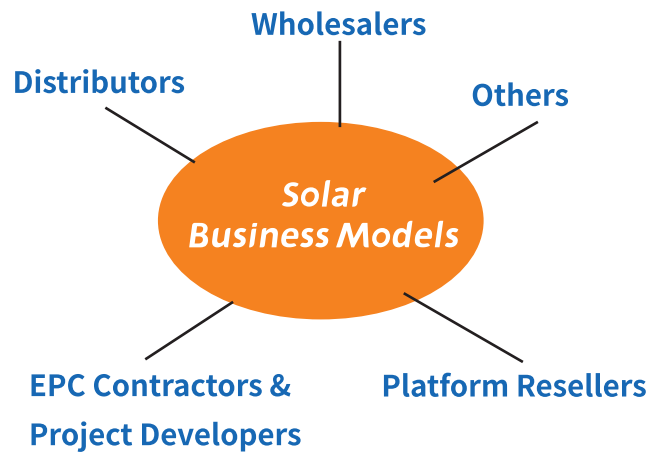
EPC Contractors & Project Developers

- Project-specific solar mounting system design
- Structural safety (wind load, snow load)
- Installation efficiency on-site
- Engineering support throughout the project

In real projects, delays often come from small design mismatches—not major equipment issues.

Platform Resellers (E-commerce / B2B Platforms)

- Easy-to-understand product structures
- Standard configurations
- Clear specifications and visuals
- Shipping-friendly packaging



Find solar mounting solutions based on:

- Your business model
- Your target market
- Your project requirements

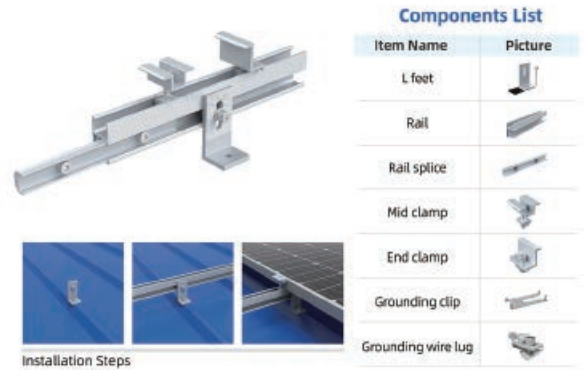
Purchasing a Solar Mounting System

1 Important Questions to Ask a Supplier

Before placing an order, ask clearly:

- Can you provide project-specific design?
- What standards do your calculations follow?
- What is the expected lifespan of the system?
- How do you ensure corrosion resistance?
- What support do you offer during installation?

A good supplier should answer these confidently and clearly.



2 Common Mistakes—and How to Avoid Them

Mistakes

- ✗ Choosing Based Only on Price
- ✗ Ignoring Site Conditions
- ✗ Underestimating Installation Complexity
- ✗ Not Verifying Engineering Capability

How to Avoid Them

- ✓ Look at total project cost, not just product price
- ✓ Always match system design to environment
- ✓ Ask for installation guidance or manuals
- ✓ Request calculations and real project references



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Purchasing a Solar Mounting System

3 A Simple Checklist

Before confirming your purchase:

- System matches project type
- Load calculations are provided
- Material and coating are specified
- Installation method is clear
- Supplier offers technical support and clear scopes.

4 Quote Comparison Checklist

When comparing quotes, don't just look at total price.

Check:

- Material specifications
- Component completeness
- Surface treatment details
- Included accessories
- Engineering services

Two quotes may look similar—but include very different scopes.

5 Hidden Costs

These are often missed during initial evaluation:

- Additional components not included
- Higher labor cost due to complex installation
- Logistics and packaging differences
- On-site modifications

From our experience, hidden costs can easily offset any initial savings.

Purchasing a Solar Mounting System

6 Summary & Practical Guidance

Choosing a solar mounting system is about reducing uncertainty.

In real projects, the best choice is not necessarily the cheapest or the most advanced—it’s the one that fits your project conditions, installs efficiently, and performs reliably over time.

If you want to make better decisions:

- Focus on total value, not just price
- Pay attention to installation and engineering details
- Work with suppliers who understand real project challenges

A well-chosen solar mounting structure doesn’t just support panels—it supports your entire project outcome.

If you’re currently evaluating suppliers or preparing for a new project, take the time to ask the right questions early. It will save you far more time—and cost—later.



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Need more information?

We hope this guide has assisted you in the process of purchasing a solar mounting system.

**Interested in any of the featured products,
or want to know more about solar mounting systems?**



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