Energie für Generationen

SONNENRIESE Solar-Technologies

SunRack Rails

Sunforson provides Silver and Black anodized rails with innovative design.

Material: Nodized Extruded Aluminum 6005-T5.

Color: Natural Silver or Black Anodized.

Products	Part Number	Description
SunRack Rail 3	SFS-SR3-X	2100mm/2560mm/3100mm/4200mm/Customized Length
SunRack Rail 7	SFS-SR7-X	2100mm/2560mm/3100mm/4200mm/Customized Length
SunRack Rail 8	SFS-SR8-X	2100mm/2400mm/3550mm/4200mm/Customized Length
SunRack Rail 12	SFS-SR12-X	2100mm/2400mm/3550mm/4200mm/Customized Length
Splice Connector	SFS-SCX	For Rail 3/5/7/8/12









SFS-SR3

SFS-SR5

SFS-SR7

SFS-SR8





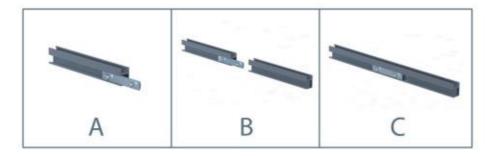


SFS-SCG2-01



SFS-SCN2-01





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SunRack Solar Module Clamps

Color: Natural Silver or Black Anodized.

Compatibility Range: 30mm~50mm Framed Solar Panel.

Material: Anodized Extruded Aluminum 6005-T5, A2-70 Hexagon Socket Head Cap Bolt.

Products	Part Number	Description
Mid Clamp Group	SFS-MCG2/MCN2	For framed panel with thickness 30mm/35mm/40mm/45mm/50mm
End Clamp Group	SFS-ECG2/ECN2	For framed panel with thickness 30mm/35mm/40mm/45mm/50mm
G/Flat Nut	SFS-G ₂ /SFS-NM	For aluminum rail



SFS-MCN2





SFS-NM2-22





SFS-MCN2B-B







SFS-ECN2

SFS-ECG2



SFS-G2-22

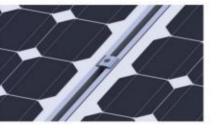


SFS-MCN2-B

SFS-ECN2-B



SFS-ECN2B-B























SunRack Thin Film Module Clamps

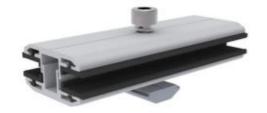
Color: Natural or Black Color or Any Customized.

Compatibility Range: 4mm-10.5mm Thin Film Module.

Material: Anodized Extruded Aluminum 6005-T5, A2-70 Bolt, EPDM Rubber and Stainless Steel Fastener.

Part Number	Description	
SFS-UTMC	SFS Universal Thin-Film Mid clamp 80mm/120mm/200mm/ customized length	
SFS-UTEC	SFS Universal Thin-Film End clamp 80mm/ 120mm/200mm/ customized length	
SFS-UTMCN2	SFS Universal Thin-Film Mid clamp group 80mm/ 120mm/200mm/ customized length	
SFS-UTECN2	SFS Universal Thin-Film End clamp group 80mm/120mm/200mm/ customized length	





SFS-UTMC

SFS-UTMCN2





SFS-UTEC

SFS-UTECN2

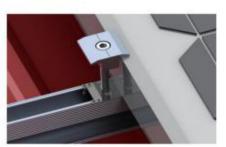


Grounding System

Sunforson grounding system is including grounding clip, earth lug group, bonding jumper. It is used as ground conductor to connect solar modules to aluminum rail, to realize excellent electric conductivity.

Part Number: SFS-GC-01 Description: SFS Grounding Clip





Part Number: SFS-ELN2-01 Description: SFS Earth Lug Group





Part Number: SFS-SCN2-02 Description:

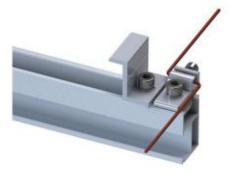
Splice connector&Bonding jumper





Part Number: SFS-ELN2-20 Description: Earth Lug Group







PR01 Tile Roof Mounting System

SunRack tile roof mount system, accommodating a wide range of framed and frameless solar modules, is suitable for most types of roof with different roof hooks. With innovative Sunrack rail and G/Flat Nut, Sunrack tile roof mount enables significantly fast and easy installation.

Tile Roof Mount Specification

Installation Site	Tile roof	Applicable Module	Framed or frameless panel
Applicable Roof Cladding	Suitable for most types of cladding	Module Orientation	Landscape or portrait
Roof Slope	Up to 60°	Design Standards	BS 6399-2-1997
Wind Load	Up to 130mph (60m/s)	Material	Aluminum, stainless steel
Snow Load	Up to 30psf (1.4kN/m²)	Warranty	10 years on aluminum material



Features

- 1. Versatile roof hooks for different tile roofs.
- 2. Easy and fast installation with unique SunRack rail and G module/Flat nut.
- 3. Pre-assembled components save the installation time and cost.

Tile Roof Hook

SunRack has developed many kinds of universal tile roof hooks for solar racking system. Because of saving installation time and cost, they are popular in the market.



SunRack Shingle Roof Solar Mounting Racks

SunRack shingle plate group is widely applied for asphalt shingle roof, it highlights waterproof and durable, also compatible for most of other roof racking system.

Part Number	Description
SFS-FP-280	SFS flashing plate group







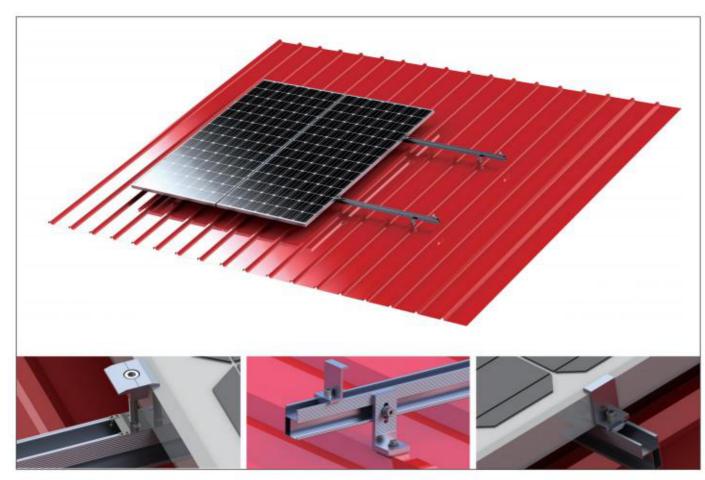


PR01 Tin Roof Mounting System

With a variety of tin roof hooks, SunRack Tin roof mounting system can be installed on trapezoid/corrugated metal roof and standing seam roof with or without penetrating the roof. Sunforson has the excellent engineering team and quality management system to provide the perfect service.

Tin Roof Mount Specification

Installation Site	Tin roof	Applicable Module	Framed or frameless panel
Applicable Roof Cladding	Suitable for most types of cladding	Module Orientation	Landscape or portrait
Roof Slope	Up to 60°	Design Standards	BS 6399-2-1997
Wind Load	Up to 130mph (60m/s)	Material	Aluminum, stainless steel
Snow Load	Up to 30psf (1.4kN/m²)	Warranty	10 years on aluminum material



Features

- 1. Universal roof brackets for different tin roofs.
- 2. Flexible to meet any PV panels.
- 3. Fast installation with partially pre-assembly components.

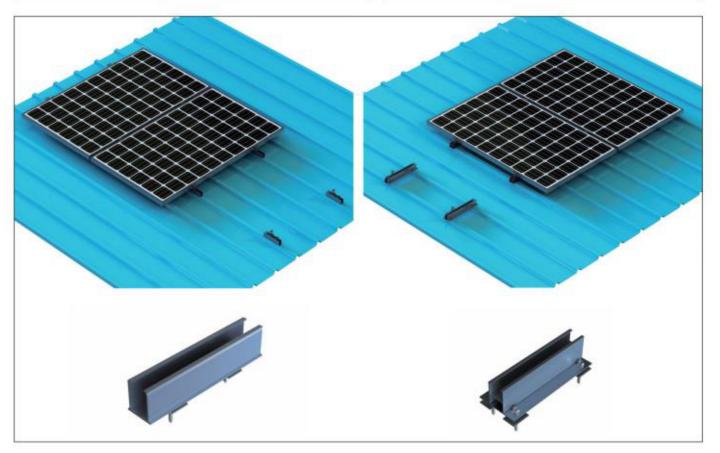
SFS-PR-02 SunRack Pitched Tin Roof Solar Mounting System

SunRack SFS-PR-02 is a mounting system for Tin Roof. It can save materials and accessories to the maximum. Sunforson has the excellent engineer team and quality management system to provide the perfect service.

Specification

Installation Site	Tin roof
Application	Framed solar panel for any size
Structural Materials	Aluminum, stainless steel
Wind Load	Up to 45m/s
Snow Load	Up to 1KN/m²

Inclination	0 degree (the same angle as roof)
Panel Direction	Vertical or landscape
Design Standards	BS 6399-2-1997
Warranty	10 years on aluminum material



- 1. Easy installation & great flexibility.
- 2. High accuracy.
- Excellent adaptability.
- 4. Maximum lifespan and durability.

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Tin Roof Mounting System

SunRack tin roof mounting series have developed the easiest, fastest, most universal and cost-effective roof brackets for PV panel metal roof mounting installation.

Part Number: SFS-LFN2-01 Description: SFS L-feet Group



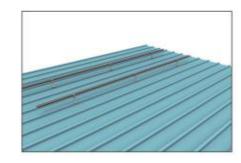




Part Number: SFS-LFHN2-01 Description: High L feet Group







Part Number: SFS-SBN2-01 Description: Stud Bolt Group







Standing Seam Roof Mounting

SunRack provides various solar clamps for different standing seam roof mounting. It is easy and fast to install with our SunRack unique racking system.

Part Number: SFS-TRG-15

Description:

15# Tin Roof Clamp Group



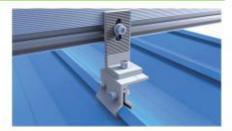


Part Number: SFS-TRG-10

Description:

10# Tin Roof Clamp Group





Part Number: SFS-TRG-16

Description:

16# Tin Roof Clamp Group





Part Number: SFS-TRG-05

Description:

5# Tin Roof Clamp Group





Part Number:

SFS-TRG-07

Description:

7# Tin Roof Clamp Group





Part Number:

SFS-TRG-04

Description:

4# Tin Roof Clamp Group





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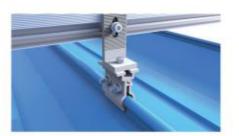


Part Number:

SFS-TRG-06 Description:

6# Tin Roof Clamp Group





Part Number:

SFS-TRG-09 Description:

9# Tin Roof Clamp Group



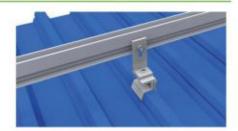


Part Number: SFS-TRG-14

Description:

14# Tin Roof Clamp Group





Part Number: SFS-TRG-22

Description:

22# Tin Roof Clamp Group



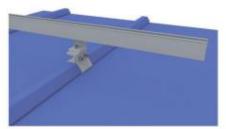


Part Number: SFS-TRG-25

Description:

25# Tin Roof Clamp Group





A selection of accessories







LFN2

SLFN2

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SFS-BX-01 SunRack Mounting System

SFS-BX is suitable for RV, yacht, special vehicle, communication base station, it also can be used for roof, ground, wall and other outdoor small photovoltaic system installation.

Specification

Open ground
Any Size
Frameless panel or framed panel
Aluminum, Stainless steel
Up to 45m/s

Snow Load	Up to 1 KN/m ²
Component Direction	Horizontal
Tilt Angle	Customized
Design Standards	BS 6399-2-1997
Warranty	10 years on aluminum material



- 1. The angle size can be adjusted according to installation requirements.
- 2. Adopt screw combination with handle to install, easy to disassemble.
- 3. Simple structure light and easy to carry.



SFS-FR-03HS SunRack Triangular Mounting System

SunRack SFS-FR-03HS triangular installation system adopts a retractable and foldable rear leg design, greatly saving installation and transportation costs. It can be installed directly on rooftop, ground or pre-made cement blocks as your option. All panels are suitable and easy&fast installation will gain a lot for your project.

Roof Bracket Specification

Installation Site	Open ground and roof
Panels	Solar panel for any size
Structural Materials	Aluminum, stainless steel
Wind Load	up to 40m/s
Snow load	up to 1KN/m²

Inclination	Customizable
Component Direction	Landscape
Design Standards	BS6399-2-1997
Warranty	10 years on aluminum material



Features

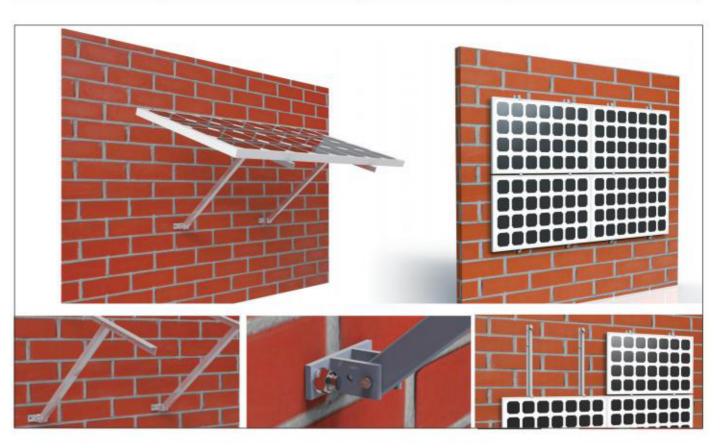
- 1. Simple and fast installation without rail, zero damage on the roof.
- 2. Adjustable tilted angle for maximum power generation.
- 3. Superior product quality and high corrosion resistance.

Wall Mounting System

SunRack wall mount is an economical mounting type for panel installation without rail support. It can be easily installed on the wall with any customized angle.

Wall Mounting Specification

Installation Site	Wall	Applicable Module	Framed
Applicable Wall Cladding	Suitable for most types of cladding	Module Orientation	Landscape
Panel Dimension	Any Size	Design Standards	BS 6399-2-1997
Wind Load	Up to 130mph (60m/s)	Material	Aluminum, stainless steel
Snow Load	Up to 30psf (1.4kN/m²)	Warranty	10 years on aluminum material



- 1. Benefit with no rail design.
- 2. Any tilted angle as project demand.
- 3. Solar panel can be extended for maximum space utilization.

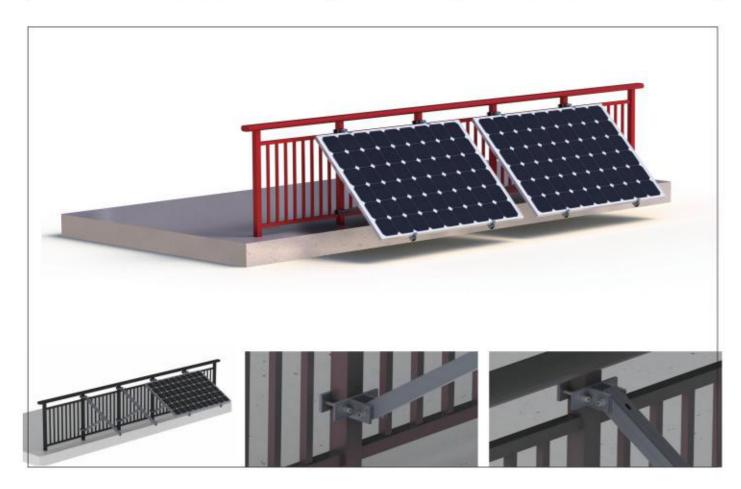


SFS-YT-01 Sunforson Balcony mounting system

SFS-YT-01 is a bracket mounted on a balcony, mainly suitable for family balconies. Angle selection diversification can adapt to different light angles. With the advantages of small environmental impact, convenient and flexible installation, it is welcomed by the majority of customers.

Product Specification

Structural materials	Aluminum, stainless steel	Tilted Angle	Customized
Panel Type	Suitable for any type of panels	Component Direction	Landscape orientation
wind Load	Up to 50m/s	Design Standards	BS1993
snow Load	Up to1.4KN/m2	Warranty	10 years on aluminum material



Features

- 1. A beautiful appearance.
- 2. Professional design, stable structure.
- 3. Quick installation saves time.



SunRack Flat Roof Mounting Structures

SunRack flat roof mounting series are widely applied in residential, commercial and utility solar systems. With unique design and pre-assembly accessories, SunRack flat roof mountings will save a lot of time on installation and save a lot of space on transportation.

Sunforson members develop many different kinds of flat roof mounting systems to meet the demand of different solar projects, of course it is not only used on flat roof, but also apply to ground solar system installation. There are flat roof mounting systems with fixed angle type, adjustable angle, ballast type and triangular kinds.

Sunforson members always devote to providing the most suitable and competitive mounting solution for each project. Choose SunRack, choose the best mounting expert for your solar project.



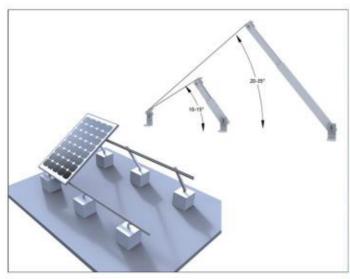
SFS-AM-01 SunRack Adjustable Mounting System

SunRack SFS-AM-01 is an adjustable mounting system for flat roof (no matter concrete flat roof or tin flat roof) and ground. The tilted angle can be adjusted by the adjustable leg according to different seasons for maximum solar power generation. You will benefit a lot from the adjustable solar mounting system.

Adjustable angle PV bracket Specification

Installation Site	Flat roof	1
Applicable Roof Cladding	Suitable for most types of cladding	N
Roof Slope	Up to 60°	I
Wind Load	Up to 130mph(60m/s)	1
Snow Load	Up to 30psf(1.4kN/m²)	١

Applicable Module	Framed or frameless panel
Module Orientation	Landscape or Vertical
Design Standards	BS 6399-2-1997
Material	Aluminum, stainless steel
Warranty	10 years on aluminum material





Features

- 1. Adjustable angle range: 10°~15° (225mm adjustable leg), 20°~35° (455mm adjustable leg), 30°~45° (600mm adjustable leg).
- 2.100% lightweight and corrosion resistant aluminum rails.
- 3. Adjustable tilted angle for power maximum generation in different seasons.



SFS-FFN2-02



SFS-MCN2











SFS-ES-8X70

SFS-TS-63X80

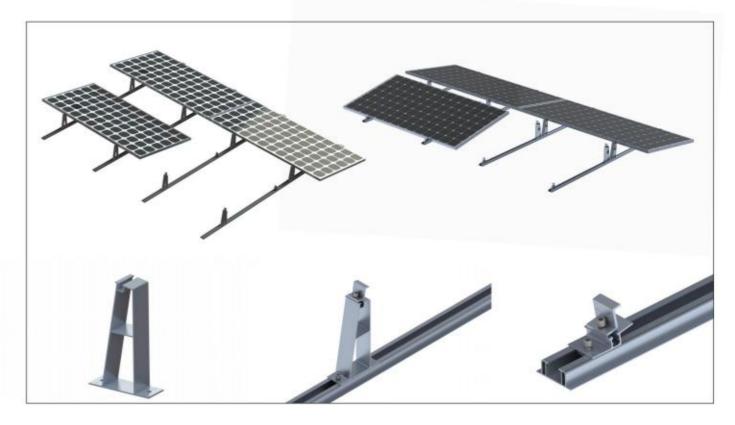
SFS-FR-04 SunRack Flat Roof Simple Ballast **Mounting System**

SunRack SFS-FR-04 is a new type of ballast system. This system has a simple structure, good stability and easy to install. It is a modular structure, which can be expanded from one module to any scale while maximizing the roof usage.

Specification

Installation Site	Open ground and flat roof
Panel Dimension	Any Size
Structural Materials	Aluminum, stainless steel
Wind Load	Up to 40m/s
Snow Load	Up to 1.2KN/m ²

Component Direction	Horizontal
Tilt Angle	5°, 10°
Design Standards	BS 6399-2-1997
Warranty	10 years on aluminum material



- 1. Fewer Pieces Installed, easy installation, greatly reduce your installation costs.
- 2. It has the greatest price advantage under the same conditions.
- 3. From product consultation, solution offering, manufacturing, logistics arrangement to installation guidance, we are always ready to provide customers with the best service.



SFS-AM-02 SunRack Adjustable Mounting System

SunRack SFS-AM-02 is an adjustable mounting system for flat roof (concrete flat roof, flat tin roof) and ground. It can maximize solar power generation by adjusting the tilted angle for different seasons with high quality and elegant appearance.

Adjustable angle PV bracket Specification

Installation Site	Open ground and flat roof	Roof Clearance	Customized
Panels	Solar panel for any size	Indination	5°~45° or customized
Structural Materials	Aluminum, stainless steel	Panel Direction	Vertical or landscape
Wind Load	Up to 130mph (60m/s)	Design Standards	BS 6399-2-1997
Snow Load	Up to 30psf (1.4kN/m²)	Warranty	10 years on aluminum material





Features

- 1. Adjustable tilted angle degree: 5°~45°.
- 2. Fast and Easy installation on flat roof and cement blocks.
- 3. Superior quality and elegant appearance.













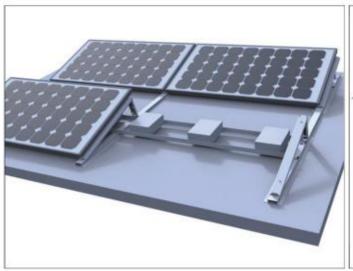
SFS-ES-8X70

SFS-FR-02 SunRack Flat Roof Ballast Mounting System

SunRack SFS-FR-02 ballast mounting system adopts foldable triangular to save cost both on installation and transportation. It is a type of solar panel mounting structure that can be expanded from one panel to any scale to maximize the use of rooftop. Sunforson experienced engineer will give you a technical suggestion for the size and weight of the ballasts for your solar project.

Ballast Roof Bracket Specification

Installation Site	Open ground and flat roof	Roof Clearance	Around 50mm
Panels	Solar panel for any size	Inclination	Customizable
Structural Materials	Aluminum, stainless steel	Component Direction	Horizontal
Wind Load	Up to 112mph (50m/s)	Design Standards	BS 6399-2-1997
Snow Load	Up to 30psf (1.4kN/m2)	Warranty	10 years on aluminum material





- 1. Simple and fast installation with no rails construction design, zero damage on the roof.
- 2. Cost competitive with modules in landscape and tilted angle from 5~15degree.
- 3. Modular extension for maximum usage of roof.



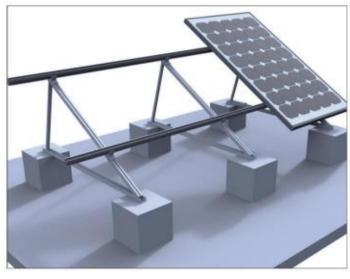


SFS-FR-03 SunRack Flat Roof Triangular Mounting System

SunRack SFS-FR-03 triangular mounting system with a foldable design saves a lot on installation and transportation. It can be installed directly on rooftop or ground or pre-made cement blocks as your option. All panels can be installed easily, which will save much time for your project.

Triangular Roof Bracket Specification

Installation Site	Open ground and flat roof	Roof Clearance	Customized
Panels	Solar panel for any size	Inclination	Customized
Structural Materials	Aluminum, stainless steel	Panel Direction	Portrait or landscape
Wind Load	Up to 112mph (50m/s)	Design Standards	BS 6399-2-1997
Snow Load	Up to 30psf (1.4kN/m²)	Warranty	10 years on aluminum material
			147





Features

- 1. Multifunctional installation method: ballast mount or fixed on casting concrete ballast.
- 2. Optimized for material and cost efficiency.
- 3. Full aluminum alloy with high quality.



SFS-RTMG-15



SFS -MCN2







SFS-ES-8X70

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SunRack Solar Ground Mounting System

SunRack solar ground mounting system currently offers four different types: concrete based, ground screw, pile, single pole solar mounting brackets, which can be installed on almost any kind of ground and soil.

SunRack solar ground mounting designs allow big spans between two structure leg groups, so that it will maximum the use of the aluminum ground structure and make a most cost-effective solution for each project.

We design each ground mounting system according to the project demand. All mounting systems are optimized to meet wind, snow load and other conditions at the location as well as the geological composition of the ground. Our SunRack ground mount systems are just as flexible as your requirements.

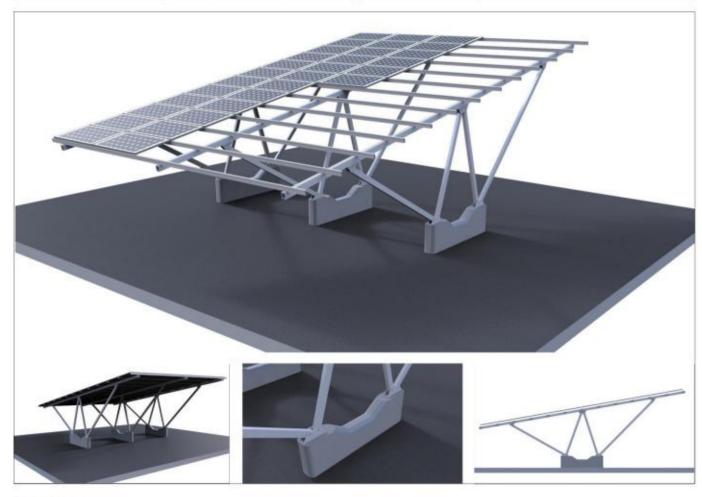


SFS-CP-03 SunRack Carport Mounting System

SunRack SFS-CP-03 double row carport mounting adopts triangle supporting structure technology, which is very strong and secure. With full aluminum alloy and SS304 bolts&nuts material, it is with concise and elegant appearance. It is quite easy and fast installation without any welding at the site.

Carport Specification

Installation Site	Open ground	Module Orientation	Horizontal or vertical
Installation Angle	5° or 10° or 15°	PV Modules	Framed or thin Film
Height	2.0-3.5m	Design Standards	BS 6399-2-1997
Wind Load	Up to 130mph (60m/s)	Material	Extruded aluminum
Snow Load	Up to 30psf (1.4kN/m2)	Warranty	10 years on aluminum material



Features

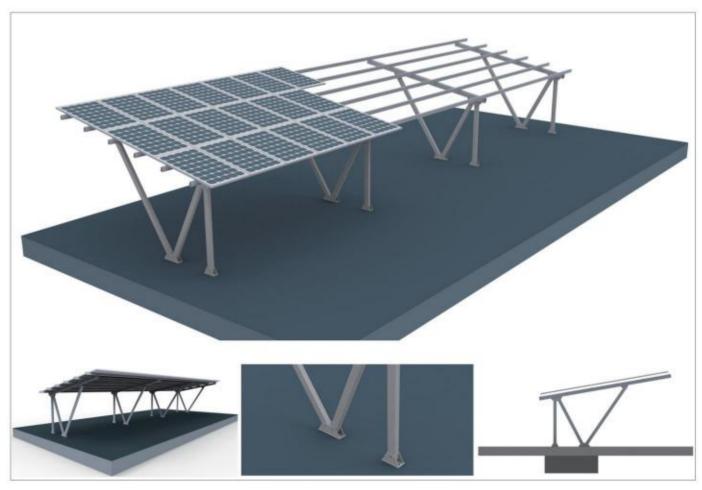
- 1. Fixed tilt angle: 5 degree, 10degree, 15degree.
- 2. Standard 10 years warranty.
- 3. Suitable for various car parking area.

SFS-CP-05 SunRack Carport Mounting System

SunRack SFS-CP-05 single row carport mounting adopts "N" shape structure which is very strong and secure. With full aluminum alloy and SS304 bolts&nuts material, it is with concise and beautiful appearance. It is quite easy and fast installation without any welding at the site.

Carport Specification

Installation Site	Open ground	Module Orientation	Horizontal or vertical
Installation Angle	5° or 10° or 15°	PV Modules	Framed or thin Film
Height	2.0-3.5m	Design Standards	BS 6399-2-1997
Wind Load	Up to 130mph (60m/s)	Support Rail	Extruded aluminum
Snow Load	Up to 30psf (1.4kN//m²)	Warranty	10 years on aluminum material



- 1. Widely used for residential or commercial projects.
- 2. Superior quality with competitive price.
- 3. Compatible with standard framed and frameless module types.

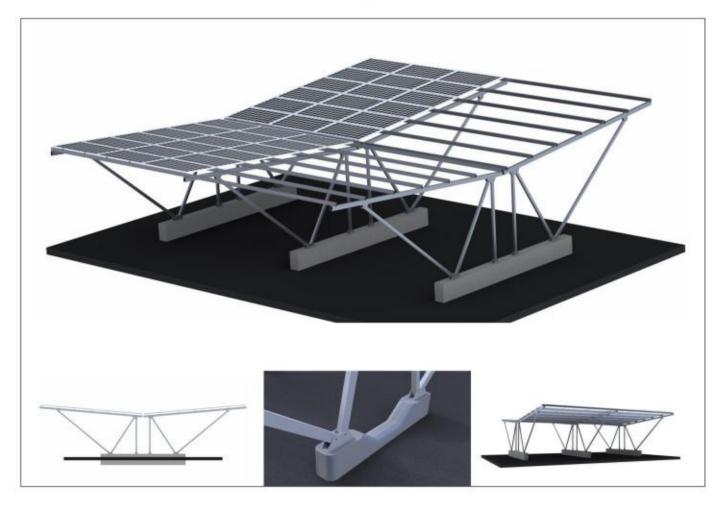


SFS-CP-06 SunRack Carport Mounting System

Sunforson's CP-06 double bays carport mounting adopts "birds flying" structure which is very strong and secure. With full aluminum alloy and SS 304 bolts&nuts material, it is with concise and beautiful appearance. It is quite easy and fast installation without any welding at the site.

Carport Specification

Installation Site	Open ground	Module Orientation	Horizontal or vertical
Installation Angle	5° or 10° or 15°	PV Modules	Framed or frameless panel
Height	2.0~3.5m	Design Standards	BS 6399-2-1997
Wind Load	Up to130mph (60m/s)	Material	Extruded aluminum
Snow Load	Up to 30psf (1.4kN/m²)	Warranty	10 years on aluminum material



Features

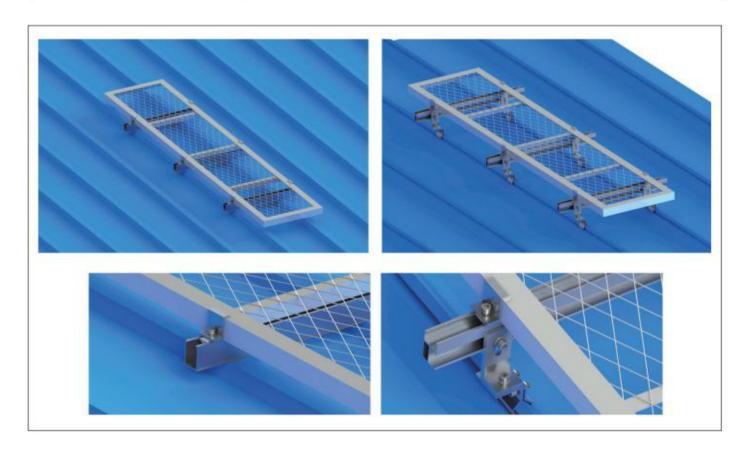
- Elegant Modern "Bird Flying" design.
- 2. Large parking space with four cars packing each bay.
- 3. Corrosion-resistant aluminum construction.

SFS-WW SunRack Solar Walkway System

Sunforson's walkway system is a good solution in case of sediment, ice, snow, grease, oil and detergent in wet or other risks under the conditions of channels and operational areas for walking. Checkered plate channels are usually used to homework, industrial workshop floor, narrow channel, terrace, warehouses, sidewalks and stair tread, etc.

Walkway Specification

Installation site	Special channels and operational areas for walking	
Material	Galvanized carbon steel	
Size	1 * 0.5 m, 2*0.5m, customize	
Hole shape	Round hole,square etc	



- Light structure with high bearing capacity and easy installation.
- 2. Beautiful appearance, galvanized processing ensures the strong corrosion resistance.
- 3. Good function of anti-skid, ventilation, avoid accumulation of dirt.