PRODUCT CATALOGUE 2026

Solar carport structures for every kind of parking

12 product types · standard models · designed to your site loads · shipped from China



Solar Parking System
solarparkingsystem.com · WhatsApp +86 186 0326 1208

Images are 3D concept renderings or schematic drawings. Values are typical and confirmed per project.

Product overview

Type	Covers	Typical dimensions	Best for
Single Cantilever	1 row of cars	Cantilever about 5.0–5.5 m; column spacing 5.0–8.0 m (2–3 spaces)	Single rows, perimeter parking, narrow lots, spaces along buildings
T-Frame (Double Cantilever)	2 rows of cars, facing each other	Roof depth about 10–11 m; column spacing 5.0–8.0 m	Shopping centres, office and factory car parks, any double-row layout
Y-Frame / V-Frame	2 rows of cars	Roof depth about 10–12 m; column spacing 6.0–9.0 m	Projects where appearance matters: retail, hospitality, campuses, public parking
Double Column	2 rows (columns at front and back) or 1 wide row	Roof depth 10–16 m; column spacing 6.0–10.0 m	High-wind and heavy-snow regions, large spans, poor soils
Multi-Bay / W-Type Canopy	Many rows and the driving aisles	Bays of 5–8 m by 10–16 m, repeated as a grid	Large public car parks, logistics hubs, bus and truck depots, stadiums
Waterproof Carport	Any layout: single, T-frame, double column	As the base structure	Hotels, car showrooms, offices and homes where a dry space matters; rainy climates
Residential Carport	1–2 cars side by side	Typically 3.0 × 5.5 m (1 car) or 5.5–6.0 × 5.5 m (2 cars)	Homes, villas, small offices, dealers and installers who sell to homeowners
EV Charging & Storage	Any layout; T-frame and double column are most common	As the base structure	Charging hubs, fleet depots, workplaces, retail, hotels
Bike & E-Bike Shelter	10–20 bicycles per bay, one or two sides	Bay 5.0 m long; depth 2.5 m (one side) or 4.8 m (two sides)	Schools, universities, offices, train stations, apartment blocks
Truck & Bus Canopy	Bus or truck bays, drive-through lanes	Clear height 4.5–5.5 m; spans 12–18 m; column spacing 7–9 m	Bus depots, logistics yards, loading docks, fleet and delivery depots
Solar Walkway Canopy	Pedestrian path 2.5–4.0 m wide	Bays 5–6 m long; single central column line or two edge lines	Schools, hospitals, shopping centres, offices, transport hubs
Glass-Glass BIPV Carport	Any layout: T-frame, Y-frame, double column	As the base structure	Hotels, car showrooms, offices and landmark projects where looks matter

Typical specification (all types)

Structure material	Hot-dip galvanized steel Q355 / S355, Zn-Al-Mg coated steel, or aluminium AL6005-T5
Design wind speed	Up to about 60 m/s, designed to the site
Snow load	Up to about 1.4–2.0 kN/m², higher on request
Roof tilt	0–15° typical (up to 30° on request)
Clear height	2.2–3.0 m; higher for buses and trucks
Module layout	Portrait or landscape, framed modules of most sizes
Connections	Bolted, no welding on site
Foundations	Concrete pad or pier with anchor bolts; ground screws on suitable soils
Design codes	EN 1991 / EN 1993, ASCE 7, AS/NZS 1170, or the code you name
Warranty	10 years on the structure; 25-year design life

Single cantilever solar carport

One column line and a cantilevered roof over a single row of parking. Doors open freely, and the structure fits narrow lots and spaces along walls or fences.



Features

- No columns between cars, so doors and bumpers stay clear
- Small footprint: one foundation line along the kerb
- Suits retrofits where only one row of the car park is available
- Can carry LED lights and EV chargers on the columns

Best for: Single rows, perimeter parking, narrow lots, spaces along buildings

Layout

Covers: 1 row of cars

Typical dimensions: Cantilever about 5.0–5.5 m; column spacing 5.0–8.0 m (2–3 spaces)

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-L2	2 cars	5.0 × 5.5 m	8	4.6	–
SPS-L3	3 cars	7.5 × 5.5 m	12	7.0	–

T-frame double cantilever solar carport

Solar Parking System · solarparkingsystem.com · WhatsApp +86 186 0326 1208

One central column line carries a roof that covers two rows of cars parked nose to nose. It is the most common layout for commercial car parks.



Features

- Covers two rows with one line of columns and foundations
- Columns sit in the strip between bumpers, out of the driving aisle
- Good steel use per kWp for standard car park geometry
- Easy to repeat along long rows of parking

Best for: Shopping centres, office and factory car parks, any double-row layout

Layout

Covers: 2 rows of cars, facing each other

Typical dimensions: Roof depth about 10–11 m; column spacing 5.0–8.0 m

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-T4	4 cars (2 + 2)	5.0 × 10.6 m	16	9.3	–
SPS-T6	6 cars (3 + 3)	7.5 × 10.6 m	24	13.9	–

Y-frame solar carport

Solar Parking System · solarparkingsystem.com · WhatsApp +86 186 0326 1208

A central column with two inclined arms carries a butterfly (V-shaped) roof over two rows. The arms shorten the beams and give the canopy a light, architectural look.



Features

- Inclined arms reduce beam span and deflection
- Butterfly roof collects rain to the centre line for a single gutter
- Clean, modern look for customer-facing sites
- Wider column spacing is possible than with a plain T-frame

Best for: Projects where appearance matters: retail, hospitality, campuses, public parking

Layout

Covers: 2 rows of cars

Typical dimensions: Roof depth about 10–12 m; column spacing 6.0–9.0 m

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-Y4	4 cars (2 + 2)	5.0 × 11.0 m	16	9.3	–
SPS-Y6	6 cars (3 + 3)	7.5 × 11.0 m	24	13.9	–

Double column solar carport

Two column lines support the roof like a portal frame. It takes the highest wind and snow loads with the lightest foundations, at the cost of columns between the rows.



Features

- Lower foundation moments than cantilever designs
- Higher wind and snow capacity for the same steel
- Allows larger roof depths and spans
- Good choice where soil bearing capacity is low

Best for: High-wind and heavy-snow regions, large spans, poor soils

Layout

Covers: 2 rows (columns at front and back) or 1 wide row

Typical dimensions: Roof depth 10–16 m; column spacing 6.0–10.0 m

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-D4	4 cars (2 + 2)	5.0 × 10.6 m	16	9.3	–
SPS-D6	6 cars (3 + 3)	7.5 × 11.5 m	30	17.4	–
SPS-D9	9 cars (3 + 3 + 3)	7.5 × 16.0 m	42	24.4	Wide roof

Multi-bay solar carport canopy

A continuous canopy on a grid of columns covers several rows and the aisles between them. It gives the largest PV area per site and full weather cover for big car parks.



Features

- Covers aisles as well as bays for maximum PV area
- W-type or ridge roof shapes for drainage and wind
- Shared columns reduce steel per square metre
- Suitable for MW-scale projects

Best for: Large public car parks, logistics hubs, bus and truck depots, stadiums

Layout

Covers: Many rows and the driving aisles

Typical dimensions: Bays of 5–8 m by 10–16 m, repeated as a grid

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-M6	6 cars + aisle	7.5 × 16.0 m	42	24.4	Per grid bay
SPS-M8	8 cars + aisle	10.0 × 16.0 m	56	32.5	Per grid bay

Waterproof solar carport

Solar Parking System · solarparkingsystem.com · WhatsApp +86 186 0326 1208

A carport roof that keeps the space underneath dry. Gutter rails run under every module joint and carry the water to an edge gutter, so no extra roof sheet is needed.



Features

- Gutter rails under each module joint lead water to an edge gutter
- No separate roof sheeting under the modules
- Steel or aluminium (AL6005-T5) systems
- Downpipes can run inside or beside the columns

Best for: Hotels, car showrooms, offices and homes where a dry space matters; rainy climates

Layout

Covers: Any layout: single, T-frame, double column

Typical dimensions: As the base structure

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-WL2	2 cars	5.0 × 5.5 m	8	4.6	Single cantilever
SPS-WT4	4 cars (2 + 2)	5.0 × 10.6 m	16	9.3	T-frame

Residential solar carport

Solar Parking System · solarparkingsystem.com · WhatsApp +86 186 0326 1208

A compact solar carport for one or two cars at a home or villa. Usually aluminium, often waterproof, and sized for a typical 3–8 kWp home system.



Features

- Kit with pre-cut parts and bolted connections
- Aluminium for corrosion resistance and low weight
- Waterproof option for a dry parking space
- Fits a home PV system of about 3–8 kWp

Best for: Homes, villas, small offices, dealers and installers who sell to homeowners

Layout

Covers: 1–2 cars side by side

Typical dimensions: Typically 3.0 × 5.5 m (1 car) or 5.5–6.0 × 5.5 m (2 cars)

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-R1	1 car	3.4 × 5.5 m	6	3.5	Aluminium kit
SPS-R2	2 cars	5.8 × 5.5 m	10	5.8	Aluminium kit

Solar carport with EV charging and storage

A solar carport designed around EV chargers: mounting plates on the columns, cable routes in the structure, and space for battery storage. Solar, storage and charging in one car park.



Features

- Charger mounting plates and cable trays built into the steel
- Room for battery storage (BESS) cabinets at the row ends
- Signage and lighting integrated on the columns
- Structure supplied ready for your charger brand

Best for: Charging hubs, fleet depots, workplaces, retail, hotels

Layout

Covers: Any layout; T-frame and double column are most common

Typical dimensions: As the base structure

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-E4	4 cars (2 + 2)	5.0 × 10.6 m	16	9.3	2 charger mounts
SPS-E6	6 cars (3 + 3)	7.5 × 10.6 m	24	13.9	3 charger mounts

Solar bike and e-bike shelter

Solar Parking System · solarparkingsystem.com · WhatsApp +86 186 0326 1208

A compact solar canopy for bicycles, e-bikes and scooters, with charging sockets on the posts. Popular at schools, offices, stations and apartment blocks.



Features

- Small footprint and light foundations
- E-bike charging sockets on the posts, powered by the roof
- Single-sided or double-sided layouts
- Steel or aluminium; optional side panels and bike racks

Best for: Schools, universities, offices, train stations, apartment blocks

Layout

Covers: 10–20 bicycles per bay, one or two sides

Typical dimensions: Bay 5.0 m long; depth 2.5 m (one side) or 4.8 m (two sides)

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-B10	10 bikes	5.0 × 2.5 m	4	2.3	One side
SPS-B20	20 bikes	5.0 × 4.8 m	8	4.6	Two sides

Truck and bus solar canopy

Solar Parking System · solarparkingsystem.com · WhatsApp +86 186 0326 1208

A heavy-duty solar canopy with 4.5–5.5 m clear height for trucks, buses and delivery vans. Wide spans keep the yard open for turning vehicles.



Features

- High clearance for buses, trucks and roof equipment
- Wide spans with few columns in the yard
- Impact protection at column bases
- Ready for depot charging: plug-in or pantograph layouts

Best for: Bus depots, logistics yards, loading docks, fleet and delivery depots

Layout

Covers: Bus or truck bays, drive-through lanes

Typical dimensions: Clear height 4.5–5.5 m; spans 12–18 m; column spacing 7–9 m

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-H2	2 buses / trucks	8.0 × 14.0 m	42	24.4	Clear height 5.0 m
SPS-H3	3 buses / trucks	12.0 × 14.0 m	60	34.8	Clear height 5.0 m

Solar walkway canopy

Solar Parking System · solarparkingsystem.com · WhatsApp +86 186 0326 1208

A narrow covered walkway with a PV roof, from the car park to the entrance. Shade and rain cover for people, and power for the building.



Features

- Covers walking routes between parking and entrances
- Single column line keeps the path clear
- Waterproof option with gutters for rainy climates
- Lighting and signage integrated under the roof

Best for: Schools, hospitals, shopping centres, offices, transport hubs

Layout

Covers: Pedestrian path 2.5–4.0 m wide

Typical dimensions: Bays 5–6 m long; single central column line or two edge lines

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-WK3	Walkway 3.0 m wide	6.0 × 3.0 m	5	2.9	Per 6 m bay
SPS-WK5	Walkway 4.6 m wide	6.0 × 4.6 m	10	5.8	Per 6 m bay

Glass-glass BIPV solar carport

Solar Parking System · solarparkingsystem.com · WhatsApp +86 186 0326 1208

A solar carport with glass-glass modules that let daylight through between the cells. The roof is waterproof and the space underneath stays bright.



Features

- Daylight passes between the cells for a bright space underneath
- Waterproof roof with sealed or gutter-rail joints
- Bifacial modules also collect reflected light
- Architectural finish: powder-coated steel or aluminium

Best for: Hotels, car showrooms, offices and landmark projects where looks matter

Layout

Covers: Any layout: T-frame, Y-frame, double column

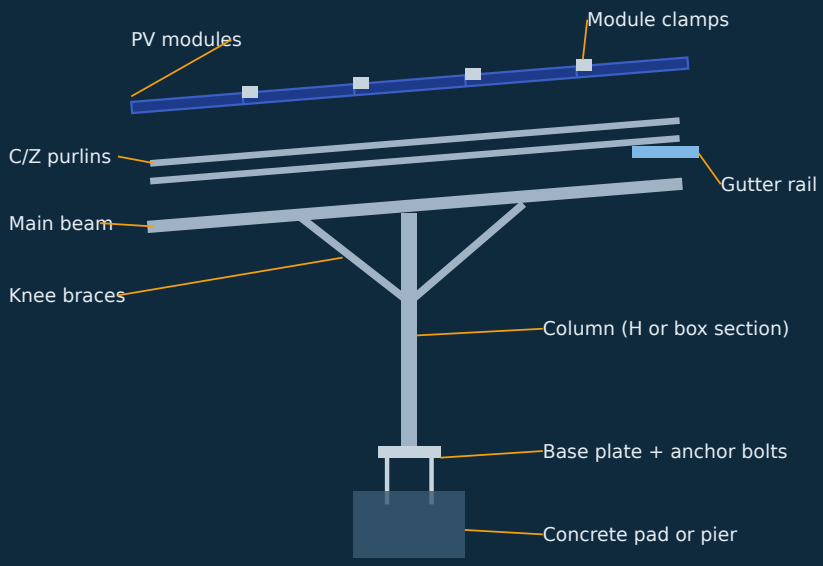
Typical dimensions: As the base structure

Standard models (per bay, 580 W modules)

Model	Covers	Bay W × D	Modules	kWp	Note
SPS-G4	4 cars (2 + 2)	5.0 × 10.6 m	16	9.3	Glass-glass modules
SPS-G6	6 cars (3 + 3)	7.5 × 10.6 m	24	13.9	Glass-glass modules

Components, quality and shipping

What is in the structure



Hot-dip galvanizing	ISO 1461 / ASTM A123, about 65–85 µm average
Zn-Al-Mg coating	ZM275 for purlins and rails
Aluminium	AL6005-T5, stainless steel A2-70 fasteners
Connections	Bolted, no welding on site
Packing	Bundled and marked by bay; small parts boxed per bay
Loading	About 250–400 kWp of structure per 40HQ container
Lead time	3–5 weeks after drawing approval
Warranty	10 years on the structure; 25-year design life

How to get a quotation

Send the site location, number of spaces and a layout sketch (a Google Maps screenshot is enough). We reply with a layout, structure proposal and price.

solarparkingsystem.com · WhatsApp +86 186 0326 1208