

## **Connecting Strength**

## Mounting systems 🕩 🗢 🐡





### Content

Everything at a glance - find the right system:

systems		Pantile	PlainTile	Trapezoidal si	trapezoidal sano.	Corrugated shi	Confugated fib.	Stall Cement	ading seam	Bitumen
Pitched roof	Page									
K2 SingleRail System	6	•	•	0	0	0	•	•	•	•
K2 SolidRail System	7	•	•	•	•	•	•	•	•	0
K2 Insertion System	8	•	•	•	•	•	•	•	0	0
K2 MultiRail/MultiRail CSM System	9	0	0	0	•	0	•	0	0	0
K2 MiniRail System	10	0	0	0	•	0	0	0	0	0
K2 BasicRail System	11	0	0	0	•	•	0	0	0	0

					TO I da			
		Green root	Gravel	Concrete	Membrane	sheet metal	One-sided	Two-sided
Flat roof	Page							
K2 Dome 6 System	14	•	•	•	•	•	•	•
K2 Dome Zero System	15	•	•	•	•	0	0	0
K2 TiltUp Vento System	16	•	•	•	0	0	•	0
K2 GreenRoof Vento System	17	•	•	0	0	0	•	•



### Warranty

We offer a 12-year warranty on all K2 components in the system: k2-systems.com/en/warranty

	,	Couclete I was out *	Trapezoidal of parel	Corrugated of	, sheet metal	
Facade	Page					
K2 WallPV FacadeRail System	20	•	0	0	0	
K2 WallPV CarrierRail System	21	0	•	0	0	
K2 WallPV MultiRail System MultiRail CSM System	22	0	0	•	•	

Ground-mounted	Page
K2 N-Rack System	26

• Suitable Ounsuitable

<sup>\*</sup> Load tests on masonry necessary





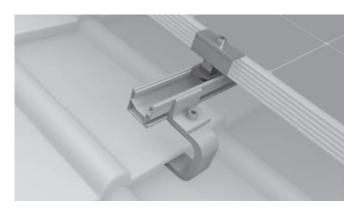






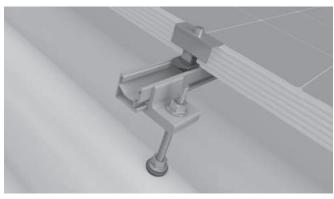
### K2 SingleRail System

Extensive range of rails suitable for various load cases and many spans. Direct lateral connection to the rail enables fast and cost-effective installation. Individual height adjustment provides additional flexibility during installation.



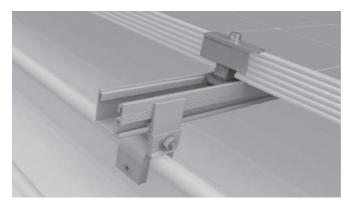
#### Roof tiles and slate

- Roof hooks for the majority of clay tiles, pantiles and concrete roof tiles
- Simple height adjustment on base plate, cantilever or on slotted hole connection
- 80% of all applications can be solved with SingleHook 3S or 4S



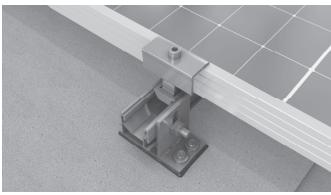
## Corrugated fibre cement and corrugated sheet metal

- For all corrugated fibre cement and corrugated sheet metal roofing with wooden substructure
- · Secure sealing on the roofing
- Climber connection
- abZ (general technical approval) in Germany



### Standing seam

- Multitude of application possibilities: Double standing seam, angled seam, snap seam and round seam
- Direct lateral rail connection
- · Penetration-free assembly



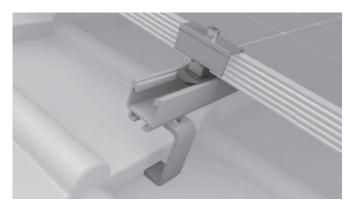
### **Bitumen**

- Mounting with the SpliceFoot
- · Fastening in the rafter or in the wooden boarding
- Watertight sealing due to butyl layer pre-mounted on the component



## K2 SolidRail System

Extensive range of rails suitable for various load cases and many spans. Can be easily and quickly installed on brick, corrugated sheet metal and sheet metal folds.



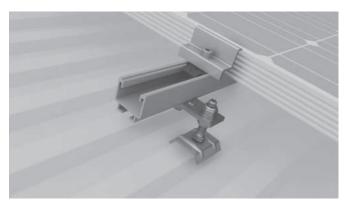
#### Roof tiles and slate

- Roof hooks for the majority of clay tiles, pantiles and concrete roof tiles
- Stainless steel roof hooks for tiles with low machining possibilities
- Flexibility is ensured by the adjustable connection in order to be able to install even with narrow rafters or different heights



## Corrugated fibre cement and corrugated sheet metal

- For all corrugated fibre cement and corrugated sheet metal roofing with timber or steel substructure
- · Secure sealing at the roofing
- abZ (general technical approval) in Germany



### Trapezoidal sheet metal

- Mounting with solar fasteners on trapezoidal sheet metal and sandwich element roofing.
- · Fastening in the steel or wooden substructure
- · abZ (general building approval) in Germany.



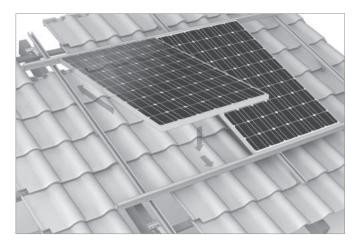
### Standing seam

- Many application possibilities: Double standing seam, angled seam, snap seam and round seam
- · Penetration-free assembly



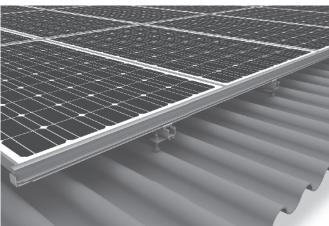
## **K2 Insertion System**

For a shapely overall appearance without the need for module clamps. The closed surface forms an attractive roof construction with no gaps or additional edges. Lightning-fast installation of modules due to unique rail profile without screws, module clamps or assistance.



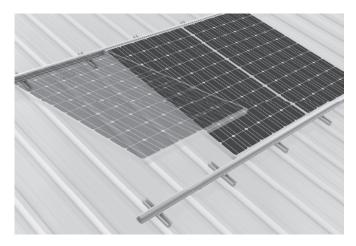
#### Roof tiles and slate

- Roof hooks for majority of clay tiles, pantiles and concrete tiles as well as roofing tiles
- · Simple height adjustment on base plate or bracket
- 80% of all applications can be solved with SolidHook 3S+ or 4S+ solvable



## Corrugated fibre cement and corrugated sheet metal

- For all corrugated fibre cement and corrugated sheet metal roofing with wooden substructure
- Climber connection possible
- abZ (general technical approval) in Germany
- Further connection with MultiRail CSM on corrugated sheet metal possible



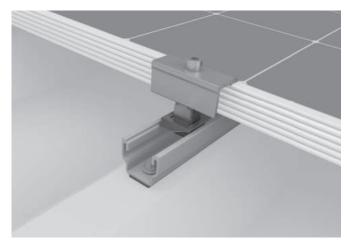
### Trapezoidal sheet metal

- · Connection with MultiRail mounting rail
- Simple assembly and quick planning with few components



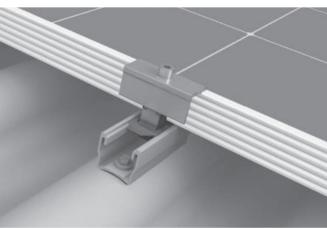
## **K2 MultiRail System**

Roof connection and mounting rail in one component. Quick planning with little use of materials is possible. The system can be easily installed on pitched roofs from 5 - 75° with trapezoidal sheet metal and corrugated sheet metal. No pre-drilling or time-consuming fixing in the roof substructure is necessary during installation.



### **K2 MultiRail**

- Mounting with only one component on trapezoidal sheet metal and sandwich elements
- Short rail available in different lengths for different applications such as high load requirements



### **K2 MultiRail CSM**

- Quick and easy installation on corrugated sheet metal
- · Various lengths available

### System-Highlights

### With elevation for more yield

- Combination of the MulitRail and components from our flat-roof system Dome 6
- · Better irradiation angle and thus higher yield

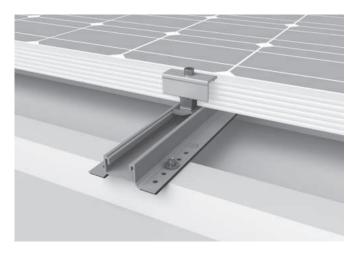
### RailUp for more profit

- Elevation results in improved ventilation of the modules and thus the possibility for higher yields
- Easy installation of micro-inverters and power optimisers



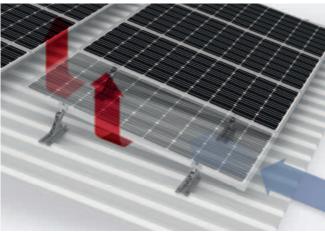
## **K2** MiniRail System

The system's compact dimensions allow for small packing dimensions and low weight. This results in optimised storage and easy transport. No pre-drilling or time-consuming fixing in the roof substructure is necessary during installation.



### K2 MiniRail MK2

- Simple and fast installation due to a small range of components required
- MK2 rail channel enables mounting with the same module clamp on all pitched roof systems



### **K2 MiniFive MK2**

- Additional 5° inclination possible with easy to install MiniFive MK2
- · Improved rear ventilation and more yield
- Optimisation of module inclination and angle of incidence

### System-Highlights

### MiniRail 60

- Greater distance between module and trapezoidal sheet (60 mm)
- Optimiser and micro inverter can be installed underneath
- · Improved rear ventilation and higher module output



## **K2** BasicRail System

Only four installations steps required and suitable for high loads. Controlled thermal expansion in rail direction through the floating rail fixation of the BasicClip. The system has general building authority approval (abZ) in Germany. No pre-drilling or time-consuming fixing in the roof substructure is necessary during installation.



### Controlled linear expansion

- The floating rail fixation of the BasicClip results in a controlled thermal expansion of the rail.
- · No transfer of forces to the roof cladding

### System-Highlights

### Landscape mounting option

- Landscape mounting is possible with the K2 AddOn
- · Seamless module blocks without additional rail layer

### RailUp for more yield

- Elevation results in improved ventilation of the modules and thus the possibility for higher yields
- Easy installation of micro-inverters and power optimisers

### Mounting on sandwich panels

- · BasicRail System suitable for sandwich roofs
- abZ (general building authority approval) for panels from different manufacturers
- High installation speed of the BasicRail system and direct fastening in the sandwich elements

### With inclination for more yield

- Combination of the BasicRail system with the Peak from our Dome 6 flat roof systems
- · Increased yield with better angle of incidence





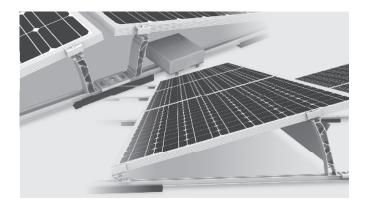


## Tlat Roof





Suitable for the majority of flat roof coverings. Ballast optimisation through good aerodynamics and wind tunnel tests. A secure anchoring with fixed connection can be carried out on roofs with more than 3° or low load reserves. With an elevation of 15°, a better angle of incidence can be created.



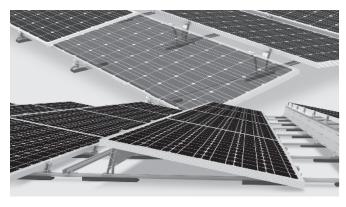
### **K2 Dome 6 Xpress**

- · Super-fast assembly in just a few steps
- Time-saving alignment of the rails with Dome Speed Spacer
- Snap-in function for peaks and tool-free rail connectors
- Optimisation of the angle of incidence through the option of elevation to 15°



### **K2 Dome 6 Classic**

- For mounting standard size PV modules and flexible row spacing
- Easy mounting with many obstacles for full utilisation of the roof area



### K2 Dome 6 Classic LS

- Suitable for higher wind/snow loads and for larger modules up to 2390 × 1170 mm.
- · Mounting on the long side of the module



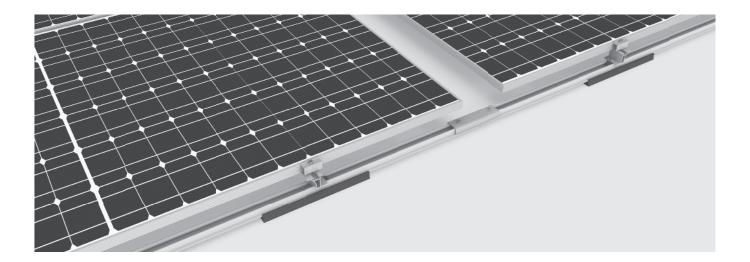
### **K2 Dome 6 Lifted LS**

- Fastening with roof anchors for raised installation above the roof membrane
- · Particularly suitable for roofs with low load reserves
- Compatible with multiple roof anchors types
- Existing components for easy installation





For roof-parallel mounting using many of the Dome 6 components. A secure anchorage with fixed connection can be made for roofs with more than 3° and low load reserves.



### System-Highlights

### Roof pitch up to 10°

• Dome FixPro S fixed connection enables use on roofs with a pitch of up to 10°.

### Few components

- Majority of components compatible with Dome 6 System
- For the elevation a 0° peak is used





Many different module arrangements as well as 3 different inclination angles (20°, 25°, 30°) are possible. Due to the flexible connection via ballasting with concrete foundation or as direct connection with concrete anchors, it can be mounted on many roofs.



### System-Highlights

### Different roof connections

- Ballasted with concrete foundation
- Direct connection with concrete anchors possible

### Different module designs

- Portrait/landscape mounting possible with the same components
- · Clamping on the short or long module side

### 3 different inclination angles

- All module arrangements available in 3 inclination angles: 20°, 25° and 30°
- · Component connections are the same throughout

### **Few components**

- Sophisticated system with well thought-out connections with few components
- · Enabling systemic storage





### K2 GreenRoof Vento System

Clever flat roof solution for green roofs. Flexibility in terms of module orientation, inclination angle and system geometry. Good integration into green roofs.



### System-Highlights

### Flexible installation

- Module orientation in portrait or landscape
- Inclinations at 10° and 15°
- System geometry in S-shape, A-shape or V-shape
- Spacing between module rows can also be variably positioned for east-west installations, enabling flexible maintenance walks

### **Good integration into green roofs**

 Distance of the module to the roof surface and system geometry enable accessibility below the modules and thus easy maintenance of the green roof

### K2 modular concept

• Existing components of the K2 TiltUp Vento system





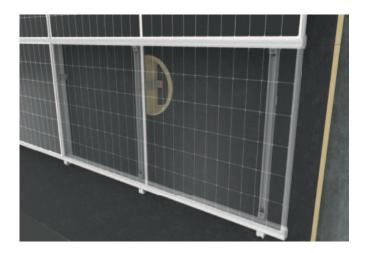


## **→** Facade



## **K2 WallPV FacadeRail System**

The flexible solution for concrete facades.



## Wall brackets for flexible connection to concrete facades

- · Wall brackets are anchored in the concrete
- · Connection to K2 FacadeRail and K2 InsertionRail

### System-Highlights

### **Combination of RVF and ETICS**

- Fastening to a rear-ventilated facade (RVF) or rainscreen cladding, terminations must be provided by the customer
- Installation on external thermal insulation composite systems (ETICS) is possible when the facade is newly insulated

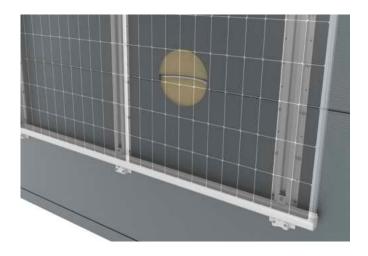
### Closed surface with insert rails

- Elegant overall appearance thanks to silver or black insert rails
- Lightning-fast and secure installation with guaranteed rear ventilation



## K2 WallPV CarrierRail System

Facades with sandwich panels are a major field of application for vertical photovoltaic systems, and our solution is the CarrierRail system for FischerTHERM Carrier® panels from Fischer Profil GmbH.



### Facades with FischerTHERM Carrier®

- The solution for facades with FischerTHERM Carrier® sandwich panels on large commercial buildings
- · Can be combined with facade cladding

### System-Highlights

### Fast, secure fixing

- Installation with building authority-approved sheet metal screws that are tried and tested in the rooftop sector
- Simple installation thanks to the MK2 rail channel and familiar K2 installation principles

### Closed surface with InsertionRail

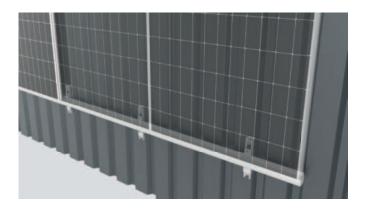
- Elegant overall appearance thanks to silver or black InsertionRail
- Lightning-fast and safe installation with guaranteed rear ventilation





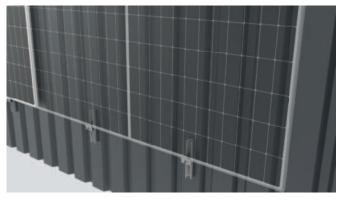
### K2 WallPV MultiRail System

One of the most common facade claddings in the Industrial and agricultural industries is trapezoidal or corrugated sheet metal. For these materials, we rely on our tried and tested MultiRail. We offer an efficient and easy to install wall fastener.



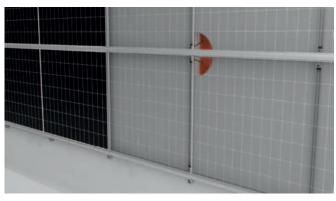
## For large scaling in commercial construction

- Closed surface with InsertionRails creates an attractive overall appearance
- For lightning-fast and secure installation of the modules on the facade



### For smaller systems

 Efficient and flexible installation of smaller systems (workshops or sheds) with the K2 FacadeClamp



### For insulated facades

- Fast and cost-effective installation with fixation using facade insulation in concrete
- · No cutting open or removing of insulation required
- Partnership-based cooperation with Reisser Schraubentechnik

### System-Highlights

### **Established system**

- Many advantages and high safety thanks to proven system from the rooftop sector
- Simple installation thanks to wall connection and mounting rail in one component

### Universally compatible

- InsertionRail and FacadeClamp systems can be used for the majority of trapezoidal and corrugated sheet metal profiles
- Suitable for warehouses, halls, commercial projects and agricultural buildings - large or small

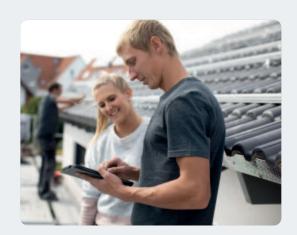


# K2 digital tools in all project phases.



### **K2 DocuApp**

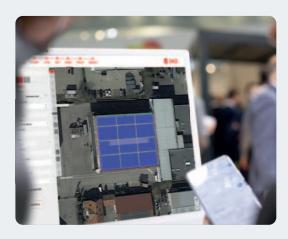
**Capture data directly** on your smartphone or tablet and share information directly with your colleagues





### **K2 Base**

Automatic upload of on-site data from the DocuApp. Fast, reliable and precise planning with results report in K2 Base.





### **K2 DocuApp**

Capture images via smartphone directly on site or **share information about the system in real time** with your colleagues in the office or on the roof.





### K2 DocuApp / Buddy

**DocuApp: Finalise the project** directly on your smartphone.

**Buddy: Monitoring system** to warn against high snow loads.







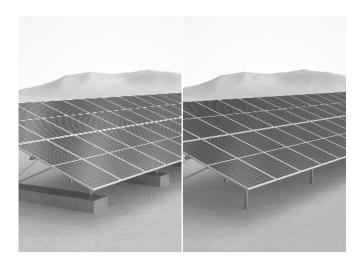


## Ground mounted





Fundamentally clever: Systematic ground mounted solutions.



### Simple, flexible and quick installation

- Fixing with concrete or driven pile foundation
- Multiple inclination options: 15° and 20°
- Flexible and customised solution for a wide range of requirements

### System-Highlights

### **Multiple foundation options**

- Installation directly in the ground or on driven piles foundations
- Quick and cost effective solution using driven pile foundations

### Fast and flexible installation

- Uncomplicated and guick installation
- · Best results in a short time

### **Multiple inclination options**

- Inclination of 20°: Installation of two rows of modules
- Inclination of 15°: possibility of installing three rows of modules

### **Future-oriented sustainability**

- Sustainable thanks to outstanding recyclability and CO2-optimised production
- Time saving due to very easy handling

## Your entire K2 world in one account



### Calculation at the speed of light:

### **MyPriceEstimator**

- · Calculate PV projects incredibly quickly and easily via smartphone or tablet
- Get an excellent basis for your offers with just a few key figures, even when you're on the move

### Register once and benefit from many advantages:

- · Manage projects and assign individual rights
- Communicate completely paperless and from any location
- · Calculate prices quickly and easily
- Exchange project data between K2 Base and K2 DocuApp
- Track your training progress
- · Assign individual rights Use your company logo on documentation documents

### Aquire knowledge and certification

### **MyTraining**

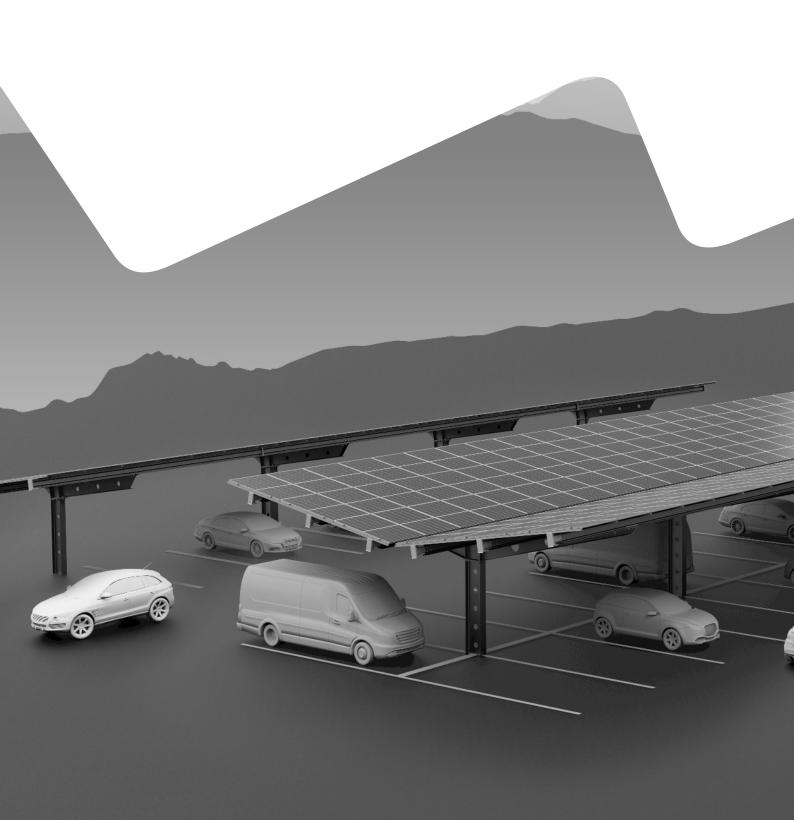
- Complete a free K2 training course
- · Track your training progress and download your certificates

my.k2-systems.com

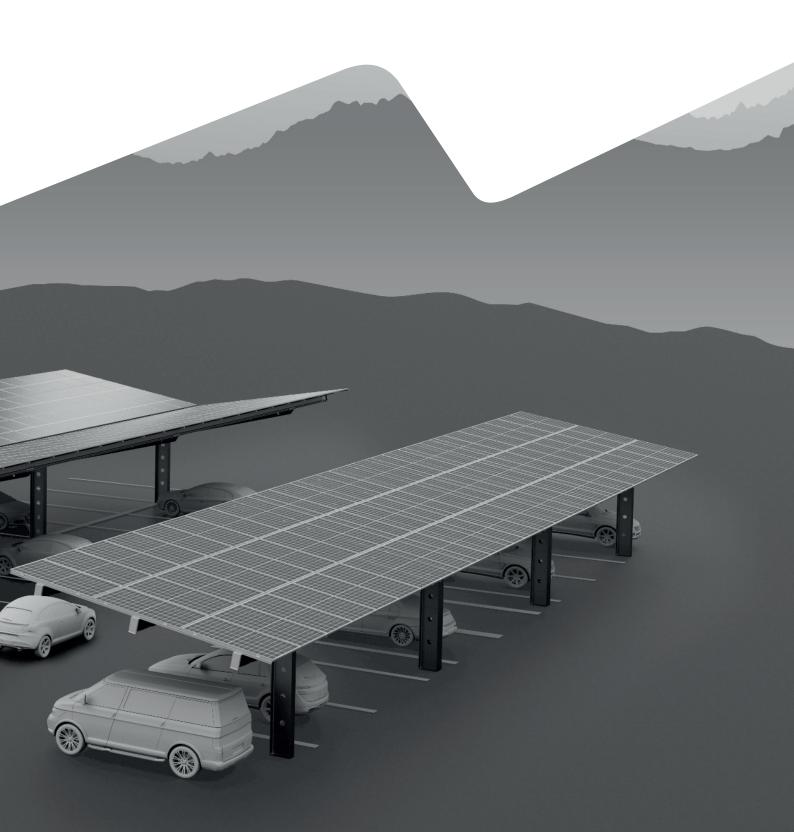


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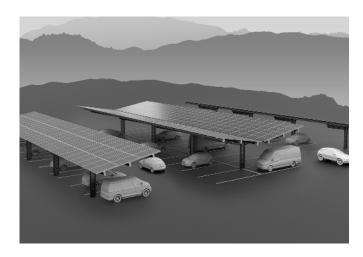


## **Carport**





Great flexibility meets minimal effort: convenient parking experience with simultaneous energy generation.



### Comfortable and flexible

- One-support system ensures a comfortable parking experience
- Installations with or without trapezoidal sheet metal roofing
- Module layout: 3x portrait 10°, single or double

### System-Highlights

## Parking space for all standard cars and commercial vehicles

- Carport height: front edge 3.15 m; rear edge 2 m
- Sufficient space and protection for compact cars as well as higher commercial vehicles

### Layout

- In single or double version with 10° inclination
- Module layout 3 x portrait

### Optional trapezoidal sheet metal roofing

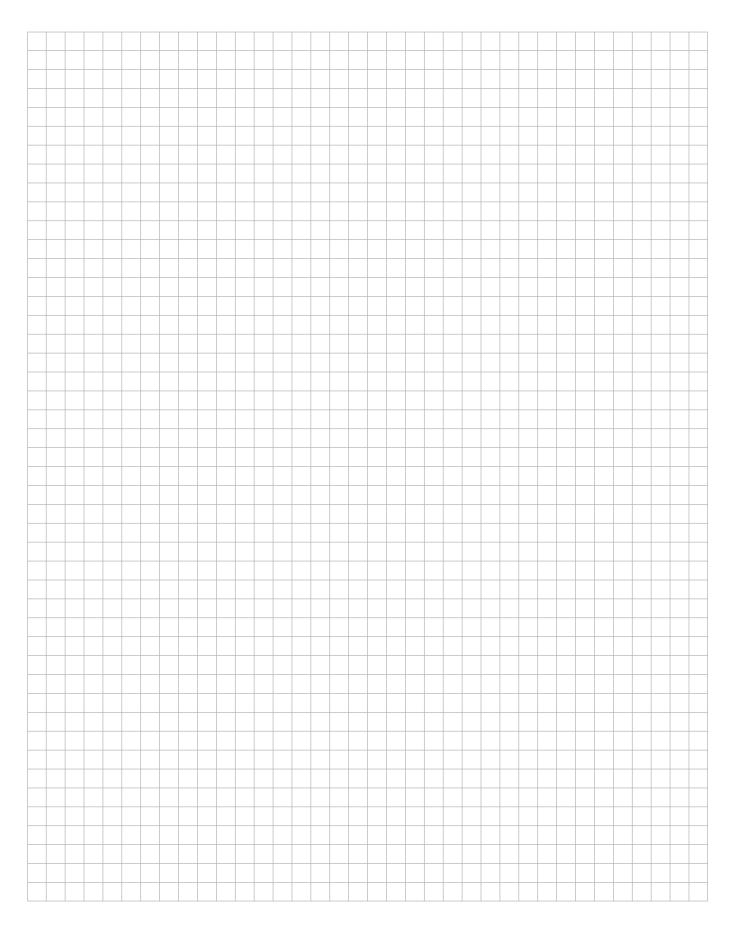
Available in two versions:

- With trapezoidal sheet metal covering for robust protection and classic aesthetics
- Without trapezoidal sheet metal cladding for the use of bifacial modules and a more modern look

### Optional roof-integrated drainage

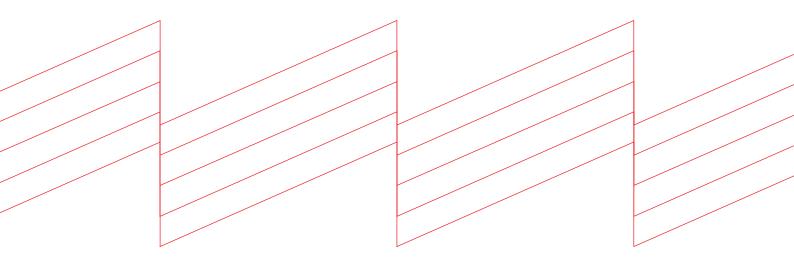
 Efficient and controlled solution for draining rainwater with optional roof drainage

### Notes





### k2-systems.com



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