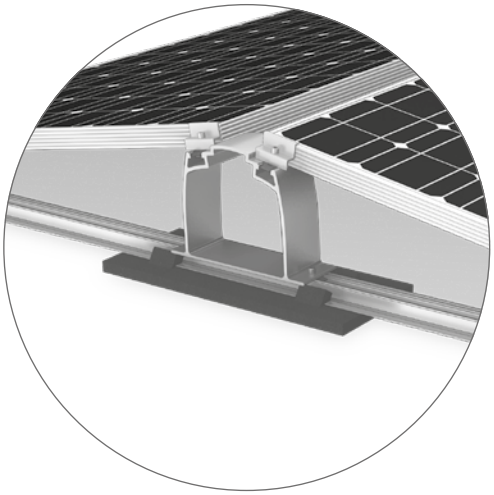
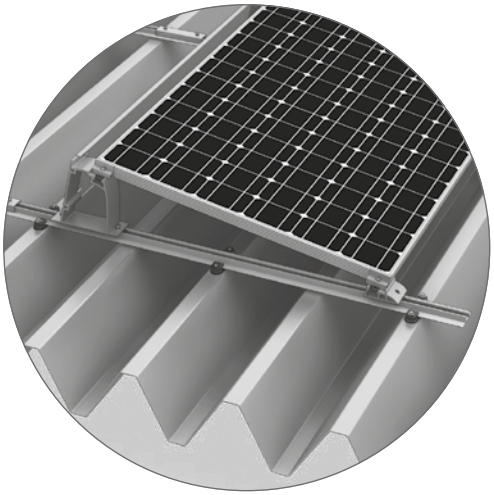
Mounting systems for solar technology

FLAT ROOF SYSTEMS





Contents

● Suitable ○ Unsuitable

WARRANTY

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

MODULE ORIENTATION

We offer flat roof systems with one-sided or two-sided elevations.

STATICS AND DESIGN LOADS

K2 mounting systems fulfil the calculation principles in accordance with Eurocode 1 and 9.

PALLET DELIVERY

Many K2 mounting systems are shipped completely as palletised goods.

Comparison of flat roof systems

S-ROCK: for single-sided 15° elevation

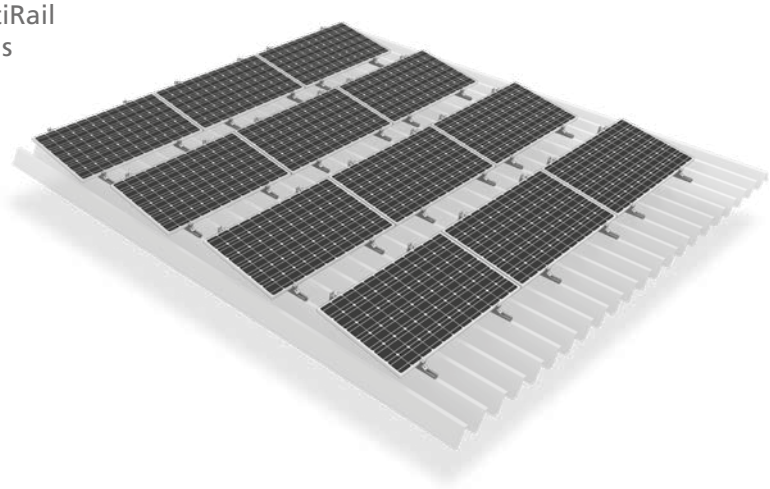
- Ultra quick and easy mounting
- One component with integrated ballast tray and cable management solution
- No additional pre-assembly
- One clamp that can be used universally for all modules
- Aerodynamically optimised as a result of wind tunnel testing

S-DOME: for single-sided 10° elevation

- A system for structurally challenging roofs with limited ballast options
- Aerodynamically optimised as a result of wind tunnel testing
- Quick and easy handling
- Also available as a short rail system

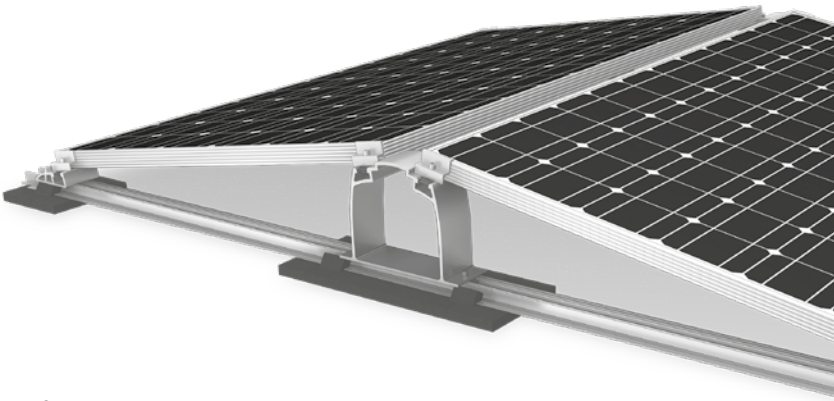
S-DOME SMALL 10°

- For a roof inclination of up to 15° on trapezoidal sheet metal
- Economical in terms of materials and transportation; clever connections and strong holding power
- The perfect combination of the all-round MultiRail component and load-optimised, slim elevations



D-DOME: for double-sided 10° elevation

- A system which provides optimal surface utilisation and yields for roofs with limited ballasting options
- Aerodynamically optimised as a result of wind tunnel testing
- Quick and easy handling
- Also available as a short rail system

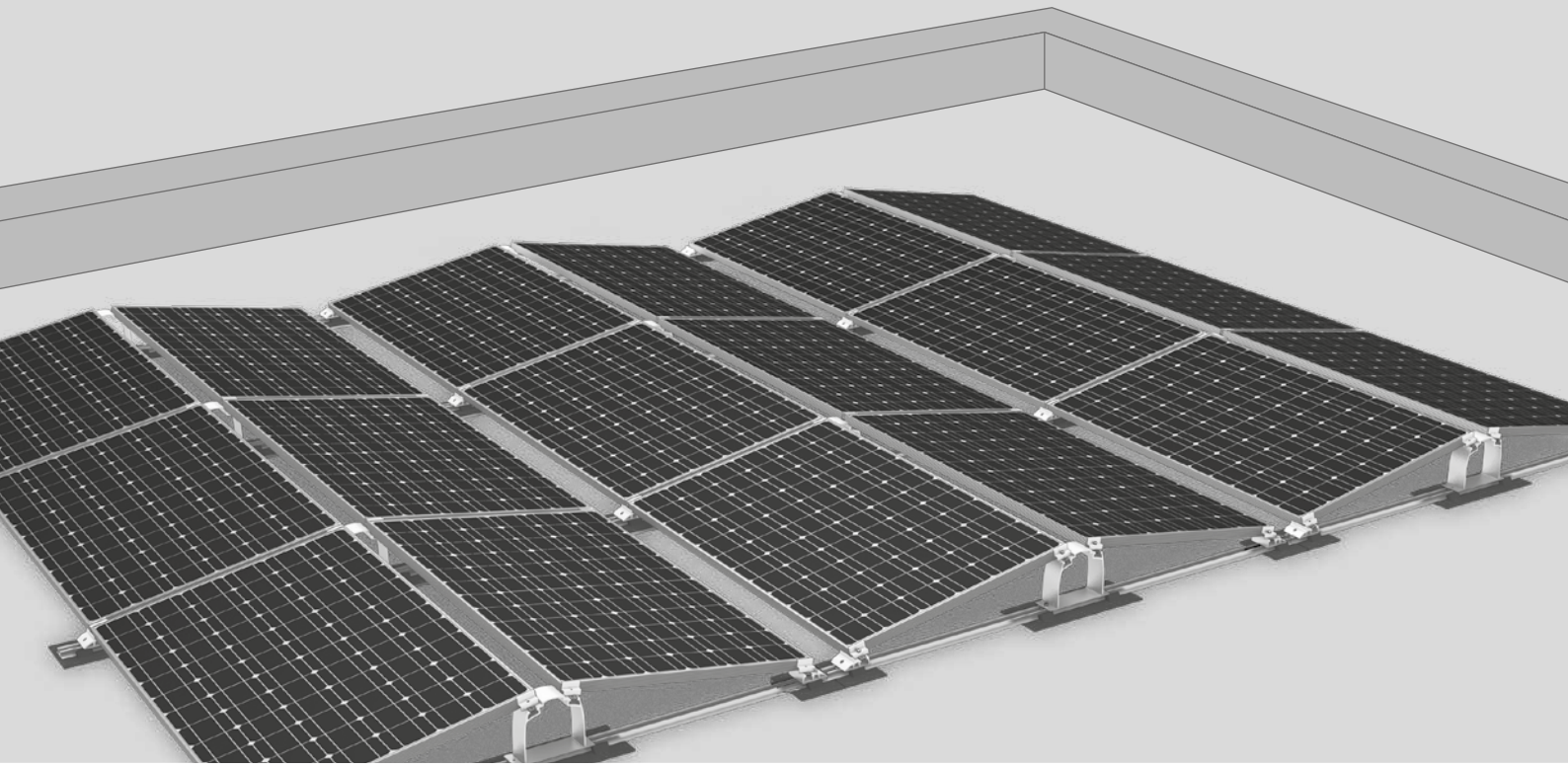


TRIANGLE / MULTIANGLE 10 - 45°

- Individually customisable elevation angle
- Universal module orientation
- High flexibility and customised solutions

D-Dome 10° System

The solution for double-sided elevation



- A system which provides optimal surface utilisation and yields for roofs with limited ballasting options
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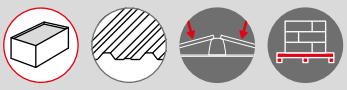
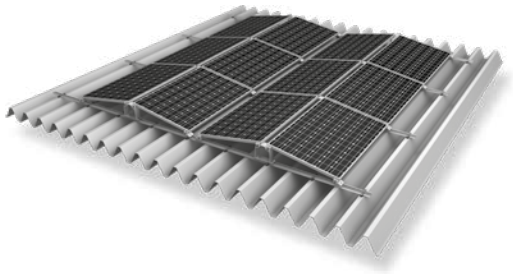


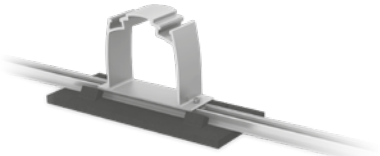


D-Dome can also be mounted on trapezoidal sheet metal roofs.

DOME 10° SYSTEM COMPONENTS

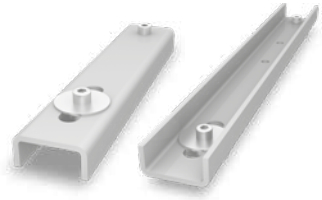
Dome D1000 and Dome SD

Narrow elevation module support element for two-sided elevations



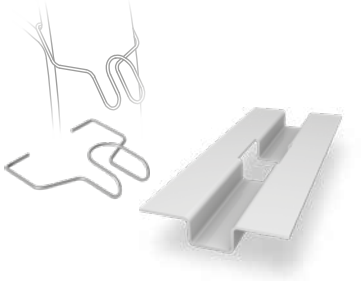
SpeedRail with building protection mats

- SpeedRail available as short or long rails
- Building protection mats also laminated with aluminium



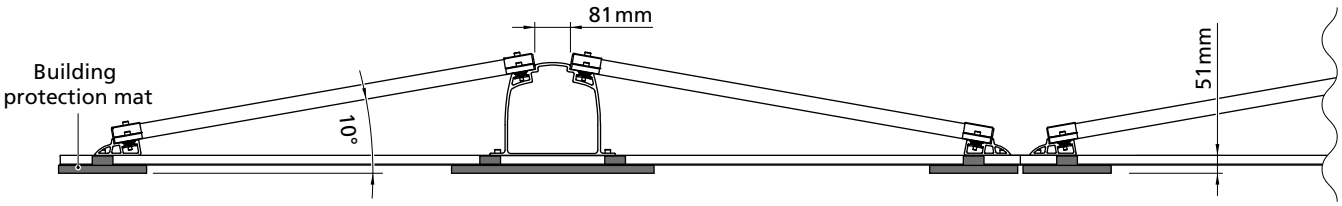
Block Connector RW/CW

- Connection between module arrays in x- and y-direction
- Ballast reduction in the complete system



Ballast and Cable Management

- SpeedPorter: For quick and easy ballasting
- Dome Wire Hanger for module cables

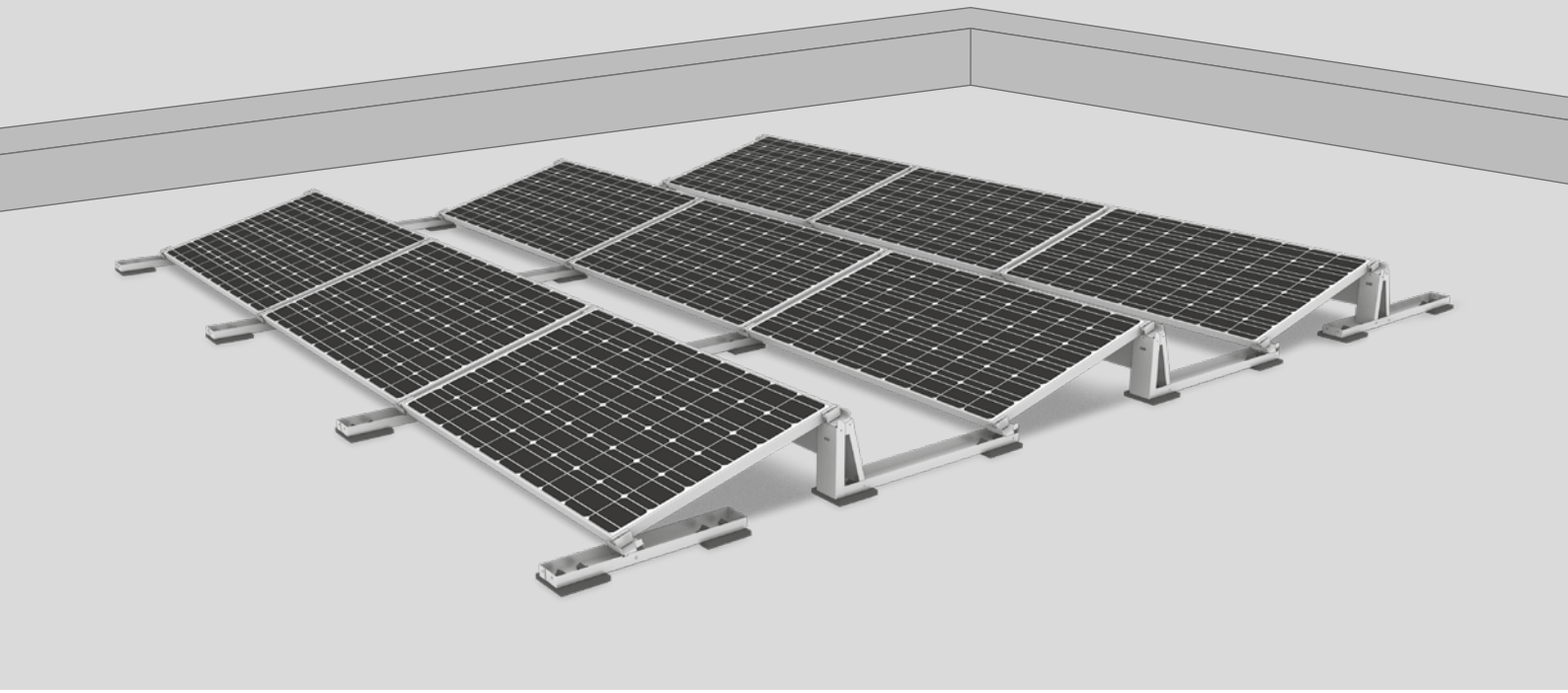


TECHNICAL DATA

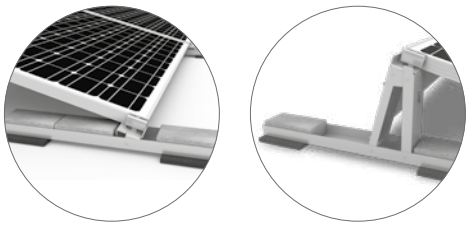
	D-Dome
Scope of application	Flat roofs <5° with membrane, bitumen and concrete or gravel roofs; also trapezoidal sheet metal roofs with continuous mounting rails
Fastening type/roof fixture	Stable, with ballasting if necessary; no roof penetration
Requirements	‣ Permissible module dimensions (L×W×H): 1550-2000 × 950-1100 × 30-50 mm ‣ Minimum system size: one row ×3 modules ‣ Roof inclination of up to 5°
Technical specifications	‣ Thermal separation after max. 11 m (trapezoidal sheet metal 8.4 m): min. 30 mm to max. 150 mm ‣ Minimum clearance to roof edge 500 mm (350 mm to other obstructions)
Inclination angle	10°
Material	‣ Mounting rails, D-Dome, Dome SD, Module Clamps, Rail Connectors: Aluminium EN AW-6063 T66 ‣ Building protection mat with or without aluminium lining (PUR-bound rubber granules) ‣ Small parts: Stainless steel (1.4301) A2-70

S-Rock 15° System

The solution for quick single-sided elevation

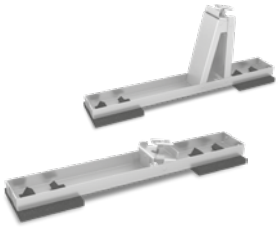


- Ultra quick and easy mounting
- One component with integrated ballast tray and cable management solution
- No additional pre-assembly
- One universal clamp for all modules
- Aerodynamically optimised as a result of wind tunnel testing

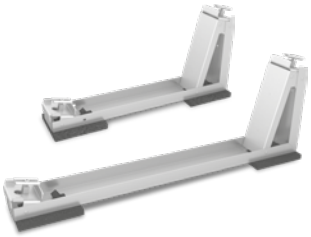


The integrated ballast tray eliminates additional components.

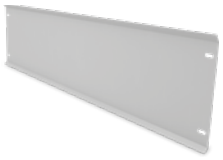
S-ROCK 15° SYSTEM COMPONENTS



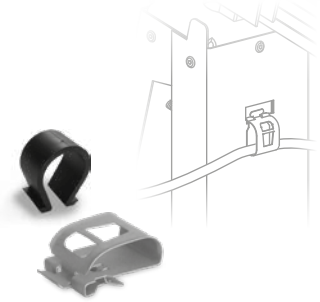
S-Rock 15° Front/End
First and last row module support element with ballast tray



S-Rock 15°
Module support element for one-sided elevation with ballast tray in two lengths

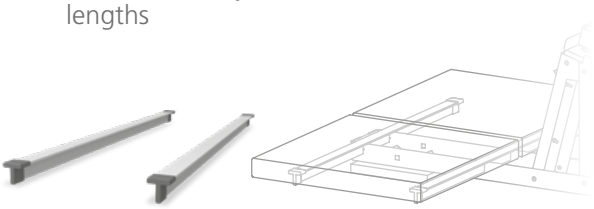


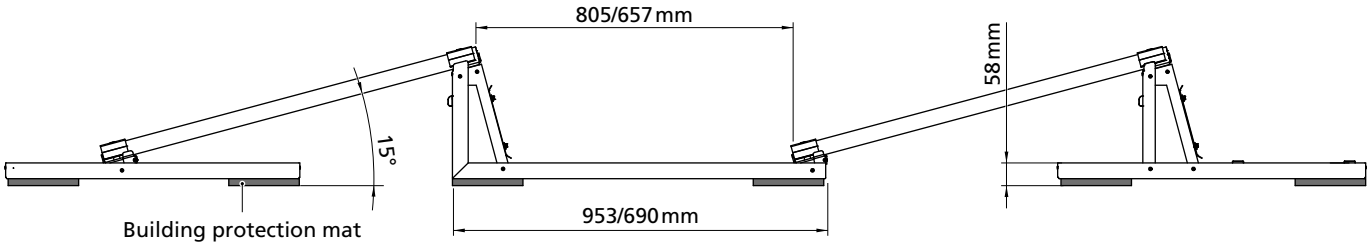
Windbreaker 15°
Wind deflection on the rear of S-Rock 15° systems



Cable Management
S-Rock cable clips for fastening module cables

T-Tray
Support for high ballast requirements





TECHNICAL DATA

	S-Rock
Scope of application	Flat roofs <5° with membrane, bitumen and concrete roofs
Fastening type/roof fixture	On-roof with potential ballast; no roof penetration
Requirements	Permissible module dimensions (L×W×H): 1638-1685 × 982-1001 × 30-50 mm
Technical specifications	‣ Thermal separation after 8 adjacent or consecutive modules ‣ Minimum clearance to roof edge 700 mm (350 mm to other obstructions) ‣ Row spacing, fixed: approx. 1.7/1.6 m
Inclination angle	15°
Material	‣ Aluminium: · S-Rock, Windbreaker (EN AW-5754 H22/H32) · Module clamps (EN AW-6063 T66) ‣ Building protection mat with or without aluminium lining (PUR-bound rubber granules) ‣ Small parts: Stainless steel A2-70

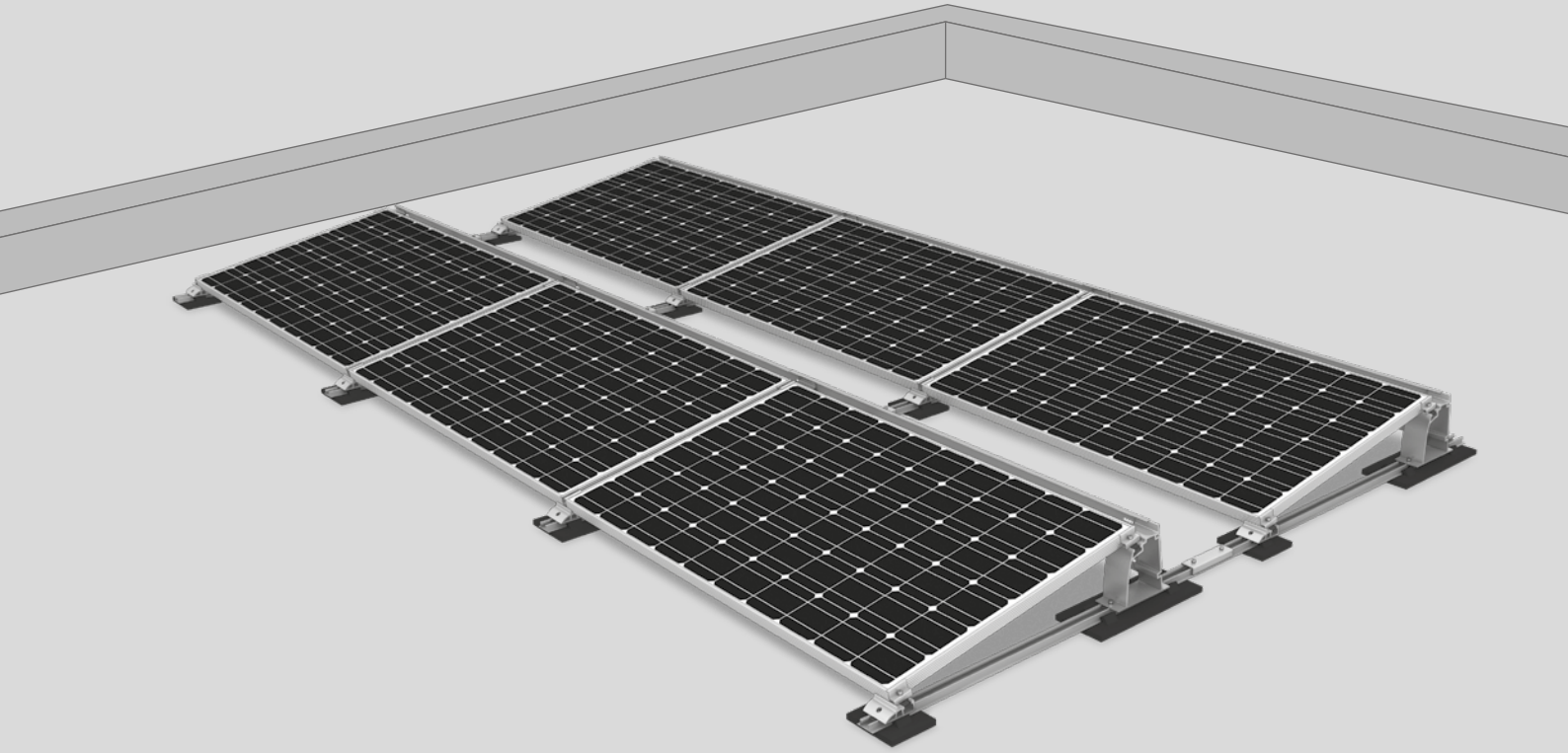
Note: The illustration of the S-Rock 15° above (with a row spacing of 1.76 m) shows the dimensions for a shadow-free installation design at a latitude of ≤48.8 °N. This design ensures that the modules (with a module width of up to 1 000 mm) are shade free at noon (12 pm) on 21st December.

Many best practice case examples have confirmed that in 80 % of customers surveyed, these dimensions achieve an optimum ratio between surface utilisation and yield. That is why we have the S-Rock System in these dimensions in stock for you and available for delivery at all times.

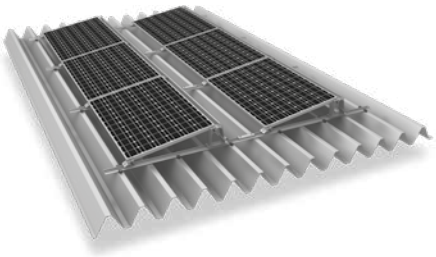
Of course, upon request, we also provide all S-Rock 15° systems in your desired length for a row spacing of <1.76 m.
Larger row spacings are currently not available, as this would require a separate static design including an expert wind report.

S-Dome 10° System

The solution for single-sided elevation

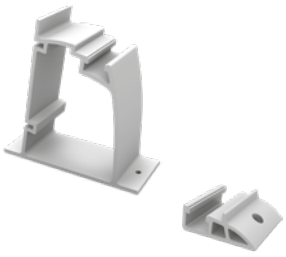


- A system for structurally challenging roofs with limited ballast options
- Aerodynamically optimised as a result of wind tunnel testing
- Quick and easy handling
- Also available as a short rail system



S-Dome can also be mounted on trapezoidal sheet metal roofs.

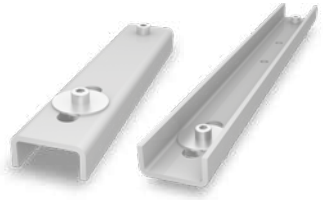
S-DOME 10° SYSTEM COMPONENTS



Dome S1000 and Dome SD
- Module support elements for one-sided elevations
- Suitable for module widths of up to approx. 1 000 mm

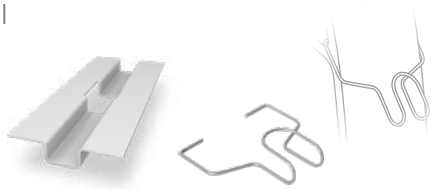
SpeedRail with building protection mats
- SpeedRail available as short or long rails
- Laminated or unlaminated building protection mats, depending on roof covering material

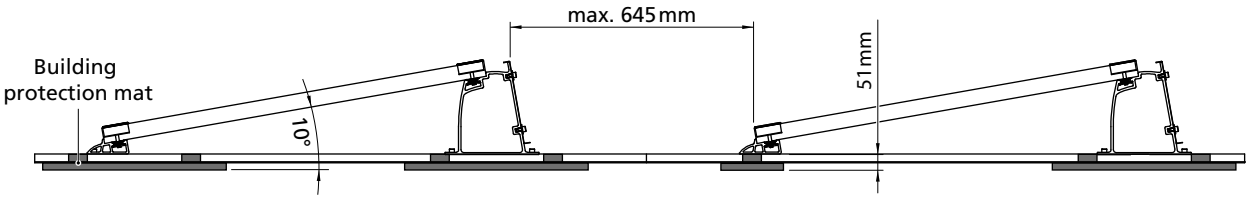
Windbreaker
- Wind deflection on the rear of Dome systems
- Various lengths available



Block Connector RW/CW
- Connection between module arrays in x- and y-direction
- Ballast reduction in the complete system

Ballast and Cable Management
- SpeedPorter: For quick and easy ballasting
- Dome Wire Hanger for module cables

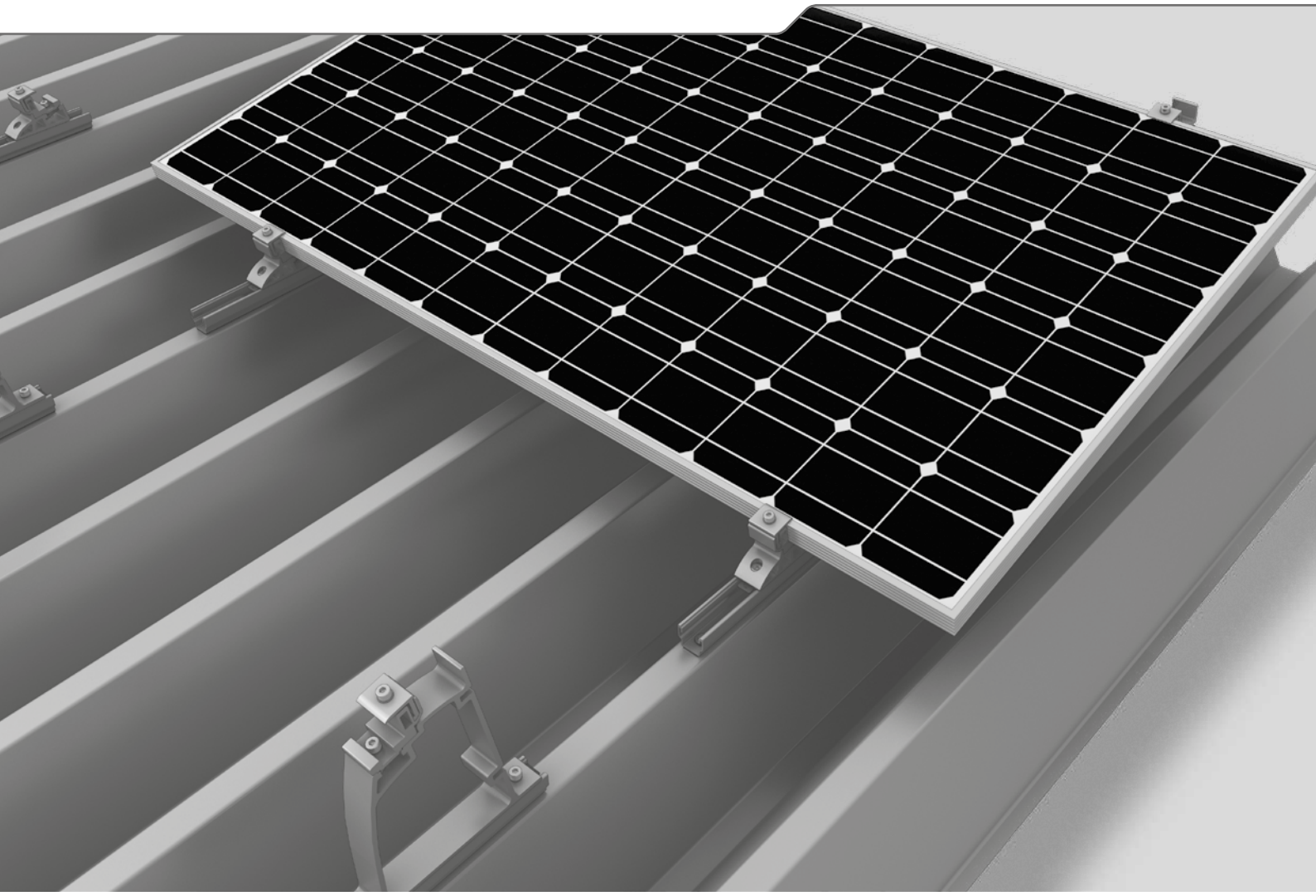




TECHNICAL DATA

	S-Dome
Scope of application	Flat roofs < 5° with membrane, bitumen and concrete or gravel roofs; also trapezoidal sheet metal roofs with continuous mounting rails
Fastening type/roof fixture	Stable, with ballasting if necessary; no roof penetration
Requirements	‣ Permissible module dimensions (L × W × H): 1550 - 2020 × 950 - 1100 × 30 - 50 mm ‣ Minimum system size: one row × 3 modules ‣ Roof inclination of up to 5°
Technical specifications	Thermal separation after max. 11 m (trapezoidal sheet metal 8.4 m): min. 30 mm to max. 150 mm
Inclination angle	10°
Material	‣ Mounting rails, S-Dome, Dome SD, Windbreaker, module clamps, rail connectors: Aluminium EN AW-6063 T66 ‣ Building protection mat with or without aluminium lining (PUR-bound rubber granules) ‣ Small parts: Stainless steel (1.4301) A2-70

S-Dome Small System

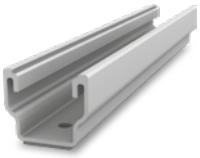


- For a roof inclination of up to 15° on trapezoidal sheet metal
- Economical in terms of materials and transportation; clever connections and strong holding power
- The perfect combination of the all-round MultiRail component and load-optimised, slim elevations

S-DOME SMALL COMPONENTS

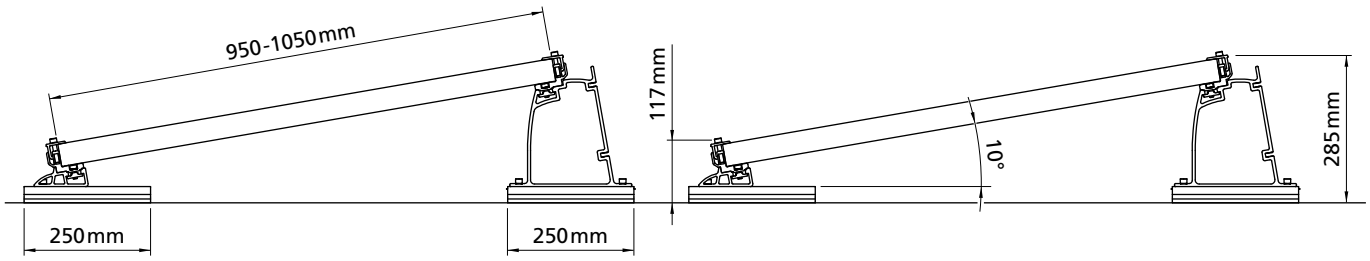
Dome S1000 Small
Narrow elevation module support element

Dome SD Small
Narrow module support element



MultiRail 25 or 25/3
- Length 250 mm
- 25: For roofs with an inclination < 15°
- 25/3: With three bore-holes for roofs with 15° inclination

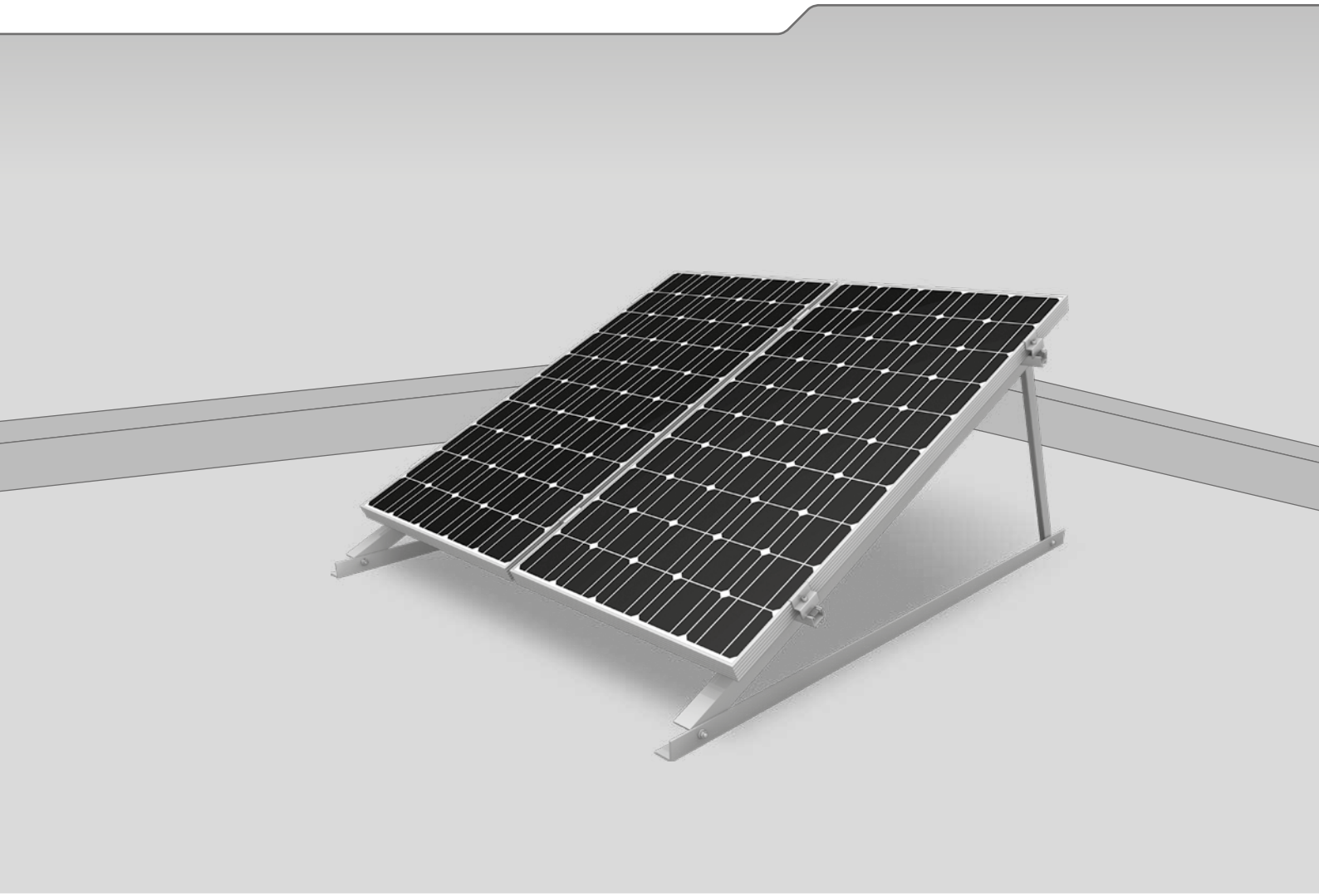
FlexClamp Small
- For clamping on the long side of module
- Height adjustable



TECHNICAL DATA

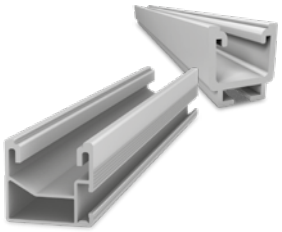
	S-Dome Small
Scope of application	Flat or pitched roofs ≤ 15° with trapezoidal sheet metal roofing
Fastening type / roof fixture	Attached with drilling screws in trapezoidal sheets, parallel to raised crests
Requirements	‣ Sheet thickness for aluminium/steel: min. 0.5 mm ‣ Tensile strength for aluminium: 165 N/mm² ‣ Tensile strength for steel: acc. to approval min. S235 in acc. with DIN EN 10025-1 ‣ Crest width: min. 22 mm ‣ Crest spacing: independent of crest distance
Inclination angle	10°
Material	‣ Mounting rails, Dome SD Small, Dome S1000 Small, FlexClamp Small: Aluminium (EN AW-6063 T66/ EN AW-6082 T6); EPDM ‣ Small parts: Stainless steel (1.4301) A2

Triangle/MultiAngle System 10-45°

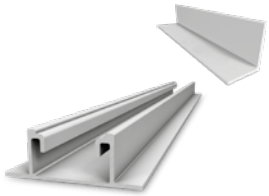


- Individually customisable elevation angle
- Universal module orientation
- High flexibility and customised solutions

TRIANGLE / MULTIANGLE SYSTEM COMPONENTS



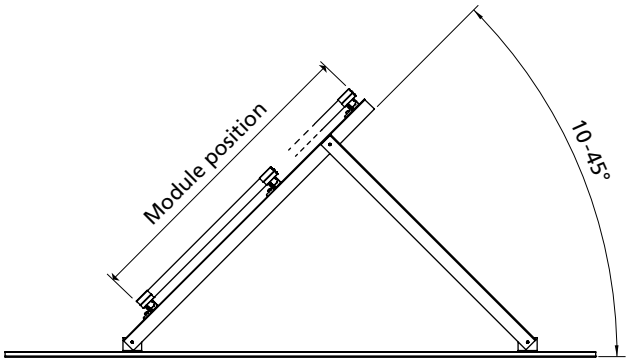
Mounting rails
- Triangle: SolidRail
- MultiAngle: SingleRail



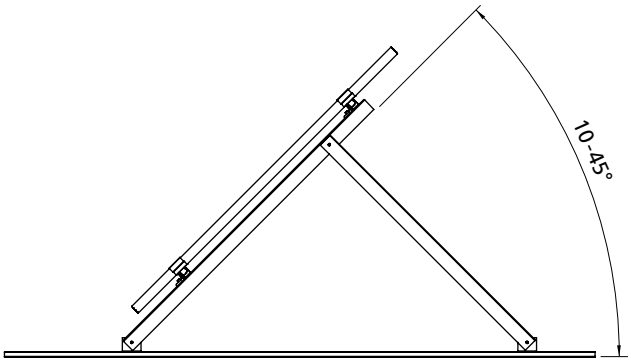
Base assembly
- Triangle: L-Profile
- MultiAngle: SpeedRail or L-Profile

Module orientation
- Triangle: Landscape mounting with AddOn
- MultiAngle: Portrait mounting, 2 heights for landscape mounting (clamps at corners or with AddOn)

Elevation
- Triangle: Available with 10 - 45°
- MultiAngle: Individually customisable, 10 - 45°



Module landscape



Module portrait

TECHNICAL DATA

	Triangle / MultiAngle
Scope of application	Flat roofs, fields, or ground
Fastening type/roof fixture	Fastening or ballasting
Technical specifications	Thermal separation after max. 13.6 m
Inclination angle	10 - 45°, factory-default, or individually adjustable with MultiAngle
Material	‣ Mounting rails, module clamps: Aluminium (EN AW-6063 T66 / EN AW-6082 T6) ‣ Also suitable for PE plates ‣ Small parts: Stainless steel (1.4301) A2

Accessories

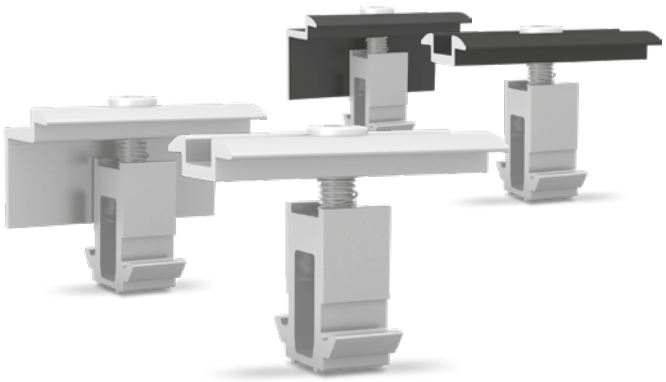
MODULE CLAMPS

Our module clamps can be easily mounted to any K2 rail. The MK2 slot nut automatically locks in place and can be moved about in the rail by pressing the cylinder screw lightly.

MiniClamp MC and EC

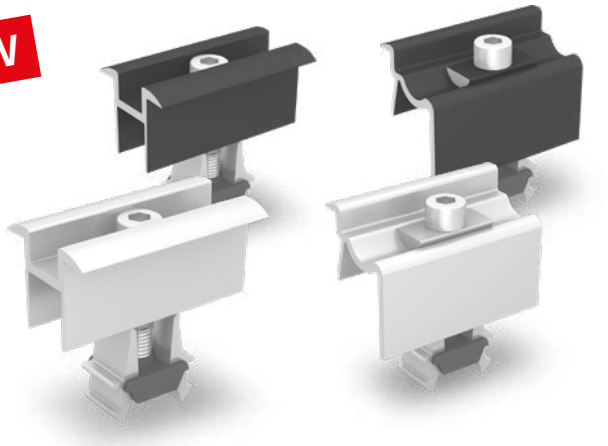
For the S-Rock 15° System we use the universal and rotatable MiniClamps MC/EC.
MiniClamp MC and EC are universal clamps with a clamping range of 30 - 50 mm.

Description	Item number
MiniClamp MC, middle clamp, aluminium mill finish	2002558
MiniClamp MC, middle clamp, black anodised	2002609
MiniClamp EC, end clamp, aluminium mill finish	2002559
MiniClamp EC, end clamp, black anodised	2002610



Universal module clamps OneMid and OneEnd

NEW

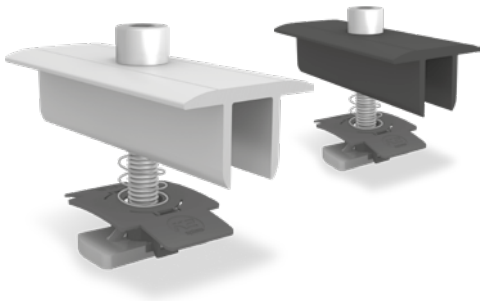


OneMid OneEnd

These module clamps are suitable for the most common module frame heights of 32 - 42 mm. Compatible with SingleRail, CrossRail, SpeedRail, Multi-Rail, SolidRail plus S- and D-Dome.

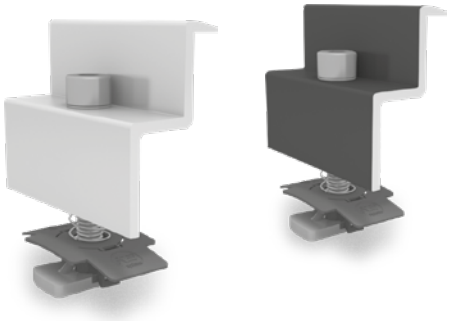
Description	Item number
OneMid, mid clamp, aluminium mill finish	2002515
OneMid, mid clamp, black anodised	2002588
OneEnd, end clamp, aluminium mill finish	2002514
OneEnd, end clamp, black anodised	2002589

Module middle clamps XS



Module frame height / description	Item number
30 - 33 mm / M8×50, aluminium mill finish	1005156
30 - 33 mm / M8×50, black anodised	1005157
34 - 38 mm / M8×50, aluminium mill finish	1003586
34 - 38 mm / M8×50, schwarz eloxiert	1005158
39 - 44 mm / M8×60, aluminium mill finish	1004908
39 - 44 mm / M8×60, black anodised	1005159
45 - 48 mm / M8×65, aluminium mill finish	1005143
45 - 48 mm / M8×65, black anodised	1005160
49 - 50 mm / M8×70, aluminium mill finish	1004407
49 - 50 mm / M8×70, black anodised	1005161

Module end clamps



Module frame height / description	Item number
30 - 31 mm / M8×30, aluminium mill finish	1005345
30 - 31 mm / M8×30, black anodised	1005347
34 - 36 mm / M8×30, aluminium mill finish	1005169
34 - 36 mm / M8×30, black anodised	1005268
37 - 38 mm / M8×30, aluminium mill finish	1005290
37 - 38 mm / M8×30, black anodised	1005293
39 - 41 mm / M8×35, aluminium mill finish	1005170
39 - 41 mm / M8×35, black anodised	1005269
42 - 44 mm / M8×35, aluminium mill finish	1005291
42 - 44 mm / M8×35,black anodised	1005295
45 - 47 mm / M8×40, aluminium mill finish	1005171
45 - 47 mm / M8×40, black anodised	1005270
48 mm / M8×40, aluminium mill finish	1005292
48 mm / M8×40, black anodised	1005296
49 - 50 mm / M8×45, aluminium mill finish	1005172
49 - 50 mm / M8×45, black anodised	1005271

Accessories

SELF-TAPPING SCREW WITH SEALING WASHER

Thin sheet screw, chip-free; approved for steel/ aluminium sheets with a minimum thickness of 0.5/0.7 mm.
Material: Stainless steel A2, EPDM

Type	Item number
6 × 25 mm, SW 8, sealing washer Ø 16 mm	1005207
6 × 38 mm, SW 8, sealing washer Ø 16 mm	1005193

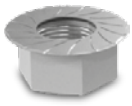
T-BOLT AND FLANGE NUTS WITH SERRATION

T-bolt for use in the lower chamber of K2 SolidRail rails.
Head form: 28/15
Head dimensions: 22.5 × 10.5 × 4 mm
Material: Stainless steel A2 1.4301

Type	Item number
M10×20	1000637
M10×30	1000041
M8×20	1000614
M8×30	1000368

The serrated nut (similar to ISO 4161) prevents it from loosening.
Material: Stainless steel A2

Type	Item number
M8	1000043
M10	1000042



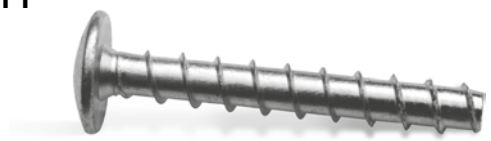
MK2 SLOT NUTS WITH ASSEMBLY CLIP

The MK2 slot nuts can be used at any point on the K2 rails. They automatically lock in place. Subsequently, they can easily be moved about in the rail by pressing them lightly.

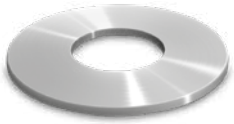
Material:
Stainless steel 1.4301, PA
Item number:
1001643

SCREW ANCHOR, MULTI MONTI

Multi Monti screw anchor (Heco) for fastening to concrete; min. borehole depth 40 mm. Steel surface: galvanised and blue passivated, head diameter 17 mm, nominal bore diameter 6 mm
Material: galvanised steel
Drive: TX 30

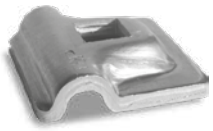


WASHER

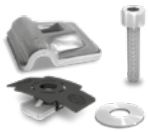
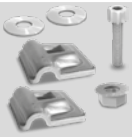


Safety mechanism for installing S-Dome Windbreakers.
Material: Stainless steel A2
Item number: 1000273

LIGHTNING PROTECTION CLAMP MULTI SETS



Lightning protection clamp for clamping lightning protection cables with Ø 8 mm.
For universal use as a T cross, parallel and impact clamps. Material: aluminium

Image	Type	Components	Item number
	**Lightning protection clamp Multi Alu 8 mm Set**	‣ Lightning protection clamp Multi (1003151), aluminium ‣ Slot nut (1001643), stainless steel, PA ‣ Washer (8,4 × 20 × 1.2 mm), stainless steel A2 ‣ Allen Bolt (M8×30), stainless steel A2	1004765
	**Lightning protection clamp 8 mm Double Set**	‣ 2× lightning protection clamps Multi (1003151), Aluminium ‣ Hexagon flange nut with serration M8 (100043); stainless steel A2 ‣ 2× washers (8.4 × 20 × 1.2 mm), stainl. steel A2 ‣ Allen Bolt (M8×40), stainless steel A2	1004766

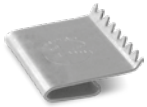
TERRAGRIF EQUIPONTENTIAL BONDING

Potential equalisation between module and rail.
Material: Stainless steel

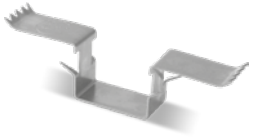
Type	Item number
TerraGrif K2MI Landscape/Portrait	2002649
TerraGrif K2PA 32 Landscape	2000055
TerraGrif U17 Portrait	2000056
TerraGrif K2SZ Landscape/Portrait	2001881

K2MI

K2PA



U17



K2SZ

CABLE CLIPS

Type	Item number
Omega Cable Clip Suitable for CrossRail, SingleRail, SolidRail, S-Rock; 4 cables with Ø 6 mm Material: Polypropylene with UV stabiliser	1005394
Cable Routing Clip Suitable for clamping in module frames with a thickness of 1.5 - 2.5 mm and S-Rock 4 cables with Ø 6 mm Material: Spring steel	2002322
Dome Wire Hanger Suitable for S-Dome and D-Dome 1 cable with Ø 6 mm Material: Stainless steel (1.4310)	2002324

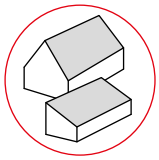
Omega Cable Clip

Cable Routing Clip

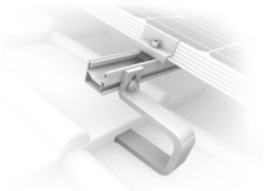
Dome Wire Hanger

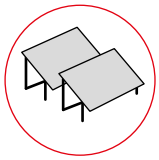
Mounting systems for solar technology

OTHER K2 SYSTEMS

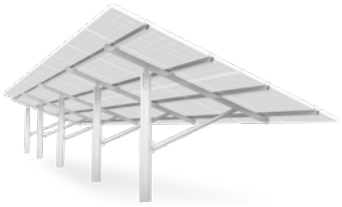


- Pitched roof systems





- Ground mounted systems



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