

## Content



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Dome 6.0 System	6	•	0	•	•	•	0
Dome 6.10 System	8	•	0	•	•	•	0
▶ Dome V System	10	•	0	•	•	•	•
▶ Dome Classic System	12	•	•	•	•	0	0
▶ S-Dome Small System	14	•	•	•	0	0	0
▶ TiltUp Vento System	16	•	0	•	0	0	0
▶ Triangle / MultiAngle System	18	•	•	•	0	0	0
► Accessories	20						
► Notes	25						

<sup>•</sup> Suitable/integrated • Unsuitable/not integrated

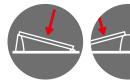
## Warranty

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



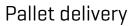
#### Module orientation

We offer flat roof systems with single-sided or double-sided elevations.



## Statics and design loads

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



Many K2 mounting systems are shipped completely as palletised goods.



# **K2** Digital Toolbox

Easy.
Fast. **Safe.** 



#### WITH A FEW STEPS

Simply record the most important parameters on the smartphone with the K2 Check app. The data can be transferred seamlessly via a user account.

You can start planning directly with the key data in K2 Base. After your design, the data is transferred straight forwardly to the DocuApp. For the final documentation, many proofs are recorded, without any further work steps, and everything else is added shortly.

The K2 Digital Toolbox brings you many features, that make your everyday work easier and lead you quickly, easily and paperlessly to your goal.



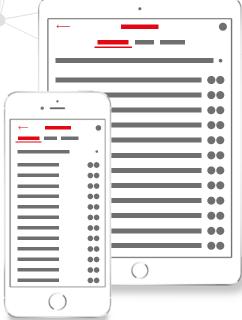
- / Roof Check: Capture all data and important photos on the roof.
- / Smart Pocket Funktion: Access to all projects and Base reports including installation and ballasting plan.
- / Systempreis: Calculate reliable prices directly.
- / Produktkatalog: All assembly systems including technical documentation, videos and references.
- / Free download in Google Play and App Store.

app.k2-systems.com



transfers all entered data to important other planning tools of the inverter manufacturers and to the yield calculation (e.g. from SolarEdge or SMA) with one click. This allows you to shorten your planning times with K2+ and as multiple data entry is no longer necessary.





## BA K2 BASE

- Free planning in 5 easy steps available in many languages.
- / Planning with Google Maps satellite images
- / Graphical drawing tools
- / Optimal static system design including verifiable statics
- / K2+: Simple transfer of project data for further calculation of electrical planning in inverter tools.

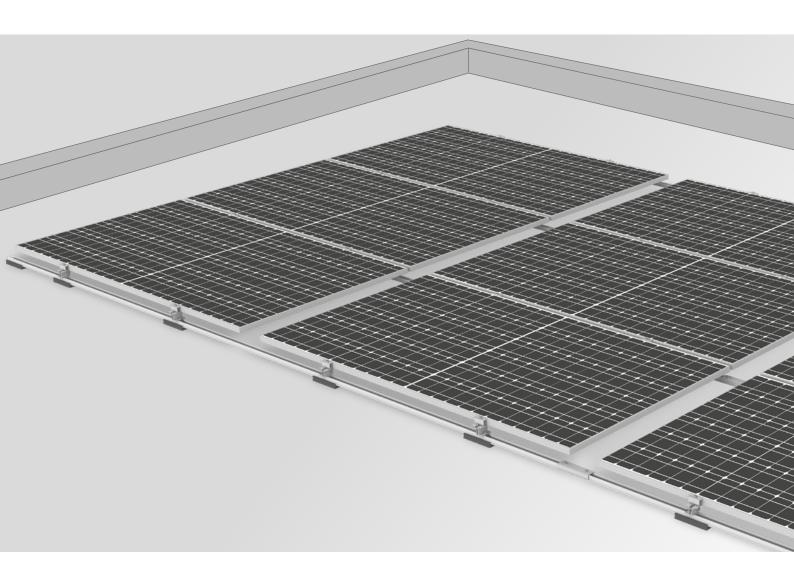
## DO K2 DOCU APP

- Digital tool to automate project documentation project documentation.
- Less paperwork and document everything clearly with an app.
- Take down the attachment directly on your smartphone and have it signed.
- / Automatic dispatch of the project documentation after acceptance.

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## Dome 6.0 System



- / Roof-parallel mounting system for flat roofs with Dome 6 components
- / Suitable for roof pitches up to 10° with typical flat roof coverings
- / Placement in portrait orientation of modules
- / Very flat installation height concealment behind a parapet is possible







## Components



- / Shear soft Mat S made of EPDM
- / Absorbs and compensates for tolerances
- / High coefficients of friction reduce ballast

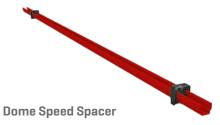


#### Dome 6.0 Peak

- / Modules are fixed at the quarter point of the long module side
- / Use of large modules possible

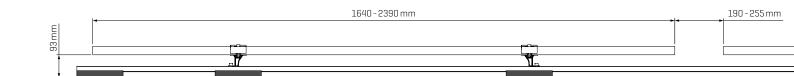


- / Fixed connection for roofs with inclination < 10°
- / Required for roof pitches ≥ 3°
- / Recommended for roofs with low load reserves

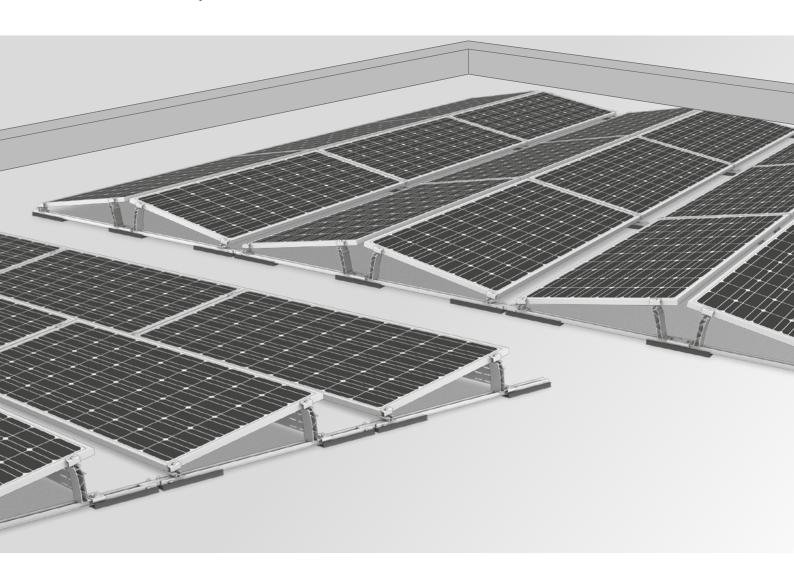


- / Simple alignment of the rails on the roof with the help of the flexible spacing gauge
- / Simply adjust module width and set up rail spacing
- / Suitable for all K2 flat roof systems

	Dome 6.0			
Scope of application	Flat roofs < 10° with foil or bitumen covering, or	Flat roofs < 10° with foil or bitumen covering, on concrete, gravel roofs		
Fastening type/roof fixture	Ballasted and no roof penetration: ≤ 3°.     With fixed connection Dome FixPro: > 3°			
Requirements	<ul> <li>Permissible module dimensions (L×W×H): 164</li> <li>Minimum system size: 2 modules</li> </ul>	<ul> <li>Permissible module dimensions (L×W×H): 1640-2390 × 950-1305 × 30-50mm</li> <li>Minimum system size: 2 modules</li> </ul>		
Thermal separation	max. 12m in rail direction	max. 16m in transverse direction		
Minimum distance to the roof edge	600 mm	600 mm		
Inclination angle	0°	0°		
Material	Peak, Mounting Rail, FlatConnector-Set, SpeedPorter, Porter, MiniClamps: Aluminium EN AW-6063 T66, EN AW-6082 T6, EN AW-5754  Mat S protective mat: EPDM  Small parts: Stainless steel (1.4301) A2-70			



## Dome 6 System



- / 80% pre-assembled and 70% faster to install thanks to improved components
- / Clearly ballast- and component-optimized system due to better friction coefficient of the flexible support pad
- / The handy Dome Speed Spacer distance gauge provides time-saving rail alignment
- / Secure anchoring with fixed connection for roofs < 10° and low load reserves















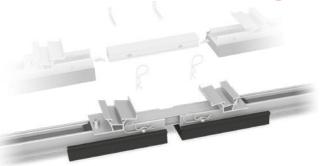
#### Pre-assembled rail sets

- / Rail Base Set completely pre-assembled and click system for Peaks
- / Tool-free assembly without screws
- / Designed for current and future module sizes



#### **Dome Speed Spacer**

- / Simple alignment of the rails on the roof using the flexible spacer template
- / Simply adjust the module length and set the rail spacing
- / Suitable for all K2 flat roof systems



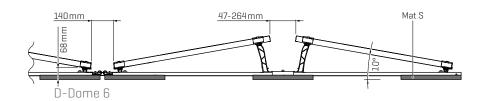
#### RailConnector

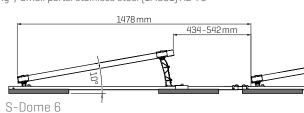
- / Quick and easy rail connector with hitch pin
- / No screw connection necessary
- / Compensates tolerances by means of floating bearings



- / Extends the application possibilities of Dome 6 systems
- / Fixed connection for roofs with inclination < 10°
- / Required for roof pitches ≥ 3°
- / Recommended for roofs with low load reserves

	D-Dome 6		S-Dome 6	
Scope of application	< 10° with single ply me	< 10° with single ply membrane/bituminous roof covering, also on concrete, gravelled or green roofs		
Fastening type/roof fixture		Ballasted and no roof penetration for inclination: < 3° / With fixed connection at inclination with Dome FixPro: > 3°  """  """  """  """  """  """  """		
Requirements	Minimum system size	Minimum system size: 2 supports [4 modules]		
		Permissible module dimensions (L×W×H): 1448-2390 × 950-1170 × 30-50 mm Clamping at the short module side permitted (see k2-systems.com/en/approved-modules-dome-6)		
<b>Technical specifications</b> Rail set Long rail	Base rail max. 16 m max. 12 m	Module row max. 16 m max. 16 m	Base rail max. 15 m max. 12 m	Module row max. 15 m max. 15 m
Minimum distance to the edge of the roof	600 mm	600 mm		
Inclination angle	10°	10°		
Material	Aluminium EN AW-60 • Mat S protective mat:	<ul> <li>Peak, SD, mounting rail, MidPlate, EndPlate, Connector, Porter, MiniClamps:         Aluminium EN AW-6063 T66 and AW-6082 T6</li> <li>Mat S protective mat: EPDM</li> <li>Windbreaker: Steel with Magnelis coating / Small parts: stainless steel (1.4301) A2-70</li> </ul>		





## Dome V System



- / Clearly ballast- and component-optimized system due to better friction coefficient of the flexible support pad
- / Simultaneous assembly of modules and mounting system as well as reduced screw connections ensure faster installation
- / Reduced freight costs due to short short rail sections





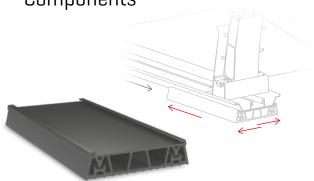












#### Mat V

- / Flexible Mat V made of EPDM only 1 size and 1 variant (no aluminium lamination required)
- / Absorbs strains and compensates for tolerances
- / Lower Friction coefficients reduce ballast requirements



#### Rail mounting rail

- Integrated ballast support almost eliminates the need for additional components
- / Short rails to accommodate the tolerances



#### Dome V elevation

- / Changed geometry and connections to accommodate tolerances
- / Single screw connection and fast screw-in assembly of the SD with fixation via module clamp
- / Low transport volume



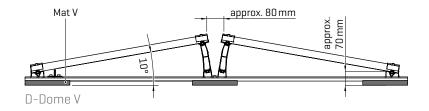


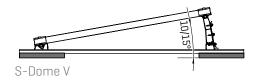


#### Universal module clamps: MiniClamp MC/EC

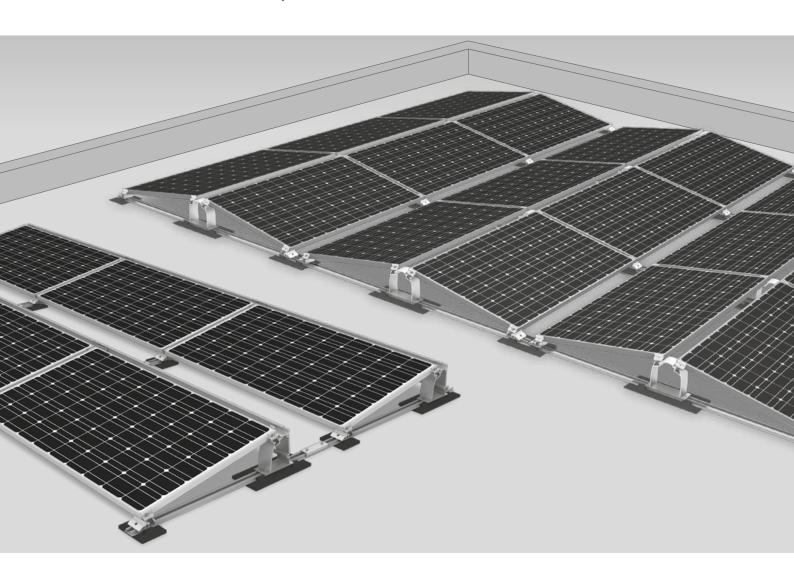
- / Clamping range 30 50 mm
- / Compatible with MiniRail, all Dome V Systems and Dome 6 Systems
- / Optional: Equipotential bonding with TerraGrif possible

	D-Dome V	S-Dome V		
Scope of application	Flat roofs ≤ 5° with single ply membra gravelled or green roofs	Flat roofs ≤ 5° with single ply membrane or bituminous roof covering, also on concrete, gravelled or green roofs		
Fastening type/roof fixture	Ballasted; no roof penetration for incl	ination ≤ 3°		
Requirements	<ul> <li>Permissible module dimensions (L × 1386 – 2100 × 985 – 1053 × 30 – 50m</li> <li>Minimum system size: 2 supports (4</li> </ul>	nm 1550-1760/1880-2100× 950-1053×30-50mm		
	<ul> <li>Clamping in corner areas permitted</li> </ul>	[see k2-systems.com/en/approved-modules]		
Technical specifications		Thermal separation after a maximum of 15.5 m     Minimum distance to the edge of the roof 600 mm		
Inclination angle	10°	10°/15°		
Material	<ul> <li>Windbreaker: Steel with Magnelis co</li> <li>Mat V protective mat: EPDM</li> </ul>	<ul> <li>Mounting rails, Peak, Basic, SD and MiniClamps: Aluminium EN AW-6063 T66 and AW-6082 T6</li> <li>Windbreaker: Steel with Magnelis coating</li> <li>Mat V protective mat: EPDM</li> <li>Small parts: stainless steel (1.4301) A2-70</li> </ul>		





## Dome Classic System



- / A system for statically difficult roofs and special applications
- / Can also be mounted on trapezoidal sheet metal roofs
- / Quick and easy handling





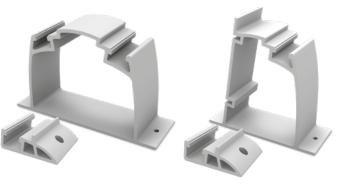








## Components



#### Dome S1000 and Dome SD

Module support elements for one-sided and two-sided elevations



#### **Ballast Management**

SpeedPorter: For quick and easy ballasting



Laminated or unlaminated building protection mats, depending on roof covering material

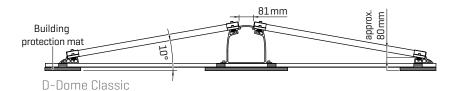


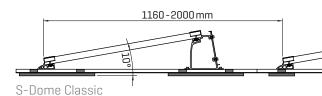
#### Windbreaker for S-Dome elevation

/ Wind deflection on the rear of Dome systems

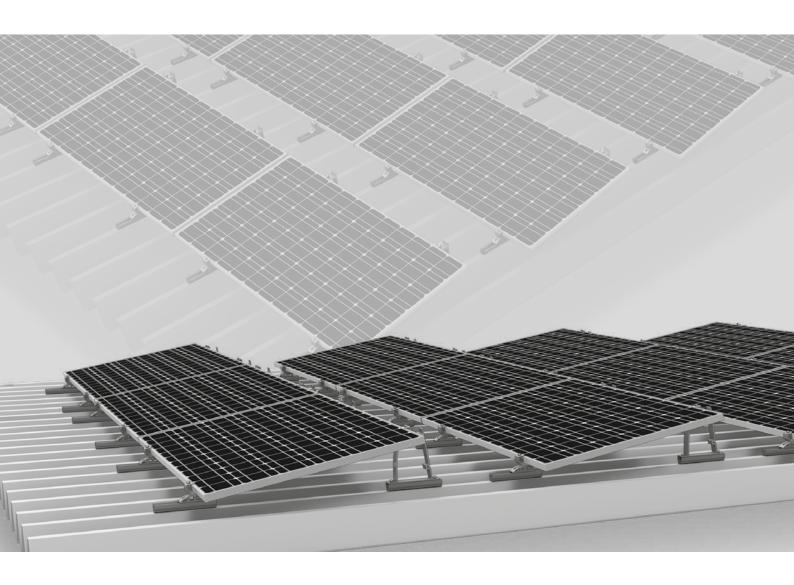
/ Various lengths available

	D-Dome Classic	S-Dome Classic		
Scope of application		Flat roofs ≤ 5° with single ply membrane or bituminous roof covering, also on concrete, gravelled or green roofs; also trapezoidal sheet metal roofs with continuous mounting rails		
Fastening type/roof fixture	Ballasted; no roof penetration for inclination	Ballasted; no roof penetration for inclination ≤ 3°		
Requirements	<ul> <li>Permissible module dimensions (L × W × H): 1386-2300 × 950-1100 × 30-50 mm</li> <li>Minimum system size: 2 supports (4 modules)</li> </ul>	<ul> <li>Permissible module dimensions (L×W×H): 1386-2067×950-1100×30-50 mm</li> <li>Minimum system size: 2 modules</li> </ul>		
	<ul> <li>Module approved for corner clamping (see I</li> </ul>	Module approved for corner clamping (see k2-systems.com/en/approved-modules)		
Technical specifications	Thermal separation after max. 12 m (trapez Minimum clearance to roof edge 600 mm	Thermal separation after max. 12 m [trapezoidal sheet metal 8.7 m]  Minimum clearance to roof edge 600 mm		
Inclination angle	10°	10°		
Material	Aluminium EN AW-6063 T66	Building protection mat with or without aluminium lining (PUR-bound rubber granules)     Windbreaker: Steel with Magnelis coating		





## 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 10° elevations

















Dome S1000 Small

Narrow elevation module support element



#### **Dome SD Small**

Narrow module support element



#### MultiRail 25

/ Length 250 mm

/ With four boreholes for roofs with up to 15° inclination

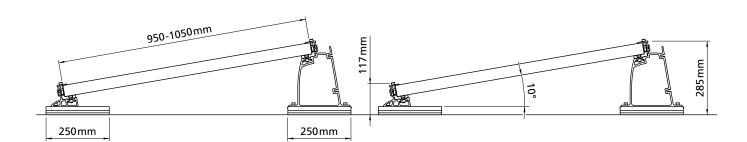


#### FlexClamp Small

/ For clamping on the long side of module

/ Height adjustable

	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: ≥ 0.4 mm steel or ≥ 0.5 mm aluminium 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	<ul> <li>Mounting rails, Dome SD Small, Dome S1000 Small, FlexClamp Small: Aluminium (EN AW-6063 T66/ EN AW-6082 T6); EPDM</li> <li>Small parts: Stainless steel (1.4301) A2</li> </ul>



## TiltUp Vento System



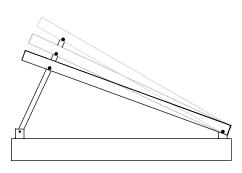
- / 3 different elevation angles: 20°, 25° and 30°.
- / Few components, many different module arrangements and suitable for larger modules
- / Flexible application options on the roof: ballasted with concrete foundation or direct connection with concrete anchors possible





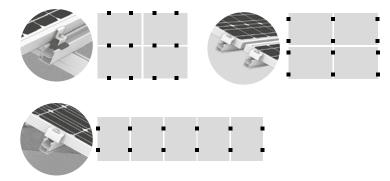


### **Features**



#### 3 different elevation angles

- / All module arrangements in 3 elevation angles available: 20°, 25° and 30°
- / Component connections identical throughout



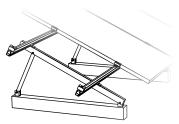
#### Different module layouts

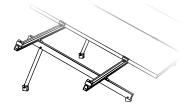
- / Portrait/landscape possible
- / Clamping on the short or long side



#### Few components

- / Refined system with well thought-out connections
- I Enables systemic storage and flexible application possibilities



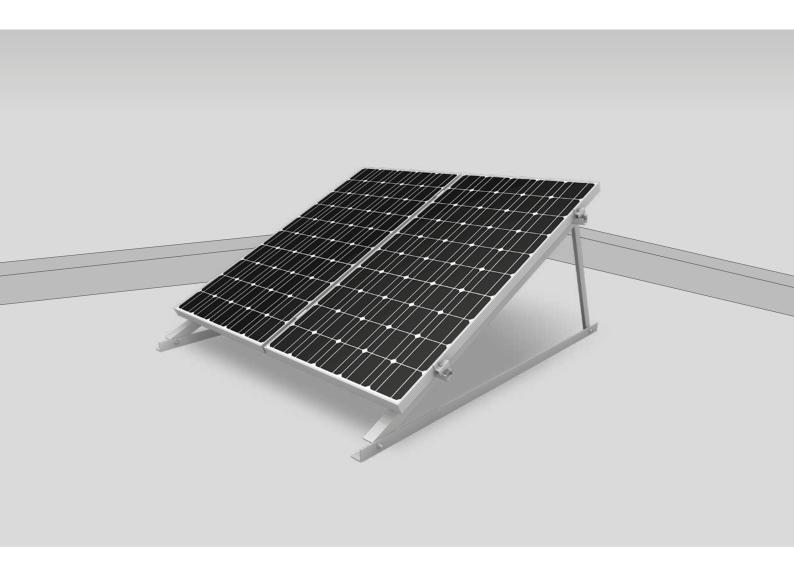


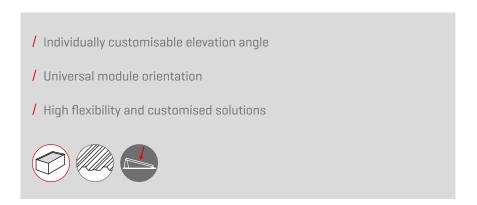
#### Various roof connections

- / Ballasted with concrete foundation: for almost every flat roof
- / Direct connection with concrete anchors possible

	TiltUp Vento
Scope of application	Flat roofs ≤ 3° on concrete, gravelled or green roofs
Fastening type / roof fixture	Ballasted with concrete blocks     Anchor directly into the concrete roof
Requirements	<ul> <li>Permissible module dimensions (L×W): max. 2293×1135 mm</li> <li>Clamping permitted on the short module frame side</li> </ul>
Technical specifications	Thermal separation after a maximum of 15,5 m
Inclination angle	20°/25°/30°
Material	<ul> <li>TiltUp Vento Foot, Beam, Brace, SingleRail 36 or 50, Module clamps, Climber Set 36/50: Aluminium EN AW-6063 T66 and AW-6082 T6</li> <li>AddOn: Glass fibre reinforced PA</li> <li>Small parts: stainless steel [1.4301] A2-70</li> </ul>

## Triangle / MultiAngle System 10 - 45°









## Components



#### **Mounting rails**

/ Triangle: SolidRail/ MultiAngle: SingleRail



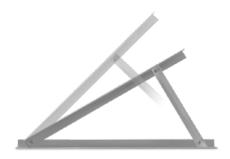
#### Module orientation

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



#### Base assembly

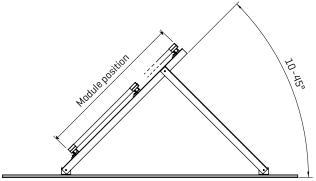
- / Triangle: L-Profile
- / MultiAngle: SpeedRail or L-Profile



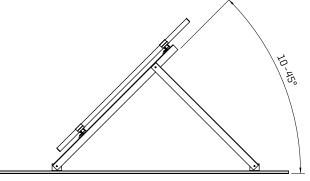
#### Elevation

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

	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	<ul> <li>Mounting rails, module clamps: Aluminium (EN AW-6063 T66 / EN AW-6082 T6)</li> <li>Also suitable for PE plates</li> <li>Small parts: Stainless steel (1.4301) A2</li> </ul>



Module landscape



Module portrait

## Accessories

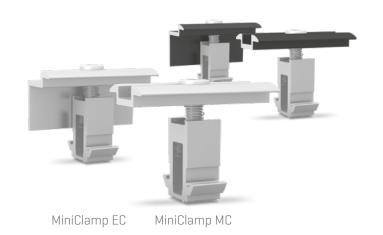
Module clamps	18
Self-tapping screw with sealing washer	20
T-bolt and flange nuts with serration	20
MK2 slot nuts with assembly clip	20
Screw anchor, Multi Monti	20
Washer	20
StairPlate-Set	21
Lightning protection clamp Multi Sets	21
Flat roof cable routing	21
Dome Speed Spacer	22
TerraGrif equipontential bonding	22
Cable Manager	22

## Module clamps

#### MiniClamp MC and EC

For the Dome 6, Dome V, MiniRail and MicroRail systems 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	ltem 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

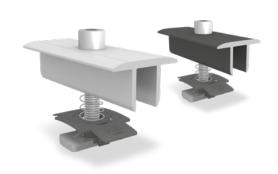
These module clamps are suitable for the most common module frame heights of 30 - 42 mm. Compatible with SingleRail, SpeedRail, MultiRail, SolidRail plus Dome Classic.

Description	Item number
OneMid, middle clamp, aluminium mill finish	2003071
OneMid, middle clamp, black anodised	2003072
OneEnd, end clam, aluminium mill finish	2002514
OneEnd, end clam, black anodised	2002589



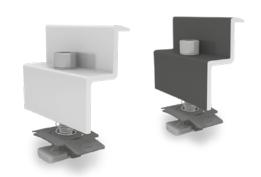
#### Module middle clamps XS

Module frame height / description	ltem 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, black anodised	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	ltem number
30 - 31 mm / M8×30, aluminium mill finish	1005345
30 - 31 mm / M8×30, black anodised	1005347
32-33 mm / M8×30, aluminium mill finish	1005344
32 - 33 mm / M8×30, black anodised	1005346
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



## Accessories

### Self-tapping screw with sealing washer

Thin sheet screw, chip-free; approved for steel/aluminium sheets with a minimum thickness of 0.4/0.5 mm.

Material: Stainless steel A2, EPDM

Туре	ltem 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

Item number
1000637
1000041
1000614
1000368



The serrated nut (similar to ISO 4161) prevents it from loosening.

Material: Stainless steel A2

Туре	ltem 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 or aluminium + PA

Туре	ltem number	7.5
Stainless steel	1001643	
Aluminium	2000034	

### 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



#### Washer

 ${\bf Safety\ mechanism\ for\ installing\ S-Dome\ Windbreakers}.$ 

Material: Stainless steel A2 Item number: 1000273





#### StairPlate-Set

With the K2 StairPlate Set, Micro Inverters and Optimizers from Solar Edge and Enphase can be hooked onto all K2 rails (except K2 MiniRail and MicroRail) without bolting them directly to the roof. The units can be connected to the K2 StairPlate in advance using the screws and nuts included in the set. The height of the modules and the units to be used must be taken into account. Material: Stainless steel

Item number: 2004057



### 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



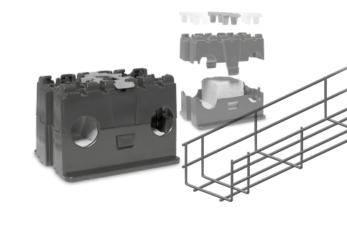
Image	Туре	Components	Item number
	Lightning protection clamp Multi Alu 8 mm Set	Lightning protection clamp Multi (1003151), aluminium Slot nut (1001643), stainless steel, PA Washer (8,4×20×1.2 mm), stainless steel A2 Allen Bolt (M8×30), stainless steel A2	2002473
	Lightning protection clamp 8 mm Double Set	<ul> <li>2× lightning protection clamps Multi (1003151), aluminium</li> <li>Hexagon flange nut with serration M8 (100043); stainless steel A2</li> <li>2× washers (8.4×20×1.2 mm), stainl. steel A2</li> <li>Allen Bolt (M8×40), stainless steel A2</li> </ul>	2002474

### Flat roof cable routing

#### Multifunctionale cable management

The UV-resistant PVX Multimount provides a multifunctional cable management system for mesh tray and/or pipes on flat roofs and is made from 80 % recycled plastic. Compatible grid channel also available in the range. Material: PE and ASA

Туре	Item number
PVX	2003137
Performa Mesh Tray 70 x 100 x 3000 mm	2004054
Performa Mesh Tray Connector	2004055



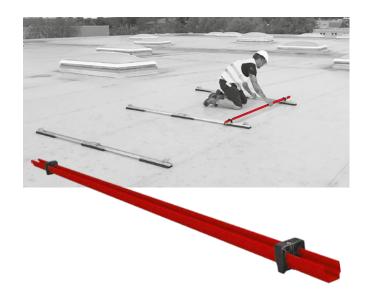
## Accessories

## Dome Speed Spacer

Simple alignment of the rails on the roof with with the help of the flexible spacing gauge. Simply adjust the module length and set up the rail spacing.

Suitable for all K2 flat roof systems

Item number: 2003253



## TerraGrif equipontential bonding

Potential equalisation between module and rail. Material: Stainless steel

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



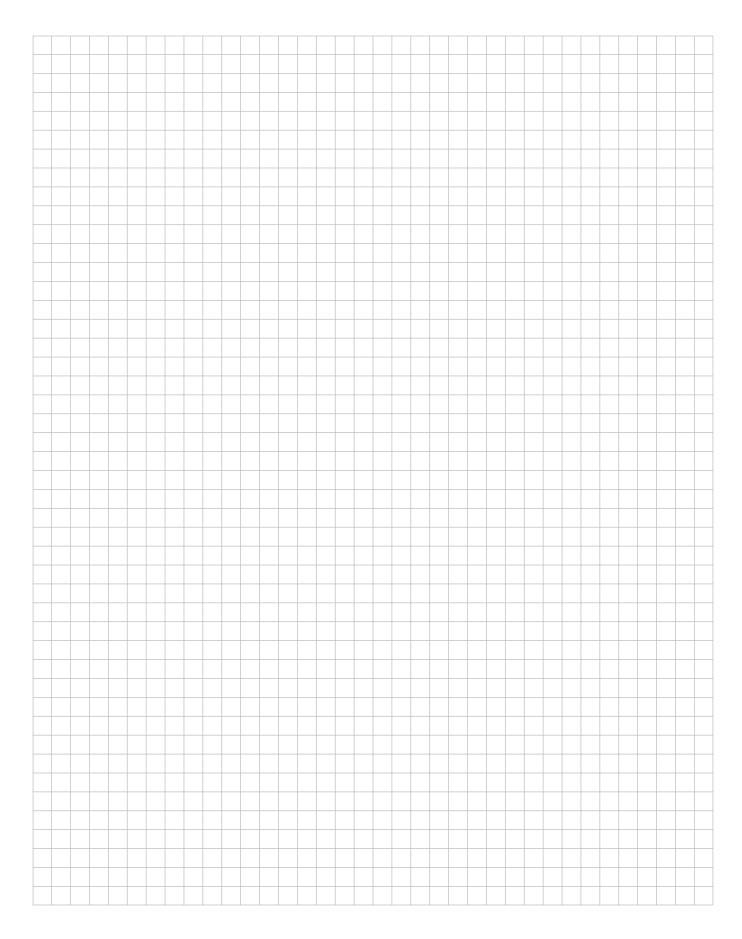
## Cable Manager

Solar Cable Manager with connecting possibility for outdoor-installation L×W: 200×4.6 mm. Item number: 2002870

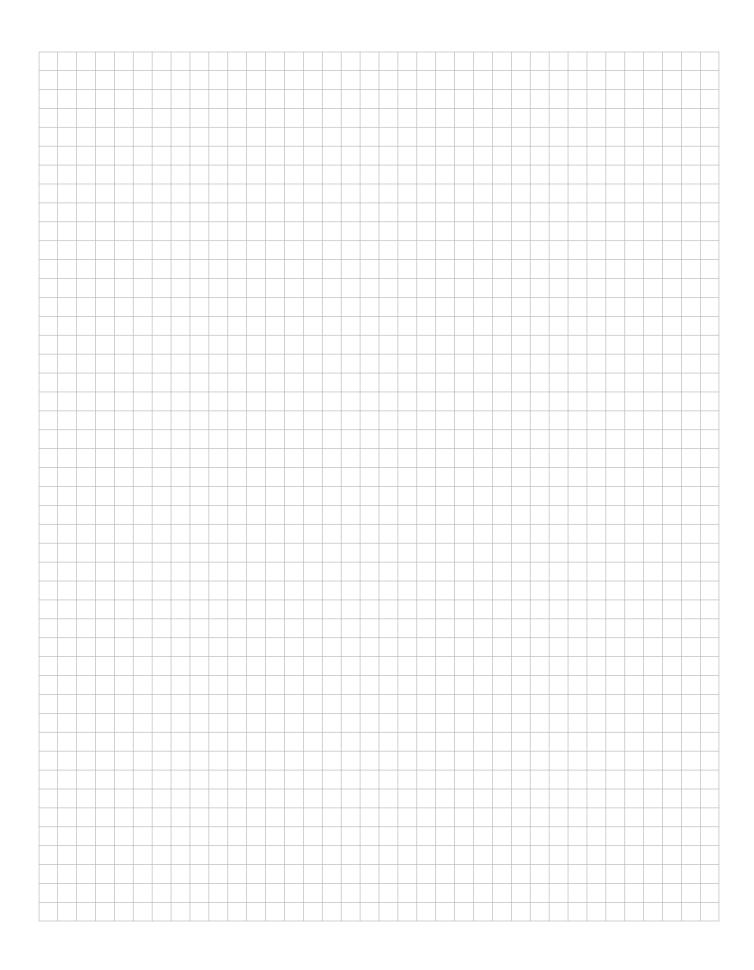


## Notes

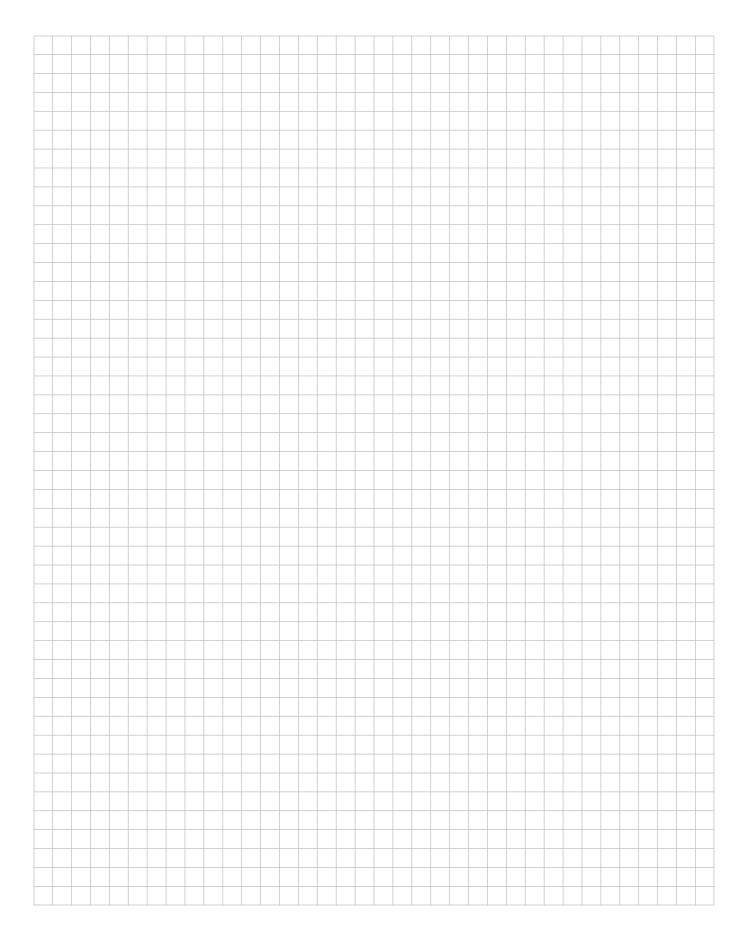




## Notes







## We support PV systems



## Other K2 systems



Pitched roof systems





• Ground mounted systems



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