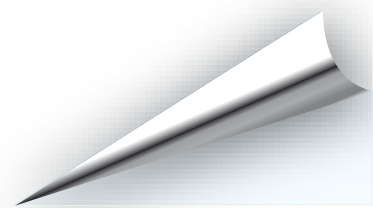


Mounting systems for solar technology



PRICELIST 01/2012  
VALID FROM 01. APRIL 2012

GB





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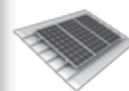
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## SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

## GENERAL



## PARTNER WITH SYSTEM

With sophisticated product ideas and a noticeable customer focus, K2 Systems is the sympathetic partner in the mounting systems for solar technology sector. International customers value our tried and tested designs for use on roofs and walls, as well as ground mounted solutions and individual solutions. K2 mounting systems impress with their appealing design and many well thought out details. High quality materials and a quality-conscious finish guarantee the highest functionality and durability. Our

range is comprised of just a few, perfectly coordinated components. This lowers the cost of materials, simplifies installation and saves time and money. As a young company with branches in Italy and France, we believe in cooperation in a spirit of partnership. In order to endure the dynamic development of our company, we permanently strive to further optimise our product range. The knowledge we gain from personal interaction with our customers also has an influence in this process.



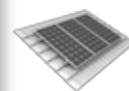


# THE HEART ARE OUR PRODUCTS

Our products are very important to us. They are with us from the initial concept, through the production right up until the final plant manufacturing. Our selection is characterised among other things by a clear product range – an advantage which originates from the modular structure of K2 Systems. Among the five product groups mounting rails, roof fasteners, mounting accessories, connecting elements

and bolted connections are all essential system components. Each of our systems can be combined and used in all location conditions of the respective snow and wind load zones. We use aluminium and stainless steel for most of our components. That guarantees high resistance to corrosion, durability and provides customer satisfaction.

## SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

## GENERAL




## FUNCTION OF THE PRICE LIST

It's not just our systems that are easy to manage, our new price list can now also be navigated quickly.

Our price list is now interactive, so that in future it will be even easier to find out the advantages of our systems and look up product-specific details.

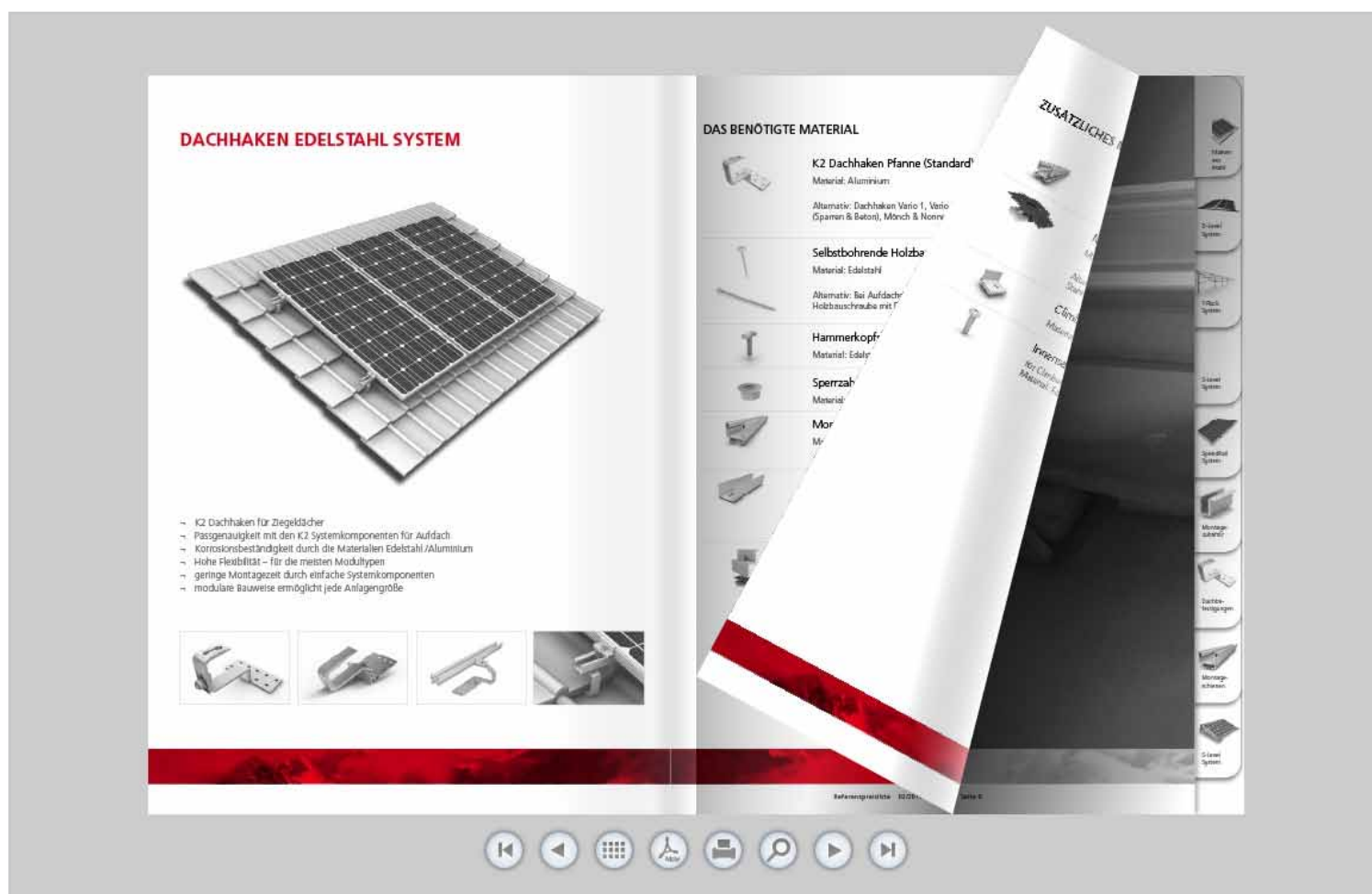
Links have been imbedded in the images and text, providing you with a framework for browsing the items that make up our systems.

When you move the cursor over a text or image, the hand symbol will show you whether a link is available. 



By clicking, you can then go straight to the chosen system or product details. The list on the right will lead you directly to the various categories.

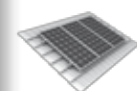
Should you have any questions regarding the price list, please don't hesitate to call our service hotline on +49 7152 3560-0.



Using the toolbar below the price list, various functions can be carried out such as magnification, browsing or searching.

You can also “touch” the corners of the pages to browse the price list.





Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



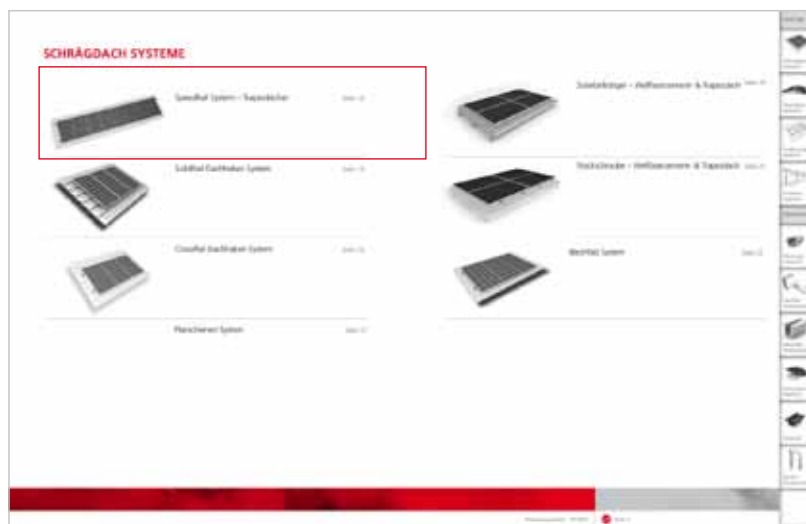
Screws &amp; Nuts



Accessories



System components

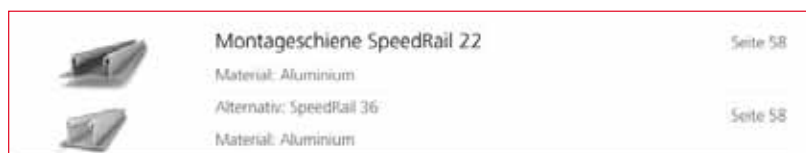


## QUICK + EASY

1. Go to the system overview



2. Click on a system



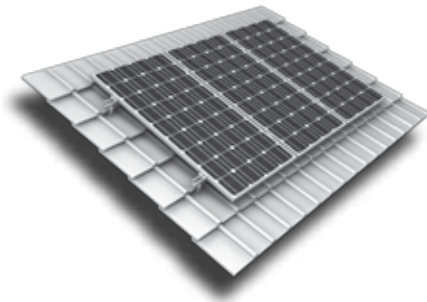
3. Click on an item



-> The item and its alternatives are shown

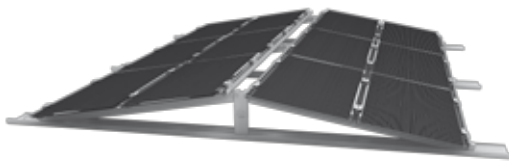


# SYSTEM OVERVIEW



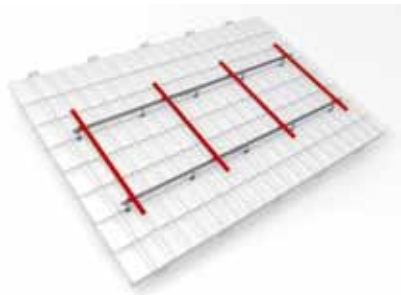
Pitched Roof Systems

Page 10



Flat Roof Systems

Page 26



Supplementary System

Page 34



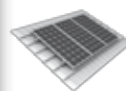
Ground Mounted Systems

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## SYSTEMS



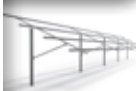
Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

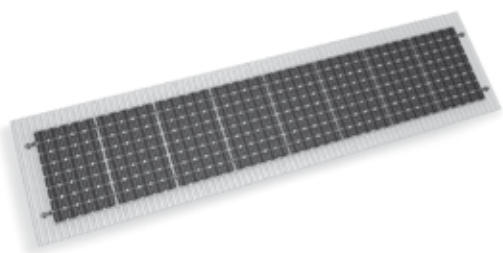


System components

## GENERAL

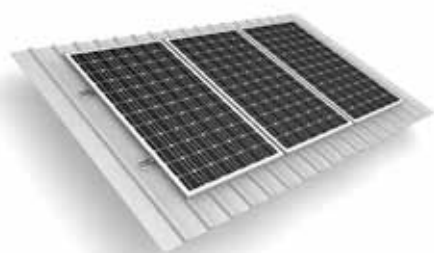


# PITCHED ROOF SYSTEMS



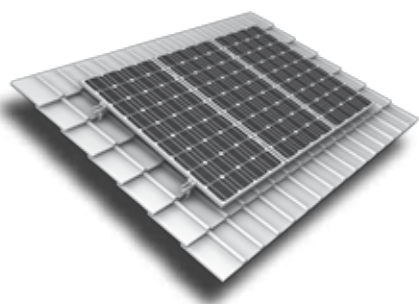
SpeedRail System – trapezoidal metal sheet

Page 12



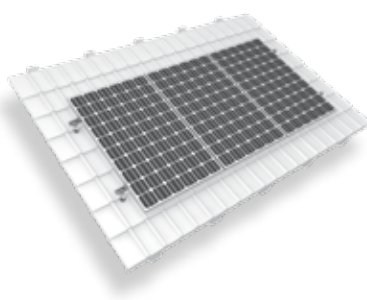
Flat Roof System

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SolidRail Roof fastener System

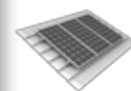
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CrossRail Roof fastener System

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Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws &amp; Nuts

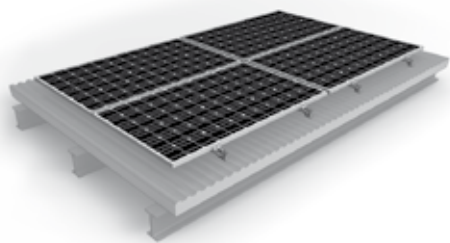


Accessories



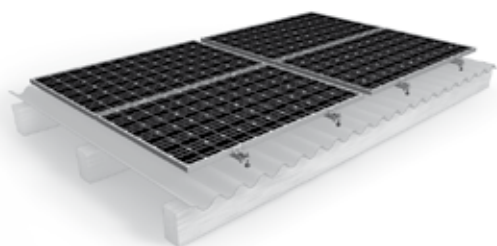
System components

## GENERAL



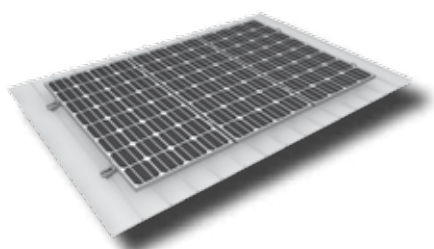
Solar fastener System – corrugated fibre cement roofing &amp; trapezoidal metal sheet

Page 20



Rafter Screw System – corrugated fibre cement roofing &amp; trapezoidal metal sheet

Page 22

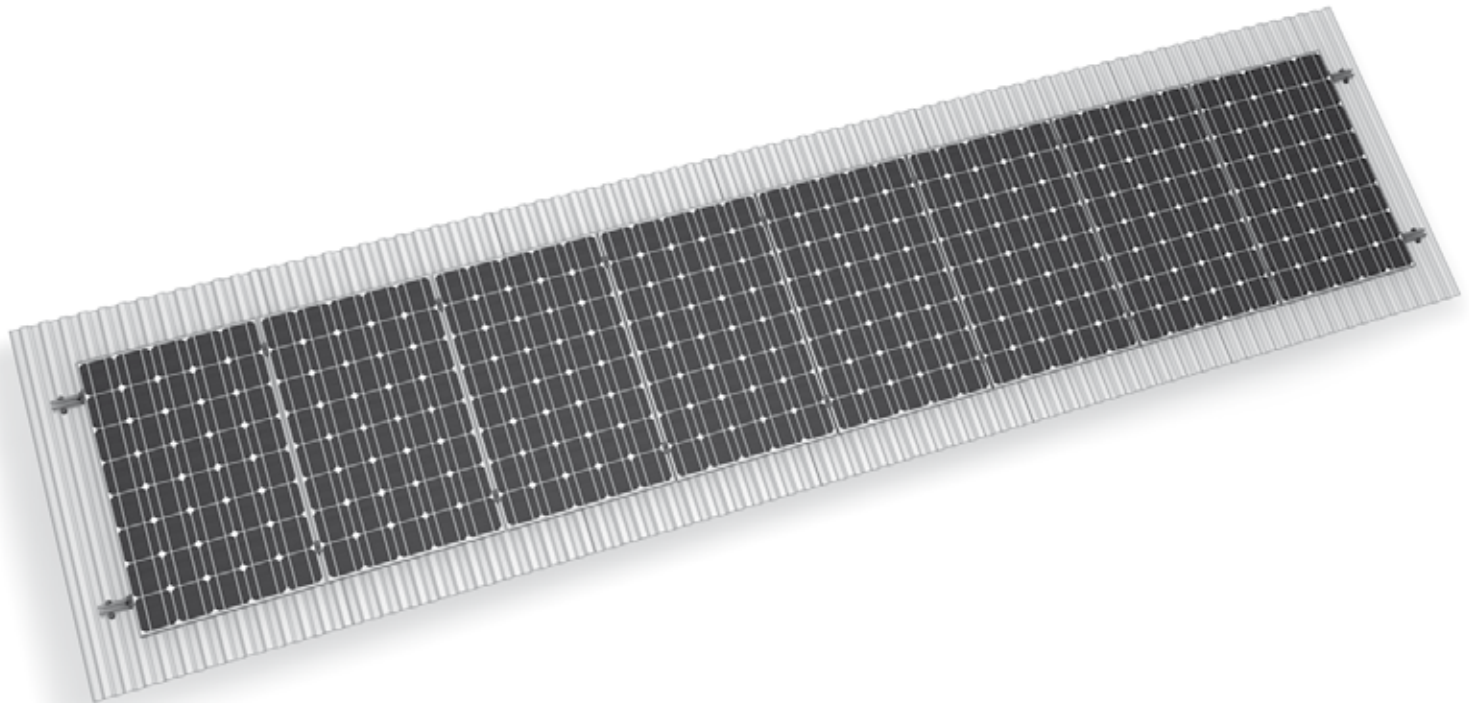


Pitched roof System

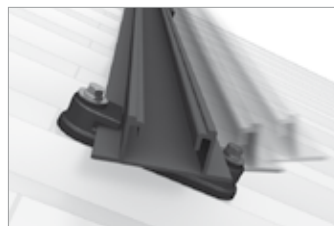
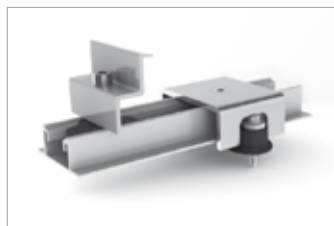
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# SPEEDRAIL SYSTEM

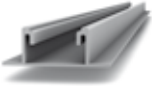










- The K2 SpeedRail system for trapezoidal sheet metal roofs
- Simple and extremely fast assembly from above with the K2 SpeedClip and K2 SpeedLock
- System rails K2 SpeedRail 22, K2 SpeedRail 36
- Very attractive price-performance ratio
- Can also be installed in cross bracing (e.g. with CrossRail)
- General technical approval Z-14.4-603 has been applied for
- CSTB certification for France
- High flexibility - for all module types

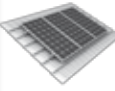




## THE MATERIALS REQUIRED

	<b>Mounting Rail SpeedRail 22</b>	Page 62
	Material: Aluminium	
	Alternatively: SpeedRail 36	Page 62
	Material: Aluminium	
	<b>SpeedClip</b>	Page 62
	Material: Glass fibre reinforced polyamid, EPDM	
	<b>Self-tapping screw with mounted EPDM supported washer</b>	Page 83
	Material: Stainless steel A2, EPDM	
	<b>M K2 slot nut</b>	Page 82
	Material: Stainless steel	
	<b>K2 SpeedConnector Set</b>	Page 62
	Material: Stainless steel, Aluminium	
	<b>SpeedLock Set</b>	Page 63
	Material: Aluminium, Stainless steel	
	<b>Module End Clamp Standard Set</b>	Page 80
	Material: Aluminium	
	<b>Module Middle Clamp Standard Set</b>	Page 76
	Material: Aluminium	
	Alternatively: Module Middle Clamp XS Set	Page 77

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

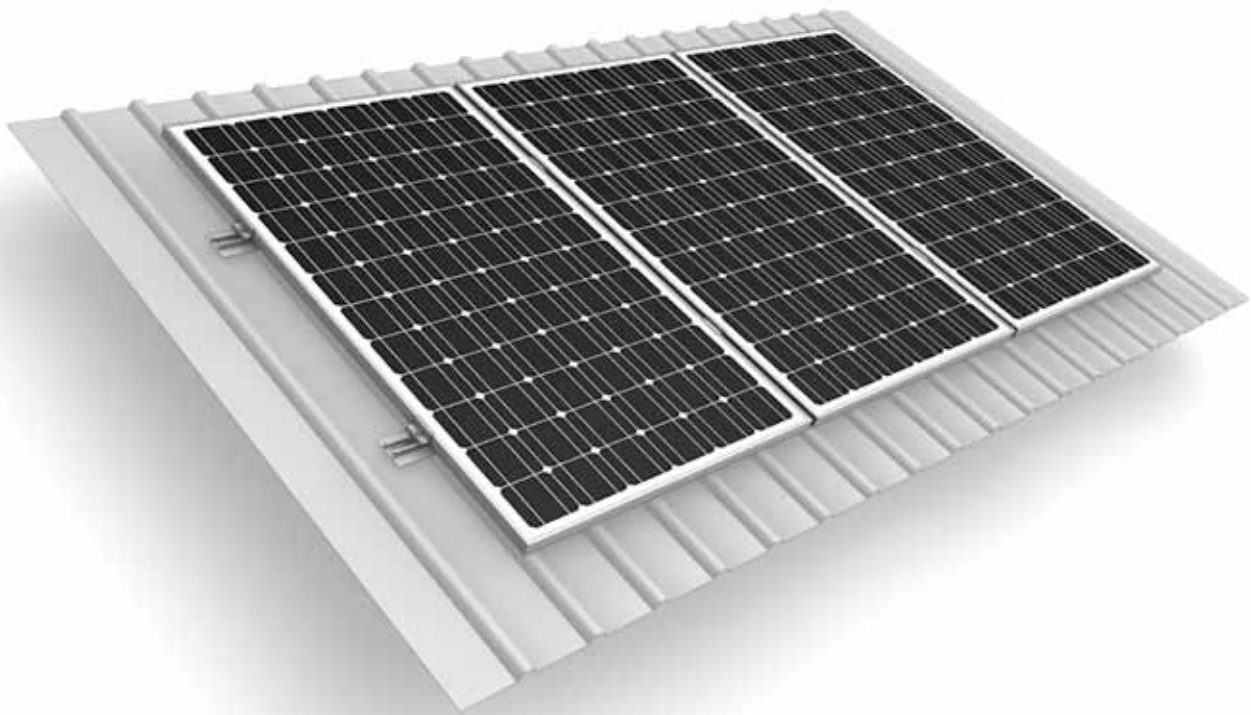


System components

### GENERAL










# FLAT RAIL SYSTEM



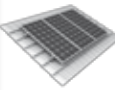
- Mounting system for flat rail on trapezoidal sheet metal roofs
- Quick assembly by fitting or bolting from above
- Very attractive price-performance ratio
- Can also be installed in cross bracing (e.g. with CrossRail) or with mounting grid
- For horizontal and vertical module orientation
- Modular structure suitable for any system size



## THE MATERIALS REQUIRED

	<p><b>Flat Rail 22</b> <span style="float: right;">Page 63</span></p> <p>Material: Aluminium</p> <hr/> <p>Alternatively: SpeedRail <span style="float: right;">Page 62</span></p>
	<p><b>K2 FlatConnector Set</b> <span style="float: right;">Page 63</span></p> <p>Material: Aluminium</p>
	<p><b>EPDM-Sealing strip</b> <span style="float: right;">Page 93</span></p> <p>Material: EPDM</p>
	<p><b>Blind Rivet (Alu-CAP ø 4,8 mushroom-head)</b> <span style="float: right;">Page 87</span></p> <p>Material: Aluminium, Stainless steel</p>
	<p><b>Self-tapping screw with mounted EPDM supported washer</b> <span style="float: right;">Page 83</span></p> <p>Material: Stainless steel A2, EPDM</p>
	<p><b>Module End Clamp Standard Set</b> <span style="float: right;">Page 80</span></p> <p>Material: Aluminium</p>
	<p><b>Module Middle Clamp Standard Set</b> <span style="float: right;">Page 76</span></p> <p>Material: Aluminium</p>

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

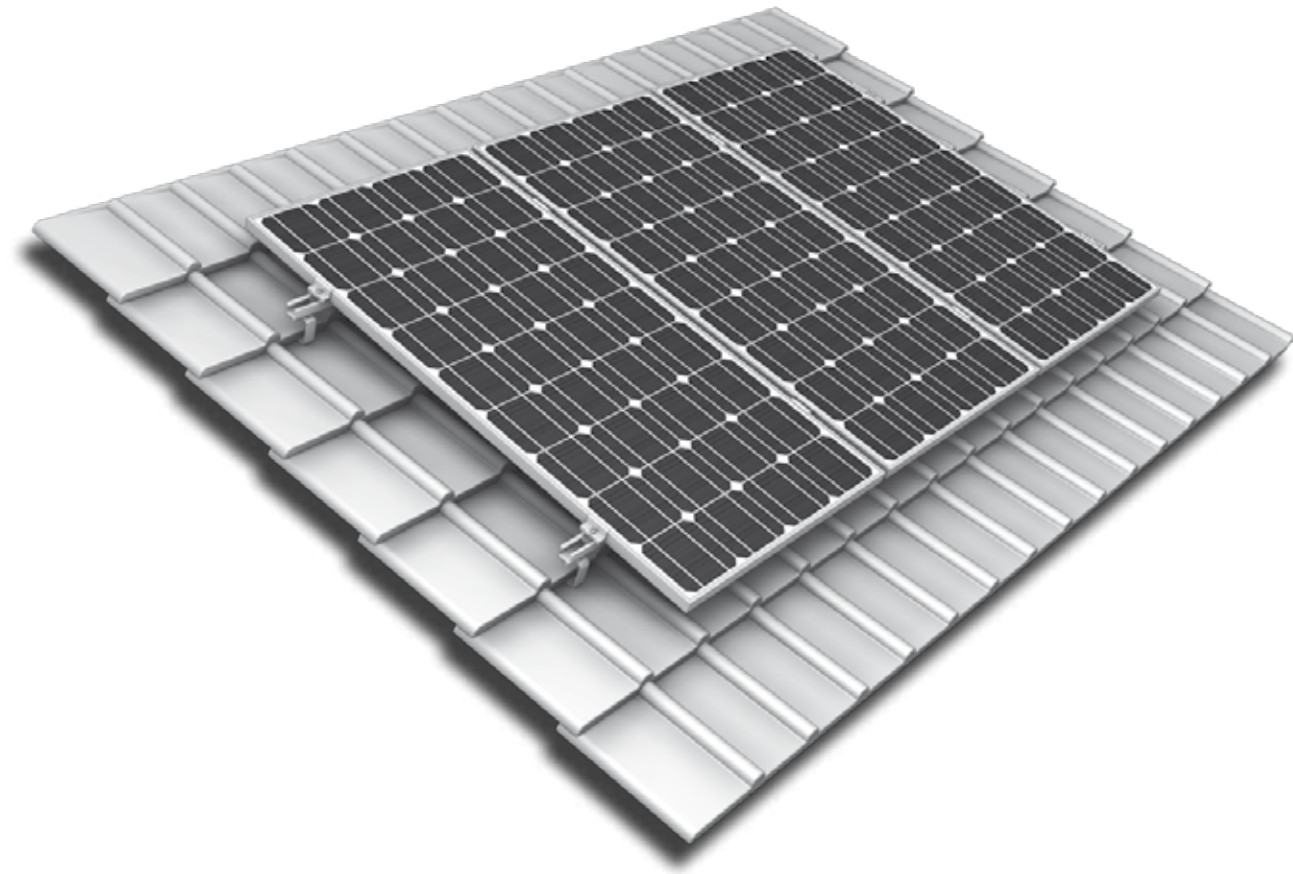


System components

### GENERAL



# STAINLESS STEEL ROOF FASTENER SYSTEM












- K2 roof fasteners for pan tiled roofs
- Geometry optimised for K2 system components
- Excellent resistance to corrosion due to the use of stainless steel
- Highly flexible due to adjustment of height under bracket (depending on type), roof fastener for almost any application
- Short assembly time thanks to simple system components
- Modular structure suitable for any system size
- Can also be installed in cross bracing (e.g. with K2 CrossRail)

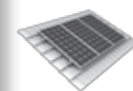




## THE MATERIALS REQUIRED

	<b>Roof Fastener for Pan Tile</b> <span style="float: right;">Page 68</span>
	Material: Stainless steel
	Alternatively: Roof fastener Vario 1, Vario 2, Coppo, Spanish tile roof (rafters or concrete), Spanish tile roof (purlins) <span style="float: right;">Page 69</span>
	<b>Self-drilling timber screw, round</b> <span style="float: right;">Page 82</span>
	Material: Stainless steel
	Alternatively: For roof insulation, a self-drilling timber screw with distance screw is required <span style="float: right;">Page 82</span>
	<b>T-Bolt M10 x 30</b> <span style="float: right;">Page 84</span>
	Material: Stainless steel
	<b>Locking nut M10</b> <span style="float: right;">Page 84</span>
	Material: Stainless steel
	<b>Mounting Rails SolidRail Family</b> <span style="float: right;">Page 58</span>
	Material: Aluminium
	<b>Rail connector Set SolidRail Family</b> <span style="float: right;">Page 59</span>
	Material: Aluminium
	<b>Module End Clamp Standard Set</b> <span style="float: right;">Page 80</span>
	Material: Aluminium
	<b>Module Middle Clamp Standard Set</b> <span style="float: right;">Page 76</span>
	Material: Aluminium
	Alternatively: Module Middle Clamp XS Set <span style="float: right;">Page 77</span>
	<b>K2 EndCap for SolidRail Family</b> <span style="float: right;">Page 59</span>
	Material: glass fibre reinforced polyamid

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

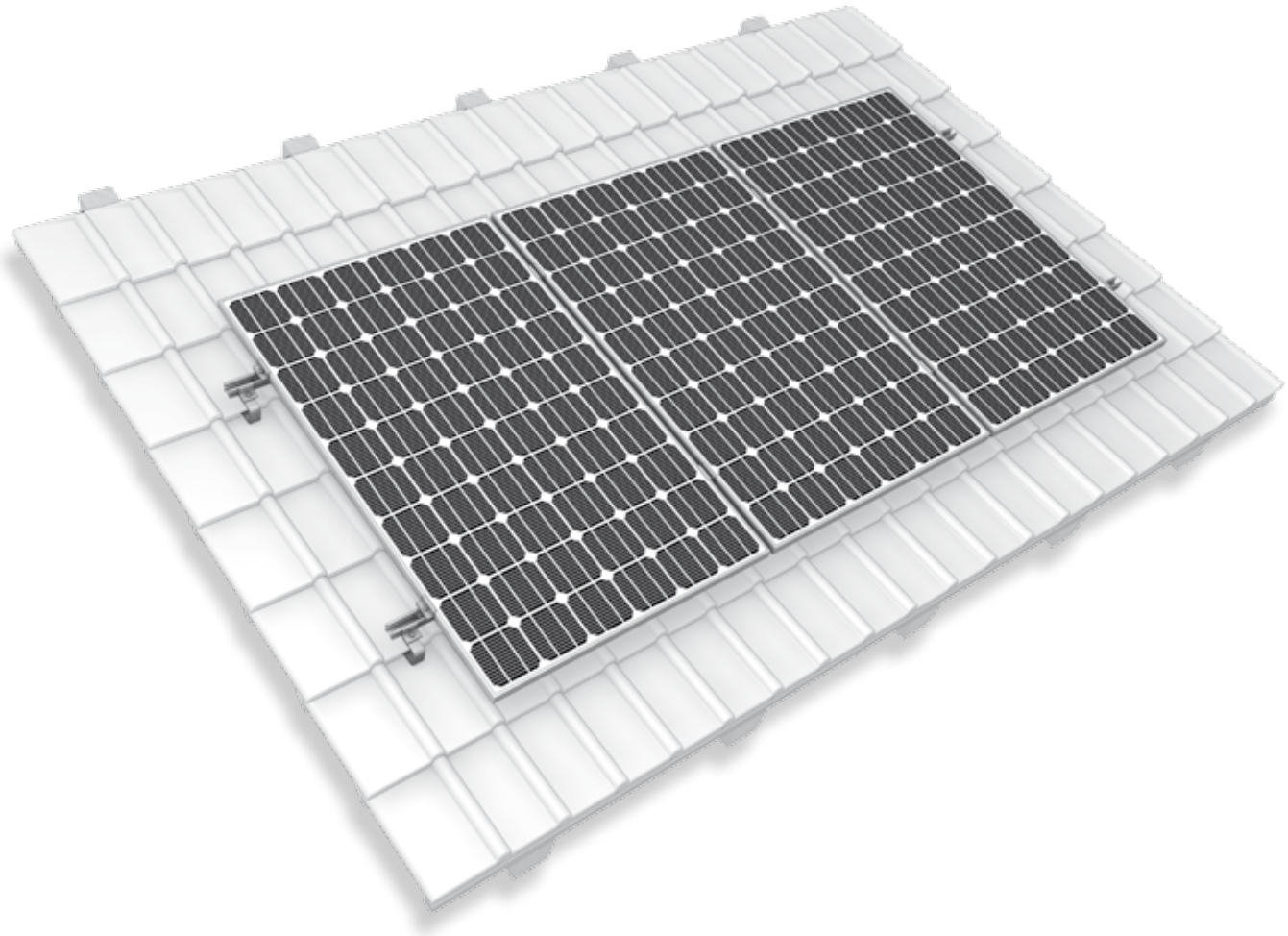


System components

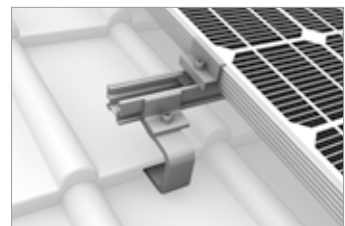
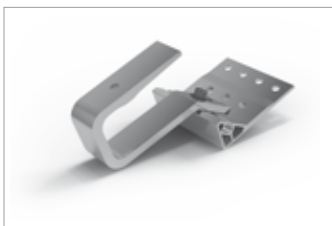
### GENERAL



# ALUMINIUM ROOF FASTENER SYSTEM






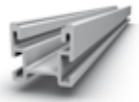







- The light-weight K2 roof fastener for many different types of pan tiled roofs
- Quick installation with only one screw connection from above with K2 Climber and K2 CrossRail
- Sophisticated geometry and targeted use of materials allow for increased span widths at installation
- Optimised for K2 CrossRail and K2 Climber system components
- Excellent resistance to corrosion due to high-quality marine grade T66 aluminium
- High level of flexibility due to adjustability of height under bracket
- Easy to install with simple system components
- Modular structure suitable for any system size
- Can also be installed in cross bracing (e.g. with CrossRail)

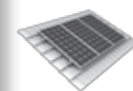




## THE MATERIALS REQUIRED

	<b>CrossHook 1</b> Material: Aluminium	Page 69
	<b>Self-drilling timber screw, round</b> Material: Stainless steel	Page 82
	Alternatively: For roof insulation, a self-drilling timber screw with distance screw is required	Page 82
	<b>Climber 36/48 (with long slot) Set</b> Material: Aluminium	Page 67
	<b>Allen bolt DIN 912 M8</b> Material: Stainless steel, SW: 18 mm	Page 85
	<b>Mounting Rails CrossRail Family</b> Material: Aluminium	Page 65
	<b>Rail connector Set CrossRail Family</b> Material: Aluminium	Page 65
	<b>Module End Clamp Standard Set</b> Material: Aluminium	Page 80
	<b>Module Middle Clamp Standard Set</b> Material: Aluminium	Page 76
	Alternatively: Module Middle Clamp XS Set	Page 77
	<b>K2 Pad Spacer</b> Material: glass fibre reinforced polyamid	Page 88
	<b>K2 EndCap für CrossRail Family</b> Material: glass fibre reinforced polyamid	Page 64

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

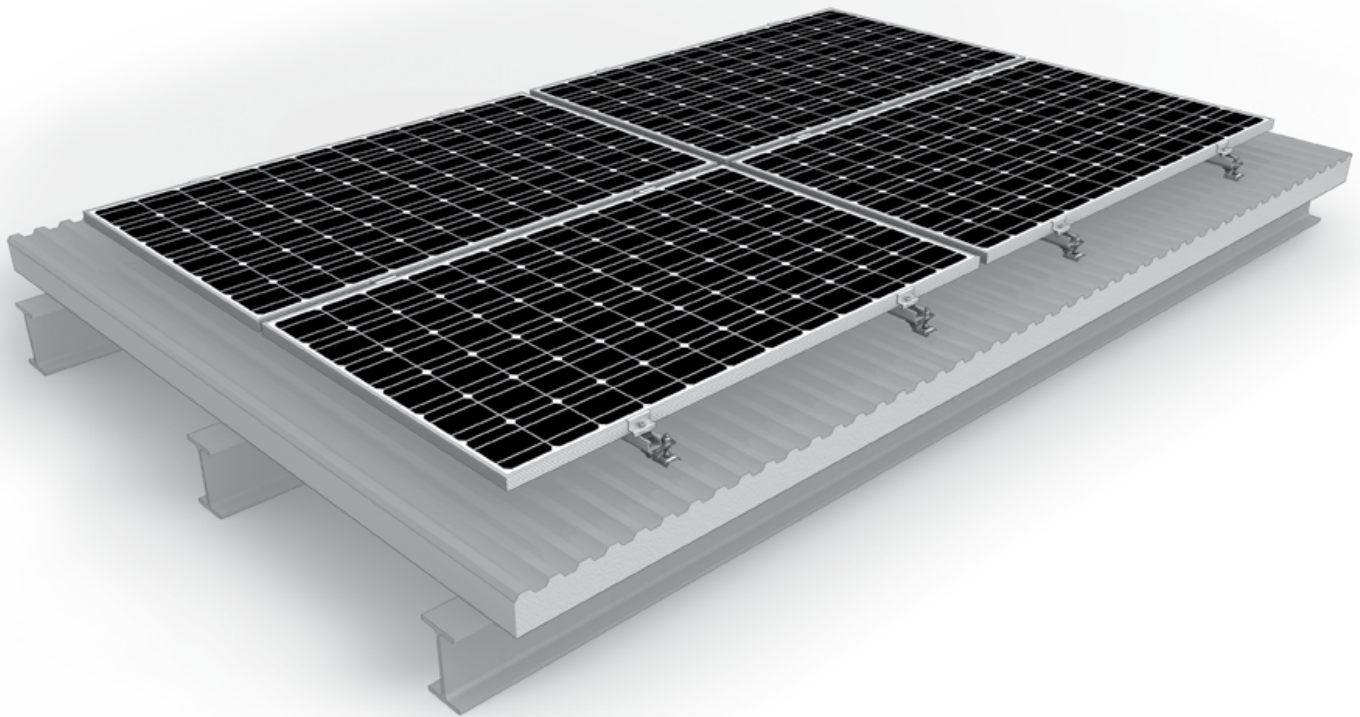


System components

### GENERAL



# SOLAR FASTENER SYSTEM












- For roofs with steel or aluminium profile or fibre cement roofing
- Screw head with hexagon drive allows for assembly with electric screwdriver
- Extra-long metric thread for height adjustment
- Assembly using K2 adapter plate
- Elongated hole enables easy connection by T-bolt to the K2 Solid Rail or K2 CrossRail range
- All components made of high-quality stainless steel and aluminium, sealing element made of high quality EPDM
- Greater span widths possible by mounting with K2 Bridge
- Includes technical approval
- Modular structure suitable for any system size

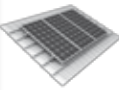




## THE MATERIALS REQUIRED

	<b>Solar fastener</b> Material: Stainless steel	Page 72
	<b>Adapter plate</b> Material: Stainless steel	Page 92
	<b>K2 Bridge</b> Material: Aluminium	Page 90
	<b>Mounting Rails SolidRail Family</b> UltraLight, Light, Medium oder Alpin Material: Aluminium	Page 58
	<b>Module End Clamp Standard Set</b> Material: Aluminium	Page 80
	<b>Module Middle Clamp Standard Set</b> Material: Aluminium Alternatively: Module Middle Clamp XS Set	Page 76 Page 77
	<b>T-Bolt M10 x 30</b> Material: Stainless steel	Page 84
	<b>Locking nut M10</b> Material: Stainless steel, Drive: SW 18 mm	Page 84
	<b>K2 EndCap for SolidRail Family</b> Material: glass fibre reinforced polyamid	Page 59

### SYSTEMS



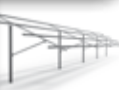
Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

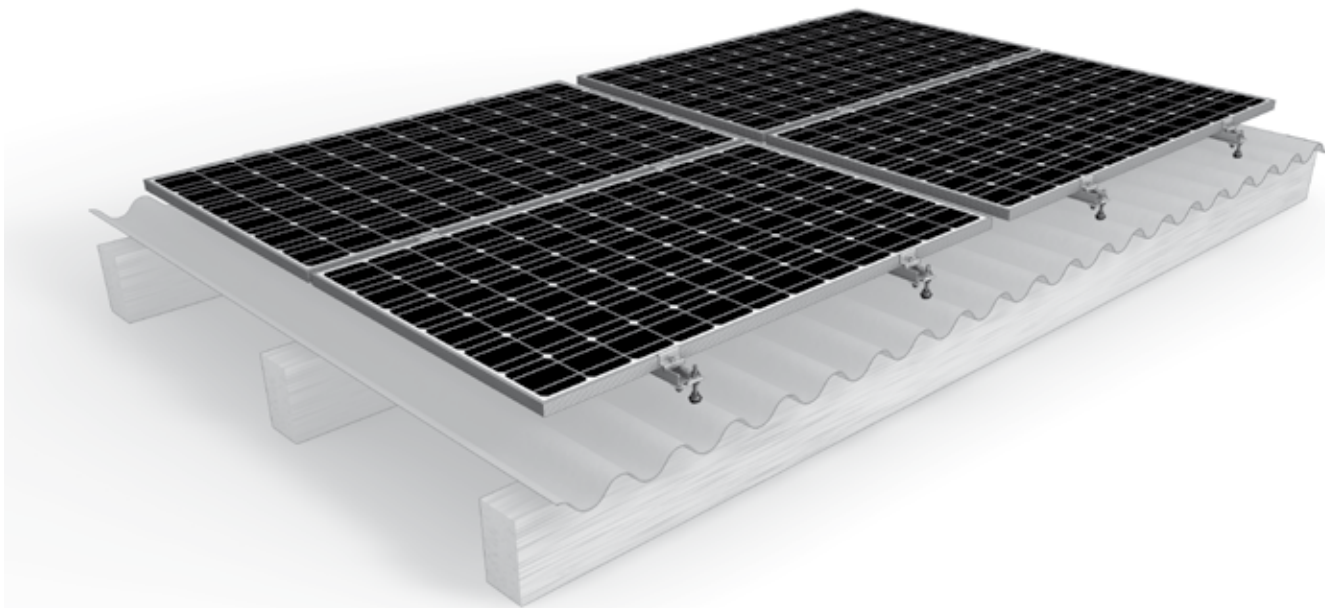


System components

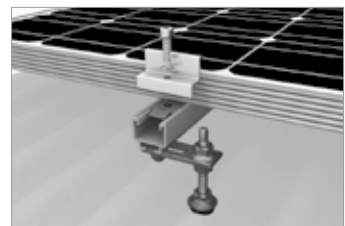
### GENERAL



# HANGER BOLT SYSTEM



- ↪ For roofs with corrugated fibre cement roofing
- ↪ Pre-assembled with adapter plate for time-saving assembly
- ↪ Elongated hole enables easy connection by T-bolt to the K2 Solid Rail range
- ↪ Screw head with hexagon drive allows for assembly with electric screwdriver
- ↪ Extra-long metric thread for height adjustment
- ↪ All components made of high-quality stainless steel and aluminium, sealing element made of high quality EPDM
- ↪ Greater span widths possible by mounting with K2 Bridge





## THE MATERIALS REQUIRED



### Hanger Bolt, pre-assembled

Material: Stainless steel, EPDM

Page 71



### K2 Bridge

Material: Aluminium

Page 90



### Mounting Rail SolidRail Family

Material: Aluminium

Page 58



### Module End Clamp Standard Set

Material: Aluminium

Page 80



### Module Middle Clamp Standard Set

Material: Aluminium

Page 76

Alternatively: Module Middle Clamp XS Set

Page 77



### T-Bolt M10 x 30

Material: Stainless steel

Page 84

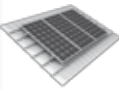


### Locking nut M8

Material: Stainless steel, Drive: SW 18mm

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#### SYSTEMS



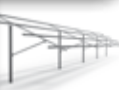
Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

#### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

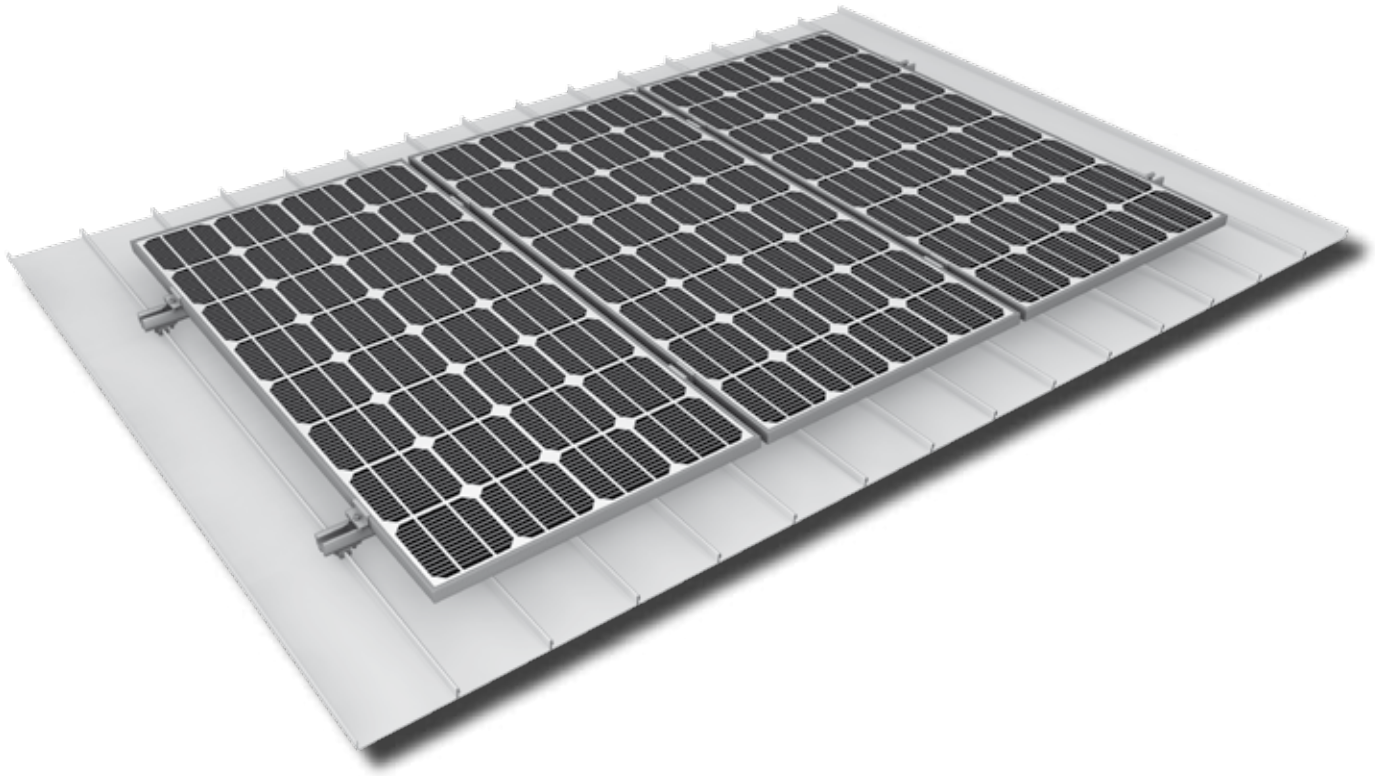


System components

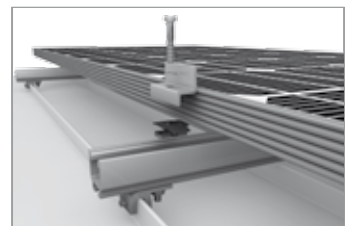
#### GENERAL



# PITCHED ROOF SYSTEM










- ↪ For roofs with different profiled seamed metal roofing
- ↪ Fastening with clamps below the seam joint
- ↪ No roof penetration required
- ↪ Strong holding forces
- ↪ Easy and flexible assembly
- ↪ Connection with the K2 SolidRail range of rails
- ↪ Can also be installed in cross bracing (e.g. with CrossRail)
- ↪ Clamps available in stainless steel or aluminium  
(Clamps in other materials for different roof types on request)
- ↪ Modular structure suitable for any system size

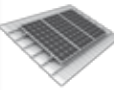




## THE MATERIALS REQUIRED

	<b>Clamps</b> Material: Aluminium/Stainless steel	Page 75
	<b>Mounting Rails SolidRail Family</b> Material: Aluminium	Page 58
	<b>Rail connector Set SolidRail Family</b> Material: Aluminium	Page 59
	<b>T-Bolt M10 x 30</b> Material: Stainless steel	Page 84
	<b>Locking nut M8</b> Material: Stainless steel, Drive: SW 18 mm	Page 84
	<b>Module End Clamp Standard Set</b> Material: Aluminium	Page 80
	<b>Module Middle Clamp Standard Set</b> Material: Aluminium	Page 76

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

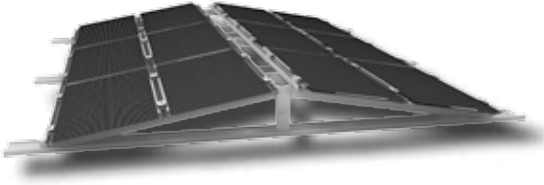
### GENERAL



# FLAT ROOF SYSTEMS

D-Level System

Page 26



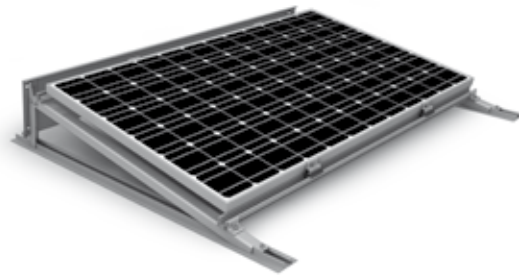
S-Level System

Page 28



S-Level System 2.11

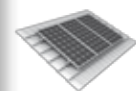
Page 30







SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

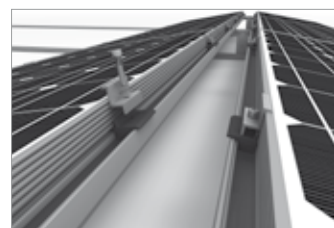
GENERAL



## D-LEVEL SYSTEM

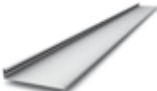






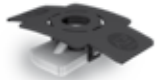






- For roofs with low ballast potential, with or without attic
- Ideal roof layout due to minimal shading spaces, producing a high return on equity
- Tested in wind tunnel by leading aerodynamic engineers
- Installation-friendly thanks to partially pre-assembled components and fittings from above
- K2 LevelRail as base
- Also available: K2 building protection mats, especially coated for secure and durable roof support on virtually all film roofs
- Modular structure suitable for any system size



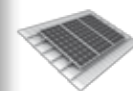


## THE MATERIALS REQUIRED

	<b>LevelRail</b> Material: Aluminium	Page 61
	<b>Rail connector LevelRail</b> Material: Aluminium	Page 61
	<b>T-Bolt M10 x 20, M10 x 30</b> Material: Stainless steel	Page 84
	<b>Locking nut M8 &amp; M10</b> Material: Stainless steel	Page 84
	<b>D-Level Flatroof Set</b> Material: Aluminium	Page 96
	<b>Mounting Rail SolidRail Light</b> Material: Aluminium	Page 58
	<b>Rail connector Set SolidRail Light</b> Material: Aluminium	Page 59
	<b>M K2 slot nut</b> Material: Stainless steel, Plastic	Page 82
	<b>AddOn</b> Material: glass fibre reinforced polyamid	Page 88
	<b>Module End Clamp Standard</b> Material: Aluminium	Page 79
	Alternatively: Underlay plate	Page 92
	<b>Allen bolt DIN 912 M8</b> Material: Stainless steel, SW: 18 mm	Page 85
	<b>Lock washer DIN EN 10151</b> Material: Stainless steel	Page 85

Also suited for thin-film modules.

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

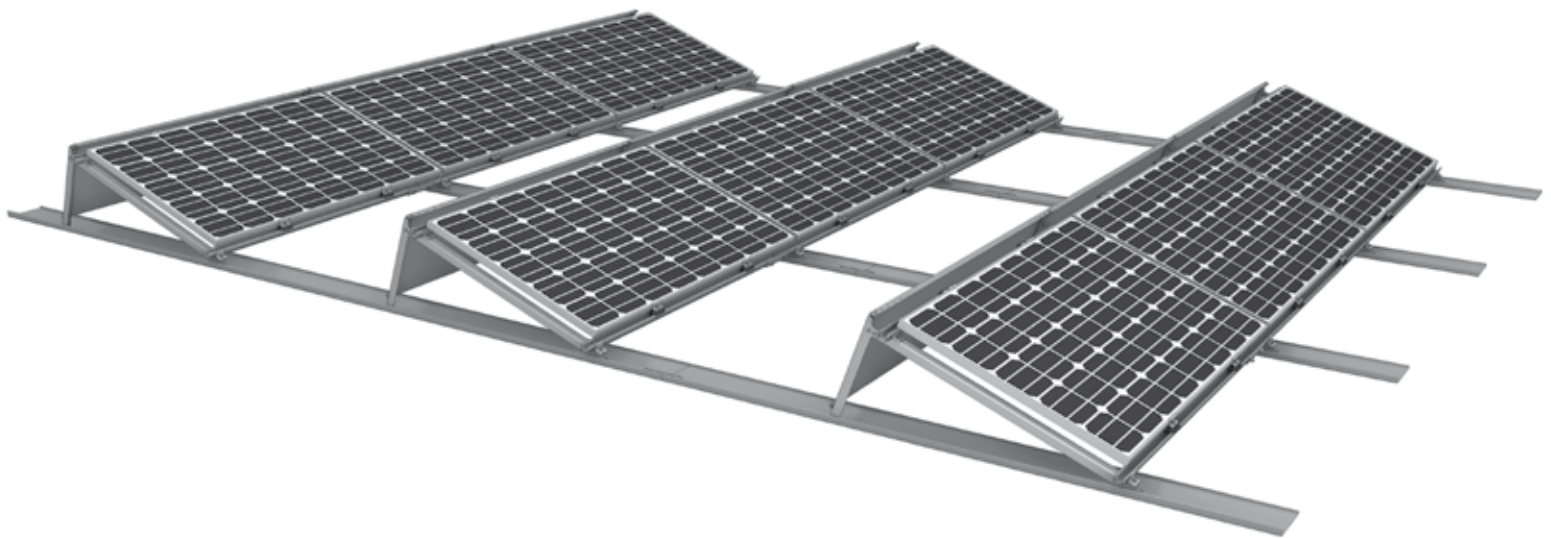


System components

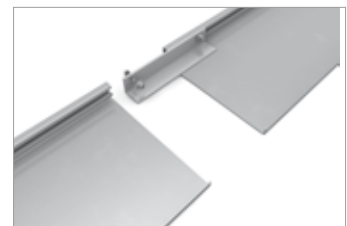
### GENERAL



# S-LEVEL SYSTEM

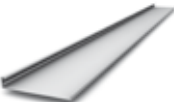


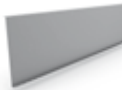










- ↪ For roofs with limited ballasting options, south facing
- ↪ Optimum roof utilisation thanks to minimum shade spacing
- ↪ Based on the new K2 LevelRail
- ↪ Elevation of 20° for low wind loads
- ↪ Aerodynamic design with rear-mounted windbreaker;  
System wind tunnel tested by leading structure aerodynamics technicians
- ↪ Easy to assemble, simple K2 Systems installation
- ↪ For module types 789 - 817 mm and 982 - 1001 mm
- ↪ Made with high grade materials: Aluminum, galvanised steel

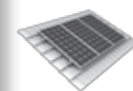




## THE MATERIALS REQUIRED

	<b>LevelRail</b> Material: Aluminium	Page 61
	<b>Rail connector Set LevelRail</b> Material: Galvanized steel	Page 61
	<b>S-Level Set</b> Material: Aluminium	Page 96
	<b>S-Level Windbreaker</b> Material: Aluminium	Page 97
	<b>Mounting Rail CrossRail 36</b> Material: Aluminium	Page 64
	<b>Rail connector Set CrossRail 36</b> Material: Aluminium	Page 64
	<b>Module End Clamp Standard</b> Material: Aluminium	Page 79
	<b>AddOn</b> Material: glass fibre reinforced polyamid	Page 88
	<b>M K2 slot nut</b> Material: Stainless steel, Plastic	Page 82
	<b>Allen bolt DIN 912 M8</b> Material: Stainless steel, SW: 18 mm	Page 85
	<b>Locking nut M8</b> Material: Stainless steel, Drive: SW 13	Page 84
	<b>Lock washer DIN EN 10151</b> Material: Stainless steel	Page 85

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

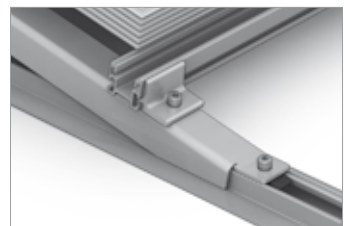
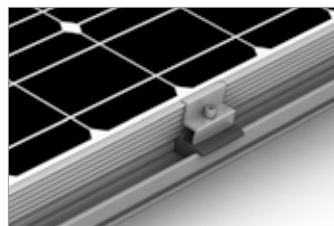
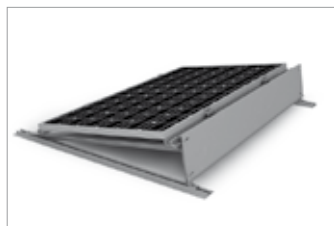
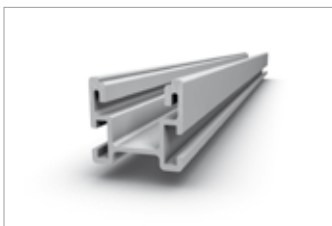
### GENERAL



## S-LEVEL SYSTEM 2.11





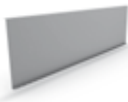
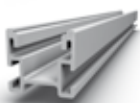










- Low ballast on-roof system with south orientation
- For roofs with low ballast potential
- Used on roofs with or without parapet
- Available with 20 °elevation angle
- Installation-friendly thanks to partially pre-assembled components and screw connections from above
- Option of K2 flat rail or K2 SpeedRail as base
- Aerodynamically optimised with wind breaker on reverse enabling low ballast
- K2 building protection mats, specially coated for secure and durable roof overlay on virtually all membrane roofs
- K2 Scale for installation of ballast
- Modular structure suitable for any system size

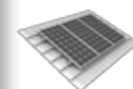




## THE MATERIALS REQUIRED

	<b>Flat Rail 22</b> Material: Aluminium	Page 63
	Alternatively: SpeedRail	Page 62
	<b>K2 FlatConnector Set</b> Material: Aluminium	Page 63
	<b>Solar building protection mat</b> Material: PUR bound rubber granules with laminated with Alu-Triplex foil	Page 90
	<b>S-Level Set pre-assembled</b> Material: Aluminium	Page 96
	<b>S-Level Windbreaker</b> Material: Aluminium	Page 97
	<b>Mounting Rail CrossRail 36</b> Material: Aluminium	Page 64
	<b>Rail connector Set CrossRail 36</b> Material: Aluminium	Page 64
	<b>Module End Clamp Standard</b> Material: Aluminium	Page 79
	<b>AddOn</b> Material: glass fibre reinforced polyamid	Page 88
	<b>M K2 slot nut</b> Material: Stainless steel, Plastic	Page 82
	<b>Allen bolt DIN 912 M8</b> Material: Stainless steel, SW: 18 mm	Page 85
	<b>Locking nut M8</b> Material: Stainless steel	Page 84
	<b>Lock washer DIN EN 10151</b> Material: Stainless steel	Page 85
	<b>Optional: K2 Scale</b> Material: Aluminium	Page 97

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

### GENERAL



# SUPPLEMENTARY SYSTEM



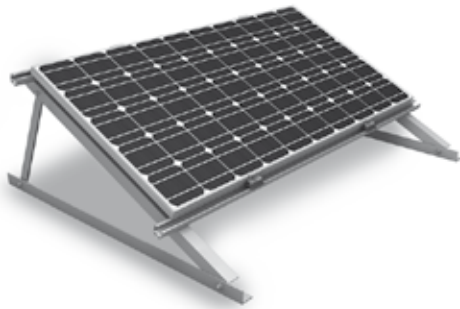
Cross Bracing with CrossRail

Page 36



Triangle System

Page 38



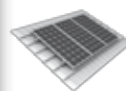
AddOn System

Page 40





## SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

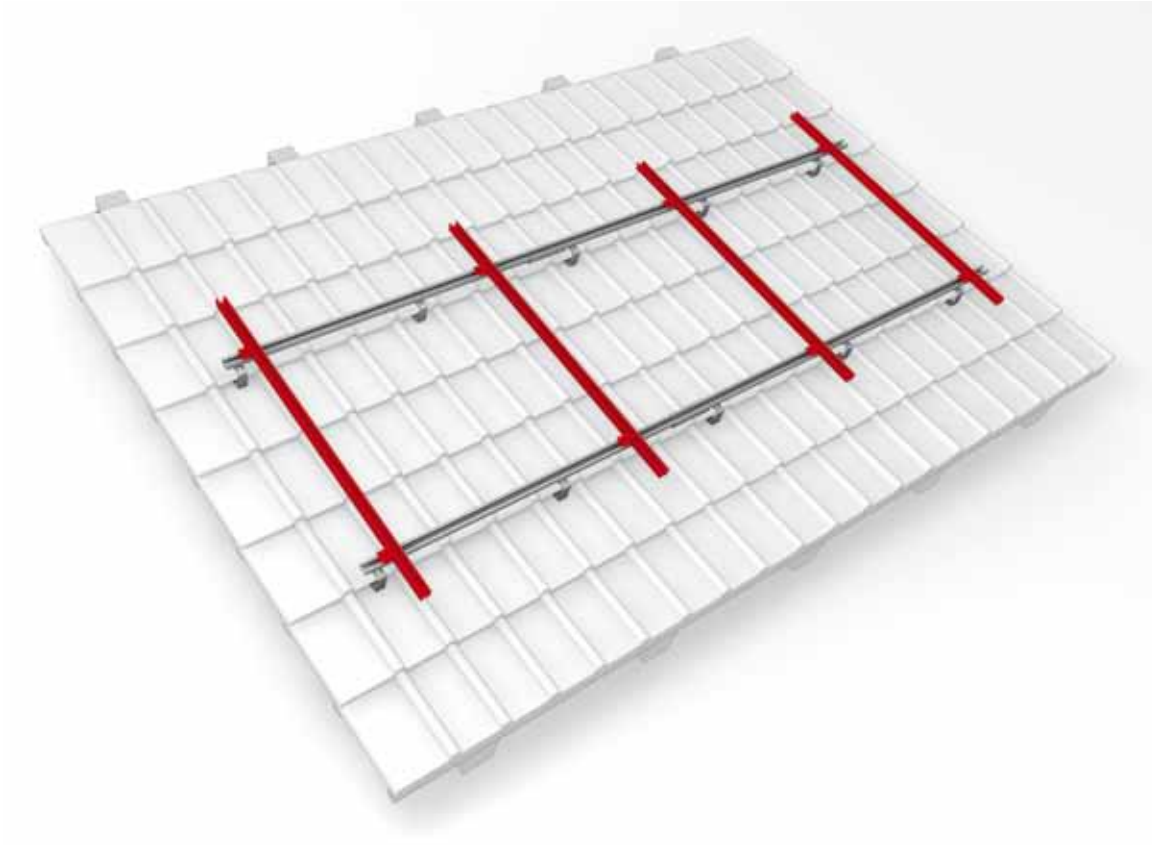


System components

## GENERAL




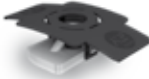



## CROSS BRACING WITH CROSSRAIL



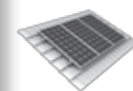
- K2 CrossRail System with Climber ideal for cross brace mounting
- easy and fast installation of landscape module layout
- Uneven roof structures can be easily adjusted using the K2 Pad
- optimized for a better ventilation of the modules
- Ideal also for thin film modules



## THE MATERIALS REQUIRED

	<b>Mounting Rail CrossRail</b> Material: Aluminium	Page 64
	<b>M K2 slot nut</b> Material: Stainless steel, plastic	Page 82
	<b>Climber 36/48 (with long slot) Set</b> Material: Aluminium	Page 67
	<b>Allen bolt DIN 912 M8</b> Material: Stainless steel, SW: 6	Page 85
	<b>Lock washer DIN EN 10151</b> Material: Stainless steel	Page 85

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

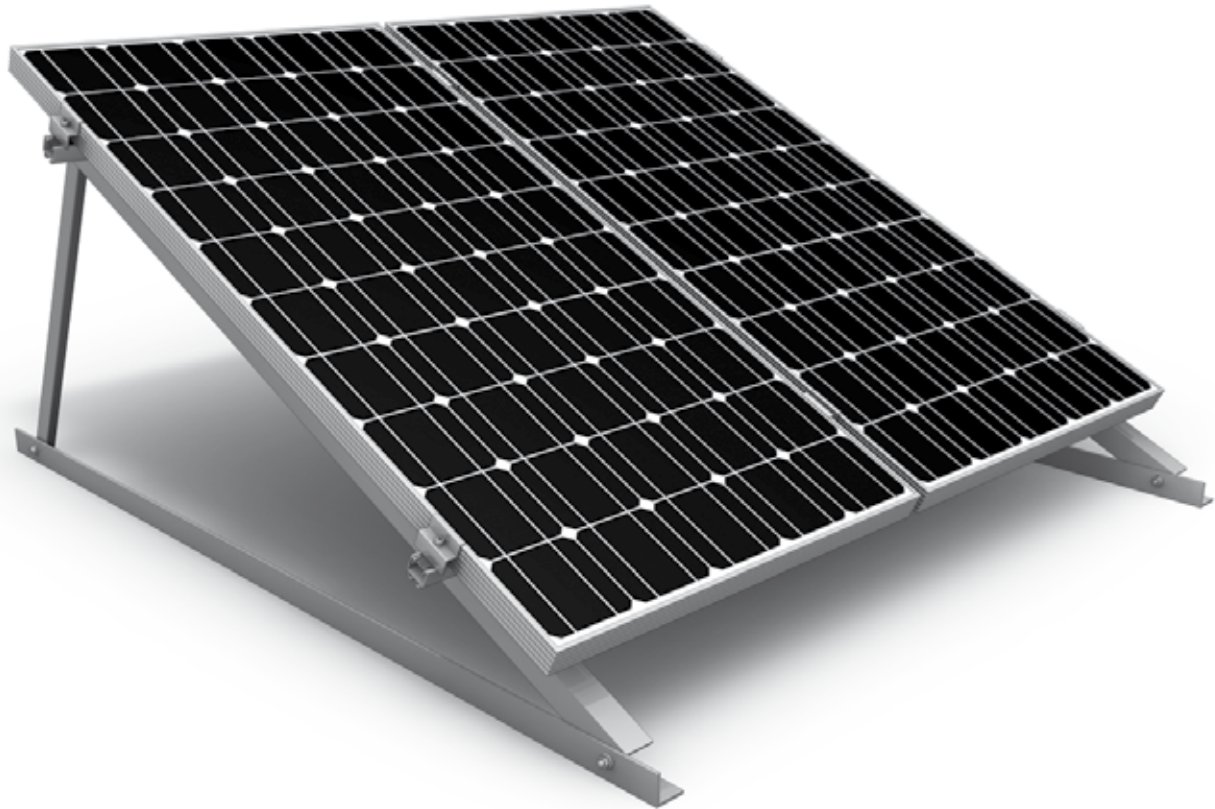


System components

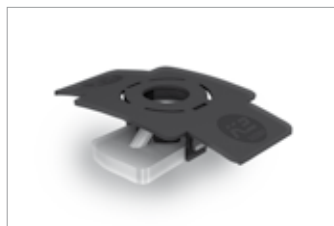
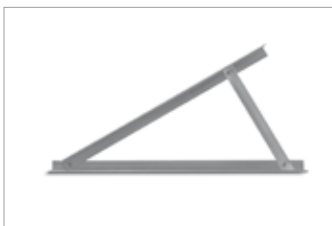
### GENERAL



# TRIANGLE SYSTEM










- The K2 Triangle System can be used on flat and sloped roofs
- Each triangle is an optimised solution through project-specific customisation
- Optimum elevation angles possible for any roof
- High flexibility - for all module types
- High-quality materials - for long service life
- Modular structure suitable for any system size
- Ballast using PE plate or loading system

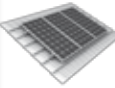




## THE MATERIALS REQUIRED

	Triangle System, pre-assembled Material: Aluminium	Page 97
	Mounting Rails SolidRail Family Material: Aluminium	Page 58
	K2 mounting solar panels Material: EPDM	Page 90
	Alternatively: LevelRail	Page 61
	M K2 slot nut Material: Stainless steel, plastic	Page 82
	Module End Clamp Standard Set Material: Aluminium	Page 80
	Module Middle Clamp Standard Set Material: Aluminium	Page 76

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

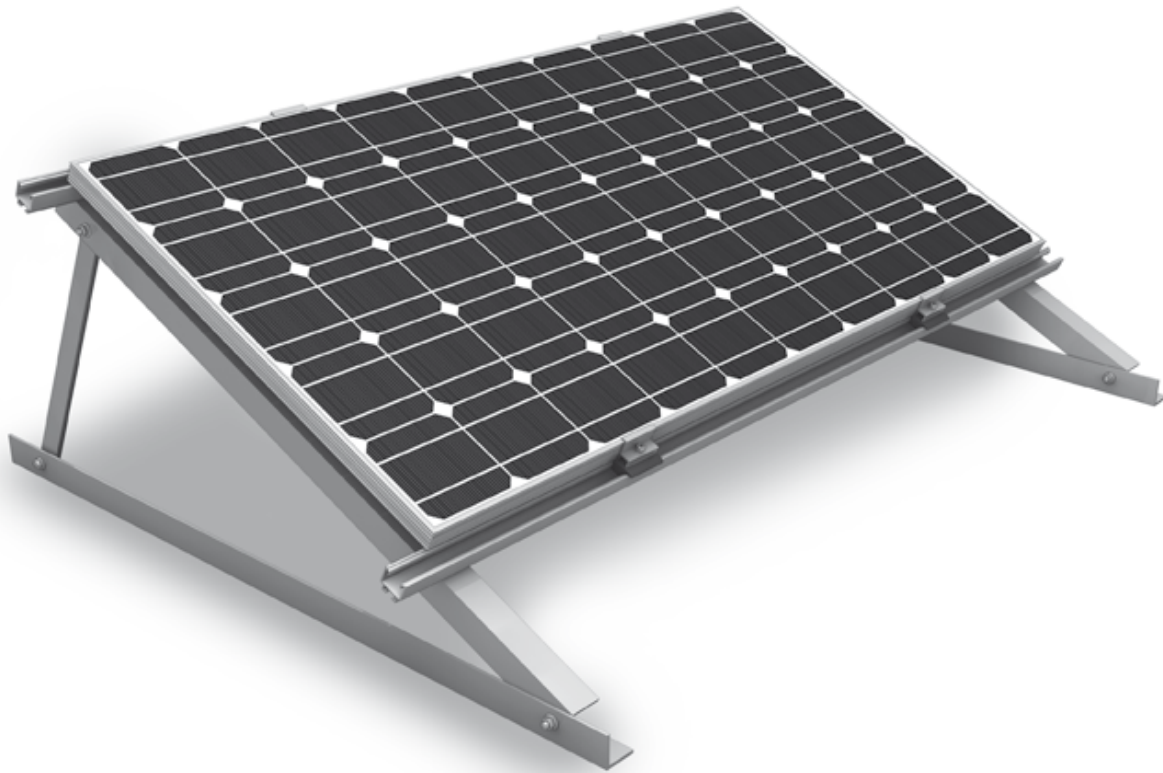


System components

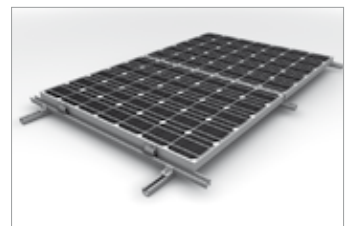
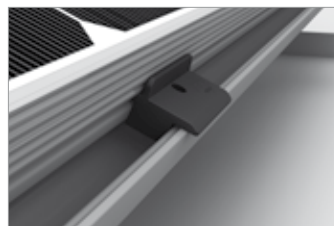
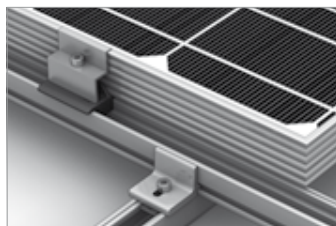
### GENERAL



# ADDON SYSTEM








- Mounting adapter for grid assembly or insert assembly
- Ideal for landscape mounting of modules without approval of clamping the modules on the short side
- Asymmetric shape for easy assembly
- Suitable for all K2 rail systems
- High quality weather-resistant fibre-glass reinforced polyamide

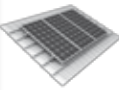




## THE MATERIALS REQUIRED

	<b>M K2 slot nut</b> Material: Stainless steel, plastic	Page 82
	<b>AddOn</b> Material: glass fibre reinforced polyamid	Page 88
	<b>Module End Clamp Standard</b> Material: Aluminium	Page 79
	<b>Module Middle Clamp Standard</b> Material: Aluminium	Page 74
	<b>Allen bolt DIN 912 M8</b> Material: Stainless steel, SW: 18 mm	Page 85

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

### GENERAL

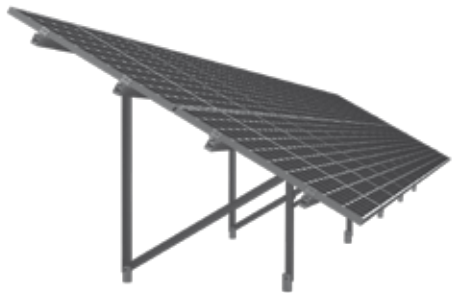


# GROUND MOUNTED SYSTEM



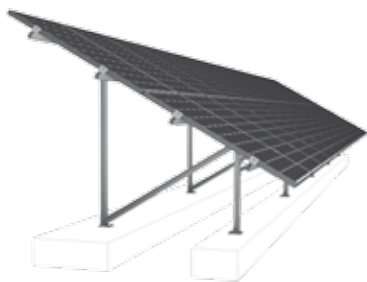
T-Rack System 2.11

Page 44



N-Rack System screw-in foundation

Page 48



N-Rack System concrete foundation

Page 52



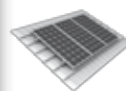
N-Rack System Mono

Page 54





## SYSTEMS



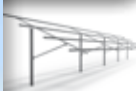
Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

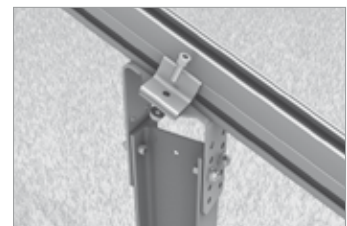
## GENERAL



## T-RACK SYSTEM 2.11














- ↪ The new K2 T Rack System 2.11 with pile-driven foundation
- ↪ Time-saving system with low installation effort thanks to pre-assembly
- ↪ Optimised for the K2 CrossRail range of rails
- ↪ Very attractive price-performance ratio
- ↪ High flexibility in system design with low driving depth
- ↪ Suitable for most soil types
- ↪ Statically optimised through wind tunnel testing by leading aerodynamics engineers
- ↪ System with 20°, 25° and 30° tilt angle (different angles on request)

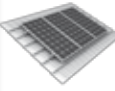




## THE MATERIALS REQUIRED

	<b>Mounting Rail CrossRail 48</b> Material: Aluminium	Page 65
	<b>Rail connector Set CrossRail 48</b> Material: Aluminium	Page 65
	<b>Ram Post HEA 100</b> Material: Steel S235JR, galvanized	Page 101
	<b>Drive Pile</b> Material: Steel S235JR, galvanized	Page 100
	<b>L Angle 60 x 60 x 6</b> Material: Steel S235JR, galvanized	Page 100
	<b>Mounting Rail CrossRail 62</b> Material: Aluminium	Page 66
	<b>Rack-Fork</b> Material: Aluminium	Page 101
	<b>M K2 slot nut</b> Material: Stainless steel, plastic	Page 82
	<b>Climber 62/90 Set</b> Material: Aluminium	Page 67
	<b>Module End Clamp Standard Set</b> Material: Aluminium	Page 80
	<b>Module Middle Clamp Standard Set</b> Material: Aluminium	Page 76
	Alternatively: Module Middle Clamp XS Set	Page 77

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

### GENERAL





### Washer DIN 9240

Page 84

Material: Stainless steel



### Locking nut M8

Page 84

Material: Stainless steel



### Allen bolt DIN 912 M8

Page 85

Material: Stainless steel, SW: 8



### T-Bolt M10 x 30

Page 84

Material: Stainless steel



### EndCap CrossRail 48

Page 65

Material: glass fibre reinforced polyamid



### Lock washer DIN EN 10151

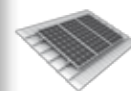
Page 85

Material: Stainless steel





SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

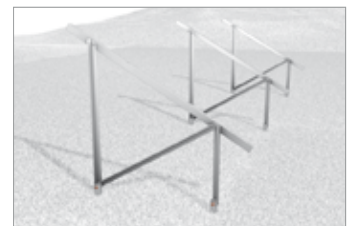
GENERAL



# N-RACK SYSTEM - SCREW IN FOUNDATION







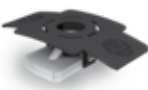




- K2 N Rack system for screw foundations
- Installation-friendly thanks to ideally coordinated components
- Optimised for K2 Solid and CrossRail mounting rail ranges
- Can also be used for difficult soil classes (e.g. conversion and disposal sites)
- For difficult terrain slopes including east-west balance (up to 20 °)
- Individual planning and statics for each system
- Very attractive price-performance ratio
- Tested by leading building aerodynamics engineers
- Modular structure suitable for any system size



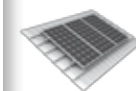


## THE MATERIALS REQUIRED

	<b>Mounting Rail SolidRail Alpin</b>	Page 60
	Material: Aluminium	
	Alternatively: Mounting Rail SolidRail LS	Page 60
	<b>Rail connector Set SolidRail Alpin</b>	Page 59
	Material: Aluminium	
	Alternatively: Rail connector SolidRail LS	Page 60
	<b>Self-Tapping Drilling Screw for Connectors 5.5 x 25</b> for connectors Material: Stainless steel	Page 82
	<b>Rack</b> (L-Profil as support, U-profil as cross beam)	Page 98
	<b>Screw Foundation</b> Material: galvanized steel	Page 99
	For alternativ version with adapter tube: <b>Adapterrohr für Drehfundament</b> Material: galvanised steel, length: 0,4 m	Page 99
	<b>M K2 slot nut</b> Material: Stainless steel	Page 82
	<b>Module End Clamp Standard Set</b> Material: Aluminium	Page 80
	<b>Module Middle Clamp Standard Set</b> Material: Aluminium Alternatively: Module Middle Clamp XS Set	Page 76  Page 77
	<b>Wind Brace</b> Material: Stainless steel A2	Page 98



### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories







System components


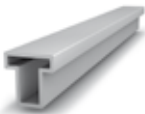


### GENERAL



## THE MATERIALS REQUIRED

	<b>Washer DIN 9240 M12, 5 x 30</b> Material: Stainless steel A2	Page 84
	<b>Locking nut M12</b> Material: Stainless steel, Drive: SW 18	Page 84
	<b>Allen bolt DIN 912 M8</b> Material: Stainless steel, SW: 18 mm	Page 85
	<b>T-Bolt M10 x 30</b> Material: Stainless steel	Page 84
Additional Material: Lock Nut DIN 985 M12, Hexagon Bolt M16 x 35		

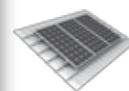
## MATERIALS REQUIRED DIFFER FOR N-RACK SYSTEM WITH CROSSRAIL AND FORK

	<b>Mounting Rail CrossRail 62</b> Material: Aluminium Alternatively: Mounting Rail CrossRail 48	Page 66 Page 65
	<b>Rail connector Set CrossRail 62</b> Material: Aluminium Alternatively: Rail connector Set CrossRail 48	Page 66 Page 65
	<b>CrossAngle</b> Material: Aluminium	Page 99
	<b>Rack</b> (L-Profil as support, CrossRail 48 or 62 as cross beam)	Page 98





## SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

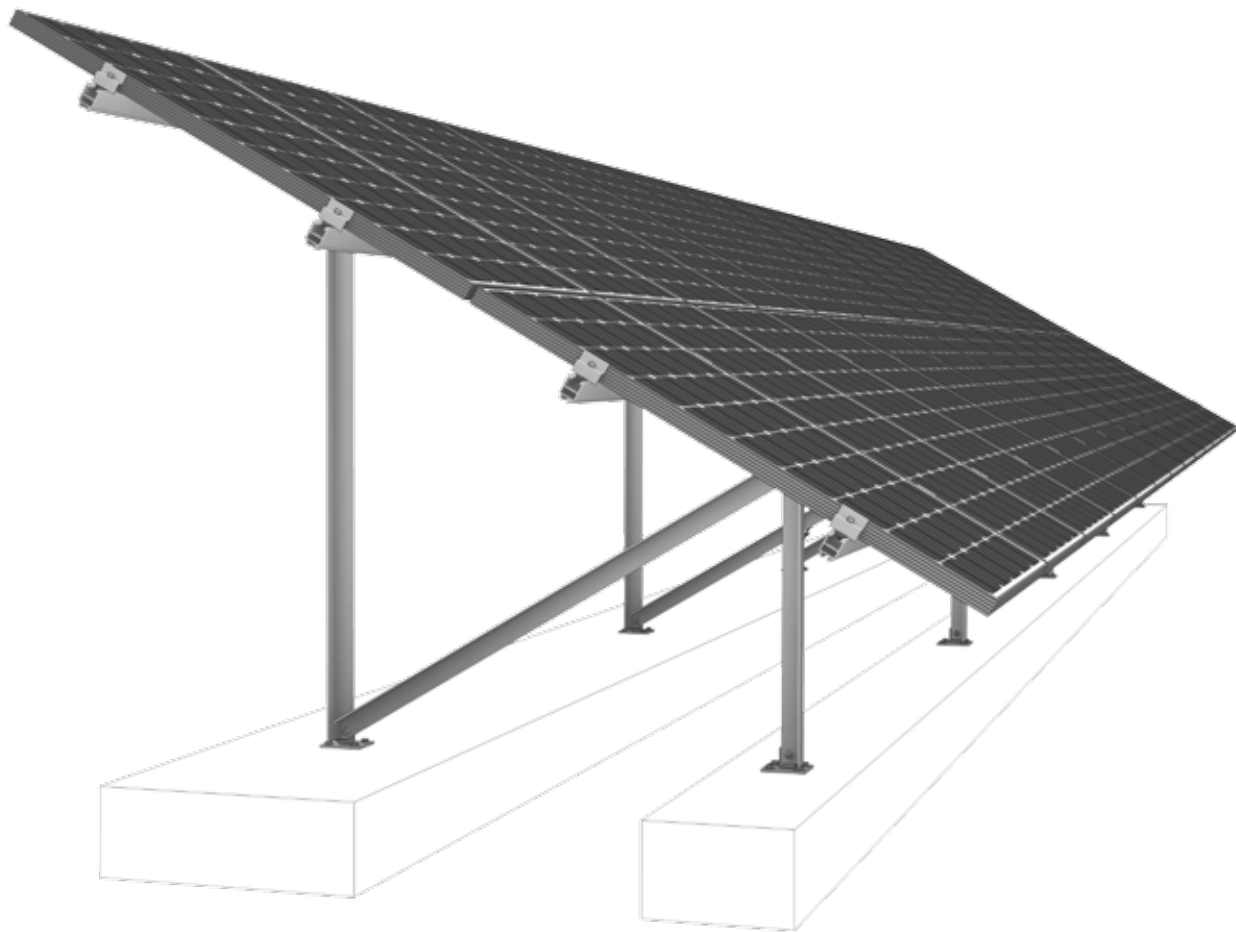


System components

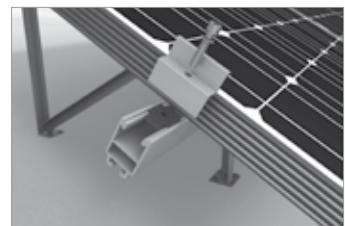
## GENERAL



# N-RACK SYSTEM - CONCRETE FOUNDATION






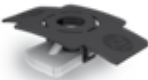








- K2 N Rack system for concrete foundations
- Installation-friendly thanks to ideally coordinated components
- Optimised for K2 Solid and CrossRail mounting rail ranges
- Can also be used for difficult soil classes (e.g. conversion and disposal sites)
- For difficult terrain slopes including east-west balance (up to 20 °)
- Individual planning and statics for each system
- Very attractive price-performance ratio
- Tested by leading building aerodynamics engineers
- Modular structure suitable for any system size

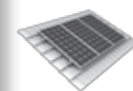




## THE MATERIALS REQUIRED

	<b>Mounting Rails SolidRail Family</b> Material: Aluminium	Page 58
	<b>Rail connector SolidRail Family</b> Material: Aluminium	Page 59
	<b>Rack</b> (L-Profil as support, U-profil as cross beam)	Page 98
	<b>Foot L Anchor Plate</b> Material: Stainless steel	Page 98
	<b>Multi-Monti Self-tapping Screw 10 x 85</b> Material: Stainless steel A4, Drive: SW 16	Page 83
	<b>M K2 slot nut</b> Material: Stainless steel, Plastic	Page 82
	<b>Module End Clamp Standard Set</b> Material: Aluminium	Page 78
	<b>Wind Brace</b> Material: Stainless steel A2	Page 98
	<b>Washer DIN 9240 M10, 5 x 30</b> Material: Stainless steel A2	Page 84
	<b>Locking nut M10</b> Material: Stainless steel, Drive: SW 18	Page 84
	<b>Allen bolt DIN 912 M8</b> Material: Stainless steel, SW: 18 mm	Page 85
	<b>T-Bolt M10 x 30</b> Material: Stainless steel	Page 84
Additional Material: Locking nut DIN 985 M10		

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

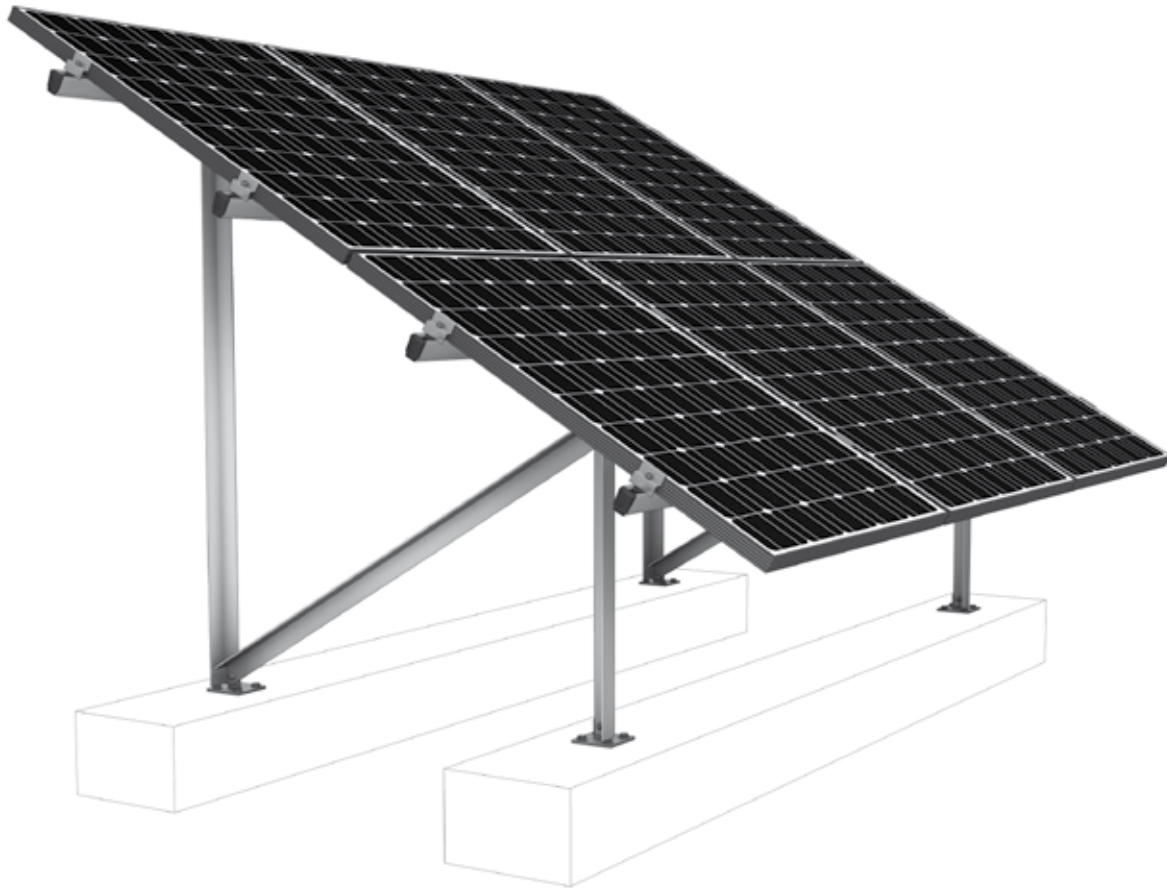


System components

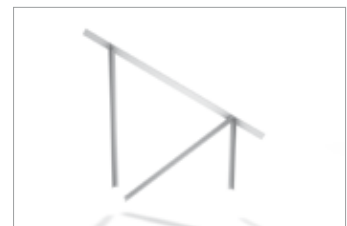
### GENERAL



# N-RACK SYSTEM MONO















- K2 N Rack Mono system for concrete foundations
- Installation-friendly due to perfectly coordinated components and system kit (KIT)
- Optimised for K2 SolidRail Medium and Alpin
- Statically calculated for different European countries
- Very attractive price-performance ratio

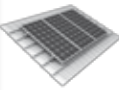




## THE MATERIALS REQUIRED

	<b>Mounting Rails SolidRail Family</b> Material: Aluminium	Page 58
	<b>Rail connector Set SolidRail Family</b> Material: Aluminium	Page 59
	<b>Rack</b> (L-Profil as support, U-profil as cross beam)	Page 98
	<b>Foot L Anchor Plate</b> Material: Stainless steel 1.4301	Page 98
	<b>Multi-Monti Self-tapping Screw 10 x 85</b> Material: Stainless steel A4, Drive: SW 16	Page 83
	<b>Wind Brace</b> Material: Stainless steel A2	Page 98
	<b>Module End Clamp Standard Set</b> Material: Aluminium	Page 80
	<b>Module Middle Clamp Standard Set</b> Material: Aluminium	Page 76
	Alternatively: Module Middle Clamp XS Set	Page 77
	<b>Washer DIN 9240 M10, 5 x 30</b> Material: Stainless steel A2	Page 84
	<b>Locking nut M10</b> Material: Stainless steel, Drive: SW 18	Page 84
	<b>T-Bolt M10 x 30</b> Material: Stainless steel	Page 84
	<b>Allen bolt DIN 912 M8</b> Material: Stainless steel	Page 85

### SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

### PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories

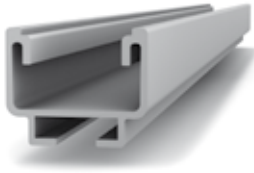


System components

### GENERAL



# PRODUCT OVERVIEW



Mounting Rails

Page 58



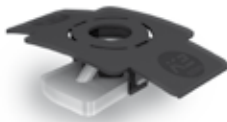
Roof Attachments

Page 68



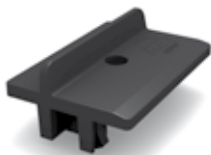
Mounting Module

Page 78



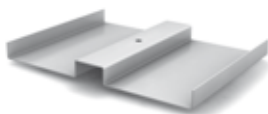
Screws & Nuts

Page 84



Accessories

Page 90



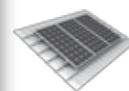
System components

Page 98





## SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



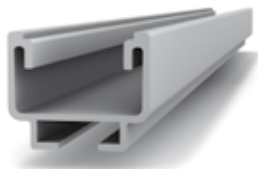
System components

## GENERAL



# MOUNTING RAILS

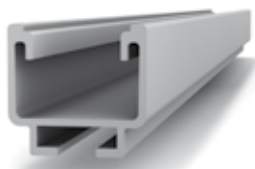
## K2 SolidRail UltraLight 32



Article number				
P1001929	Length 6,10 m			

Aluminum mounting rail with static confirmation for low snow zones and short spans. The rail span width amounts to 130 cm at K2 standard conditions.  
Material: Aluminium EN AW-6063 T66

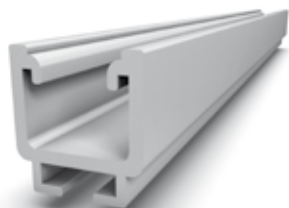
## K2 SolidRail Light 37



Article number				
P1004367	Length 2,10 m			
P1000006	Length 3,43 m			
P1000009	Length 4,35 m			
P1000012	Length 5,40 m			
P1000014	Length 6,10 m			

Quick mounting rail with static confirmation for medium snow zones and long spans. The rail span width amounts to 145 cm at K2 standard conditions.  
Material: Aluminium EN AW-6063 T66

## K2 SolidRail Medium 42



Article number				
P1004368	Length 2,10 m			
P1000016	Length 3,43 m			
P1000019	Length 4,35 m			
P1000022	Length 5,40 m			
P1000024	Length 6,10 m			

Quick mounting rail with static confirmation for medium snow zones and medium spans. The rail span width amounts to 130 cm at K2 standard conditions.  
Material: Aluminium EN AW-6063 T66

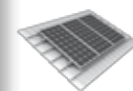
## K2 SolidRail Alpin 60



Article number				
P1000028	Length 6,10 m			

Quick mounting rail with static confirmation for high snow zones and long spans. The rail span width amounts to 260 cm at K2 standard conditions.  
Material: Aluminium EN AW-6063 T66

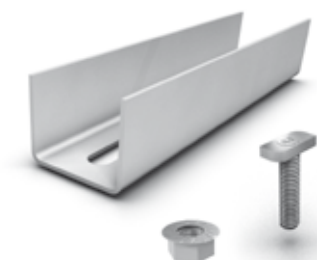




## PRODUCTS



## K2 Set Rail connector



Article number				
P1004107	For K2 SolidRail UltraLight or Light, Length 200 mm			
P1004109	For K2 SolidRail Medium or Alpin, Length 200 mm			

Aluminum rail connector for K2 SolidRail UltraLight, Light, Medium or Alpin rails.  
The set consists of:

- 1 Rail connector, Aluminium
- 2 T-Bolts (P1000041), Stainless steel
- 2 Locking nut M10 (P1000042), Stainless steel

## K2 EndCap Light



Article number				
P1004765				

K2 End Cap for K2 SolidRail Light  
Material: glass fibre reinforced polyamid

## K2 EndCap Medium



Article number				
P1004766				

K2 End Cap for K2 SolidRail Medium  
Material: glass fibre reinforced polyamid

## K2 EndCap Alpin



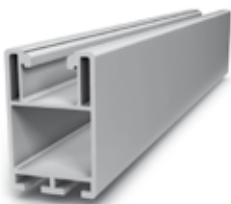
Article number				
P1005053				

K2 End Cap for K2 SolidRail Alpin  
Material: glass fibre reinforced polyamid



# MOUNTING RAILS

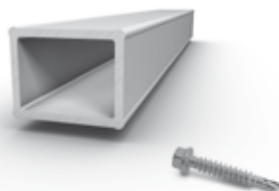
## K2 SolidRail LS 85



Article number				
P1001785	Length 6,00 m			

Quick mounting rail with static confirmation. Without side connection, with extra large cable duct. The rail span width amounts to 450 cm at K2 standard conditions.  
Material: Aluminium EN AW-6063 T66

## K2 Set Rail connector SolidRail LS



Article number				
P1004098	Length 3,95 mm			

Aluminum rail connector as connecting element between two K2 SolidRail LS.

The set consists of:

- 1 Rail connector SolidRail LS (P1001947)
- 4 Dimension screws 5.5x25 mm (P1001051), Stainless steel

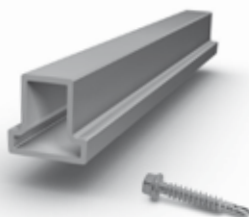
## K2 SolidRail L 85



Article number				
P1001226	Length 6,00 m			

Quick mounting rail with static confirmation. With side connection. The rail span width amounts to 450 cm at K2 standard conditions.  
Material: Aluminium EN AW-6063 T66

## K2 Set Rail connector SolidRail L



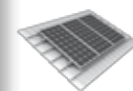
Article number				
P1004105	Length 395 mm			

Aluminum rail connector as connecting element between two K2 SolidRail L.

The set consists of:

- 1 Rail connector SolidRail LS (P1001230)
- 4 Dimension screws 5,5x25 mm (P1001051), Stainless steel





## PRODUCTS



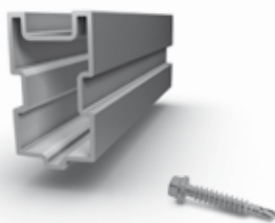
## K2 SolidRail XL 140



Article number				
P1000983	Length 6,00 m			

Quick mounting rail with static confirmation. With side connection.  
The rail span width amounts to 690 cm at K2 standard conditions.  
Material: Aluminium EN AW-6063 T66

## K2 Set Rail connector SolidRail XL



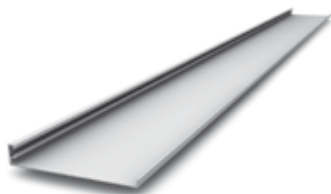
Article number				
P1004106	Length 395 mm			

Aluminum rail connector as connecting element between two K2 SolidRail XL.

The set consists of:

- 1 Rail connector SolidRail XL (P1001049)
- 4 selbstbohrende Sechskantblechschrauben 5,5x25 mm (P1001051), Stainless steel

## K2 LevelRail 22



Article number				
P1003402	Length 5,00 m			

Quick mounting rail for mounting the K2 D-Level and S-Level system on flat roofs with low load bearing capacity. The extrawide base of the rail provides an additional brought bearing area if required.

Material: Aluminium EN AW-6063 T66

## K2 Set Rail connector LevelRail



Article number				
P1004116	Length 200 mm			

Aluminium rail connector as connecting element between two K2 LevelRails.

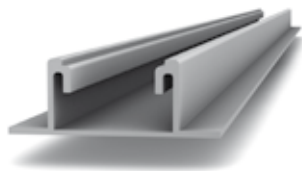
The set consists of:

- 1 Rail connector (P1003845), Aluminium
- 2 T-Bolts M8 x 20 (P1002387), Stainless steel
- 2 Locking nut M8 (P1000043), Stainless steel



# MOUNTING RAILS

## K2 SpeedRail 22



Article number				
P1003933	Length 2,10 m			
P1003379	Length 4,20 m			
P1001163	Length 6,10 m			

Aluminum mounting rail for direct mounting on sheet metal screws with SpeedClip. The rail span width amounts to 105 cm at K2 standard conditions.  
Material: Aluminium EN AW-6063 T66

## K2 SpeedRail 36



Article number				
P1003380	Length 4,20 m			
P1002825	Length 6,10 m			

Aluminum mounting rail for direct mounting on sheet metal with SpeedClip. High version (cable duct). The rail span width amounts to 150 cm at K2 standard conditions.  
Material: Aluminium EN AW-6063 T66

## K2 SpeedConnector Set



Article number				
P1003571	Length: 150 mm			

Rail connector for connecting 2 K2 SpeedRails. With 3 drill holes for flexible mounting. The set consists of:  
→ 1 SpeedConnector, Aluminium  
→ 2 countersunk drilling screws, stainless steel with TX 25 bit

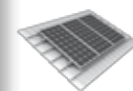
## K2 SpeedClip



Article number				
P1001164	Dimension: 99x25x15 mm			

Glass fibre reinforced clip for direct mounting the SpeedRail on sheet metal.  
Material: glass fibre reinforced polyamid, EPDM  
please note the additional Material, for each SpeedClip you need 2 head steel sheet screws 6x36 mm (Page 79, P1001622).

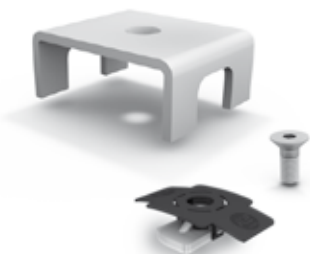




## PRODUCTS



## K2 SpeedLock Set

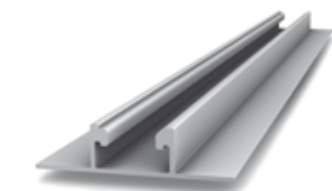


Article number				
P1003558	for SpeedRail 22			
P1003560	for SpeedRail 36			

"SpeedLock" mounting security for fusing the K2 SpeedRail in case of thermal expansion. The set consists of:

- 1 SpeedLock, Aluminium
- 1 DIN 7991 hexagon socket countersunk head screw M8 x 20, stainless steel
- 1 M K2 slot nut with clip, Stainless steel, plastic

## K2 Flat Rail 22



Article number				
P1000169	Length 6,10 m			

Quick mounting rail for direct mounting with sheet metal screws or rivets, or with extra load bearing area for non-penetrating flat roof installation and metal sheeted roofs. The rail span width amounts to 110 cm at K2 standard conditions.

Material: Aluminium EN AW-6063 T66

## K2 FlatConnector Set



Article number				
P1006039	Length 200 mm			

Rail connector for connecting 2 K2 SpeedRails or Flat Rail. With 2 drill holes for flexible mounting.

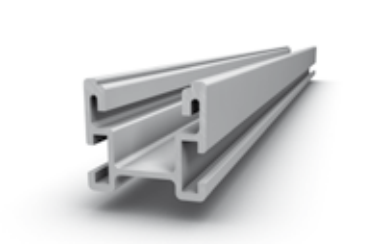
The set consists of:

- 1 FlatConnector, Aluminium
- 2 Allen bolt M8 x 20, Stainless steel
- 2 Washer M8
- 2 M k2 slot nut with clip, Stainless steel



# MOUNTING RAILS

## K2 CrossRail 36



Article number				
P1004369	Length 2,10 m			
P1002933	Length 3,40 m			
P1002934	Length 4,25 m			
P1001932	Length 6,10 m			

Quick mounting rail with static confirmation for low snow zones and short spans. Installed from above using the K2 Climber 36/48. Suitable as uppermost rail for cross bracing.

The rail span width amounts to 160 cm at K2 standard conditions.

Material: Aluminium EN AW-6063 T66

## K2 Set Rail connector CrossRail 36



Article number				
P1002389	Length 200 mm			

Aluminium rail connector as connecting element between two K2 CrossRails 36.

The set consists of:

- 1 Rail connector (P1002284), Aluminium
- 4 T-Bolts M8 x 20 (P1002387), Stainless steel
- 4 Locking nuts M8 (P1000043), Stainless steel

## K2 EndCap CrossRail 36

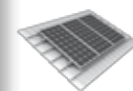


Article number				
P1004767				

K2 End Cap for K2 CrossRail 36

Material: glass fibre reinforced polyamid





## PRODUCTS



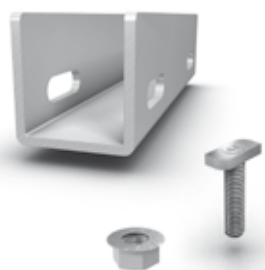
## K2 CrossRail 48



Article number				
P1001980	Length 6,10 m			

Quick mounting rail with static confirmation for medium snow zones and short spans. Installed from above using the K2 Climber 36/48. Suitable as uppermost rail for cross bracing. The rail span width amounts to 210 cm at K2 standard conditions  
Material: Aluminium EN AW-6063 T66

## K2 Set Rail connector CrossRail 48



Article number				
P1002392	Length 200 mm			

Aluminium rail connector as connecting element between two K2 CrossRails 48.

The set consists of:

- 1 Rail connector (P1002285), Aluminium
- 4 T-Bolts M10 x 30 (P1000041), Stainless steel
- 4 Locking nut M10 (P1000042), Stainless steel

## K2 EndCap CrossRail 48



Article number				
P1004768				

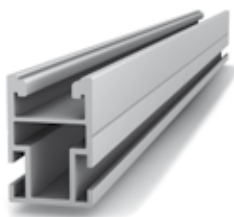
K2 End Cap for K2 CrossRail 48.

Material: glass fibre reinforced polyamid



# MOUNTING RAILS

## K2 CrossRail 62

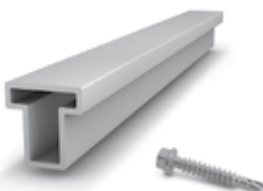


Article number				
P1004126	Length 6,10 m			

Quick mounting rail with static confirmation. With side connection. Mounting from above with K2 Climber 62/90. The rail span width amounts to 290 cm at K2 standard conditions.

Material: Aluminium EN AW-6063 T66

## K2 Set Rail connector CrossRail 62



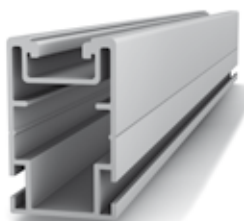
Article number				
P1004158	Length 395 mm			

Aluminium rail connector as connecting element between two K2 CrossRails 62.

The set consists of:

- 1 Rail connector (P1002284), Aluminium
- 4 Dimension screws, 5,5x25 mm (P1001051), Stainless steel

## K2 CrossRail 90

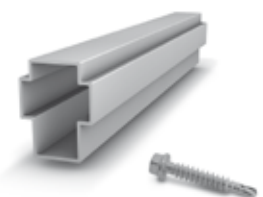


Article number				
P1004127	Length 6,10 m			

Quick mounting rail with static confirmation. With side connection. Mounting from above with K2 Climber 62/90. The rail span width amounts to 450 cm at K2 standard conditions.

Material: Aluminium EN AW-6063 T66

## K2 Set Rail connector CrossRail 90



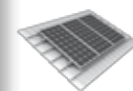
Article number				
P1004150	Length 395 mm			

Aluminium rail connector as connecting element between two K2 CrossRails 90.

The set consists of:

- 1 Rail connector (P1004149), Aluminium
- 4 Dimension screws, 5,5x25 mm (P1001051), Stainless steel





## PRODUCTS



## K2 Climber 36/48



Article number				
P1002286	Slotted version for M8 screw			

K2 Climber 36/48, aluminium clamp for securing K2 CrossRails 36, 48, 62 and 90 or direct mounting of K2 threaded roof hooks or CrossHook.  
Material: Aluminium EN AW 6063 T66

## K2 Set Climber 36/48



Article number				
P1006041	Slotted version for M8 screw			

K2 Climber Set 36/48, aluminium clamp for securing K2 CrossRails 36, 48, 62 and 90 or direct mounting of K2 threaded roof hooks or CrossHook.

The set consists of:

- 1 Climber 36/48, Aluminium
- 1 Allen bolt M8 x 20, Stainless steel
- 1 Washer M8
- 1 M K2 slot nut with clip, Stainless steel und PA

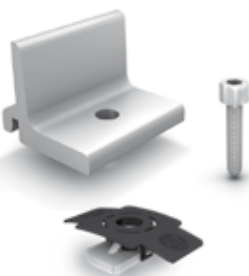
## K2 Climber 62/90



Article number				
P1004046	Version for M8 screw			

K2 Climber 62/90, aluminum clamp for securing K2 CrossRails 36, 48, 62 and 90; direct mounting of K2 ground mounted T-Rack System.  
Material: Aluminium EN AW 6063 T66

## K2 Set Climber 62/90



Article number				
P1006042	Version for M8 screw			

K2 Climber Set 62/90, aluminum clamp for securing K2 CrossRails 36, 48, 62 and 90; direct mounting of K2 ground mounted T-Rack System.

The set consists of:

- 1 Climber 62/90, Aluminium
- 1 Allen bolt M8 x 20, Stainless steel
- 1 Washer M8
- 1 M K2 slot nut with clip, Stainless steel und PA



# ROOF ATTACHMENTS

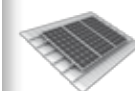
## K2 Roof Fastener for Pan Tile



Article number				
P1000001	Base plate: 150x60x5 mm Bracket: 30x6 mm, Height under bracket: 47 mm for roof lath 30 mm Height Overall height: ca.133 mm			
P1000096	Base plate: 180x80x4 mm Bracket: 35x6 mm, Height under bracket: 38 mm for roof lath 24 mm Height Overall height: ca. 124 mm			
P1000386	Base plate: 180x80x4 mm Bracket 30x6 mm, Height under bracket: 42 mm for roof lath 28 mm Height Overall height: ca. 127 mm			
P1000002	Base plate: 180x80x4 mm Bracket: 30x6 mm, Height under bracket: 47 mm for roof lath 30 mm Height Overall height: ca. 133 mm			
P1000652	Base plate: 180x80x4 mm Bracket: 35x6 mm, Height under bracket: 47 mm for roof lath 30 mm Height Overall height: ca. 150 mm			
P1000653	Base plate: 180x80x4 mm Bracket: 35x6 mm, Height under bracket: 38 mm for roof lath 24 mm Height Overall height: ca. 150 mm			
P1000260	Base plate: 180x80x4 mm, Bracket: 30x6 mm, Height under bracket: 57 mm, for roof lath 40 mm Height Overall height: ca.144 mm			
P1000764	Roof fastener (Alpin) Base plate: 180x80x5 mm, Bracket: 40x8 mm, Height under bracket: 47 mm for roof lath 30 mm Height Overall height: ca.121 mm			

For fastening of K2 System parts on clay brick roofs with pan tile roofing. Bracket with elongated hole to fix the rail with T-Bolt M10.  
Material: Stainless steel (1.4016) welded both sides





Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws &amp; Nuts



Accessories



System components

## GENERAL

## K2 CrossHook 1



Article number				
P1003935	Weight: 450 g, Base plate: 110x110x4-6 mm Height under bracket: ca. 36-47 mm, Bracket: 35x8,5 mm Overall height: 121-132 mm			

For fastening K2 system parts on clay brick roofs with pan tile roofing. Bracket with M8 thread. Only used together with CrossRail. Grooved base plate with chamber for Allen bolt for stepless horizontal adjustment. Height adjustable by grooves and elongated hole in bracket connection. Extra light!

Material: Aluminium EN AW-6063 T 66

## K2 CrossHook 1S (Roof fastener for narrow rafters)



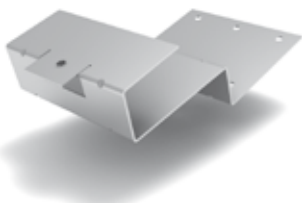
Article number				
P1005354	Weight: 450 g, Base plate: 110x110x4-6 mm, with round elongated hole, Height under bracket: ca. 36-47 mm, Bracket: 35x8,5 mm Overall height: 121-132 mm			

For the fastening of K2 system components on tile roofs with pan tile roofing. Hangers with M8 thread. Can only be used with CrossRail. Base plate with grooves and chambers for wafer-head screw for infinite horizontal setting. Height adjustable thanks to grooving and elongated hole in the bracket connection. Base plate with round elongated hole pattern for screw connection on narrow rafters from 36 mm width. Extra light!

Material: Aluminium EN AW-6063 T 66

Article available 15th April

## K2 CrossHook 2 (Roof for flat concrete interlocking tiles)



Article number				
P1004900	Base plate: 150x128x2 mm with round elongated hole contact area: 150x116 mm Height under bracket: 44 mm Overall height: ca. 100 mm			

For the fastening of K2 system components to tile roofs with fast concrete roof tiles, in accordance with BS EN 490. Can only be used with CrossRail 36 and 48. Assembly resting on tile without tile recess. Base plate with round elongated hole pattern for screw connection on narrow rafters from 36 mm width.

Material: Stainless steel (1.4301)



# ROOF ATTACHMENTS

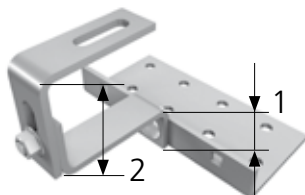
## K2 Vario 1



Article number				
P1000125	1. Bracket: min. 55 max. 90 mm, Base plate: 150x60x5 mm, Bracket:30x6 mm, Height under bracket: 43 mm, Overall height:: ca. 112-145 mm			

For fastening of K2 System parts on clay brick roofs with pan tile roofing. Bracket with elongated hole to fix the rail with T-Bolt M10.  
Material: Stainless steel (1.4016)

## K2 Vario 2



Article number				
P1000107	1. Bracket: min 47 max 59 mm 2. Bracket: min 57 max 97 mm Base plate: 140x55x5 mm Bracket: 30x6 mm Height under bracket: 47-59 mm Overall height: ca. 105-155 mm			

For fastening of K2 System parts on clay brick roofs with pan tile roofing. Bracket with elongated hole to fix the rail with T-Bolt M10.  
Material: Stainless steel (1.4016)

## K2 Vario 2S (Roof fastener for narrow rafters)

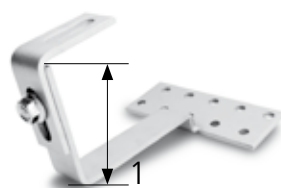


Article number				
P1005710	1. Bracket: min. 49 max. 58,5 mm 2. Bracket: min. 59,4 max. 88,4 mm Base plate: 140 x 114 x 5 mm with round elongated hole, Bracket: 30 x 6 mm Height under bracket: 49 - 58,5 mm Overall height: ca. 118 -156,5 mm			

2-step height adjustable roof fastener for the fastening of K2 System components on tile roofs with pan tile roofing. Can only be used with CrossRail 36 & 48. Base plate with round elongated hole pattern for screw connection on narrow rafters from 36 mm width.  
Material: Stainless steel (1.4301)

**Article available 15th April**

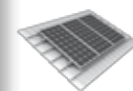
## K2 Roof Fastener for Coppo-Tiles



Article number				
P1001068	1. Bracket: min. 106 max. 136 mm Base plate: 150 x 60 x 5 mm Bracket: 30 x 5 mm Height under bracket: 18 mm Overall height:: ca. 137-167 mm			

For fastening of K2 System parts on clay brick roofs with Coppotiles.  
Bracket with elongated hole to fix the rail with T-Bolt M10.  
Material: Stainless steel (1.4016)





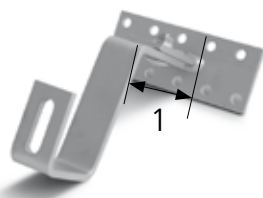
## K2 Roof Fastner for Portoghese-Tiles



Article number				
P1001067	Base plate: 150 x 60 x 5 mm Height under bracket: 30 mm Bracket: 30 x 5 mm Overall height: ca.135 mm			

For fastening of K2 System parts on clay brick roofs with Portoghese-tiles. Bracket with elongated hole to fix the rail with T-Bolt M10.  
Material: Stainless steel (1.4016)

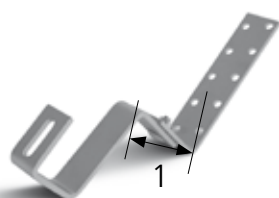
## K2 Roof fastener Spanish tile roof, rafters or concrete



Article number				
P1001693	Base plate: 150 x 60 x 5 mm Height under bracket: ca: 108 - 137 mm, Bracket: 35 x 6 mm Overall height: ca. 190 - 220 mm			

For fastening of K2 System parts on clay brick roofs with Spanish tile roof. Bracket with elongated hole to fix the rail with T-Bolt M10.  
Material: Stainless steel (1.4016)

## K2 Roof fastener Spanish tile roof, purlins



Article number				
P1001694	Base plate: 201 x 50 x 5 mm Height under bracket: ca. 100 - 129 mm, Bracket: 35 x 6 mm, Overall height: ca. 180 - 210 mm			

For fastening of K2 System parts on clay brick roofs with Spanish tile roof. Bracket with elongated hole to fix the rail with T-Bolt M10.  
Material: Stainless steel (1.4016)

## K2 Roof Fastener Slate



Article number				
P1000373	Bracket: 40 x 250 x 6 mm Overall height: 70 mm			

For fastening of K2 System parts on slate roofs. Bracket with elongated hole to fix the rail with T-Bolt M10 and three holes to fix the fastener with countersunk head wood screw.

Material: Stainless steel A2 (1.4301)



# ROOF ATTACHMENTS

## K2 Roof Fastener for Flat Tile



Article number				
P1000214	Bracket: 40 x 6 mm Height under bracket: 33 mm Overall height: ca. 122 mm			

For fastening of K2 System parts on clay brick roofs with flat tile roofing. Bracket with elongated hole to fix the rail with T-Bolt M10.  
Material: Stainless steel A2 (1.4301)

## K2 Roof Fastener for Flat Tile (double roofing)



Article number				
P1000074	for 30 mm timber batten (only usable for flat tile) Width: 150 mm Height under bracket: 33 mm Overall height: ca. 103 mm Material thickness: 2 mm			

For fastening of K2 System parts on clay brick roofs with flat tile roofing. Bracket with elongated hole to fix the rail with T-Bolt M10.  
Material: Stainless steel A2 (1.4301)

## K2 Rafter Screw, pre-assembled



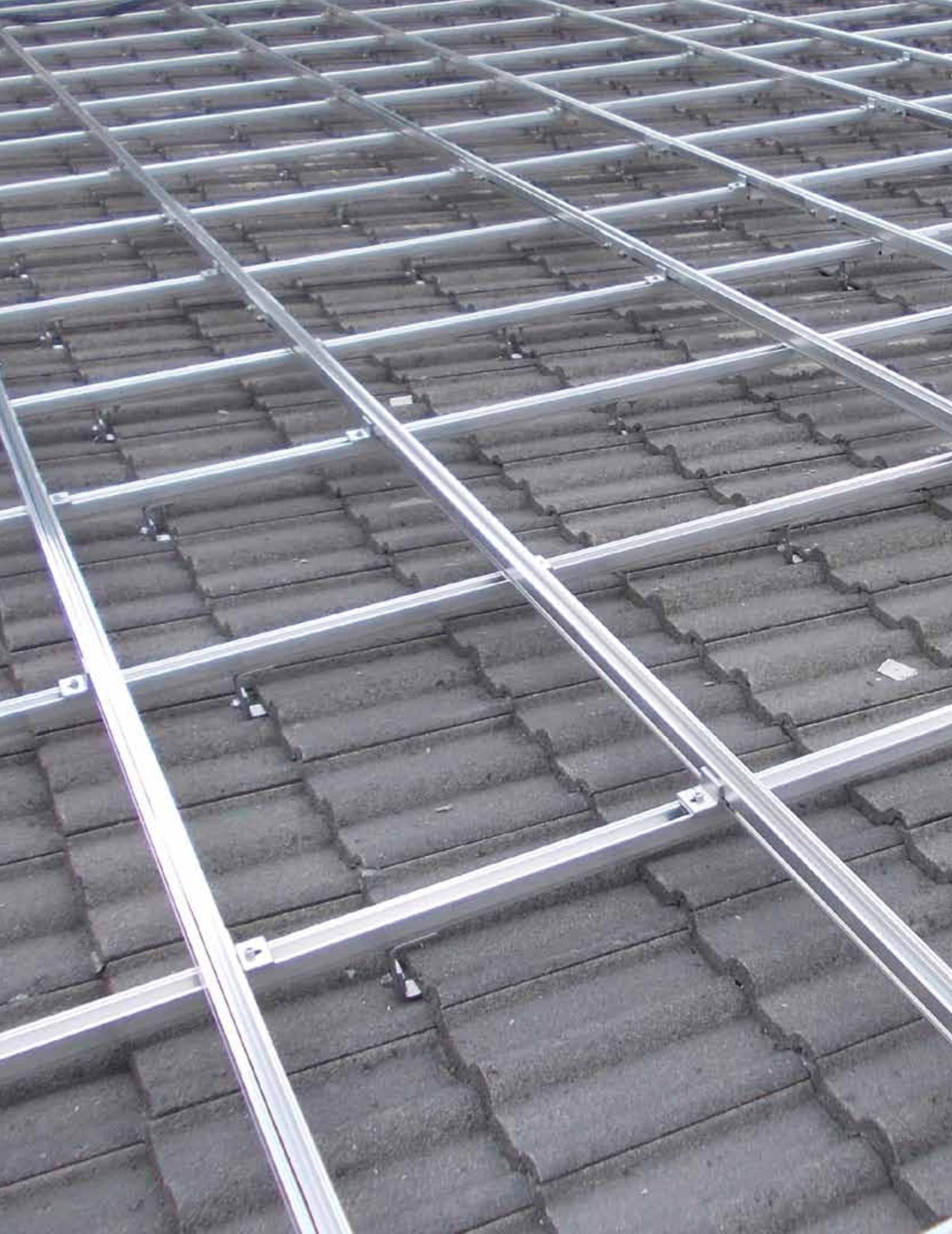
Article number				
P1000057	M10x180, Hexagonal SW 7			
P1000062	M10x200, Hexagonal SW 7			
P1000065	M10x250, Hexagonal SW 7			
P1000066	M12x200, Hexagonal SW 9			
P1000376	M12x250, Hexagonal SW 9			
P1000067	M12x300, Hexagonal SW 9			
P1000355	M12x350, Hexagonal SW 9			
P1001179	M12x400, Hexagonal SW 9			

For fastening of K2 System parts on trapeze and wave shape roofs. The K2 Rafter Screw is equipped with an extra long metric thread enabling variable height adjustment. The screw is furnished with a hexagonal head, providing time saving installation with a power drill.

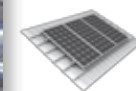
The set consists of:

- 1 rafter screw
- 3 Collar nut with riffle, Stainless steel
- 1 Rubber seal, EPDM
- 1 Washer, Stainless steel
- 1 Adapter plate with long slot 11 x 39 mm, Stainless steel





## SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

## GENERAL



# ROOF ATTACHMENTS

## Solar fastener for steel Ø 8,0 with M10x50 thread, storm washer



Article number				
P1001491	8x64 / 50, E16 Storm washer, Length 114 mm			
P1002586	8x80 / 50, E16 Storm washer, Length 130 mm			
P1001636	8x100 / 50, E16 Storm washer, Length 150 mm			
P1001412	8x125 / 50, E16 Storm washer, Length 175 mm			
P1001134	8x150 / 50, E16 Storm washer, Length 200 mm			
P1000666	8x160 / 50, E16 Storm washer, Length 210 mm			
P1001751	8x200 / 50, E16 Storm washer, Length 250 mm			

Solar fastener (stainless steel) for mounting K2 system components on roofs with sheet metal or trapeze or wave shaped roofs (for steel substructure) (without adapter plate). Building authority-certified. The head of the bolt has a six lobe drive. M10x70 on request.

The set consists of:

- 1 M10 lock nut,, Stainless steel
- 1 Washer, Stainless steel
- 1 M10 hexagon nut, Stainless steel
- 1 sealing washer, Stainless steel
- 1 Storm washer E16, Aluminium

## Solar panel anchor bolt for steel Ø 8,0 with M10x50 thread, FZD



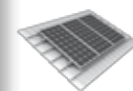
Article number				
P1002218	8x64 / 50, FZD, Length 114 mm			
P1001435	8x80 / 50, FZD, Length 130 mm			
P1001400	8x100 / 50, FZD, Length 150 mm			
P1001459	8x125 / 50, FZD, Length 175 mm			
P1000985	8x150 / 50, FZD, Length 200 mm			
P1004095	8x160 / 50, FZD, Length 210 mm			
P1001838	8x200 / 50, FZD, Length 250 mm			

Solar fastener (stainless steel) for mounting K2 system components on roofs with sheet metal or trapeze or wave shaped roofs (for steel substructure) (without adapter plate). Building authority-certified. The head of the bolt has a six lobe drive. M10x70 on request.

The set consists of:

- 1 M10 lock nut, Stainless steel
- 1 Washer, Stainless steel
- 1 M10 hexagon nut, Stainless steel
- 1 sealing washer, Stainless steel
- 1 FZD sealing washer, Stainless steel





## PRODUCTS



## Solar fastener for timber Ø 8,0 with M10x50 thread, storm washer



Article number				

Solar fastener (stainless steel) for mounting K2 system components on roofs with sheet metal or trapeze or wave shaped roofs (for timber substructure) (without adapter plate). Building authority-certified. The head of the bolt has a six lobe drive. M10x70 on request.

The set consists of:

- 1 M10 lock nut, Stainless steel
- 1 Washer, Stainless steel
- 1 M10 hexagon nut, Stainless steel
- 1 sealing washer, Stainless steel
- 1 E16 storm washer, Aluminium

## Solar panel anchor bolt for timber Ø 8,0 with M10x50 thread, FZD



Article number				

Solar fastener (stainless steel) for mounting K2 system components on roofs with sheet metal or trapeze or wave shaped roofs (for timber substructure) (without adapter plate). Building authority-certified. The head of the bolt has a six lobe drive. M10x70 on request.

The set consists of:

- 1 M10 lock nut, Stainless steel
- 1 Washer, Stainless steel
- 1 M10 hexagon nut, Stainless steel
- 1 sealing washer, Stainless steel
- 1 FZD sealing washer, stainless steel



# ROOF ATTACHMENTS

## Solar panel anchor bolt for concrete/aerated Ø 8,0 with M10x50 thread, storm washer



Article number				

Solar fastener (stainless steel) for mounting K2 system components on roofs with sheet metal or trapeze or wave shaped roofs (for concrete substructure) **(without adapter plate)**. Building authority-certified. The head of the bolt has a six lobe drive. M10x70 on request.

- The set consists of:
- 1 M10 lock nut, stainless steel
  - 1 washer, stainless steel
  - 1 M10 hexagon nut, stainless steel
  - 1 sealing washer, stainless steel
  - 1 E16 storm washer, aluminum
  - 1 dowel, PA thermoplastic

## M8 Solar fastener for concrete/aerated concrete Ø 8,0 with M10x50 thread, FZD

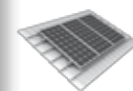


Article number				

Solar fastener (stainless steel) for mounting K2 system components on roofs with sheet metal or trapeze or wave shaped roofs (for concrete substructure) **(without adapter plate)**. Building authority-certified. The head of the bolt has a six lobe drive. M10x70 on request.

- The set consists of:
- 1 M10 lock nut, stainless steel
  - 1 washer, stainless steel
  - 1 M10 hexagon nut, stainless steel
  - 1 sealing washer, stainless steel
  - 1 FZD sealing washer, stainless steel
  - 1 dowel, PA thermoplastic





Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws &amp; Nuts



Accessories



System components

## GENERAL

## K2 Metal Clamp



Article number				
P1000104	clamp for M10 screw			

For fastening of K2 System parts on standing seam metal roofs.  
Material: Stainless steel A2

## S-5! Clamp



Article number				
P1001052	high aluminum alloy for M10 screw with socket set screw (15-17Nm strenght of torque)			

For fastening of K2 System parts on standing seam metal roofs.  
Other versions available on request.

## K2 Kalzip Claw



Article number				
P1000543	for M10 screw clamp screw: M8 thickness steel plate: 3 mm			

For fastening of K2 System parts on rounded standing seam metal roofs.

## S-5! Clamp (Kalzip)



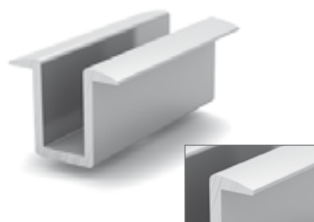
Article number				
P1000888	two-part-construction part with elongated hole 11x22 for M10 screw high aluminum alloy with socket set screw (15-17Nm strenght of torque)			

For fastening of K2 System parts on rounded standing seam metal roofs.  
Other versions available on request.



# MOUNTING MODULE

## K2 Module Middle Clamp Standard



Article number				
P1005131	for screw M8 Dimension: 65x19x27 mm			

The new middle clamp in modern design can be used for all module frame heights from 25 mm.

Material: Aluminium plate finished

## K2 Module Middle Clamp Standard black



Article number				
P1005145	for screw M8 Dimension: 65x19x27 mm			

The new middle clamp in modern design can be used for all module frame heights from 25 mm.

Material: Aluminium black, anodized

## K2 Module Middle Clamp Standard Set



Article number				
P1005148	<b>34 - 38 mm set module frame height:</b> Stainless steel socket screw M8x30 (P1000086)			
P1004197	<b>39 - 43 mm set module frame height:</b> Stainless steel socket screw M8x35 (P1000087)			
P1005146	<b>44 - 48 mm set module frame height:</b> Stainless steel socket screw M8x40 (P1000088)			
P1005149	<b>49 - 50 mm set module frame height:</b> Stainless steel socket screw M8x45 (P1000089)			

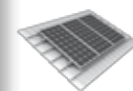
For mounting of modules with module frame depths of 30 - 50 mm. The set is preassembled and can be easily mounted with every K2 rail. M K2 insert nuts are self-locking and can be moved by applying light pressure to the stainless steel screw in the rail.

On request available in black (anodized) available. The additional cost per piece is 0,20 €.

Middle clamp set, consisting of:

- 1 aluminium middle clamp, cold pressed (P1005131)
- 1 stainless steel socket screw
- 1 M K2 insert nut M8, stainless steel (P1001643)
- 1 securing washer S8. stainless steel (P1000473)
- 1 spring (P1002497)

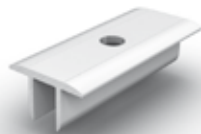




## PRODUCTS



## K2 Module Middle Clamp XS



Article number				
P1001892	for screw M8 Aluminium plate finished			
P1002062	for screw M8 black (anodised)			

Middle clamp for all module frame heights from 15 mm.

Width between modules: 13 mm.

Material: Aluminium plate finished

## K2 Module Middle Clamp XS Set



Article number				
P1003586	<b>34 - 38 mm set module frame height:</b> Stainless steelschraube M8x55 (P1000552)			
P1004908	<b>39 - 43 mm set module frame height:</b> Stainless steelschraube M8x60 (P1000402)			
P1005143	<b>44 - 48 mm set module frame height:</b> Stainless steelschraube M8x65 (P1000091)			
P1004407	<b>49 - 50 mm set module frame height:</b> Stainless steelschraube M8x70 (P1000255)			

For mounting of modules with module frame depths of 30 - 50 mm.

The set is preassembled and can be easily mounted with every K2 rail. M K2 insert nuts are self-locking and can be moved by applying light pressure to the stainless steel screw in the rail.

On request available in black (anodized) available. The additional cost per piece is 0,20 €.

Middle clamp xs set, consisting of:

- 1 aluminium middle clamp xs, cold presses (P1001892)
- 1 stainless steel socket screw
- 1 M K2 insert nut M8, stainless steel (P1001643)
- 1 securing washer S8. stainless steel (P1000473)

For module frame height 30 - 33 mm on request.



# MOUNTING MODULE

## K2 Module Middle Clamp First Solar



Article number				
P1003157				

Aluminum module laminate middle clamps. EPDM allowed for First Solar and Calyxo thinfilm modules. Smaller module spacing.  
Material: Aluminium plate finished, EPDM

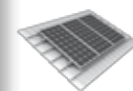
## K2 Module Middle Clamp Laminat



Article number				
P1000667				

Aluminum module laminate clamps. EPDM allowed for First Solar and Calyxo thinfilm modules and modules 6 - 9 mm.  
Material: Aluminium plate finished, EPDM





## PRODUCTS



## K2 Module End Clamp Standard



Article number				
P1004414	for module frame height 34 - 36 mm			
P1004420	for module frame height 37 - 38 mm			
P1004415	for module frame height 39 - 41 mm			
P1004421	for module frame height 42 - 44 mm			
P1004416	for module frame height 45 - 47 mm			
P1004422	for module frame height 48 mm			
P1004417	for module frame height 49 - 50 mm			

End clamp in new, modern design, made from plate finished aluminium for safe fastening of solar modules to K2 rails. Bore hole:  $\varnothing$  8,3 mm for screw M8, width: 65 mm. Material: plate finished aluminium.

For module frame height 30 - 33 mm on request.

## K2 Module End Clamp Standard black



Article number				
P1004555	for module frame height 34 - 36 mm			
P1004556	for module frame height 37 - 38 mm			
P1004557	for module frame height 39 - 41 mm			
P1004558	for module frame height 42 - 44 mm			
P1004559	for module frame height 45 - 47 mm			
P1004560	for module frame height 48 mm			
P1004561	for module frame height 49 - 50 mm			

End clamp in new, modern design, made from plate finished aluminium for safe fastening of solar modules to K2 rails. Bore hole:  $\varnothing$  8,3 mm for screw M8, width: 65 mm. Material: plate finished aluminium, black, anodized

For module frame height 30 - 33 mm on request.



# MOUNTING MODULE

## K2 Set Module End Clamp Standard



Article number				
P1005169	<b>34 - 36 mm module frame height:</b> End Clamp (P1004414), stainless steel socket screw M8x30 (P1000086)			
P1005290	<b>37 - 38 mm set module frame height:</b> End Clamp (P1004420), Stainless steel socket screw M8x30 (P1000086)			
P1005170	<b>39 - 41 mm set module frame height:</b> End Clamp (P1004415), Stainless steel socket screw M8x35 (P1000087)			
P1005291	<b>42 - 44 mm set module frame height:</b> End Clamp (P1004421), Stainless steel socket screw M8x35 (P1000087)			
P1005171	<b>45 - 47 mm set module frame height:</b> End Clamp (P1004416), Stainless steel socket screw M8x40 (P1000088)			
P1005292	<b>48 mm set module frame height:</b> End Clamp (P1004422), Stainless steel socket screw M8x40 (P1000088)			
P1005172	<b>49 - 50 mm set module frame height:</b> End Clamp (P1004417), Stainless steel socket screw M8x45 (P1000089)			

For mounting of modules with module frame depths of 30 - 50 mm.

The set is preassembled and can be easily mounted with every K2 rail. M K2 insert nuts are self-locking and can be moved by applying light pressure to the stainless steel screw in the rail.

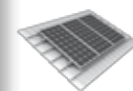
On request available in black (anodized) available. The additional cost per piece is 0,20 €.

End clamp set standard, consisting of:

- 1 aluminium end clamp (cold pressed)
- 1 stainless steel socket screw
- 1 M K2 insert nut M8 (stainless steel)
- 1 S8 lock washer
- 1 spring (stainless steel)

For module frame height 30 - 33 mm on request.





## K2 SlideGuard



Article number				
P1005828	Dimension: 330x50x19 mm			

Slide guard for additional use in vertical assembly of laminated modules with glass thickness of 6 - 9 mm.

Material: Stainless steel 1.4016, EPDM

## K2 Module End Clamp First Solar

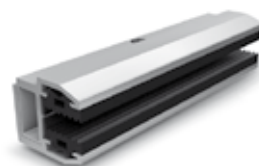


Article number				
P1003158				

End Clamp First Solar for fixing thinfilm modules, approved for First Solar and Calyxo thinfilm modules.

Material: Aluminium plate finished, EPDM

## K2 Module End Clamp Laminat



Article number				
P1000668	Clampdistance 6 - 9 mm			

Aluminum module laminate end clamp allowed for First Solar and Calyxo thinfilm modules and modules 6 - 9 mm.

Material: Aluminium plate finished, EPDM

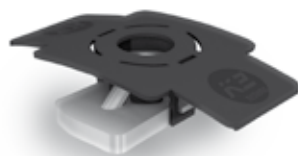
## PRODUCTS





# SCREWS & NUTS

## M K2 slot nut with clip, Stainless steel



Article number				
P1001643	Thread of screw: M8			

The Fast-installation M K2 slot nut can be put into the K2 rail everywhere. The slot nut will adjust itself in the the rail and can be readjusted to every place of the rail  
Material: Stainless steel 1.4301

## K2 self-drilling timber screw, round head, 2 threads, stainless steel



Article number			Unit*	
P1003437	Dimension: 8x240		50	
P1003438	Dimension: 8x300		50	
P1003439	Dimension: 8x360		50	

Self-drilling wood screw, Heco. For mounting on TOP-Roof-Insulation. The counterbatten is fixed through a subhead thread. Building authority-certified.  
Material: Stainless steel A2

## K2 Self-drilling wood screw, stainless steel



Article number			Unit*	
P10058378	Dimension: 6x80		50	
P1000642	Dimension: 8x80		50	
P1000656	Dimension: 8x100		50	
P1001525	Dimension: 8x120		50	
P1002366	Dimension: 8x160		50	
P1002367	Dimension: 8x180		50	

Self-drilling wood screw, Heco. Building authority-certified.  
Material: Stainless steel A2

## K2 Self-drilling wood screw, stainless steel with countersunk head

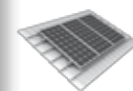


Article number			Unit*	
P1004443	Dimension: 6x120		100	
P1001607	Dimension: 6x160		100	

Self-drilling wood screw with countersunk head, Heco. Building authority-certified.  
Material: Stainless steel

\*Sold only in units





## PRODUCTS



## K2 Multi Monti fastener



Article number			Unit*	
P1000802	Dimension: 7,5x50 MMs-MS		<b>100</b>	

'Multi Monti' - fastner (Heco) ss to fasten in concrete. Steel surface: galvanised and blue passivated.

Drive T30, head size: 17 mm

Drilling measurement: 6mm

## K2 Self-tapping screw without mounted EPDM supported washer DIN 7504



Article number			Unit*	
P1001051	Drive: hexagonal SW 8 Dimension: 5,5x25 mm strenght of torque: 5 Nm		<b>500</b>	

To connect the SolidRail L / XL (4 pieces for each solid connection).

Material: Stainless steel A2

## K2 Self-tapping screw with mounted EPDM supported washer



Article number			Unit*	
P1000212	Drive: hexagonal SW8 Dimension: 6x25 mm EPDM support: Ø16 mm		<b>500</b>	

Usable for steel sheeting minimum 0.60 mm thickness and for aluminium minimum 1 mm thickness.

Material: Stainless steel A2, EPDM

## K2 Self-tapping screw with mounted EPDM supported washer



Article number			Unit*	
P1001622	Drive: hexagonal SW 8 Dimension: 6x36 mm strenght of torque: 5 Nm EPDM support: Ø16 mm		<b>500</b>	

To connect the glas fiber clip of the flat rail usable for steel sheeting minimum 0.60 mm thickness and for aluminium minimum 1 mm thickness.

Material: Stainless steel A2, EPDM



# SCREWS & NUTS

## K2 T-Bolt 28/15



Article number			Unit*	
P1000637	Thread of screw: M10x20 mm		100	
P1000571	Thread of screw: M10x25 mm		100	
P1000041	Thread of screw: M10x30 mm		100	
P1000441	Thread of screw: M10x40 mm		100	
P1000407	Thread of screw: M10x50 mm		100	
P1000077	Thread of screw: M10x60 mm		100	
P1000649	Thread of screw: M10x70 mm		100	
P1000277	Thread of screw: M10x80 mm		100	
P1000614	Thread of screw: M8x20 mm		100	
P1000368	Thread of screw: M8x30 mm		100	

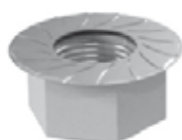
T-bolt to be placed anywhere into the c-cell of the rail. It can be placed and readjusted to any place of the rail.

Head form: 28/15 with four cornered shaft

Head dimensions: 22,5x10,5x4 mm

Material: Stainless steel A2 (1.4301)

## K2 Hexagon flange nut with serration, DIN 6923



Article number			Unit*	
P1000043	Thread of screw: M8		100	
P1000042	Thread of screw: M10		100	
P1000044	Thread of screw: M12		100	

The locking splines prevent accidental release.

Material: Stainless steel A2

## K2 Washer (body washer), stainless steel

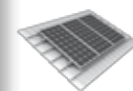


Article number			Unit*	
P1000620	Ø 15 x 8,4 x 1,6 mm		200	
P1000122	Ø 20 x 8,4 x 1,5 mm		200	
P1000052	Ø 25 x 6,4 x 1,5 mm		200	
P1000121	Ø 25 x 8,4 x 1,5 mm		200	
P1000063	Ø 30 x 10,5 x 1,5 mm		200	
P1000064	Ø 30 x 12,5 x 1,5 mm		200	

Material: Stainless steel A2

\*Sold only in units





## PRODUCTS



## K2 Allen bolt, DIN 912 - EN ISO 4762



Article number			Unit*	Price/Unit
P1000488	Dimension: M8x10, SW 6		200	
P1000085	Dimension: M8x16, SW 6		200	
P1000190	Dimension: M8x20, SW 6		200	
P1000191	Dimension: M8x25, SW 6		200	
P1000086	Dimension: M8x30, SW 6		200	
P1000087	Dimension: M8x35, SW 6		200	
P1000088	Dimension: M8x40, SW 6		200	
P1000089	Dimension: M8x45, SW 6		100	
P1000090	Dimension: M8x50, SW 6		100	
P1000552	Dimension: M8x55, SW 6		100	
P1000402	Dimension: M8x60, SW 6		100	
P1000091	Dimension: M8x65, SW 6		100	
P1000255	Dimension: M8x70, SW 6		100	
P1000399	Dimension: M8x80, SW 6		100	
P1000400	Dimension: M8x100, SW 6		100	
P1000093	Dimension: M10x20, SW 8		100	
P1000108	Dimension: M10x25, SW 8		100	

Material: Stainless steel A2

## K2 Lock washer DIN EN 10151



Article number			Unit*	
P1000473	Dimension: S8 13,00 x 8,4 x 0,8 mm		200	

Lock washer for bolted connections.

Material: Stainless steel A2 1.4301

## K2 Sealing washer, stainless steel



Article number			Unit*	
P1001501	Ø 8,4 x 19 mm		200	

Washer with sealing ring for the waterproofing of round head screw 8.

Material: Stainless steel A2, EPDM



# SCREWS & NUTS

## K2 Blind Rivet (Alu-CAP Ø 4,8 mushroom-head)



Article number				
P1000385	Ø 4,8 x 11 mm Clamp distance: 5,0 - 6,5 mm			

Usable for steel sheeting minimum 0.63 mm thickness and for aluminium minimum 1 mm thickness.

Material: Aluminium, Stainless steel

## K2 Hanger Bolt

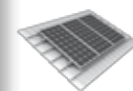


Article number				
P1000056	M10x180, Hexagonal SW 7			
P1000059	M10x200, Hexagonal SW 7			
P1000060	M10x250, Hexagonal SW 7			
P1000061	M12x200, Hexagonal SW 9			
P1000375	M12x250, Hexagonal SW 9			
P1000068	M12x300, Hexagonal SW 9			
P1000383	M12x350, Hexagonal SW 9			
P1000839	M12x400, Hexagonal SW 9			

The K2 hanger bolt is equipped with an extra long metric thread enabling variable height adjustment. The screw is furnished with a hexagonal head, providing time saving installation with a power drill.

Material: Stainless steel A2





## PRODUCTS



## K2 safety screw Deter Bolt Free



Article number				
P1004784	M8 x 30			
P1004750	M8 x 35			
P1004785	M8 x 40			
P1004615	M8 x 45			
P1004786	M8 x 50			

Screw to prevent the theft of modules. The patented head can only be removed with the respective Deter Bolt Wrench.

## Deter Bolt Wrench for safety screw Deter Bolt Free



Article number				
P1004738	M8 x 30			

Special tool for safety screw Deter Bolt Free.



# ACCESSORIES

## K2 AddOn



Article number				
P1002792	suitable for all K2 rails			

The K2 AddOn mounting adapter enables the grid mounting or insertion mounting possibility without any additional rails or clamps. Fits with all K2 Systems mounting systems.

Material: glass fibre reinforced polyamid

## K2 SpeedClip



Article number				
P1001164	Dimension: 99x25x15 mm			

Glass fibre reinforced clip for direct mounting the SpeedRail on sheet metal.

Material: glass fibre reinforced polyamid, EPDM please note the additional Material, for each SpeedClip you need 2 head steel sheet screws 6x36 mm (Page 79, P1001622).

## K2 SpeedLock Set



Article number				
P1003558	for SpeedRail 22			
P1003560	for SpeedRail 36			

“SpeedLock” mounting security for fusing the K2 SpeedRail in case of thermal expansion. The set consists of:

- 1 SpeedLock, Aluminium
- 1 DIN 7991 hexagon socket countersunk head screw M8 x 20, stainless steel
- 1 M K2 slot nut with clip, Stainless steel, plastic

## K2 Pad Spacer PA

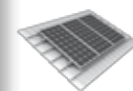


Article number				
P1002361	Material thickness: 2 mm			

PA spacer shim to compensate height differences on mounting K2 threaded roof hooks and K2 rails (except Solid). Any number of spacer shims can be placed on top of each other for individual height compensation.

Material: glass fibre reinforced polyamid





## PRODUCTS



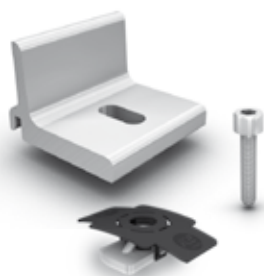
## K2 Climber 36/48



Article number				
P1002286	Slotted version for M8 screw			

K2 Climber 36/48, aluminium clamp for securing K2 CrossRails 36, 48, 62 and 90 or direct mounting of K2 threaded roof hooks or CrossHook.  
Material: Aluminium EN AW 6063 T66

## K2 Set Climber 36/48



Article number				
P1006041	Slotted version for M8 screw			

K2 Climber Set 36/48, aluminium clamp for securing K2 CrossRails 36, 48, 62 and 90 or direct mounting of K2 threaded roof hooks or CrossHook.

The set consists of:

- 1 Climber 36/48, Aluminium
- 1 Allen bolt M8 x 20, Stainless steel
- 1 Washer M8
- 1 M K2 slot nut with clip, Stainless steel und PA

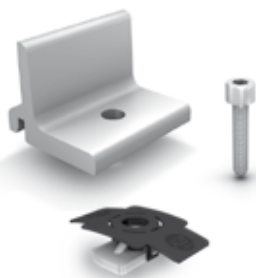
## K2 Climber 62/90



Article number				
P1004046	Version for M8 screw			

K2 Climber 62/90, aluminum clamp for securing K2 CrossRails 36, 48, 62 and 90; direct mounting of K2 ground mounted T-Rack System.  
Material: Aluminium EN AW 6063 T66

## K2 Set Climber 62/90



Article number				
P1006042	Version for M8 screw			

K2 Climber Set 62/90, aluminum clamp for securing K2 CrossRails 36, 48, 62 and 90; direct mounting of K2 ground mounted T-Rack System.

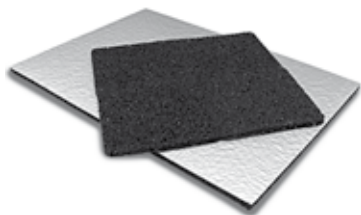
The set consists of:

- 1 Climber 62/90, Aluminium
- 1 Allen bolt M8 x 20, Stainless steel
- 1 Washer M8
- 1 M K2 slot nut with clip, Stainless steel und PA



## ACCESSORIES

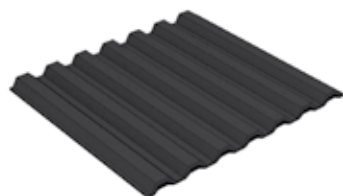
### K2 Solar building protection mat



Article number				
P1005118	Dimensions: 1200x200x6 mm			
P1005120	Dimensions: 1200x200x20 mm			

The K2 building protection mat protects the roof sealing from damage by mounting system platforms. The aluminium coating on the underside counteracts the otherwise occurring plasticizer loss of many roof sealers that do not tolerate rubber.

### K2 mounting solar panels



Article number				
P1000092	Dimensions: 1200x800 mm Weight: 7,5 kg			
P1001572	Dimensions: 600x800 mm Weight: 3 kg			

Mounting solar panels on flatroofs with gravel.

### K2 WEEB Clip



Article number				
P1001695	for each panel 2 WEEB clips			

WEEB Clip – potential equalization between panel and rail, suitable for K2 SolidRail Ultralight, Light, SpeedRail 22 & 36, CrossRail 36 & 48 and FlatRails.  
Material: Stainless steel

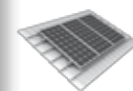
### K2 Bridge



Article number				

Through use of the K2 Bridge, greater span widths can be achieved with hanger bolts and mounted solar installations.  
Other versions available on demand.





## PRODUCTS



## GENERAL

## K2 Lightning protection clamp multi, half part



Article number				
P1003151				

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

Additional Material for hammer-head grooves:

- 1 hammer-head screw M10 x 30 (P1000041)
- 1 locking nut M10 (P1000042)

Additional Material for rail head cavity:

- 1 M K2 slot nut (P1001643)
- 1 Allen bolt M8 x 30 (P1000086)
- 1 Washer 8,4 x 20 x 1,2 mm (P1000122)

## K2 Lightning protection Clamp



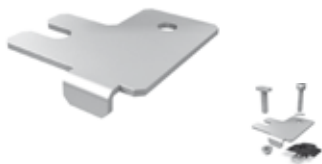
Article number				
P1000487				

K2 Lightning protection Clamp  
Material: Stainless steel



# ACCESSORIES

## K2 Set Angle bracket



Article number				
P1004110	Dimensions: 70x70x3 mm			

Stainless steel angle bracket for rail cross connection to a 90° angle. Constructions suitable for K2 SolidRails Light, Medium and Alpin.

The set consists of:

- 1 angle bracket, stainless steel
- 1 T-bolt M10, stainless steel
- 1 locking nut M10, stainless steel
- 1 Allen bolt M8, stainless steel
- 1 M K2 slot nut M8, stainless steel
- 1 Lock Washer S8, stainless steel

## K2 Adapter plate



Article number				
P1000058	for screws M10 Dimensions 30x80x5 mm			
P1000069	for screws M12 Dimensions 30x80x5 mm			

Stainless steel adapter plate for screws M10 and M12  
Material: Stainless steel

## K2 Underlay plate



Article number				
P1000789	Dim. 4x50x100 mm Ø drill hole: 9 mm			

Material: Aluminium

## K2 Regulator disks (G-shape)

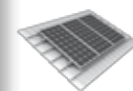


Article number				
P1000005	Material thickness: 2 mm			

Spacer in G-shape to compensate for height differences in the assembly of K2 rails on respective roof attachments.

Material: Aluminium

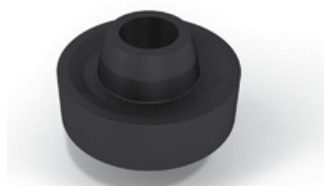




## PRODUCTS



## K2 EPDM Hanger bolt seal



Article number				
P1000164	Compatible for M10 Ø inside: 7,4 mm Ø outside: 25 mm			
P1000671	Compatible for M12 Ø inside: 9,4 mm Ø outside: 25 mm			

EPDM Hanger bolt seal for screw M10 or M12

## K2 EPDM-Sealing strip



Article number				
P1000105	10 m roll, black, Dimensions: 30 x 3 mm			

EPDM-Sealing strip, one-sided self-adhesive

## K2 External cable clip



Article number				
P1000265				

External cable clip for solar cables setting by T-bolt in the c-cell.  
Material: polyamid, black

## K2 Omega Kabel-Clip



Article number			Unit	
P1005394			100	

External cable clip of solar cables for cable runs outside of K2 rails.  
Fixation in the C-chamber of the profile.  
Material: Polypropylen with UV stabiliser, black



# ACCESSORIES

## K2 EndCap Light



Article number				
P1004765				

K2 End Cap for K2 SolidRail Light  
Material: glass fibre reinforced polyamid

## K2 EndCap Medium



Article number				
P1004766				

K2 End Cap for K2 SolidRail Medium  
Material: glass fibre reinforced polyamid

## K2 EndCap Alpin



Article number				
P1005053				

K2 End Cap for K2 SolidRail Alpin  
Material: glass fibre reinforced polyamid

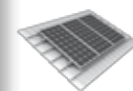
## K2 EndCap CrossRail 36



Article number				
P1004767				

K2 End Cap for K2 CrossRail 36  
Material: glass fibre reinforced polyamid





## PRODUCTS



## K2 EndCap CrossRail 48



Article number				
P1004768				

K2 End Cap for K2 CrossRail 48 Materi-  
al: fjkglfdjgkjdf

## Twist drill for solar fastener



Article number				Price/Piece
P1004048	SD HSS 6,8X175-30 twist drill for flange thickness 1,5 - 4,9 mm			
P1004050	SD HSS 7,0X175-30 twist drill for flange thickness 5,0 - 7,4 mm			
P1004051	SD HSS 7,2X175-30 twist drill for flange thickness 7,5 - 9,9 mm			
P1004052	SD HSS 7,4X175-30 twist drill for flange thickness > 10,0 mm			
P1004015	SD HSS 6,8X225-30 twist drill for flange thickness 1,5 - 4,9 mm			
P1004053	SD HSS 7,0X225-30 twist drill for flange thickness 5,0 - 7,4 mm			
P1004054	SD HSS 7,2X225-30 twist drill for flange thickness 7,5 - 9,9 mm			
P1004055	SD HSS 7,4X225-30 twist drill for flange thickness > 10,0 mm			

Twist drill for pilot drilling in steel substructure for using solar fasteners.  
Material: High Speed Steel (HSS)



# SYSTEM COMPONENTS

## K2 Triangle, pre-assembled



Article number				

Mounting triangle, optimised by project-specific customisation. Universal use with ballast or roof penetration.  
Material: Aluminium

## K2 S-Level Set



Article number				

Pre-assembled mounting triangle for K2 S-Level System, installation - friendly thanks to partially pre-assembled components.

The set consists of:

- Mounting triangle
- 2 x Climber 36/48
- 2 x T-Bolt M8 x 20
- 4 x Allen bolt M8 x 25
- 6 x Locking nut M8
- 4 x Lock washer

## D-Level Flatroof Set



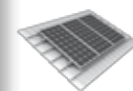
Article number				

Pre-assembled mounting system for K2 D-Level System, installation - friendly thanks to partially pre-assembled components.

The set consists of:

- Flat support
- L-profile as support
- Allen bolt M8 DIN 912
- T-Bolts M8 x 20
- Locking nutn M8





## PRODUCTS



## K2 S-Level Windbreaker

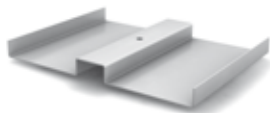


Article number				

K2 Windbreaker (deflector) for wind deflection on the reverse side of the K2 S-Level System (increase downforce). For module lengths from 158 cm to 167 cm.

Material: Aluminium

## K2 Scale Set



Article number				

Double support for taking up of ballast. Suitable for K2 S- and D-Level System. Locking mechanism with base rail SpeedRail FlatRail.

Material: Aluminium

The set consists of:

- Scale
- M K2
- Allen bolt M8x20
- Lock washer



# SYSTEM COMPONENTS

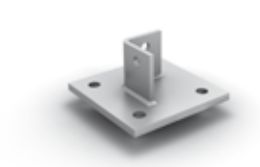
## K2 Rack N



Article number				

Statically optimised rack for screw foundation or concrete foundation. Suitable for K2 N-Rack System. L-Profile as supports, U-Profile or CrossRail 62 as transverse carrier.  
Material: Aluminium

## Foot L Anchor Plate



Article number				

Anchor plate for K2 Foot L for the fastening of the K2 N-Rack to the concrete foundation.  
Material: Stainless steel 1.4301

## Wind Brace



Article number				

Wind brace for the bracing of the K2 N-Rack System racks.  
Material: Stainless steel A2  
Alternatively: catenae

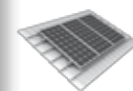
## Lock Nut DIN 985 M10



Article number				

Lock nut for fittings. With integrated plastic ring, alternative screw locking device to the locking nut.  
Material: Stainless steel beschichtet





## Screw Foundation



Article number				

Screw foundation for the fastening of the K2 N-Rack System in almost all soil classes.  
Available in different designs, project-specific.  
Material: galvanised steel

## K2 Adapter Tube



Article number				

Adapter tube for connection to K2 screw foundations with height adjustment,  
length: 0,4 m  
Material: galvanized steel

## K2 CrossAngle



Article number				

Aluminium angle to compensate for the East-West gradient in K2 N-rack and T-Rack  
2.11 System and for the connection of the upper belt.  
Material: Aluminium EN AW-6063 T66



# SYSTEM COMPONENTS

## K2 Ram post IPE 100



Article number				

Screw foundation for the fastening of the K2 T-Rack System in almost all soil classes.  
Available in different designs, project-specific.  
Material: galvanized steel

## K2 Rack-Head



Article number				

T-Rack Head for the fastening of the T-Rack bolt at the appropriate angle. With the hole pattern for system-height compensation.  
Material: galvanized steel

## K2 L-Angle 60 x 31 x 6



Article number				

L-angle for the connecting of the L-braces to the T-Rack 2.11 ram posts.  
With hole pattern for system-height compensation.  
Material: galvanized steel

## K2 Rack Fork



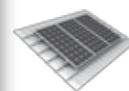
Article number				

Connecting element between T-Rack carrier and L-braces.  
Material: Aluminium





## SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

## GENERAL



# GENERAL CONDITIONS OF SERVICE OF K2 SYSTEMS GMBH

## § 1 Scope

(1) Unless explicitly agreed otherwise in writing, these general conditions of service (General Conditions of Service) shall apply to all contracts regarding our deliveries and services concluded by us with a customer as well as pre-existing contractual obligations in this regard. Other terms and conditions or purchasing terms shall not become the content of the contract, even if we do not explicitly contradict them.

This shall also apply if we perform our services to the customer without any reservation in awareness of contrary or deviating terms and conditions or these are referred to in individual correspondence.

(2) Even if not explicitly referred to once again when similar contracts are concluded in ongoing business relations, our General Conditions of Service shall apply exclusively in the same version as those which can be downloaded by the customer from (<http://www.k2-systems.de/english/gcs/>) when placing an order, unless explicitly agreed otherwise in writing between the contractual parties. The latest printed version of the General Conditions of Service will be sent to the customer free of charge upon request.

(3) These General Conditions of Service shall not apply in relation to consumers as defined by Section 13 of the German Civil Code [Bürgerliches Gesetzbuch (BGB)].

## § 2 Conclusion of Contract, Offer Documents

(1) Our offers are subject to confirmation and non-binding, unless the offer is declared in writing to be binding. The customer shall be bound by statements in connection with the conclusion of a contract (contractual offers) for two weeks.

(2) A legally binding relationship shall only come into existence through a contract signed by both contractual parties or through our written confirmation of the order, and moreover through commencement of the performance of contractual services by us. We may demand written confirmations of the customer's verbal declarations of willingness to enter into a contract.

(3) We reserve property rights and copyrights to illustrations, drawings, calculations, tools and other documents. This also applies to written documents which are designated as "confidential". The customer shall require our express written consent before passing these on to third parties or their use for third parties.

## § 3 Subject Matter of the Contract, Warranties, Modifications to Services

(1) The scope, type and quality of the deliveries and services shall be determined by the contract signed by both parties or by our confirmation of the order or otherwise by our offer. Other information or requirements shall only become an integral part of the contract if this is agreed in writing by the contractual parties or we have confirmed them in writing. Any subsequent modifications to the scope of services shall require written agreement or our express written confirmation.

(2) Product descriptions, illustrations and technical data are specifications of services, but do not constitute warranties. Any warranty must be explicitly stated as such in writing. Where warranties are mentioned in offers, these are exclusively our product warranties, which must be concluded directly with us.

Drawings, illustrations, measures, weights or other service data shall only be binding if this is explicitly agreed in writing.

(3) We reserve the right to make minor modifications to services, insofar as these modifications are of a minor nature, which can be reasonably imposed on the customer. In particular, the customer must accept any commercially customary deviations in quality, quantity, weight or other deviations even if it refers to brochures, illustrations or pictures when placing an order, unless these are explicitly agreed upon as a binding property.

## § 4 Time of Performance, Delays, Partial Performances, Place of Performance

(1) Any information about times of delivery and performance shall be non-binding, unless referred to as binding by us in writing. All delivery and performance periods shall be conditional on correct and punctual availability of supplies and raw materials. Delivery periods shall commence upon the sending of the confirmation of the order by us, but not before all commercial and technical matters between the customer and ourselves have been clarified and the customer has fulfilled all duties incumbent on it (e.g. provision of all necessary official authorisations or payment of agreed down payments).

(2) Delivery and performance periods shall be extended by the period in which the customer is in default of payment under the terms of the contract and by the period in which we are prevented from performing the delivery or service through circumstances for which we are not responsible, and by a reasonable run-up period after the end of the reason for the delay. These circumstances shall include force majeure, shortage of raw materials at relevant commodity markets, any delays caused by our suppliers and industrial disputes. Periods shall also be considered to be prolonged by any such time in which the customer breaches the contract by failing to meet its obligations to cooperate, e.g. by not providing information, supplies or staff.

(3) If the contractual parties subsequently agree to perform different or additional services affecting the agreed periods, these periods shall be prolonged by a reasonable period.

(4) If a postponement of delivery or performance dates is agreed at the customer's request, we shall be entitled to demand the remuneration at the time at which it would have been due without the postponement. The agreement on the postponement of such dates must be recorded in writing.

(5) Any reminders or setting of deadlines on the part of the customer shall only be valid if recorded in writing. A period of grace must be reasonable. A period of less than two weeks shall only be reasonable in cases of urgent necessity.

(6) We are entitled to perform partial services, inasmuch as the delivered parts can be reasonably used by the customer. We reserve the right to deliver excess or short supplies of up to 5 % of the scope of delivery.

(7) Agreed delivery dates shall be considered as having been complied with as soon as the goods have been handed over to the transport company on the agreed delivery date or as soon as we have given notice of their actual readiness for shipment.

(8) If our component supplier (definitively) fails to supply to us although we have taken due care in selecting such supplier and the order satisfies the requirements applicable under our obligation to supply, we shall be entitled to full or partial withdrawal in relation to the customer, if we notify the customer of the failure of the supply to us and – where admissible – offer the assignment of the claims to which we are entitled against the component supplier to the customer. When selecting our supplier, we shall not be liable for slightly negligent fault in the selection (*culpa in eligendo*).

(9) Unless otherwise stated or agreed, the place of performance of the service shall be our registered office.

## § 5 Packaging, Shipment, Passing of Risk, Insurance

(1) The risk is transferred to the customer as soon as the product has left our factory or distribution centre. This also applies to partial deliveries, deliveries in connection with supplementary performance and if we undertake further services, such as especially any shipping charges or delivery. If a contract for work exists which requires acceptance, risk is transferred upon acceptance.

(2) We shall select the mode of shipment, the carrier and transport route, unless we have received other written specifications by the customer. With regard to this selection, we shall only be liable for intent or gross negligence.

(3) At the customer's express request, the goods delivered shall be insured against the risks identified by the customer at its expense, inasmuch as this is feasible with reasonable time and effort for us.

## § 6 Prices, Remuneration, Payment, Set-Off

(1) Unless otherwise agreed upon by the contractual parties, all prices are valid ex works. All prices and remuneration are quoted in euros plus the applicable value added tax and other statutory charges applicable in the country of delivery, as well as plus transportation costs, expenses, packaging, shipment and, if applicable, insurance of goods in transit. Any additional services requested by the customer shall be invoiced on a time and material basis.

(2) Subject to para. 6, the contractually agreed prices in each case must be paid. Services shall be charged according to expenditure.

(3) Our goods shall in principle only be shipped against prepayment by bank transfer. The customer undertakes to pay the price for our deliveries and services immediately after conclusion of the contract, unless otherwise agreed. Unless, exceptionally, payment in advance is agreed and unless otherwise agreed by the contractual parties, payments are due without discount immediately after performance of the service and customer's receipt of the invoice and payable within 14 days.

(4) Unless specially agreed otherwise, we only accept non-cash payments, i.e. transfers to our bank account indicated in the contract documents. Bills of exchange and cheques shall in principle not be accepted, and if at all only in lieu of payment. The customer must pay the bill of exchange and cash discount charges incurred as well as the collection charges. These are due immediately. We shall not be liable for timely collection or timely protest if we are only responsible for slight negligence in this regard.

(5) If the customer is in default of payment, it shall be required to pay interest at the rate of eight percentage points above the relevant applicable base interest rate. This shall not affect the right to assert for further damage caused by the delay.

(6) If the customer is in default of payment for longer than 30 calendar days, bills of exchange or cheques are protested or if insolvency proceedings or comparable proceedings under other legal systems are filed against the customer's assets, we shall be entitled to immediately call all accounts receivable against the customer due and payable, withhold all deliveries and services, and assert all reservations of proprietary rights.

(7) The customer shall only be entitled to set off our claims against claims undisputed by us or recognised by declaratory judgment. Apart from Section 354 a HGB (German Commercial Code), the customer shall be entitled to assign rights to a third party only after our prior written confirmation. The customer shall only have a right of retention or the defence of non-performance within the respective contractual relationship.



(8) Circumstances which occur after conclusion of the contract and which influence the calculation basis unforeseeably to a significant extent and are beyond our sphere of control shall entitle us to adjust the agreed price in an amount exclusively taking into account these circumstances. This especially applies to legislative amendments, official measures, price increases of our primary suppliers and currency fluctuations. The price adjusted on this basis is based on the same calculation basis as the originally agreed price and may not be used to increase the profit.

(9) If we receive unfavourable information about the customer's financial circumstances or credit standing, unless, exceptionally, payment in advance must be made anyway - we may make the processing and delivery dependent on a reasonable down payment by the customer or on the provision of security through a deposit or a bank guarantee.

## § 7 Retention of Title

(1) Our services remain our property until full payment of all claims against the customer to which we are entitled from the business relationship. These claims shall also include drafts and bills of exchange receivable as well as current account receivables.

(2) The customer is obliged to treat the goods that are subject to retention of title carefully for the period of retention of title. It is also obliged to insure the goods sufficiently at the reinstatement value against damage caused by fire, water and theft at its own expense. The customer hereby assigns to us already any claims for damages arising from this insurance. We hereby accept the assignment. If the assignment is not permissible, the customer shall hereby irrevocably instruct its insurance company to effect any payments solely to us. This shall not affect any further claims that we may have. Upon our request, the customer must furnish documentary proof to us that it has taken out insurance.

(3) The customer is only permitted to sell the goods subject to retention of title in the regular course of business. The customer is not entitled to pledge the goods subject to retention of title, transfer them by way of security or make other arrangements that prejudice our ownership. In the event of seizures or other infringements by third parties, the customer is obliged to inform us immediately in writing and provide all necessary information, inform the third party about our ownership rights and assist us in our activities to protect the goods subject to retention of title. The customer shall bear any costs incurred by it, which may be due in order to cancel access to the goods or replace the goods, insofar as these costs cannot be recovered from a third party.

(4) The customer hereby assigns to us already all outstanding debts from resale of the goods and all ancillary rights, regardless of whether the goods subject to retention of title were resold without or after processing. We hereby accept this assignment already now. If an assignment is not admissible, the customer hereby irrevocably instructs the garnishee to effect any payments solely to us. The customer is revocably authorised to collect the debts assigned to us in a fiduciary capacity. The amount collected shall be paid to us immediately. We are entitled to revoke the customer's authorisation to collect the amounts due as well as the customer's authorisation to resell the goods, if the customer does not meet its payment obligations towards us in proper form, if it is in default of payment, if it ceases payment or if insolvency proceedings are filed regarding the customer's assets. A resale of claims shall require our prior consent. The customer's collection authorisation shall expire upon notice of the assignment to the garnishee. If the collection authorisation is withdrawn, we shall be entitled to demand from the customer to notify the assigned debts and their debtors, provide all information required, hand out the associated documents and inform the obligors of the assignment.

(5) In case the customer's debts from the re-sale are transferred to a current account, the customer hereby also assigns its claim against its customer from the current account already to us, and namely in the amount of the purchase price of the goods resold subject to retention of title including VAT.

(6) If we assert our claims in accordance with § 6 para. 6, the customer is immediately obliged to grant us access to the goods subject to retention of title, send us a detailed list of all the existing goods subject to retention of title, separate the goods for us and to return them to us upon request.

(7) The processing or remodelling of the goods subject to retention of title by the customer shall be carried out solely for us. The customer's expectant right to the goods subject to retention of title shall carry forward to the processed or remodelled item. If the item is irrevocably processed, combined or mixed with other items not owned by us, we shall thereby become co-owner of the new item, reflecting the proportion of the value of the delivered item relative to the other processed items at the time of processing. The customer shall keep the new item in safe custody for us. The item originating from the processing or remodelling is thereby subject to the same regulations as the goods subject to retention of title.

(8) At the customer's request, we are obliged to release the securities that it is legally entitled to, if the realisable value of the securities, taking into account the valuation haircuts customary in the banking sector, exceeds our claims resulting from the business relationship with the customer by more than 10 %. The valuation shall be based on the invoice value of the goods subject to retention of title and on the nominal value in relation to claims.

(9) If any goods are delivered to countries with a different legal system, in which the regulations regarding retention of title do not guarantee the same degree of security pursuant to this paragraph as in the Federal Republic of Germany, the customer hereby acknowledges the corresponding security interest. If further declarations or actions are necessary, the customer shall provide these declarations and take action accordingly. The customer shall participate in all steps necessary for and beneficial to the efficacy and enforceability of these security interests.

## § 8 Contractual Obligations and Termination of Contract

(1) The customer may only terminate the exchange of services prematurely in case of a breach of duty on our part, for whatever legal reason (e.g. in the case of withdrawal, claim for damages in lieu of the service, termination for cause) in addition to the statutory requirements subject to the following requirements:

a) The breach of contract shall be specifically notified. The remedy of the fault shall be requested within a stipulated time period. In addition, the threat shall be issued that after expiry of this period without results, no further services concerning the notified fault will be accepted and therefore the partial or complete exchange of services will be terminated.

b) The period for remedying the fault must be adequate. A period of less than two weeks is only appropriate in cases of urgent necessity. In case of serious and final refusal of performance or subject to the other statutory requirements (Section 323, para. 2 BGB) the setting of a deadline may be dispensed with.

c) The termination of the exchange of services (partially or completely) due to the inability to remedy the fault may only be declared within three weeks after end of this period. The period is delayed for the duration of negotiations.

(2) The customer may only demand the rescission of the contract due to a delay in performance if we are exclusively or predominantly responsible for the delay, unless after assessing the different interests, the adherence to the contract cannot be reasonably imposed on the customer due to the delay.

(3) Any declarations made in this context shall only be valid if recorded in writing.

(4) Notice of termination in accordance with Section 649 BGB shall remain valid in accordance with the legal regulations.

(5) We are entitled to cancel the contractual relationship with immediate effect for the following reasons: if the customer has provided incorrect information regarding its credit worthiness or definitively discontinued payments or if proceedings have been filed against it for affirmation in lieu of an oath, if insolvency proceedings have been filed regarding the customer's assets or comparable proceedings under different legal systems have been commenced or if an application to do so has been filed, unless the customer pays in advance without delay. Furthermore, we may cancel the contractual relationship without delay if the customer has to pay in advance and it is at least 14 days in default in this regard.

## § 9 Customer's General Duties

(1) The customer is obliged to have all of our deliveries and services checked by a competent employee either immediately after delivery, or on receipt according to § 1, para. 1, or upon accessibility in accordance with the commercial law regulations (Section 377 of the German Civil Code (HGB)), and send notification of recognizable and/or recognized defects immediately and in writing, including a detailed description of the defect.

(2) The customer acknowledges that we are dependent on its comprehensive support in order to provide the deliveries and services owed by us successfully and in a timely manner. The customer therefore undertakes to provide all required information in full in a timely manner for the service to be performed properly.

(3) The customer undertakes to test our services thoroughly for usability in the specific application and to subject these to a functional test before assembly, any subsequent delivery etc. This also applies to delivery items which the customer receives free of charge within the terms of the warranty.

(4) The customer shall secure data that can be affected, negatively influenced or endangered by our services at appropriate intervals, but at least once daily, in a machine-readable form and shall thereby guarantee that this data will be retrievable with reasonable effort.

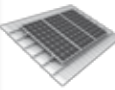
(5) The customer shall take adequate precautions in case we partially or completely fail to provide our deliveries and services appropriately (e.g. by securing data, fault diagnosis, checking the results regularly, emergency planning).

## § 10 Limitation of Use, Indemnity

(1) Unless otherwise explicitly agreed in writing, our services are not intended for use in life-sustaining or life-supporting devices and systems, nuclear power plants, for military purposes, application in aerospace or other purposes where malfunction of the product can, within reasonable assessment, lead to life-threatening situations or cause catastrophic consequential damage.

(2) If the customer breaches para. 1, this shall occur at the customer's own risk and sole responsibility. The customer hereby indemnifies and holds harmless both ourselves and the respective producer to the full extent at first request from any liability resulting from the use of goods in the above-mentioned contexts, including the cost of an appropriate legal defence.

## SYSTEMS



Pitched Roof Systems



Flat Roof Systems



Supplementary Systems



Ground Mounted Systems

## PRODUCTS



Mounting Rails



Roof Attachments



Mounting module



Screws & Nuts



Accessories



System components

## GENERAL



# GENERAL CONDITIONS OF SERVICE OF K2 SYSTEMS GMBH

## § 11 Material Defects

(1) Our services have the stipulated properties and condition, and are suitable for the contractually agreed use, or if no agreement is reached, are fit for normal use. Without explicit further agreement, it is solely guaranteed that our services will be free from defects in accordance with the current state of the art. It is the customer's sole responsibility to guarantee the fitness and security of our services for an application provided by the customer. A negligible reduction in quality shall not be taken into account.

(2) Warranty is excluded:

- a) if our products are not stored, installed, operated or used properly by the customer or a third party,
- b) in case of natural wear and tear,
- c) if the product is not maintained properly,
- d) if the product is used in connection with unsuitable equipment,
- e) in case of defects caused by repairs or other work carried out by third parties, which were not explicitly approved by us.

It is the customer's responsibility to prove that these exclusion criteria do not apply.

In addition, the customer's right to claim defects requires that it has properly attended to its obligations to inspect and give notice of non-conformity in accordance with § 9 para. 1 and has given notice of hidden defects in writing immediately after their discovery.

(3) In case of material defects, we may firstly provide supplementary performance. The supplementary performance shall be carried out according to our choice by remedying the defect, by delivering goods and/or services that do not have the defect, or by pointing out a possible way to avoid the effects of the defect. At least two attempts to remedy a defect have to be accepted. The customer shall accept an equivalent new or earlier product version without defect as supplementary performance, if this can be reasonably imposed on it.

(4) The customer shall support us in connection with the analysis of errors and remedy of the defect by precisely describing any problems occurring, by informing us comprehensively and giving us the necessary time and opportunity to remedy the defect.

(5) We may demand payment if additional costs are incurred by us due to our products or services being modified or incorrectly operated. We may demand reimbursement of expenses if no defect is found. The burden of proof shall lie with the customer. Section 254 BGB shall apply accordingly.

If expenses, including cost of transport, travel, work and material increase during the attempt to remedy the defect, we are not obliged to bear these costs if expenses increase due to the fact that the delivery item was subsequently transported by the customer to a different place than the place of delivery, unless the transport complies with its contractual and intended use. Staff and material costs that the customer claims due to defects of our services must be charged based on net costs.

(6) Defective goods may only be returned to us for the purpose of the supplementary performance with the prior written consent in accordance with the rules existing in our company. The risk of accidental loss or deterioration of the goods shall only pass at the time of the acceptance by us at our business premises.

(7) If we definitively refuse to remedy the defects, or if the remedy definitively fails or is unreasonable for the customer, the customer is allowed either to terminate the contract in accordance with the legal regulations in compliance with § 9, or reduce payment appropriately and, if we are responsible, additionally claim damages and reimbursement of expenses in accordance with § 13. The claims shall lapse in accordance with § 14. This shall not affect the regulations of Sections 478, 479 BGB, unless United Nations Convention on Contracts for the International Sale of Goods (CISG) is applicable.

## § 12 Defects of Title

(1) Unless otherwise agreed, we are obliged to perform our services free from industrial property rights and third-party copyrights (hereinafter referred to as property rights) solely in the country of the place of delivery. If a third party asserts a justified claim against the customer owing to the infringement of property rights caused by services provided by us based on the contract, we shall be liable to our customer within the period defined in § 14 as follows:

(2) We will either obtain a right of use for the services in question, change them accordingly to avoid the infringement of the property right or replace them according to our choice and at our expense. If we are not able to do so under reasonable conditions, the customer shall be entitled to statutory rights of withdrawal or reduction. The customer may not claim damages for futile expenses.

(3) Our obligation to pay damages is based on the legal stipulation in accordance with § 13.

(4) Our duties mentioned above shall only exist if the customer informs us immediately in writing regarding claims asserted by third parties, if it does not recognise an infringement and we reserve the right to carry out all defence mechanisms and all negotiations to reach a compromise. If the customer terminates use of the delivery in order to minimise damage or for other important reasons, it shall be obliged to point out to the third party that the termination of use does not involve any acknowledgement of an infringement of property rights.

(5) Claims asserted by the customer are excluded if the customer is responsible for the infringement of property rights. Claims asserted by the customer are also excluded if the infringement

of property rights has been caused by the customer's particular specifications, by an application that was not foreseeable by us, or as a result of a change in delivery caused by the customer, or if used together with products not delivered by us.

(6) In all other cases, the regulations of § 11 shall apply accordingly.

(7) Any further claims or the customer's claims other than those mentioned here, either against us or our vicarious agents, due to a defect of title, are excluded.

## § 13 Liability

(1) We shall pay damages or compensation for futile expenses, for whatever legal reason (e.g. obligation based on legal or similar transactions, material defects or defects of title, breach of duty or tortious act) only if we are at fault (intent or negligence) to the following extent:

a) Liability in case of intent and under a warranty shall be unlimited.

b) In case of gross negligence, we shall be liable to the extent of typical and foreseeable damage.

c) In other cases, we shall only be liable in case of the breach of a material contractual obligation, claims for defects and delay, namely for the reimbursement of typical and foreseeable damage.

Liability in this regard is limited to twice the amount of the agreed remuneration of the order/part of the contract affected by the damage per claim and to three times the order value for all claims under this contractual relationship.

According to German court rulings, material contractual obligations (cardinal obligations) are obligations whose fulfilment is a prerequisite for enabling the proper fulfilment of the contract in the first place and in which the contractual party may normally trust.

(2) In case of injury to life, body and health and claims from the German Product Liability Act [Produkthaftungsgesetz], the statutory regulations shall apply exclusively.

(3) Our option to raise an objection of contributory negligence shall remain open.

## § 14 Limitation of Actions

The deadline for limitation of actions is:

a) one year from delivery of goods for claims for repayment of the purchase price and withdrawal or reduction; however, if these claims are based on a proper, not statute-barred notice of defects, no less than three months after presenting the valid notice of withdrawal or reduction.

b) one year, in case of other claims concerning material defects;

c) one year in case of claims concerning defects of title. If the defect of title is a right in rem of a third party, based on which the return of the item can be demanded, the statutory limitation periods shall apply.

d) in case of other claims for damages or reimbursement of futile expenses, one year, starting from the time at which the customer became aware of the circumstances the claims are based on, or had to become aware of without gross negligence.

The limitation of actions shall begin at the end of the maximum statutory period at the latest (Section 199 para. 3, para. 4 BGB).

(2) In case of the reimbursement of damages and expenses, gross negligence, warranty, fraudulent intent as well as injuries to life, limb and health and claims under the German Product Liability Act, the statutory regulations shall always apply.

## § 15 Confidentiality, Data Security, Naming the Customer as a Reference Customer

(1) The customer undertakes to treat as confidential all items (documents, information, software) that it becomes aware of or receives from the other contractual party either prior to or during the performance of the contract that are protected by law, or obviously contain business or company secrets or are identified as confidential, even after expiry of the contract, unless they are publicly known without a breach of the confidentiality obligation or if no legal interest worthy of protection regarding the contractual party exists.

The customer agrees to store and secure these items in such a way as to prevent fraudulent use by third parties.

(2) The customer undertakes to make the objects subject to the confidentiality obligation according to paragraph 1 only accessible to employees or other third parties who require access in order to carry out their official duties and responsibilities. It shall instruct these persons on the need for confidentiality regarding these objects.

(3) We will process the necessary customer data relevant to business transactions with due regard for the data protection regulations. We may name the customer as a reference customer.

## § 16 Social Clause

When determining the amount of any claim for compensation to be fulfilled by us or in connection with this contract, our economic situation, the type, extent and duration of the business relationship, any possible contribution to the cause and/or fault on the part of the customer and a particularly disadvantageous installation of the item shall be taken into account appropriately for our benefit. In particular, any compensation, cost and expenses that we are expected to bear shall be proportionate to the value of the delivered part.



### § 17 Written Form Clause

All changes and amendments to the contract shall only be valid if recorded in writing. The contractual parties shall comply with this requirement by sending documents in written or electronic form, particularly by fax or e-mail, unless other requirements for individual declarations exist. The written form requirement itself may only be revoked in writing.

### § 18 Severability Clause

Should one of the provisions of these General Conditions of Service be or become invalid, or should these General Conditions of Service be incomplete, this shall not affect the validity of the other provisions. The contractual parties shall substitute the invalid provision by a provision which approximates most closely to the sense and purpose of the invalid provision. The same applies to gaps in the contract.

### § 19 Choice of Law

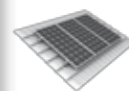
The law of the Federal Republic of Germany, including the provisions on the application of the United Nations Convention on Contracts for the International Sale of Goods (CISG) as part of German law, shall apply.

### § 20 Legal Venue

The legal venue for all disputes arising from and in connection with this contract shall be Stuttgart (Germany), insofar as the customer is a businessperson, a public law entity or a special fund under public law, or treated as equivalent to such, or if its registered office or branch office is outside Germany. We are also entitled to bring a legal action at the customer's registered office as well as any other admissible legal venue.

Last revised: February 2012

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## GENERAL



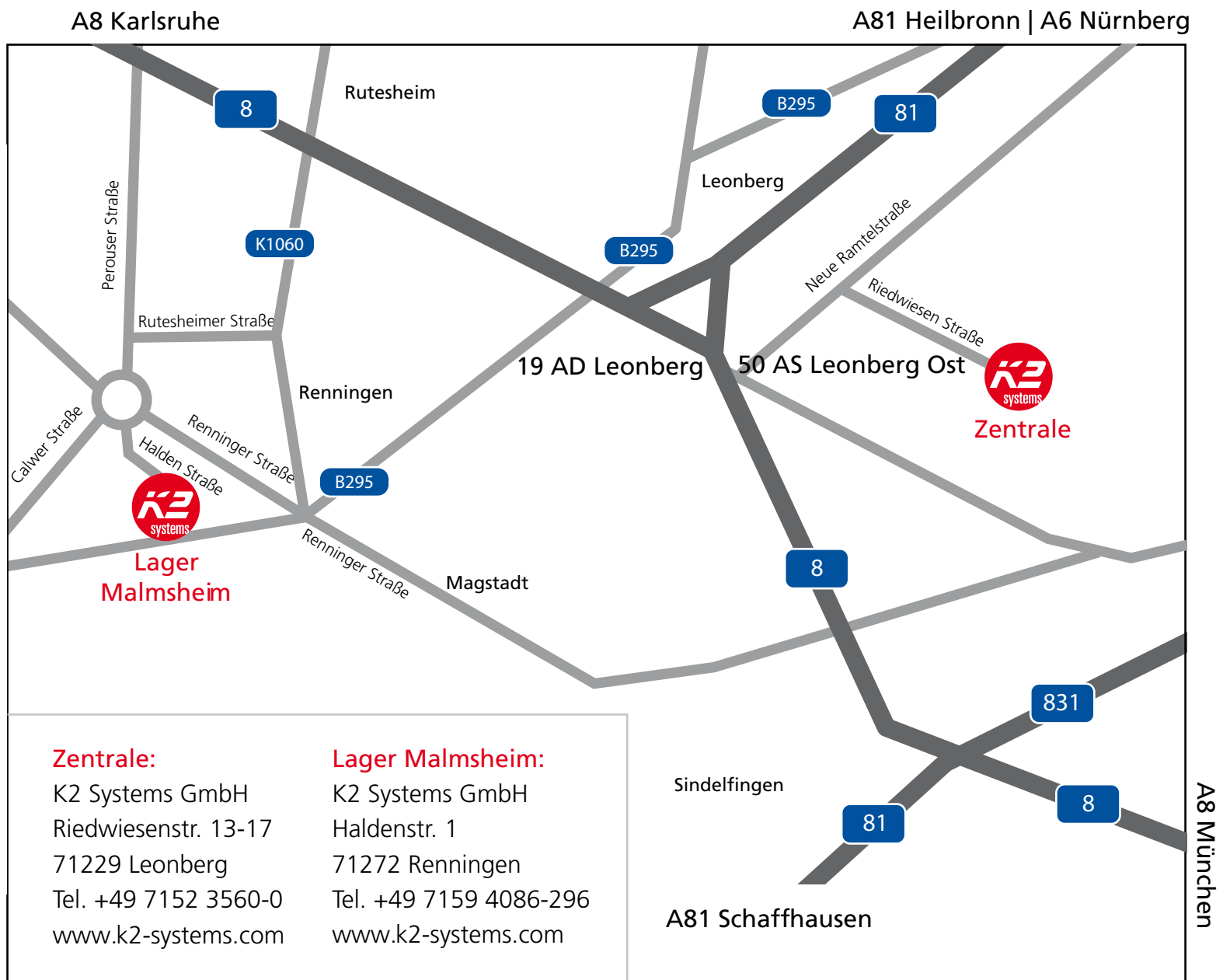
## NOTES





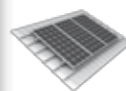


# APPROACH





## SYSTEMS



Pitched Roof  
Systems



Flat Roof  
Systems



Supplementary  
Systems



Ground Mounted  
Systems

## PRODUCTS



Mounting  
Rails



Roof  
Attachments



Mounting  
module



Screws &  
Nuts



Accessories



System  
components

## GENERAL



Mounting systems for solar technology



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