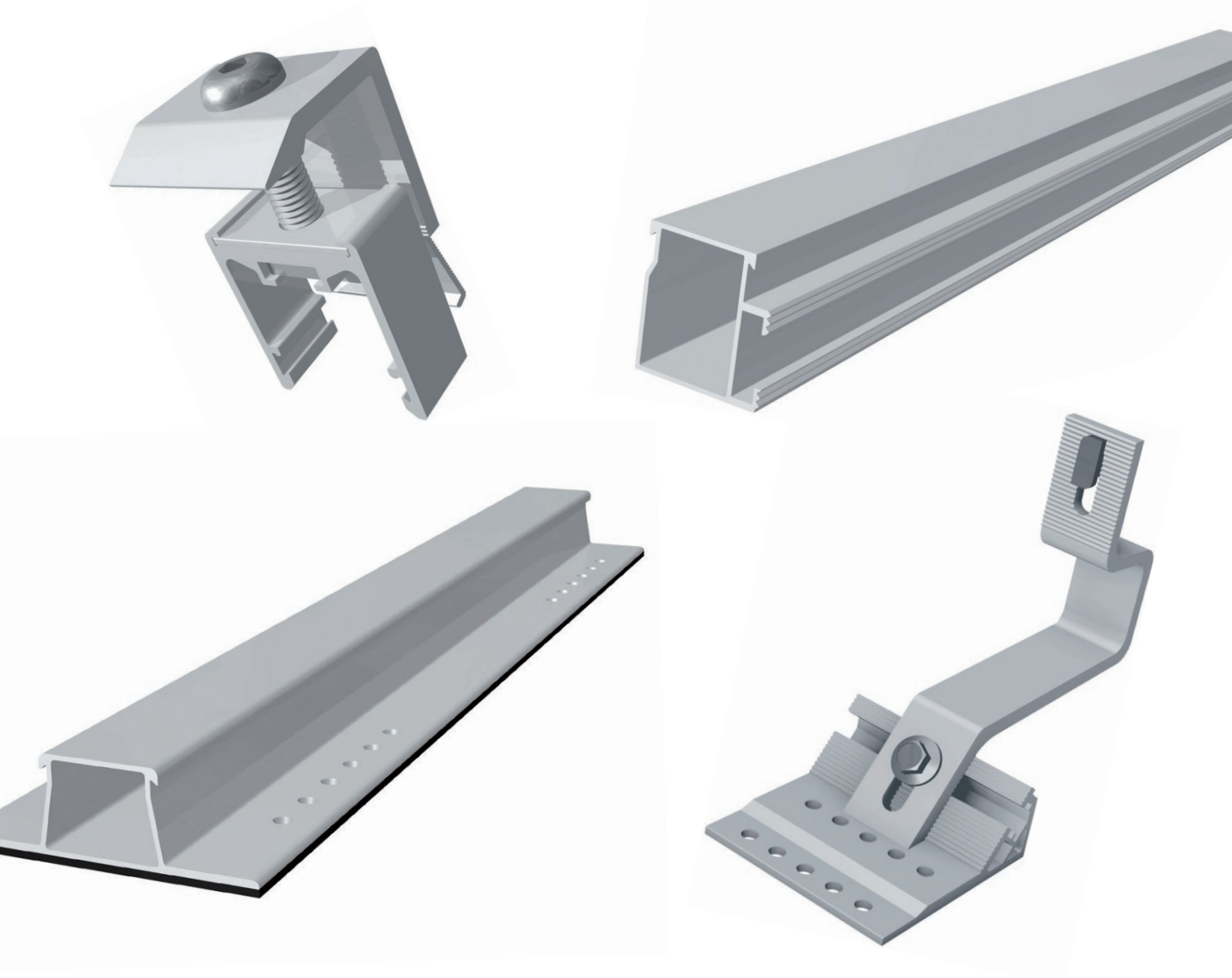




S:FLEX PRODUCTS 2023



Premium Materials • Proven 'Click' Technology • Precision without Cutting
Pre-Assembled and Height-Adjustable • Full Warranties and First-Class Service

S:FLEX GmbH HQ

Reinbeker Weg 9
21029 Hamburg
Germany
Phone +49-40-688 93 17 0
Fax +49-40-688 93 17 99
info@sflex.com
www.sflex.com

S:FLEX GmbH

Elsäßer Straße 12
79189 Bad Krozingen
Germany
Phone +49-761 888 56 08 0
Fax +49-761 888 56 08 39
info@sflex.com
www.sflex.com

S:FLEX GmbH

Maulbeerstraße 13b
15834 Rangsdorf / Berlin
Germany
Phone +49-33708 35 53 0
info@sflex.com
www.sflex.com

S:FLEX Mounting Systems UK

Unit 5, Skypark International
Blenheim Way
Liverpool L24 1YH
United Kingdom
Phone +44-151 448 5769
info-uk@sflex.com
www.sflex.com

S:FLEX Nederland

Koematen 33B
8331 TK STEENWIJK
Netherlands
Phone +31-521 34 40 29
nederland@sflex.com
www.sflex.com

S:FLEX España/Portugal

C/ d'America, 54
08205 Sabadell / Barcelona
Spain
Phone +34-930 321 182
info@sflex.com
www.sflex.com

S:FLEX South-East Europe

Phone +49-761-888 56 08 30
info@sflex.com
www.sflex.com

S:FLEX Southern Africa

37 Buckingham Road
3610 Kloof (Durban)
South Africa
Phone +27-31 764 1940
Fax +27-76 765 4416
info-sa@sflex.com
www.sflex.com

S:FLEX Middle East

11947 Amman
Jordan
Phone +49-174 917 53 41
info@sflex.com
www.sflex.com

S:FLEX Inc. USA

info@sflex.com
www.sflex.com

General information

All transactions are subject to the terms and conditions of S:FLEX, published online at <https://www.sflex.com>, as well as additional agreements confirmed by acceptance of the order.

All prices in EUR, excl. VAT.

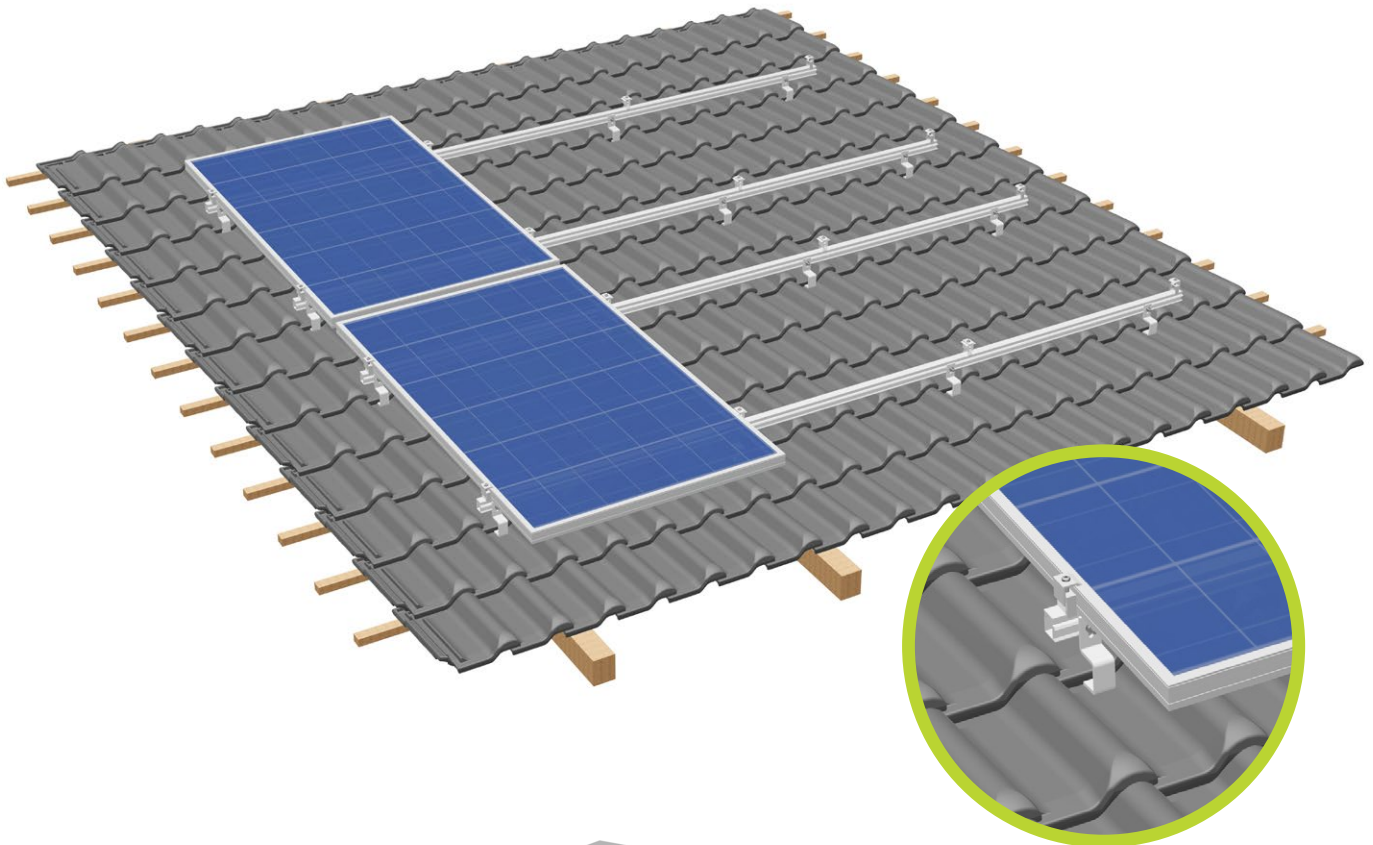
Delivery solely in packing units. We reserve the right to make changes in design and technique, dimensions, weight and materials for the purpose of improving products.

Illustrations without obligation. Errors, omissions and changes excepted.

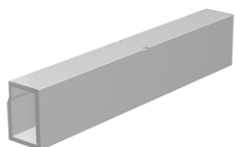
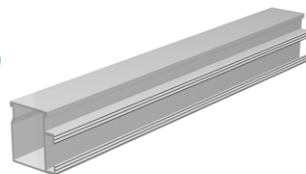
With publication of this catalogue other catalogues lose their validity.

Last updated 11/2023

Article	Page
Examples of structures	4 – 18
Mounting rails	
ST-AK 5/40	19, 20
ST-AK 7/47	21, 22
ST-AK 13/60	23
ST-AK 26/70	24
ST-AK 182/120	25
Trapezoidal sheet metal fastening / HS rails	26
Trapezoidal sheet metal HS rails	27
Trapezoidal sheet metal rail Lift / Bracket for sheet metal installation	28
PV module fastening	
End clamps	29
Mid-clamps	30
Laminate clamps AK Klick	31
Laminate clamps AK 80 TPE	32
Fastening to the roof	
Roof hooks Alu	33
Roof hooks Alu / Vario	34
Roof hooks heavy duty	35
Roof hooks Plain tile / Slate	36
Roof hook accessories	37
Standing seam clamps	38
Brackets / Adapter rails	39
Screw fastening	
Hanger bolts	40
Solar fasteners type BZ for metal	41
Solar fasteners type A for wood	42
Wood screws	43, 44
Accessories	
Cross adapter clamps / Safety material	45
Sheet metal screws / Rivets / Hammer head bolts	46
Serrated nuts / Hexagon socket head cap screw	47
Cables straps / Grounding material	48
Base triangles	
Vario	49
Delta AK II	50, 51

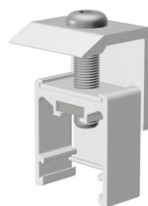


Mounting rail ST-AK 5/40



Splice 5

End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A

Roof hook Alu 93-7-45



Application:

Pitched roof with tiles

Fastening:

Roof hook on rafters (min. rafter width 36 mm)

Roof pitch:

Up to 75 degrees

Module type:

Framed and frameless modules

Module orientation:

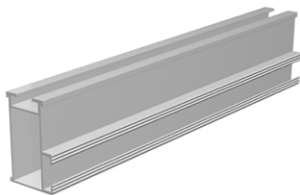
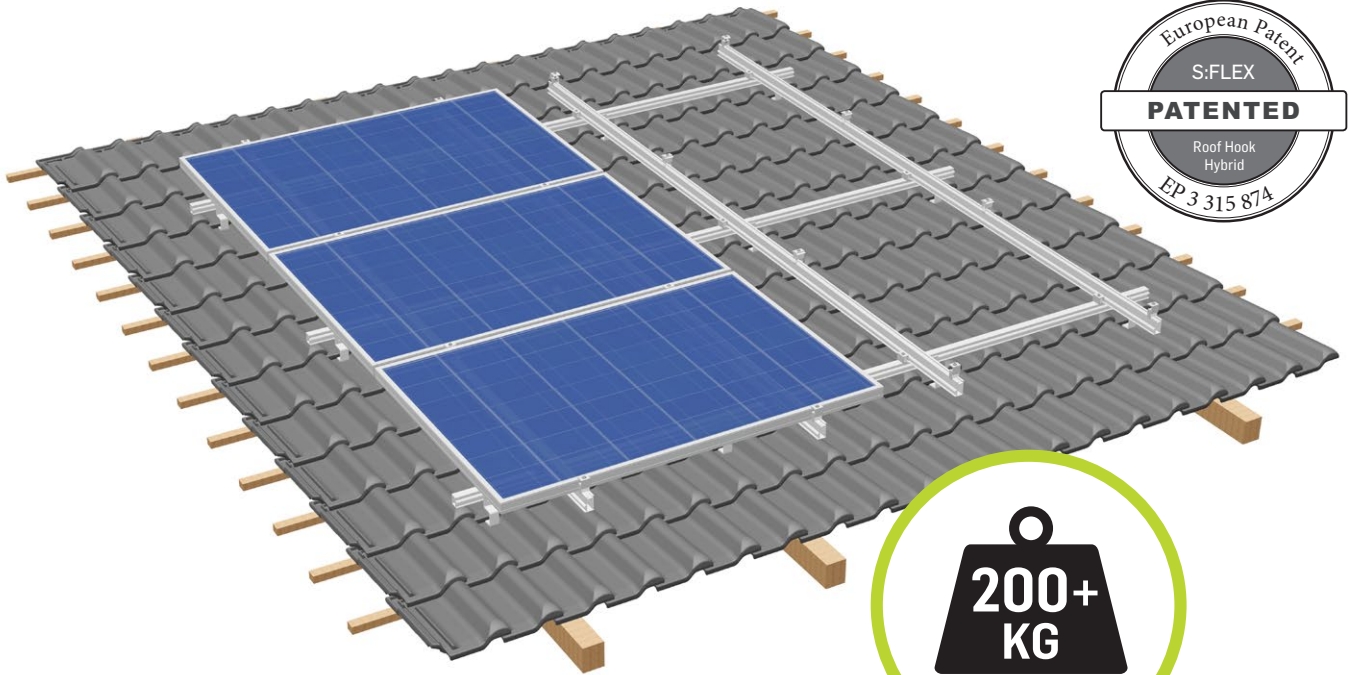
Landscape / portrait

Layers of rails:

Single / double layer

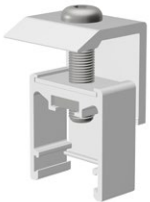
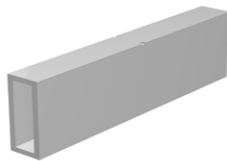
Advantages:

- Every size of module array possible
- Height compensation: 40–58 mm in the batten zone / 21 mm in the rail zone
- For all common rafter distances



Mounting rail
ST-AK 13/60

Splice 13



End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A



Roof hook Hybrid
112-7-46 8mm II

Roof hook Hybrid
112-7-56 XL 8mm



Metal roof tile
e.g. concrete type

Application:

Pitched roof with tiles

Fastening:

Roof hook on rafters (min. rafter width 45 mm)

Roof pitch:

Up to 75 degrees

Module type:

Framed and frameless modules

Module orientation:

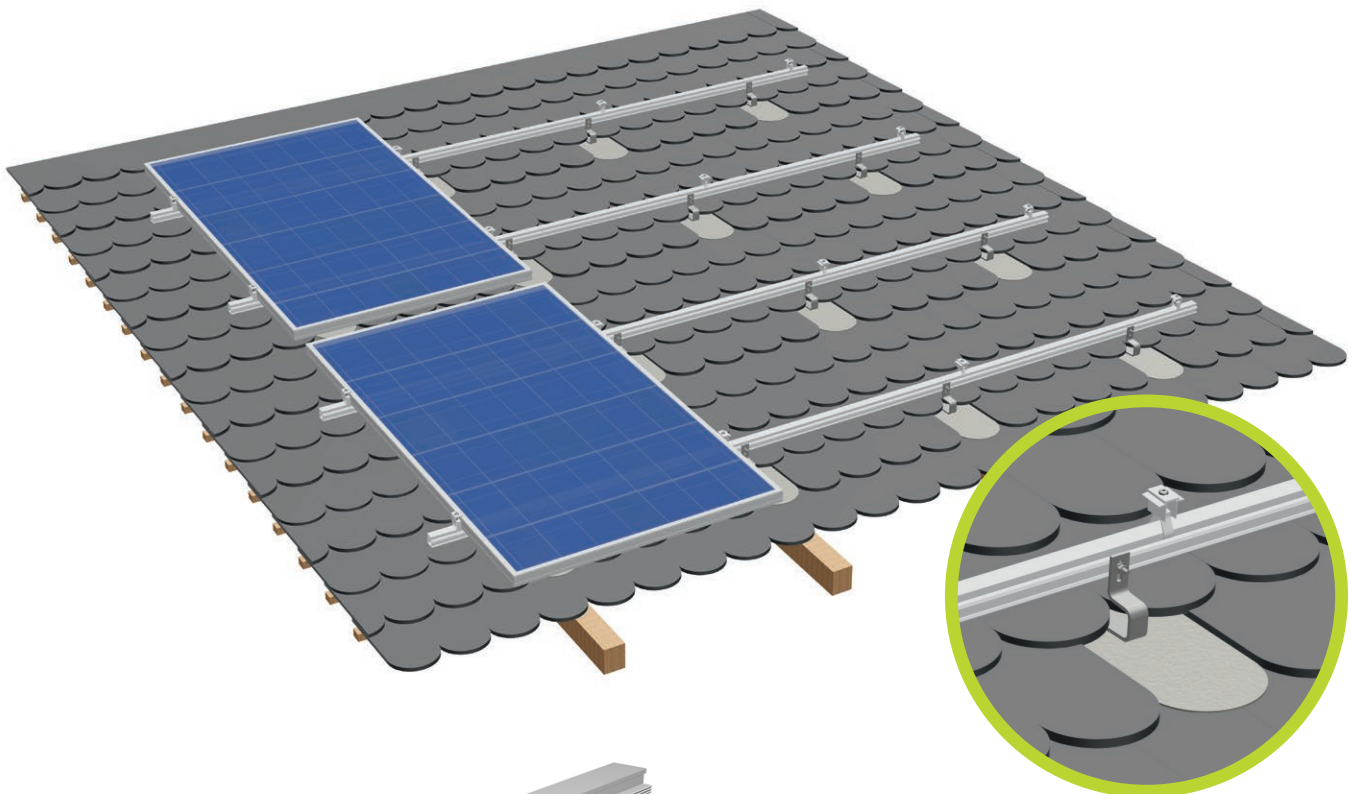
Landscape / portrait

Layers of rails:

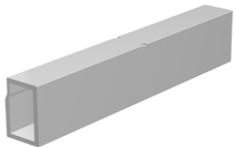
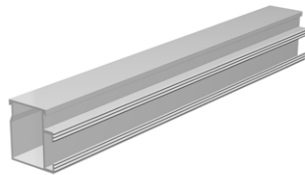
Single / double layer

Advantages:

- Suitable for particularly high loads
- Also available as XL version for large-format tiles
- Use of metal roof tiles provides additional protection for the roof covering
- Every size of module array possible
- Height compensation in the batten zone:
46-61 mm (DH Hybrid) / 56-72 mm (DH Hybrid XL)
- For all common rafter distances

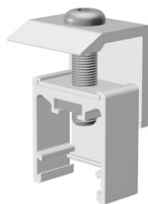


Mounting rail ST-AK 5/40



Splice 5

End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A

Roof hook plain tile 30x6



Metal roof tile
type "Biber Vario" zinc plated

Application:

Pitched roof with plain tiles

Fastening:

Roof hook on rafters (min. rafter width 48 mm) with matching metal roof tile

Roof pitch:

Up to 75 degrees

Module type:

Framed and frameless modules

Module orientation:

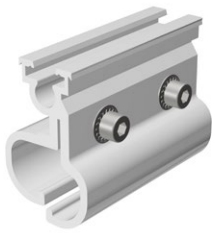
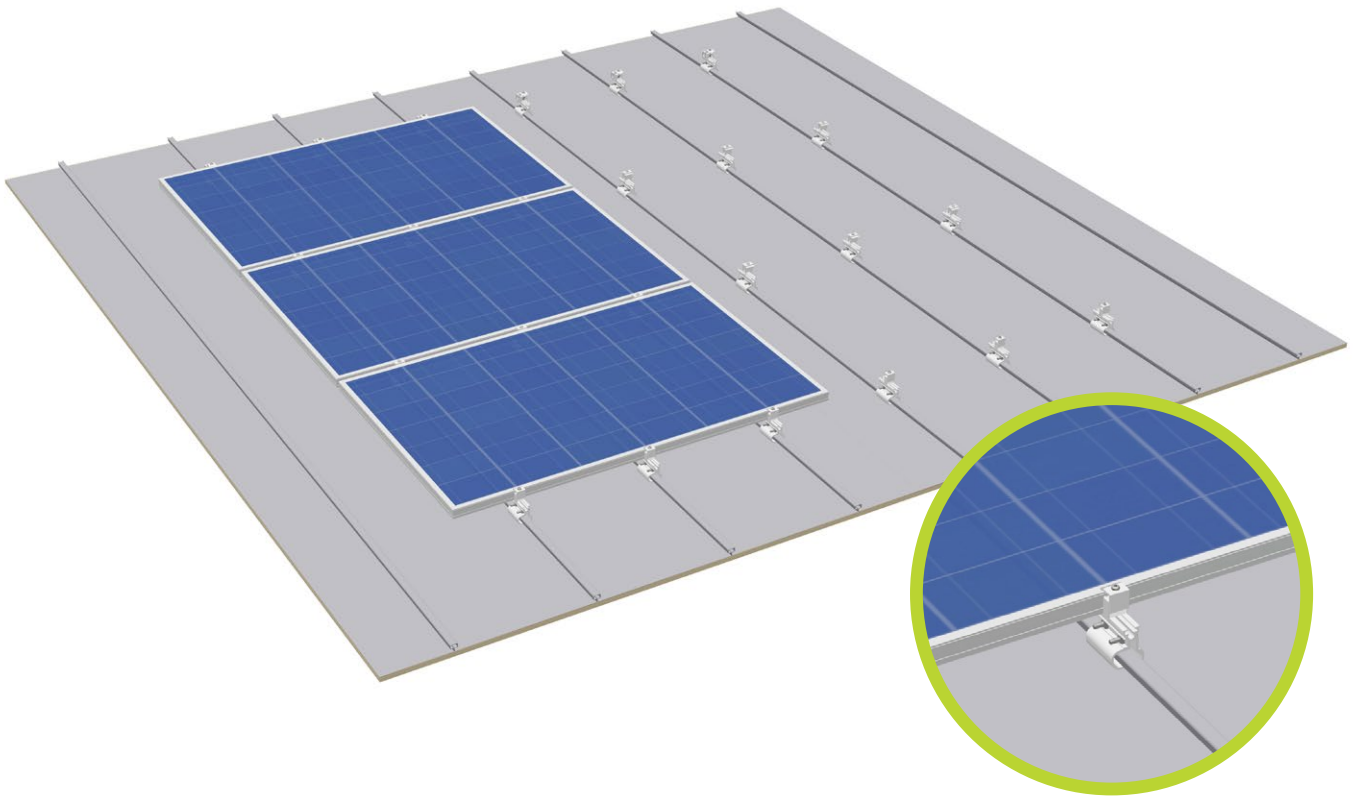
Portrait/landscape

Layers of rails:

Single/double layer

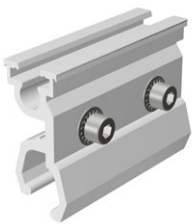
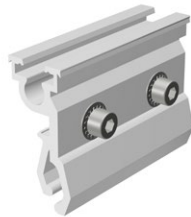
Advantages:

- Every size of module array possible
- For all common rafter distances



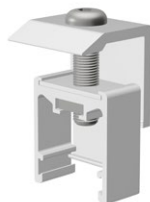
Standing seam clamp 2.1

Standing seam clamp DCO



Standing seam clamp CL

End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A



Application:

Standing seam clamp 2.1: Seamed roofing, e.g. standing seam, round seam, angle seam
Standing seam clamp DCO and CL: Industrial metal roof systems, e.g. Domitec/GBS, Klip-Lok 700, RibRoof 465

Fastening:

Non-penetrative

Module type:

Framed modules

Module orientation:

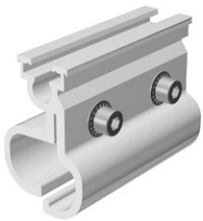
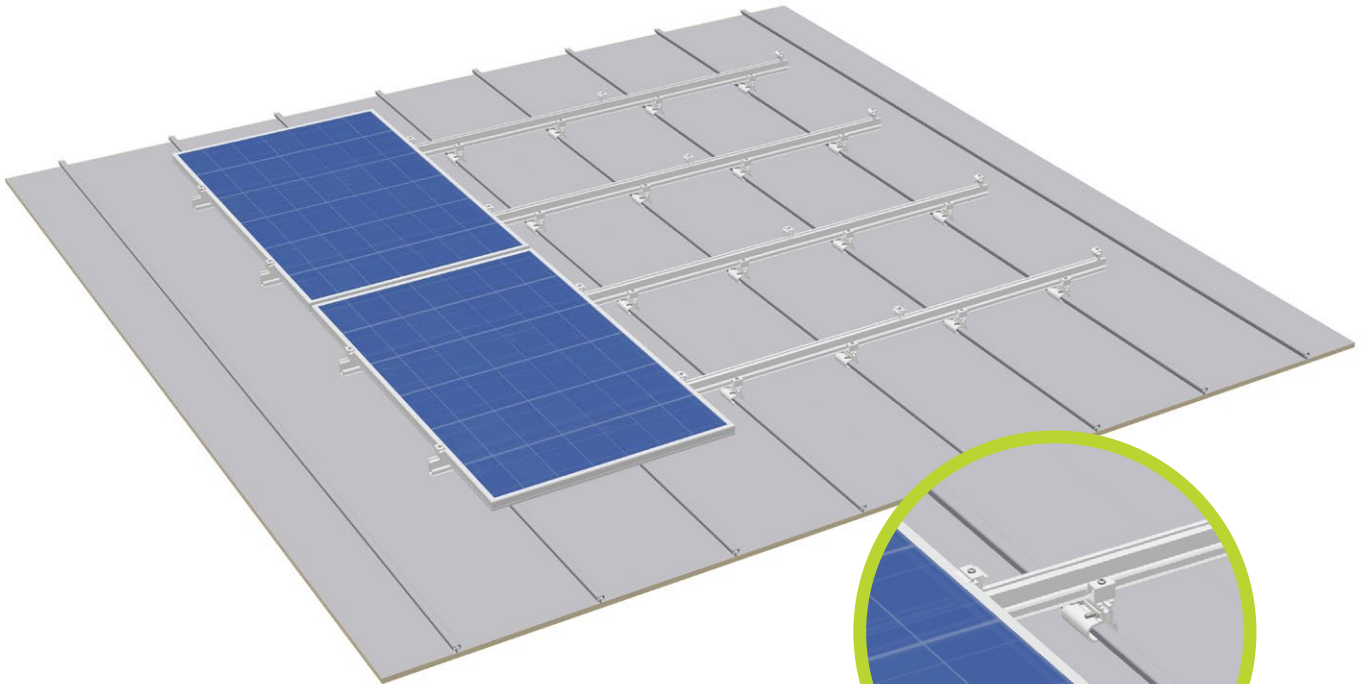
Landscape/portrait (for clamping on the short side)

Layers of rails:

Single layer

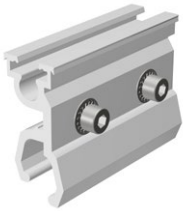
Advantages:

- Modules mounted directly to the standing seam clamps
- No rails necessary
- Low material/logistics/installation costs
- Quick mounting
- No roof penetration



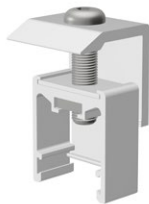
Standing seam clamp 2.1

Standing seam clamp DCO



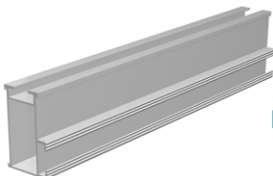
Standing seam clamp CL

End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A

Cross adapter clamp AK



Mounting rail ST-AK 13/60

Application:

Standing seam clamp 2.1: Seamed roofing, e.g. standing seam, round seam, angle seam
Standing seam clamp DCO and CL: Industrial metal roof systems, e.g. Domitec/GBS, Klip-Lok 700, RibRoof 465

Fastening:

Non-penetrative

Module type:

Framed modules

Module orientation:

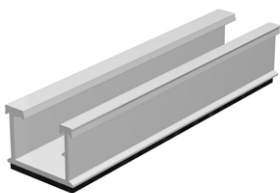
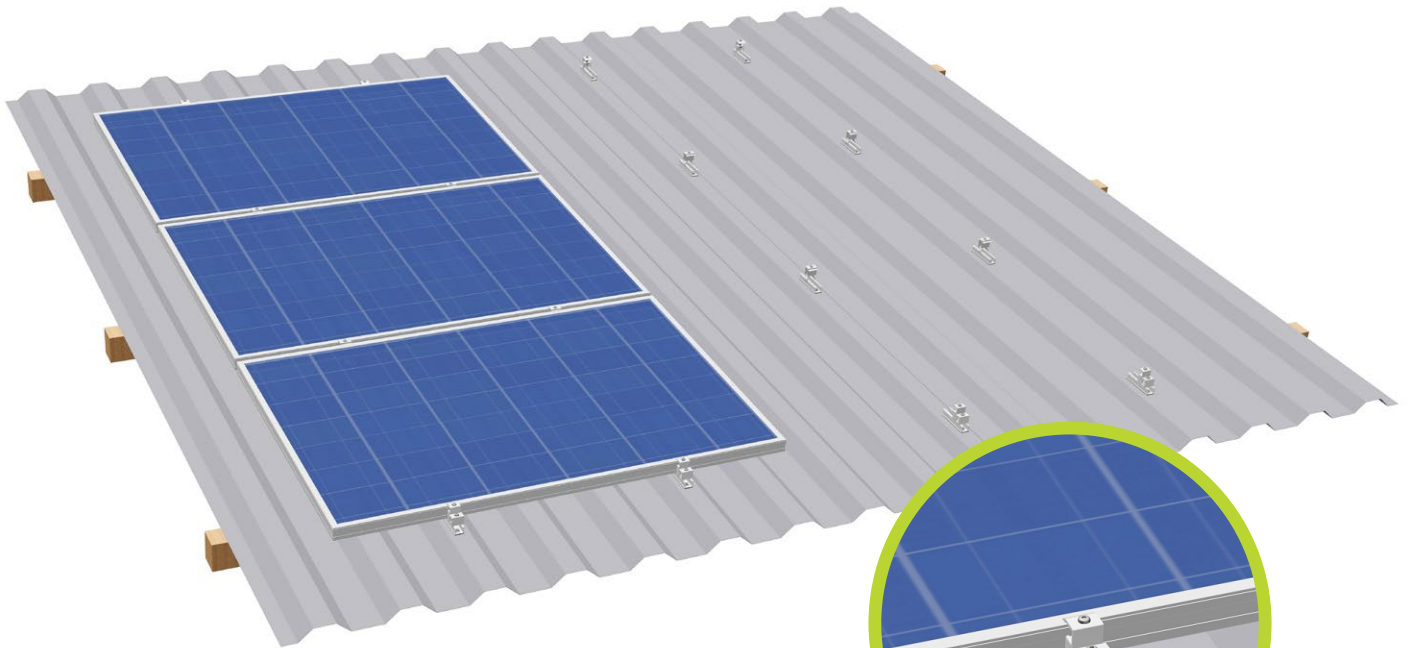
Landscape/portrait (for clamping on the short side)

Layers of rails:

Double layer

Advantages:

- Low material/installation costs
- Length of rails 3150 mm to 6200 mm
- High rigidity rails suitable for heavier loads
- No roof penetration



HS rail HK 125 complete

HS rail HK 172 complete



End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A



Sheet metal screw 4,5x25

Sheet metal screw 6x25



Application:

Trapezoidal sheet metal

Fastening:

Screwed onto raised corrugations

Module type:

Framed modules

Module orientation:

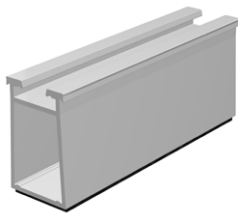
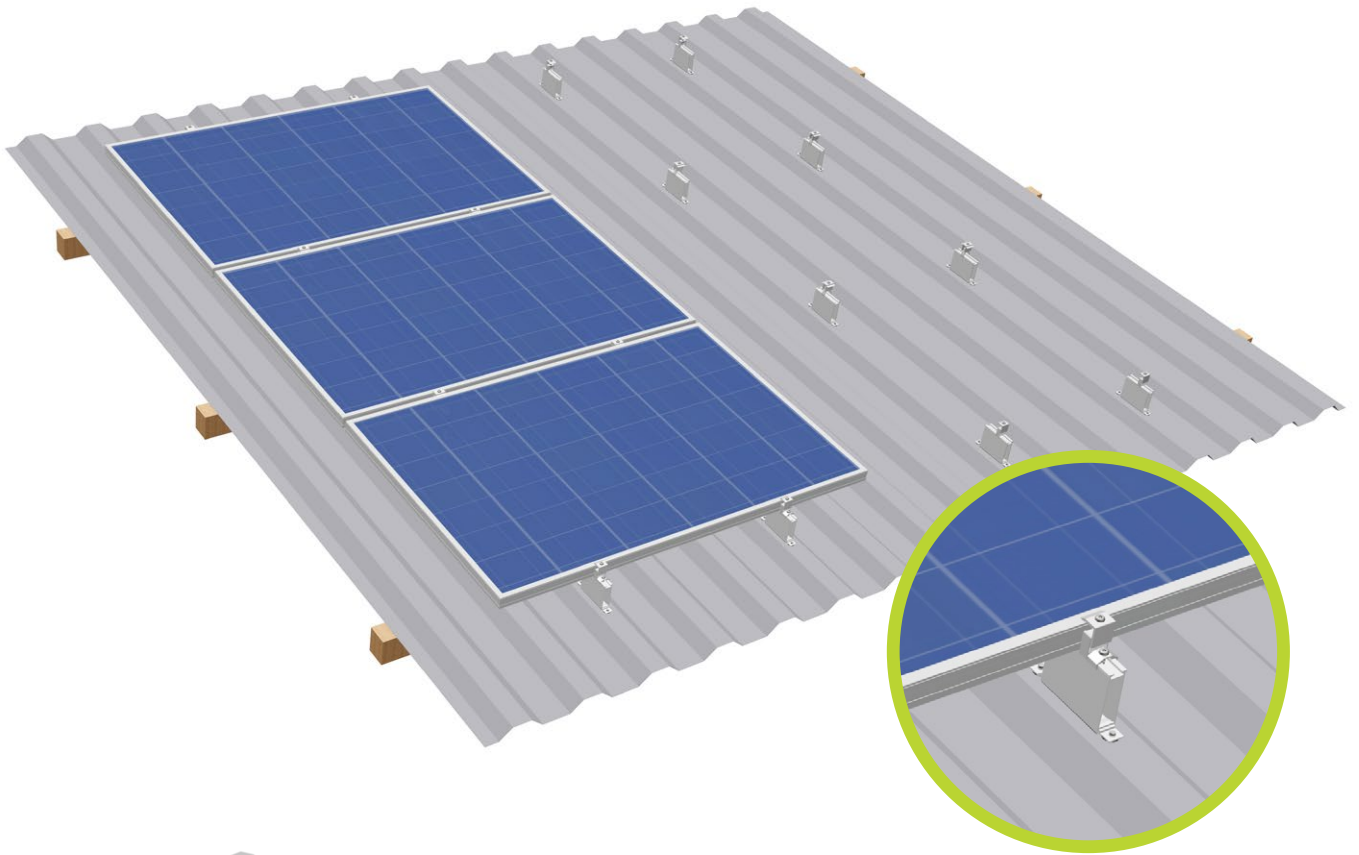
Landscape

Layers of rails:

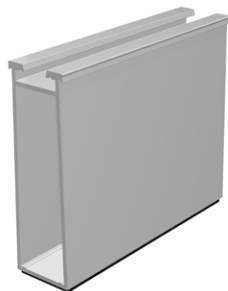
Single layer

Advantages:

- Low material / fitting costs
- 24 mm height provide better rear ventilation, simplify cable routing, enable installation even on slightly corrugated roof coverings and offer more space for power optimizers or micro-inverters
- Rail lengths of 125 mm, 172 mm, 295 mm and 3300 mm
- High-bead rails HS HK I=125mm and I=172mm are supplied pre-fabricated with EPDM sealing tape. The 125 mm rail comes with 2x2 holes (5/6 mm), the 172 mm version has 2x4 pre-drilled holes (5/6 mm).



HS rail HK 125 XL 50 complete



HS rail HK 125 XL 100 complete



HS bracket XL 130



End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A

Application:

Trapezoidal sheet metal

Fastening:

Screwed or riveted onto raised corrugations

Module type:

Framed modules

Module orientation:

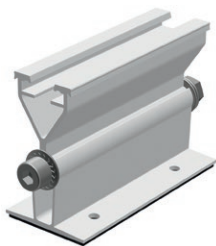
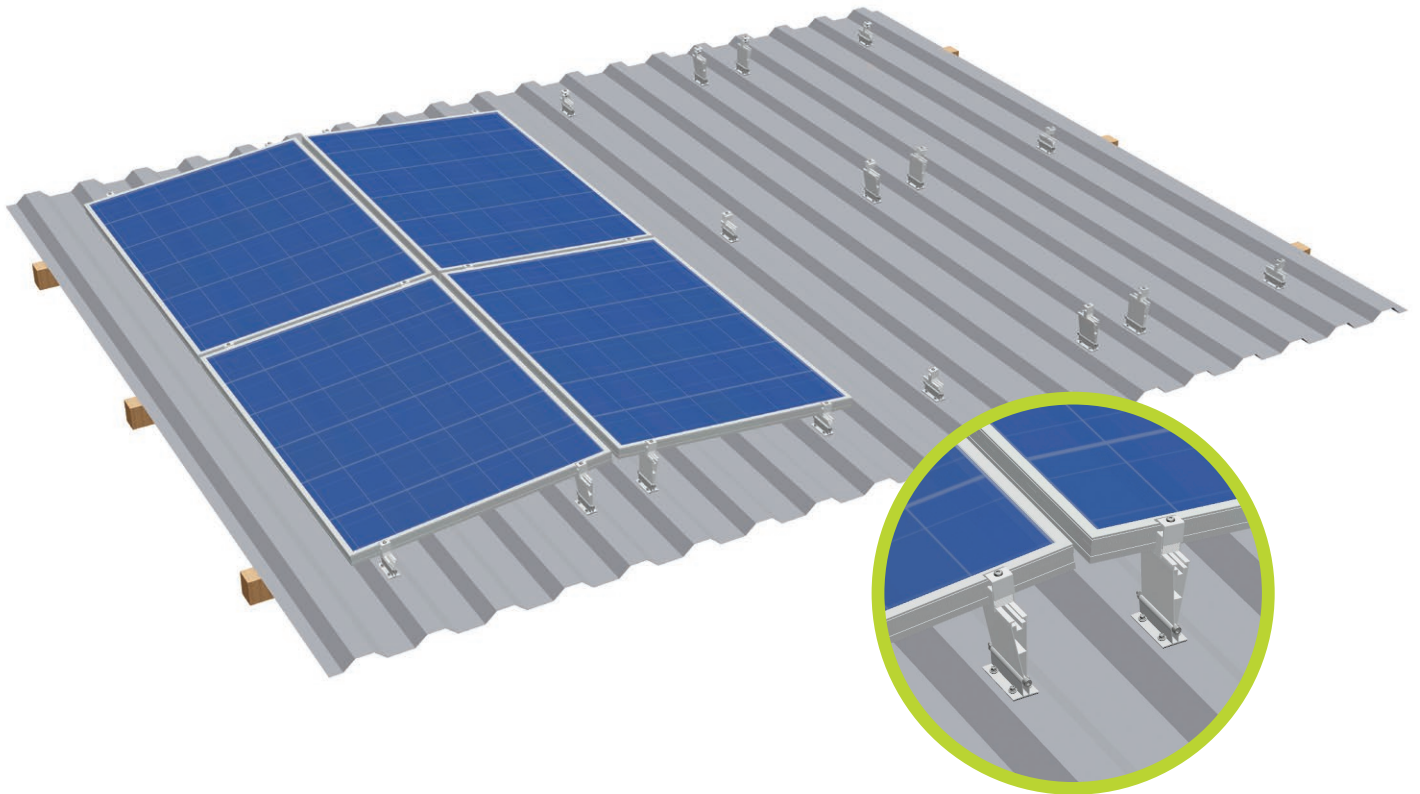
Landscape

Layers of rails:

Single layer

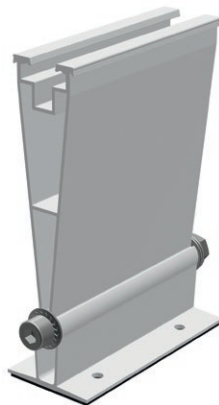
Advantages:

- Low material / fitting costs
- Rail heights of 50 or 100 mm guarantee a sufficient distance from the roof covering for optimal rear ventilation and use at high temperatures
- Floating mounting with brackets reduces the number of expansion joints and enables optimal use of the roof area
- High-bead rails covered with protective fleece
- Brackets come pre-drilled and with EPDM sealing tape covered bottom side



**Front rail
with small adapter**

**Rear rail
with large adapter**



End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A



Application:

Trapezoidal sheet metal

Fastening:

Screwed with sheet metal screws to the raised seams

Options:

South and East-West orientation

Module type:

Framed and frameless modules, all common sizes

Module orientation:

Portrait/landscape

Module pitch Lift:

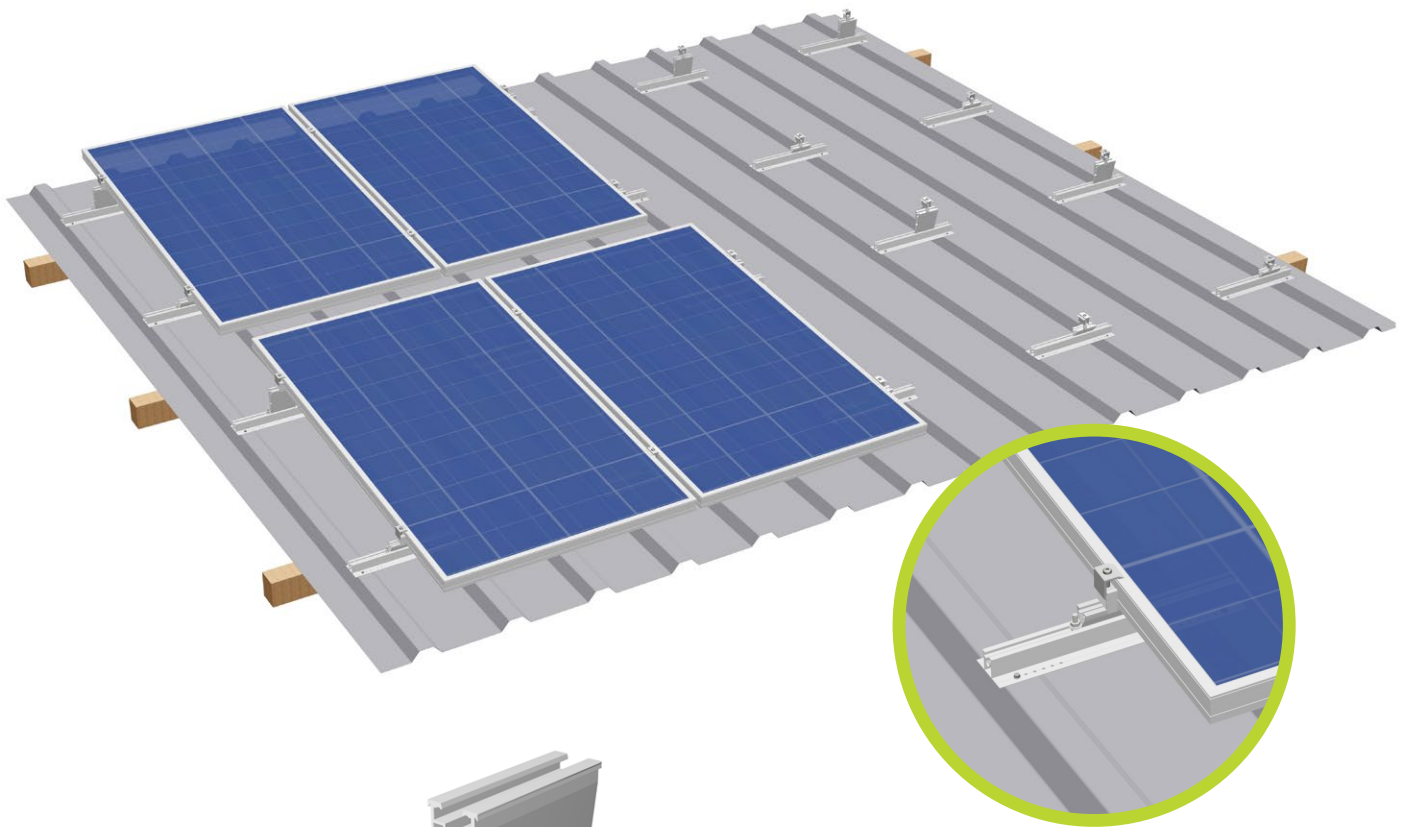
5° with portrait installation / 7° with landscape installation

Roof pitch:

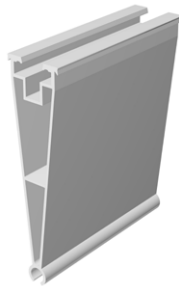
20° max.

Advantages:

- Low material and fitting costs
- Optimised irradiation angles for higher yields
- Better self-cleaning
- Maximum use of space through optional East-West orientation
- prefabricated with holes and EPDM sealing tape



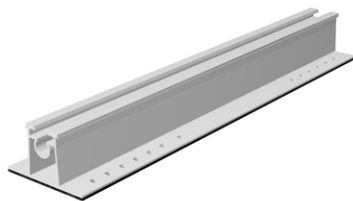
Lift Multi adapter rear



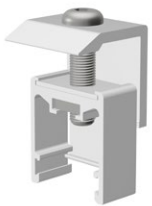
Lift Multi adapter front



Trapezoidal sheet metal rail Lift



End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A



Application:

Trapezoidal sheet metal

Fastening:

Riveted or screwed to the raised seams

Module type:

Framed modules

Module orientation:

Portrait/landscape

Module pitch:

5° with portrait installation / 7° with landscape installation

Roof pitch:

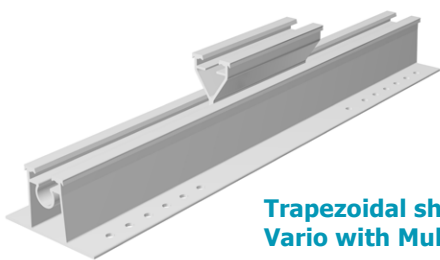
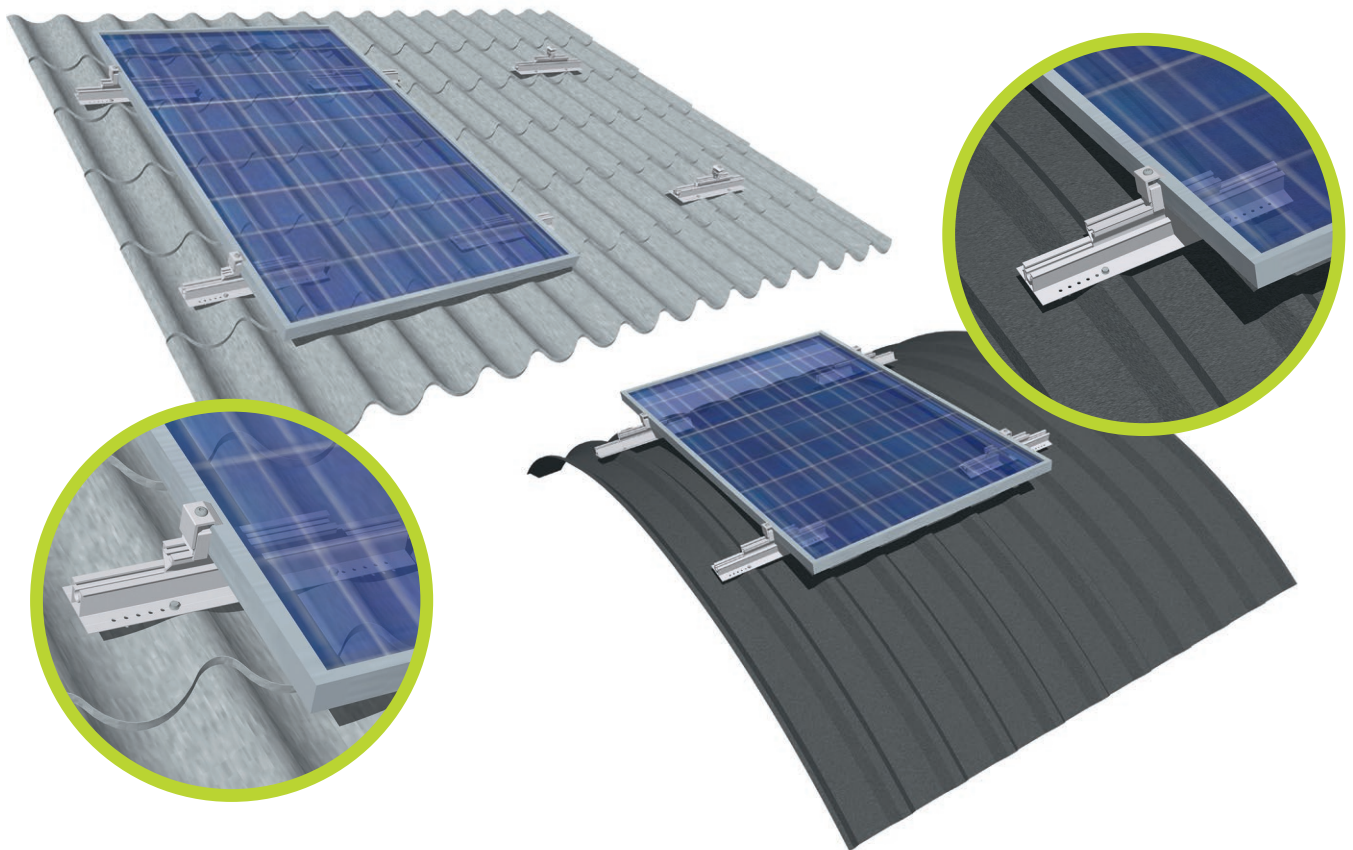
15° max. with portrait / 13° max. with landscape installation

Layers of rails:

Single layer

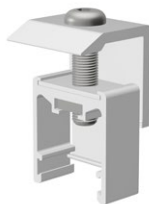
Advantages:

- Additional raise on slightly inclined roofs
- Optimised rear ventilation and module pitch
- Low material and fitting costs
- Variable length of module rows
- Trapezoidal sheet metal rail Lift is supplied prefabricated with 26 holes (5 mm) and EPDM sealing tape covered bottom side



Trapezoidal sheet metal rail
Vario with Multi adapter front

End clamp EH AK II Klick 30-50 A



Mid clamp MH AK II Klick 30-50 A



Application:

Corrugated roof tile and curved trapezoidal sheet metal (barrel roofs with a radius larger than 3.5m)

Fastening:

Riveted or screwed with sheet metal screws to the raised seams

Module type:

Framed modules

Module orientation:

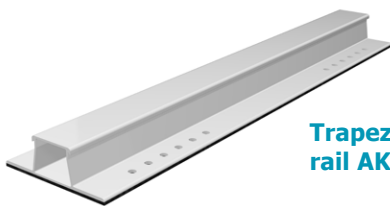
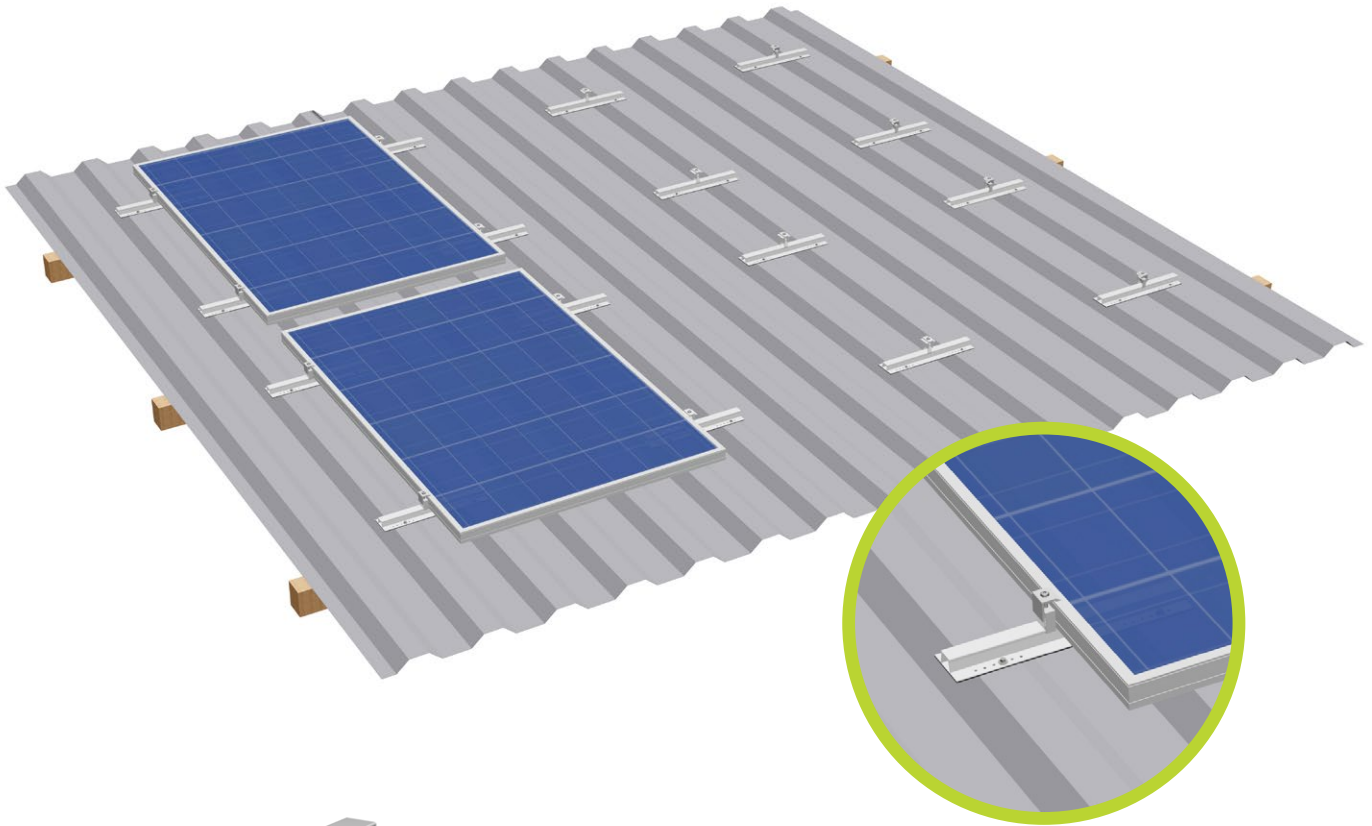
Portrait/landscape

Layers of rails:

Single layer

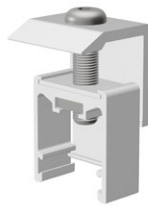
Advantages:

- Tension-free installation on curved roofs
- Tension-free installation on corrugated roof tiles
- Perfectly adapted to the roof shape
- Trapezoidal sheet metal rail Vario is supplied prefabricated with 26 holes (5 mm) and EPDM sealing tape covered bottom side



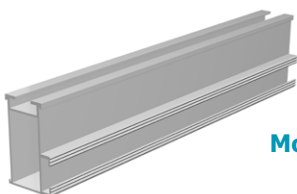
Trapezoidal sheet metal rail AK I=395 mm

End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A

Cross adapter clamp AK



Mounting rail ST-AK 13/60

Application:

Trapezoidal and corrugated sheet metal

Fastening:

Screwed or riveted onto raised corrugations

Module type:

Framed and frameless modules

Module orientation:

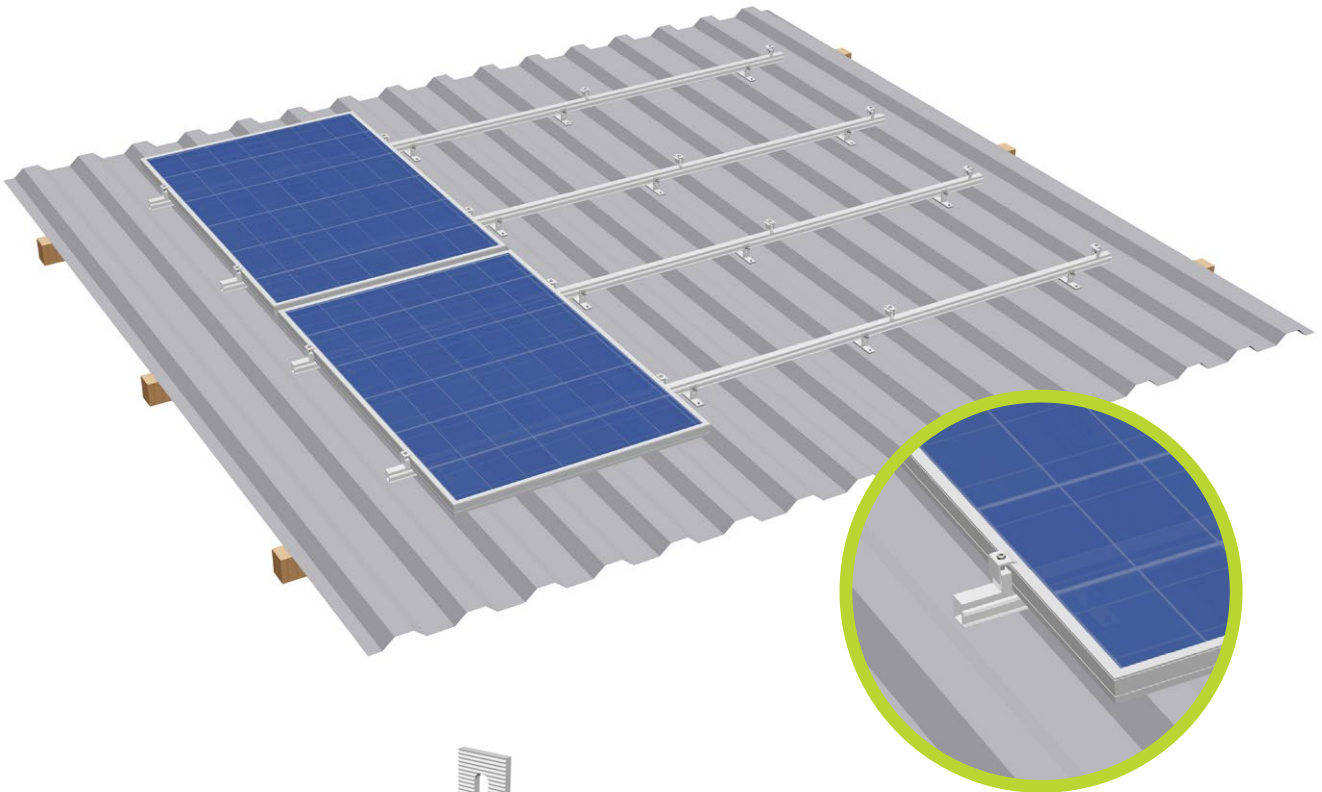
Landscape/ portrait

Layers of rails:

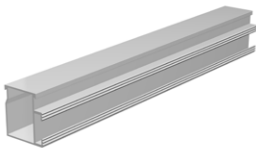
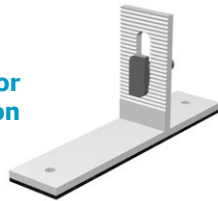
Single/ double layer

Advantages:

- Low material/ fitting costs
- Every size of module array possible
- Rail lengths of 395 mm, 3150 mm and 6200 mm
- High rigidity rails suitable for heavier loads
- Rail segments 395 mm (Trapezoidal sheet metal AK complete / I=395 mm) are supplied prefabricated with 24 holes (5 mm) and EPDM sealing tape covered bottom side

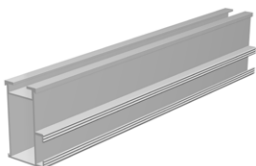


Bracket for sheet metal installation



Mounting rail ST-AK 5/40

Cross adapter clamp AK



Mounting rail ST-AK 13/60

End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A



Application:

Trapezoidal and corrugated sheet metal

Fastening:

Screwed or riveted onto raised corrugations

Module type:

Framed and frameless modules

Module orientation:

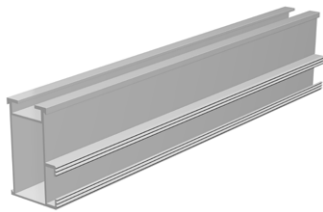
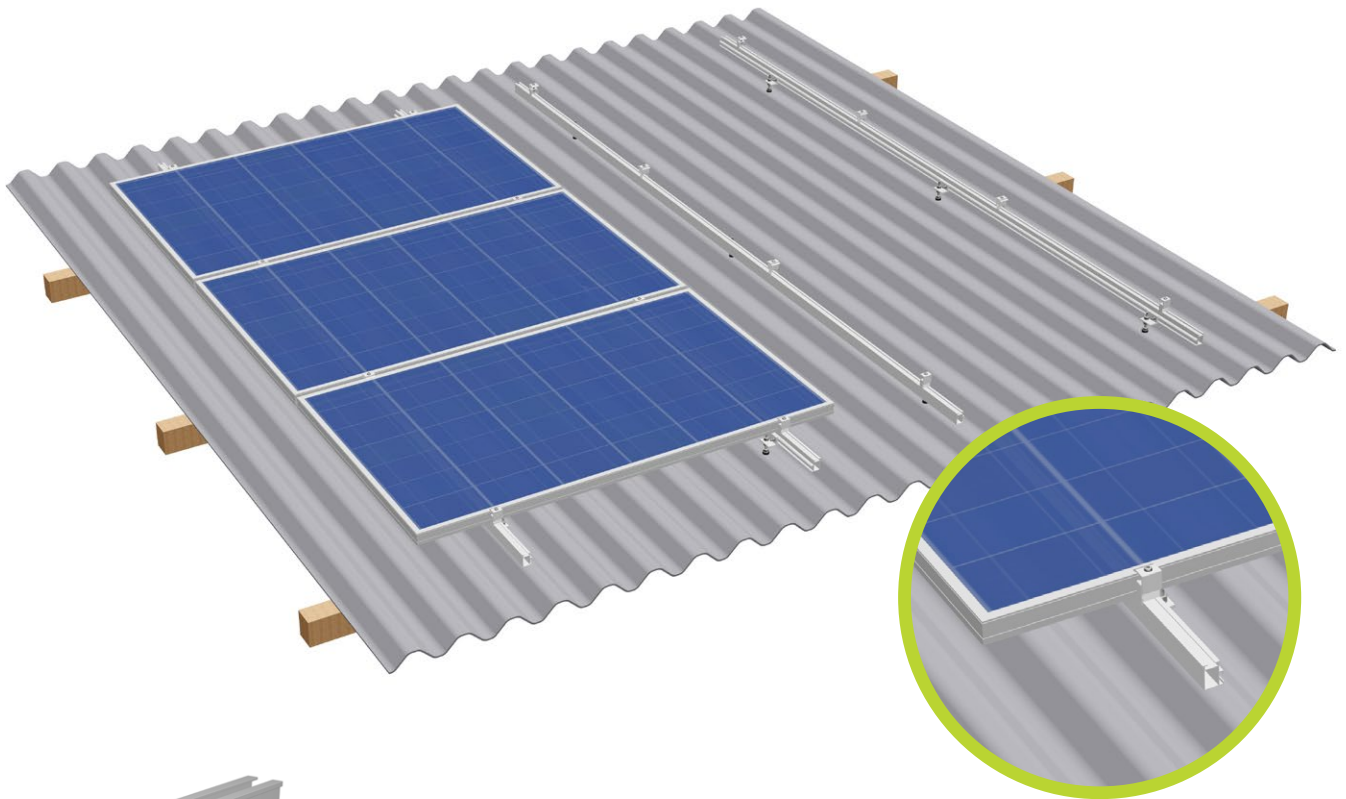
Portrait/landscape

Layers of rails:

Single/ double layer

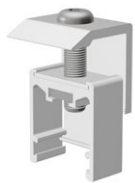
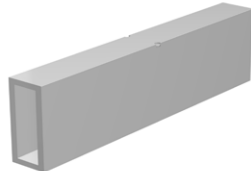
Advantages:

- Low fitting costs
- Every size of module array possible
- Height adjustable via elongated hole in the sheet metal bracket
- Sheet metal brackets are supplied prefabricated with 2 holes (5 mm) and EPDM sealing tape covered bottom side



**Mounting rail ST-AK
13/60**

Splice 13



End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A



Hanger bolt M10x200

**Solar fastener type BZ
for metal rafters**



Bracket 60mm M10

Application:

Fibre-cement boards / sandwich elements /
trapezoidal sheet metal

Fastening:

Hanger bolts / solar fasteners with brackets

Module type:

Framed and frameless modules

Module orientation:

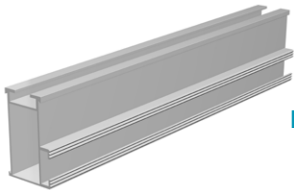
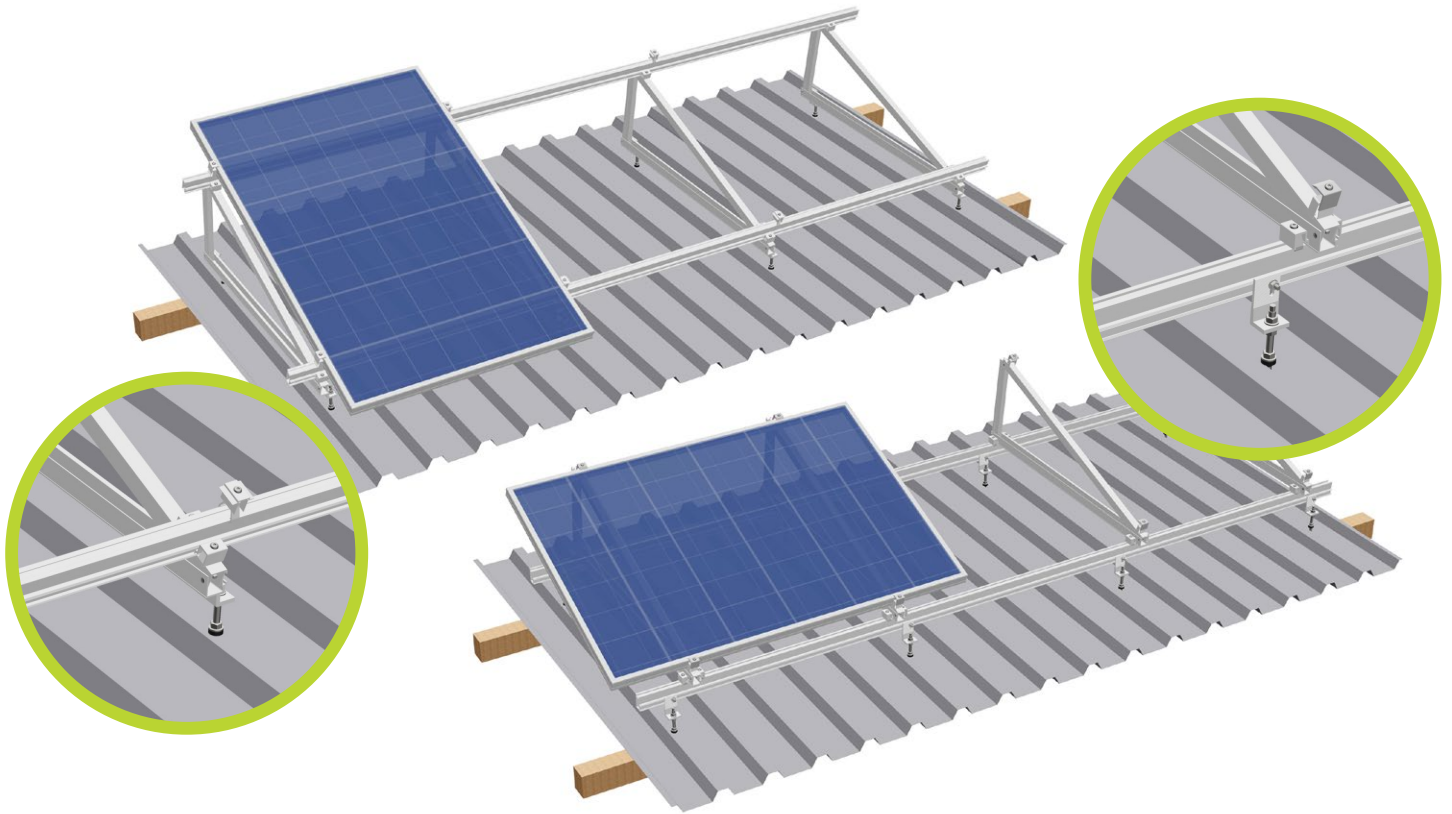
Landscape / portrait

Layers of rails:

Single / double layer

Advantages:

- Low fitting costs
- Height adjustable
- Suitable for large distances between rafters
- Solar fastener type A or hanger bolts for wood rafters /
solar fastener type BZ for metal rafters

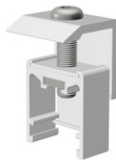


Mounting rail ST-AK 13/60

End clamp AK II Klick 30-50 A



Mid clamp AK II Klick 30-50 A



Cross adapter clamp AK



S:FLEX Triangle
Delta AK II 1230 5°-45°

Hanger bolt M10x200



Bracket 60mm M10

Application:

Fibre-cement boards / sandwich elements /
trapezoidal sheet metal

Pitch:

Available in increments of 5° up to 45°,
other angles available upon request

Module type:

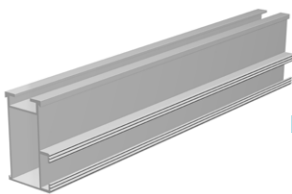
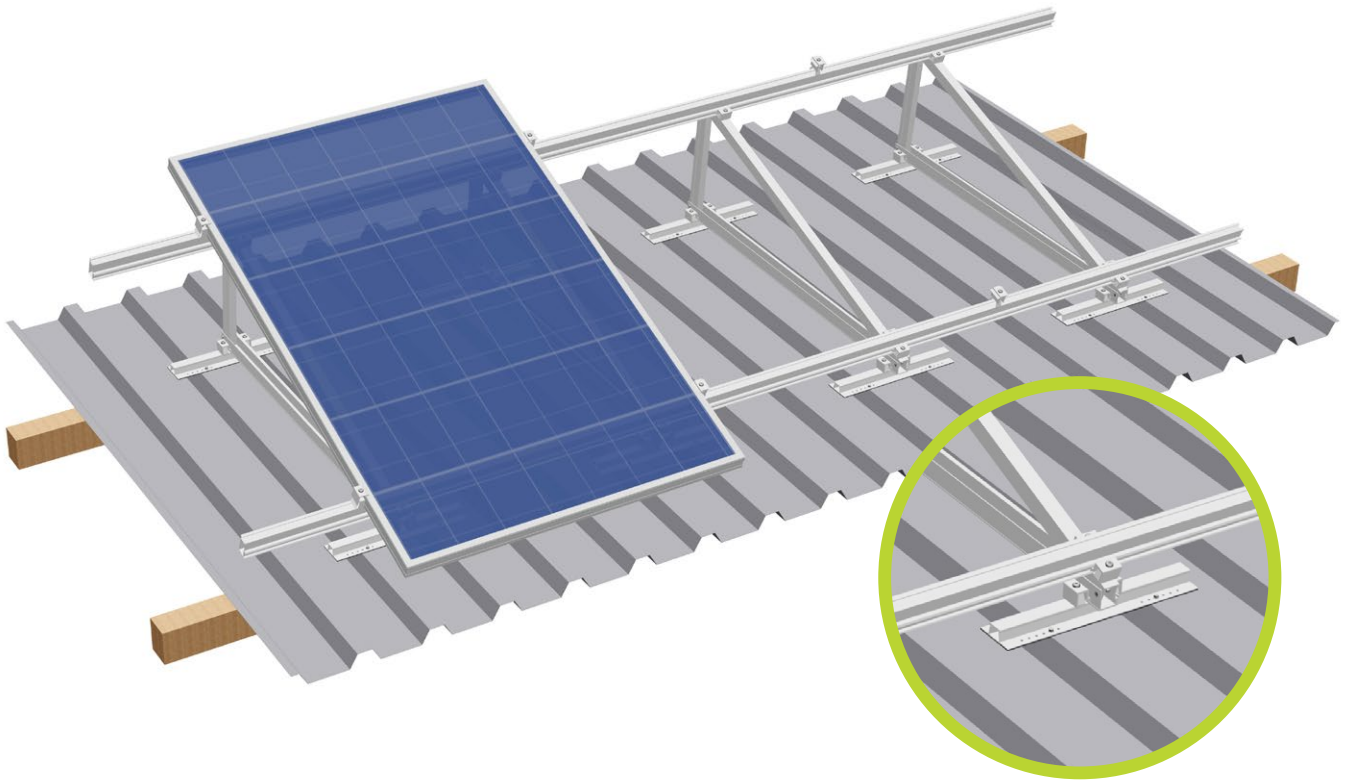
Framed and frameless modules

Module orientation:

Portrait / landscape

Advantages:

- Free choice of size and position of the module array possible
- Perfect also for small systems of 1, 2, 4 or 8 modules
- Triangles are shipped folded up for less freight and storage costs



Mounting rail ST-AK 13/60

End clamp AK II Klick 30-50 A



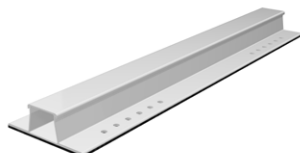
Mid clamp AK II Klick 30-50 A

Cross adapter clamp AK



S:FLEX Triangle
Delta AK II 1230 5°–45°

Trapezoidal sheet
metal rail I=395



Application:

Trapezoidal and corrugated sheet metal

Pitch:

Available in increments of 5° up to 45°, other angles available upon request

Module type:

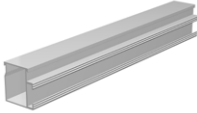
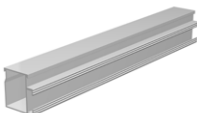
Framed and frameless modules

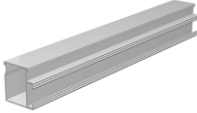
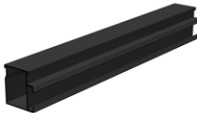
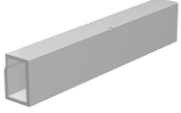
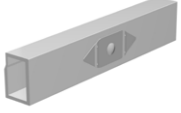
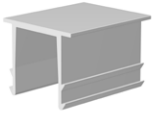
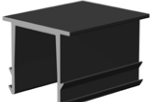
Module orientation:

Portrait/landscape

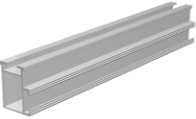
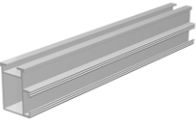


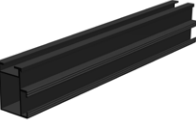
Advantages:

- Free choice of size and position of the module array possible
- Perfect also for small systems of 1, 2, 4 or 8 modules
- Triangles are shipped folded up for less freight and storage costs

Product description		QU	PU	BP	Art. No.
ST-AK 5/40 I=6200		pcs	1	144	30-105-005
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	5.078 cm ⁴			
	max. resisting torque Wx	2.501 cm ³			
	Dimensions H x W x L	40 x 37.1 x 6200 mm			
	Weight	3.807 kg			
	Article supplement	no hammer-head slot on rail top face			
ST-AK 5/40 I=4405		pcs	1	144	30-105-009
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	5.078 cm ⁴			
	max. resisting torque Wx	2.501 cm ³			
	Dimensions H x W x L	40 x 37.1 x 4405 mm			
	Weight	2.704 kg			
	Article supplement	no hammer-head slot on rail top face			
ST-AK 5/40 I=3600		pcs	1	144	30-105-360
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	5.078 cm ⁴			
	max. resisting torque Wx	2.501 cm ³			
	Dimensions H x W x L	40 x 37.1 x 3600 mm			
	Weight	2.246 kg			
	Article supplement	no hammer-head slot on rail top face			
ST-AK 5/40 I=3300		pcs	1	144	30-105-330
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	5.078 cm ⁴			
	max. resisting torque Wx	2.501 cm ³			
	Dimensions H x W x L	40 x 37.1 x 3300 mm			
	Weight	2.026 kg			
	Article supplement	no hammer-head slot on rail top face			
ST-AK 5/40 I=3300 black		pcs	1	144	30-105-316
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	5.078 cm ⁴			
	max. resisting torque Wx	2.501 cm ³			
	Dimensions H x W x L	40 x 37.1 x 3300 mm			
	Weight	2.026 kg			
	Article supplement	no hammer-head slot on rail top face			

Product description		QU	PU	BP	Art. No.
ST-AK 5/40 l=2380		pcs	1	144	30-105-238
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	5.078 cm ⁴			
	max. resisting torque Wx	2.501 cm ³			
	Dimensions H x W x L	40 x 37.1 x 2380 mm			
	Weight	1.459 kg			
	Article supplement	no hammer-head slot on rail top face			
ST-AK 5/40 l=2380 black		pcs	1	144	30-105-240
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	5.078 cm ⁴			
	max. resisting torque Wx	2.501 cm ³			
	Dimensions H x W x L	40 x 37.1 x 2380 mm			
	Weight	1.459 kg			
	Article supplement	no hammer-head slot on rail top face			
Splice 5		pcs	10	2,430	30-200-002
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	5.594 cm ⁴			
	max. resisting torque Wx	2.910 cm ³			
	Dimensions H x W x L	37.1 x 25.6 x 195 mm			
	Weight	0.174 kg			
	Article supplement	incl. slipping protection			
Splice 5 Grounding		pcs	10	2,430	30-200-003
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	5.594 cm ⁴			
	max. resisting torque Wx	2.910 cm ³			
	Dimensions H x W x L	37.1 x 25.6 x 195 mm			
	Weight	0.174 kg			
	Article supplement	incl. grounding splice and slipping protection			
Covering cap 5		pcs	20	11,520	30-500-023
	Material	Aluminium EN AW-6063 T6			
	Dimensions	31 x 25 x 36.8 mm			
	Weight	0.013 kg			
Covering cap 5 black		pcs	20	11,520	30-500-033
	Material	Aluminium EN AW-6063 T6			
	Dimensions	31 x 25 x 36.8 mm			
	Weight	0.013 kg			

Mounting rails ST-AK 5/40 of other lengths available upon request.

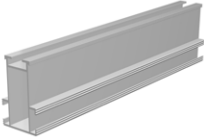
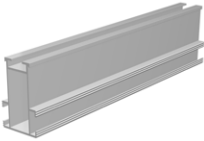
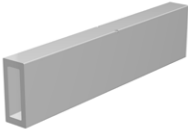

Product description		QU	PU	BP	Art. No.
ST-AK 7/47 I=6200		pcs	1	105	30-107-015
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	7.709 cm ⁴			
	max. resisting torque Wx	3.155 cm ³			
	Dimensions H x W x L	47 x 35.4 x 6200 mm			
	Weight	4.613 kg			
ST-AK 7/47 I=4405		pcs	1	105	30-107-440
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	7.709 cm ⁴			
	max. resisting torque Wx	3.155 cm ³			
	Dimensions H x W x L	47 x 35.4 x 4405 mm			
	Weight	3.277 kg			
ST-AK 7/47 I=3600		Stk	1	105	30-107-360
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	7.709 cm ⁴			
	max. resisting torque Wx	3.155 cm ³			
	Dimensions H x W x L	47 x 35.4 x 3600 mm			
	Weight	2.678 kg			
ST-AK 7/47 I=3330		pcs	1	105	30-107-330
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	7.709 cm ⁴			
	max. resisting torque Wx	3.155 cm ³			
	Dimensions H x W x L	47 x 35.4 x 3300 mm			
	Weight	2.455 kg			
ST-AK 7/47 I=3300 black		pcs	1	105	30-107-032
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	7.709 cm ⁴			
	max. resisting torque Wx	3.155 cm ³			
	Dimensions H x W x L	47 x 35.4 x 3300 mm			
	Weight	2.455 kg			

Product description		QU	PU	BP	Art. No.
ST-AK 7/47 l=2380		pcs	1	105	30-107-038
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	7.709 cm ⁴			
	max. resisting torque Wx	3.155 cm ³			
	Dimensions H x W x L	47 x 35.4 x 2380 mm			
	Weight	1.771 kg			
ST-AK 7/47 l=2380 schwarz		pcs	1	105	30-107-037
	Material	Aluminium EN AW-6063 T6			
	max. Trägheitsmoment Ix	7.709 cm ⁴			
	max. Widerstandsmoment Wx	3.155 cm ³			
	Abmessungen H x B x L	47 x 35.4 x 2380 mm			
	Gewicht	1.771 kg			
Splice 7		pcs	10	2,430	30-200-015
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	7.007 cm ⁴			
	max. resisting torque Wx	3.959 cm ³			
	Dimensions H x W x L	35.5 x 24.2 x 195 mm			
	Weight	0.224 kg			
	Article supplement	incl. slipping protection			
Splice 7 Grounding		pcs	10	2,430	30-200-016
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	7.007 cm ⁴			
	max. resisting torque Wx	3.959 cm ³			
	Dimensions H x W x L	35.5 x 24.2 x 195 mm			
	Weight	0.220 kg			
	Article supplement	incl. grounding splice and slipping protection			
Covering cap 7		pcs	20	11,520	30-500-024
	Material	Aluminium EN AW-6063 T6			
	Dimensions H x B	31 x 25 x 35.2 mm			
	Weight	0.013 kg			
Covering cap 7 black		pcs	20	11,520	30-500-036
	Material	Aluminium EN AW-6063 T6			
	Dimensions H x B	31 x 25 x 35.2 mm			
	Weight	0.013 kg			

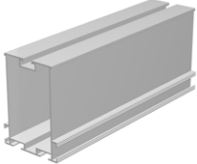
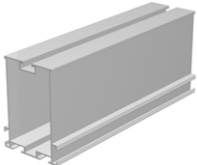
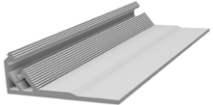
Mounting rails ST-AK 7/47 of other lengths available upon request.

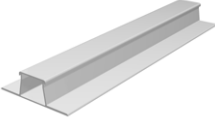
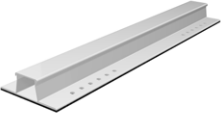
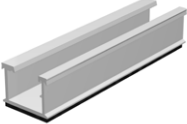


Product description		QU	PU	BP	Art. No.
ST-AK 13/60 l=6200		pcs	1	96	30-113-033
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	14.622 cm ⁴			
	max. resisting torque Wx	4.815 cm ³			
	Dimensions H x W x L	60 x 37.4 x 6200 mm			
	Weight	5.270 kg			
ST-AK 13/60 l=3150		pcs	1	96	30-113-031
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	14.622 cm ⁴			
	max. resisting torque Wx	4.815 cm ³			
	Dimensions H x W x L	60 x 37.4 x 3150 mm			
	Weight	2.678 kg			
Splice 13		pcs	10	2,430	30-200-017
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	13.084 cm ⁴			
	max. resisting torque Wx	5.395 cm ³			
	Dimensions H x W x L	48.5 x 23.8 x 195 mm			
	Weight	0.256 kg			
	Article supplement	incl. slipping protection			
Splice 13 Grounding		pcs	10	2,430	30-200-022
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	13.084 cm ⁴			
	max. resisting torque Wx	5.395 cm ³			
	Dimensions H x W x L	48.5 x 23.8 x 195 mm			
	Weight	0.252 kg			
	Article supplement	incl. grounding splice and slipping protection			
Covering cap 13		pcs	20	11,520	30-500-026
	Material	Aluminium EN AW-6063 T6			
	Dimensions	31 x 25 x 48.2 mm			
	Weight	0.015 kg			
Covering cap 13 black		pcs	20	11,520	30-500-035
	Material	Aluminium EN AW-6063 T6			
	Dimensions	31 x 25 x 48.2 mm			
	Weight	0.015 kg			

Mounting rails ST-AK 13/60 of other lengths available upon request.

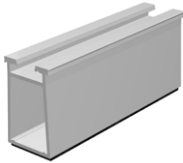
Product description		QU	PU	BP	Art. No.
ST-AK 26/70 l=6200		pcs	1	75	30-126-027
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	26.278 cm ⁴			
	max. resisting torque Wx	7.117 cm ³			
	Dimensions H x W x L	70 x 43.8 x 6200 mm			
	Weight	6.925 kg			
ST-AK 26/70 l=3150		pcs	1	75	30-126-028
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	26.278 cm ⁴			
	max. resisting torque Wx	7.117 cm ³			
	Dimensions H x W x L	70 x 43.8 x 3150 mm			
	Weight	3.519 kg			
Splice 26		pcs	10	1,620	30-200-020
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	26.381cm ⁴			
	max. resisting torque Wx	9.257 cm ³			
	Dimensions H x W x L	57 x 24 x 249 mm			
	Weight	0.500 kg			
	Article supplement	incl. slipping protection			
Covering cap 26		pcs	20	11,520	30-500-028
	Material	Aluminium EN AW-6063 T6			
	Dimensions	31 x 25 x 54.2 mm			
	Weight	0.020 kg			

Mounting rails ST-AK 26/70 of other lengths available upon request.

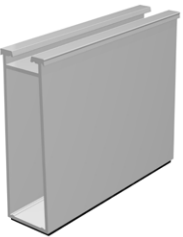
Product description		QU	PU	BP	Art. No.
ST-AK 182/120 l=6200		pcs	1	24	30-182-037
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	183.727 cm ⁴			
	max. resisting torque Wx	28.163 cm ³			
	Dimensions H x W x L	120 x 87.8 x 6200 mm			
	Weight	14.136 kg			
	Article supplement	no hammer-head slot on top			
Splice 182		pcs	1		30-200-009
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	186.527 cm ⁴			
	max. resisting torque Wx	31.188 cm ³			
	Dimensions H x W x L	114.5 x 67.2 x 295 mm			
	Weight	0.903 kg			
	Article supplement	incl. slipping protection			
Adapter 3.1 l=3000		pcs	1	80	30-100-055
	Material	Aluminium EN AW-6082 T6			
	max. torque of inertia Ix	7.863 cm ⁴			
	Dimensions H x W x L	39.0 x 110.0 x 3000 mm			
	Weight	6.907 kg			

Product description		QU	PU	BP	Art. No.
Trapezoidal sheet metal rail AK l=3150		pcs	1	126	30-100-049
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	2.279 cm ⁴			
	max. resisting torque Wx	1.358 cm ³			
	Dimensions H x W x L	25 x 80 x 3150 mm			
	Weight	2.066 kg			
	Article supplement	no hammer-head slot, not drilled and without tape			
Trapezoidal sheet metal rail AK complete l=395/24		pcs	40	1,280	30-500-029
	Material	Aluminium EN AW-6063 T6			
	Material sealing	closed-cell rubber EPDM			
	max. torque of inertia Ix	2.279 cm ⁴			
	max. resisting torque Wx	1.358 cm ³			
	Dimensions H x W x L	25 x 80 x 395 mm			
	Screw Diameter	24 x 5 mm			
	Weight	0.250 kg			
	Article supplement	2 x 12 holes 5 mm pre-drilled, bottom side fully covered with EPDM sealing tape			
HS rail HK 125 complete		pcs	50	8,100	710-400-105
	Material	Aluminium EN AW-6063 T6			
	Dimensions H x W x L	24 x 31 x 125 mm			
	Weight	0.054 kg			
	Article supplement	pre-drilled with 2 x 2 holes (5 mm/6 mm), bottom side fully covered with EPDM sealing tape			
HS rail HK 172 complete		pcs	50	3,150	710-400-112
	Material	Aluminium EN AW-6063 T6			
	Dimensions H x W x L	24 x 31 x 172 mm			
	Weight	0.074 kg			
	Article supplement	pre-drilled with 2 x 4 holes (5 mm/6 mm), bottom side fully covered with EPDM sealing tape			
HS rail HK l=3300		pcs	1		710-400-113
	Material	Aluminium EN AW-6063 T6			
	max. torque of inertia Ix	1.086 cm ⁴			
	max. resisting torque Wx	0.734 cm ³			
	Dimensions H x W x L	24 x 31 x 3300 mm			
	Weight	1.442 kg			

Product description	QU	PU	BP	Art. No.
---------------------	----	----	----	----------



HS rail HK 125 XL 50 complete	pcs	50	3,150	710-400-110
Material	Aluminium EN AW-6063 T6			
Dimensions H x W x L	52 x 31 x 125 mm			
Weight	0.117 kg			
Article supplement	Installation with HS clamp XL 130 - 5.0/6.5, bottom side covered with polyester fleece (t=2.2 mm)			





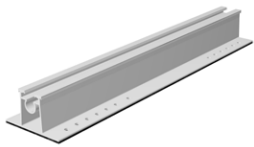
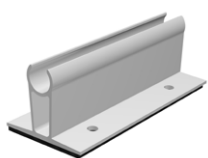
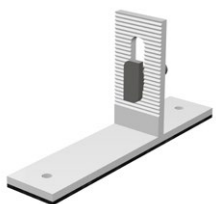
HS rail HK 125 XL 100 complete	pcs	25	1.575	710-400-108
Material	Aluminium EN AW-6063 T6			
Dimensions H x W x L	102 x 31 x 125 mm			
Weight	0.191 kg			
Article supplement	Installation with HS clamp XL 130 - 5.0/6.5, bottom side covered with polyester fleece (t=2.2 mm)			



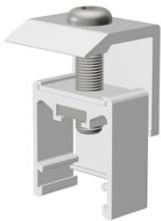
HS clamp XL 130 - 5.0 complete	pcs	25	7,500	710-400-150
Material	Aluminium EN AW-6063 T6			
Dimensions H x W x L	8.8 x 26 x 178 mm			
Weight	0.32 kg			
Article supplement	For installation of HS rail HK 125 XL 50/100, pre-drilled 2 x 5 mm; drill holes with EPDM sealing on the bottom			



HS clamp XL 130 - 6.5 complete	pcs	25	7,500	710-400-165
Material	Aluminium EN AW-6063 T6			
Dimensions H x W x L	8.8 x 26 x 178 mm			
Weight	0.32 kg			
Article supplement	For installation of HS rail HK 125 XL 50/100, pre-drilled 2 x 6.5 mm; drill holes with EPDM sealing on the bottom			

Product description		QU	PU	BP	Art. No.
	Lift Adapter Multi rear	pcs	40	2,520	720-200-611
	Material	Aluminium EN AW-6063 T6			
	Dimensions H x W x L	120.3 x 31 x 100 mm			
	Weight	0.139 kg			
	Article supplement	For installation with Trapezoidal sheet metal rail pure			
	Lift Adapter Multi front	pcs	40	7,440	720-200-610
	Material	Aluminium EN AW-6063 T6			
	Dimensions H x W x L	45.9 x 31 x 100 mm			
	Weight	0.069 kg			
	Article supplement	For installation with Trapezoidal sheet metal rail pure			
	Lift trapezoidal sheet metal rail 375	pcs	20	900	720-200-612
	Material	Aluminium EN AW-6063 T6			
	Dimensions H x W x L	42 x 72 x 375 mm			
	Weight	0.362 kg			
	Article supplement	To hold the Lift adapters or for direct mounting modules, bottom side fully covered with EPDM sealing tape			
	HS rail Lift 100	pcs	40	7,440	720-200-614
	Material	Aluminium EN AW-6063 T6			
	Dimensions H x W x L	33.5 x 44 x 100 mm			
	Weight	0.054 kg			
	Article supplement	To hold the Lift adapters or for direct mounting modules, bottom side fully covered with EPDM sealing tape			
	Bracket for sheet metal installation complete	pcs	20	4,860	30-600-011
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Material sealing	Closed-cell rubber, EPDM			
	Type of roofing	Corrugated iron; Trapezoidal sheet metal			
	max. height compensation	21 mm			
	Weight	0.089 kg			
	Screw diameter	5 mm			
	Article supplement	Pre-assembled; incl. hammer-head bolt set M 8x25, Bottom side fully covered with sealing tape			

Product description	QU	PU	BP	Art. No.
---------------------	----	----	----	----------



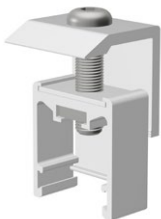
End clamp EH AK II Klick 30-50 l=35 A	pcs	10	5,760	30-400-008
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70 A			
Module frame height	from 30 mm up to 50 mm			
Clamp distance	25 mm			
Weight	0.055 kg			
Article supplement	pre-assembled			

End clamp EH AK II Klick 30-50 l=35 black	pcs	10	5,760	30-400-070
--	------------	-----------	--------------	-------------------



Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70 black			
Module frame height	from 30 mm up to 50 mm			
Clamp distance	25 mm			
Weight	0.055 kg			
Article supplement	pre-assembled			

End clamp AK II Klick 30-50 l=40 A	Stk	10	5.760	30-400-061
---	------------	-----------	--------------	-------------------



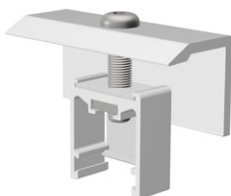
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70 black			
Module frame height	from 30 mm up to 50 mm			
Clamp distance	25 mm			
Weight	0.060 kg			
Article supplement	pre-assembled			

End clamp AK II Klick 30-50 l=40 black	Stk	10	5.760	30-400-068
---	------------	-----------	--------------	-------------------



Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70 black			
Module frame height	from 30 mm up to 50 mm			
Clamp distance	25 mm			
Weight	0.060 kg			
Article supplement	pre-assembled			

End clamp EH AK II Klick 30-50 l=80 A	pcs	10	2,880	30-400-054
--	------------	-----------	--------------	-------------------



Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70 A			
Module frame height	from 30 mm up to 50 mm			
Clamp distance	25 mm			
Weight	0.082 kg			
Article supplement	pre-assembled			

Other clamp lengths available upon request.

Product description	QU	PU	BP	Art. No.
---------------------	----	----	----	----------



Mid-clamp MH AK II Klick 30-50 l=40 A	pcs	40	6,480	30-400-049
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70 A			
Module frame height	from 30 mm up to 50 mm			
Clamp distance	19 mm between modules			
Weight	0.050 kg			
Article supplement	pre-assembled			



Mid-clamp MH AK II Klick 30-50 l=40 black	pcs	40	6,480	30-400-066
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70 black			
Module frame height	from 30 mm up to 50 mm			
Clamp distance	19 mm between modules			
Weight	0.050 kg			
Article supplement	pre-assembled			



Mid-clamp MH AK II Klick 30-50 l=80 A	pcs	40	3,840	30-400-056
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70 A			
Module frame height	from 30 mm up to 50 mm			
Clamp distance	19 mm between modules			
Weight	0.068 kg			
Article supplement	pre-assembled			

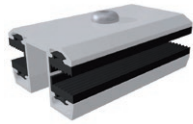


Mid-clamp MH AK II Klick 30-50 l=40 A with Grounding Plate	pcs	40	6,480	30-400-082
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70 A			
Module frame height	from 30 mm up to 50 mm			
Clamp distance	19 mm between modules			
Weight	0.057 kg			
Article supplement	pre-assembled with grounding plate			

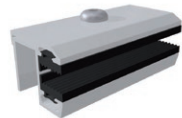


Earthing plate MH AK II Klick 30-50	pcs	40	11,520	30-500-043
Material	Stainless steel 1.4301			
Weight	0.007 kg			

Other clamp lengths available upon request.



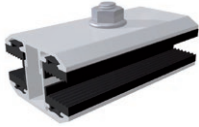
Product description	QU	PU	BP	Art. No.
Laminate mid-clamp LMK AK Klick	pcs	40	3,840	30-400-015
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70			
Material clamp rubber	EPDM Shore durometer 70 ± 5			
Dimensions H x W x L	43 x 51 x 80 mm			
Clamp area	6.5 - 7.5 mm			
Clamp distance	22 mm between modules			
Weight	0.120 kg			
Article supplement	pre-assembled			
Certification	First Solar, Calyxo, Q-Cells, Solibro, GS Solar, Sulfurcell and others			



Product description	QU	PU	BP	Art. No.
Laminate end clamp LEK AK Klick	pcs	5	2,880	30-400-016
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70			
Material clamp rubber	EPDM Shore durometer 70 ± 5			
Dimensions H x W x L	39.9 x 37 x 80 mm			
Clamp area	6.5 - 7.5 mm			
Clamp distance	22 mm			
Weight	0.091 kg			
Article supplement	pre-assembled			
Certification	First Solar, Calyxo, Q-Cells, Solibro, GS Solar, Sulfurcell and others			

**More laminate clamps AK Klick available upon request. Clamp width up to 200 mm
For modules with a glass thickness of 3.9 – 8.5 mm.**

Product description	QU	PU	BP	Art. No.
---------------------	----	----	----	----------



Laminate mid-clamp LMK AK 80 TPE	pcs	40	3,840	30-400-073
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70			
Material clamp rubber	TPE			
Dimensions H x W x L	43.1 x 45.1 x 80 mm			
Clamp area	6.5 - 7.5 mm			
Clamp distance	16 mm between modules			
Weight	0.109 kg			
Article supplement	pre-assembled with Hammer-head bolt			
Certification	First Solar FS 4 among others			



Laminate end clamp LEK AK 80 TPE	pcs	5	2,880	30-400-074
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70			
Material clamp rubber	TPE			
Dimensions H x W x L	43.1 x 34.6 x 80 mm			
Clamp area	6.5 - 7.5 mm			
Clamp distance	16 mm			
Weight	0.097 kg			
Article supplement	pre-assembled with Hammer-head bolt			
Certification	First Solar FS 4 among others			

More laminate clamps available upon request. Clamp width up to 200 mm.

For modules with a glass thickness of 3.9 – 8.5 mm.



Product description	QU	PU	BP	Art. No.
S:FLEX RH Alu 93-7-45 complete	pcs	20	640	720-200-040
Material	Aluminium EN AW-6082 T6			
Material screw	Stainless steel A2-70			
Base plate	93 x 95 x 40 mm; drilling 10 x 7 mm			
Type of roofing	Tile, pan			
max. height compensation	45 to 58 mm in roof panel area; 21 mm in rail area			
Weight	0.446 kg			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			








Product description	QU	PU	BP	Art. No.
RH Alu 150-7-45 complete	pcs	20	480	30-600-019
Material	Aluminium EN AW-6082 T6			
Material screw	Stainless steel A2-70			
Base plate	150 x 95 x 40 mm; drilling 8 x 7 mm			
Type of roofing	Tile, pan			
max. height compensation	45 to 58 mm in roof panel area; 21 mm in rail area			
Weight	0.576 kg			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			



Product description	QU	PU	BP	Art. No.
S:FLEX RH Alu 93-7-40 complete	pcs	20	640	720-200-041
Material	Aluminium EN AW-6082 T6			
Material screw	Stainless steel A2-70			
Base plate	93 x 95 x 40 mm; drilling 10 x 7 mm			
Type of roofing	Tile, pan			
max. height compensation	40 to 51.5 mm in roof panel area; 21 mm in rail area			
Weight	0.446 kg			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			



Product description	QU	PU	BP	Art. No.
S:FLEX RH Alu 93-7-45 complete	pcs	20	640	720-200-043
Material	Aluminium EN AW-6082 T6			
Material screw	Stainless steel A2-70			
Base plate	93 x 95 x 40 mm; drilling 10 x 7 mm			
Type of roofing	Tile, pan			
max. height compensation	45 to 58 mm in roof panel area; 21 mm in rail area			
Weight	0.446 kg			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25 binder anodized black			

Product description		QU	PU	BP	Art. No.
RH Alu 111-9-40 complete		pcs	20	640	30-600-023
	Material	Aluminium EN AW-6082 T6			
	Material screw	Stainless steel A2-70			
	Base plate	111 x 110 x 40 mm; drilling 8 x 9 mm			
	Type of roofing	Tile, pan			
	max. height compensation	40 to 51.5 mm in roof panel area; 21 mm in rail area			
	Weight	0.519 kg			
	Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			
RH Alu 111-9-45 complete		pcs	20	640	30-600-029
	Material	Aluminium EN AW-6082 T6			
	Material screw	Stainless steel A2-70			
	Base plate	111 x 110 x 40 mm; drilling 8 x 9 mm			
	Type of roofing	Tile, pan			
	max. height compensation	45 to 58 mm in roof panel area; 21 mm in rail area			
	Weight	0.519 kg			
	Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			
RH Alu 111-9-45 black		pcs	20	480	30-600-030
	Material	Aluminium EN AW-6082 T6			
	Material screw	Stainless steel A2-70			
	Base plate	111 x 110 x 40 mm; drilling 8 x 9 mm			
	Type of roofing	Tile, pan			
	max. height compensation	45 to 58 mm in roof panel area; 21 mm in rail area			
	Weight	0.519 kg			
	Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			
RH Alu 180-9-40 complete		pcs	20	480	30-600-025
	Material	Aluminium EN AW-6082 T6			
	Material screw	Stainless steel A2-70			
	Base plate	180 x 110 x 40 mm; drilling 8 x 9 mm			
	Type of roofing	Tile, pan			
	max. height compensation	40 to 51.5 mm in roof panel area; 21 mm in rail area			
	Weight	0.678 kg			
	Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			
RH Vario2 111-9-40 complete		pcs	20	480	30-600-035
	Material	Aluminium EN AW-6082 T6			
	Material screw	Stainless steel A2-70			
	Base plate	111 x 110 x 40 mm; drilling 8 x 9 mm			
	Type of roofing	Tile, pan			
	max. height compensation	40 to 51.5 mm in roof panel area; 30.6 mm in rail area			
	Weight	0.630 kg			
	Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			

Product description	QU	PU	BP	Art. No.
---------------------	----	----	----	----------



S:FLEX DH Hybrid 112-7-46 8mm II	pcs	10	630	710-200-122
Material	Aluminium EN AW-6063 T6 / Steel S235			
Material screw	Stainless steel A2-70			
Base plate	112.5 x 84 x 46 mm; drillings 12 x 7 mm			
Type of roofing	Tile, pan			
max. height compensation	46 to 61 mm in roof panel area; 21 mm in rail area			
Weight	0.950 kg			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25; suitable for heavy loads; for use with wood screws d=6mm			

S:FLEX DH Hybrid 149-9-46 8mm	pcs	8	360	710-200-103
--------------------------------------	------------	----------	------------	--------------------






Material	Aluminium EN AW-6063 T6 / Steel S235			
Material screw	Stainless steel A2-70			
Base plate	149 x 130 x 46 mm; drillings 10 x 9 mm			
Type of roofing	Tile, pan			
max. height compensation	46 to 61 mm in roof panel area; 21 mm in rail area			
Weight	1.152 kg			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25; suitable for heavy loads; for use with wood screws d=8mm			

S:FLEX DH Hybrid 112-7-56 XL 8mm	pcs	6	378	710-200-132
---	------------	----------	------------	--------------------



Material	Aluminium EN AW-6063 T6 / Steel S235			
Material screw	Stainless steel A2-70			
Base plate	112.5 x 84 x 56 mm; drillings 12 x 7 mm			
Type of roofing	Tile, pan			
max. height compensation	56 to 72 mm in roof panel area; 21 mm in rail area			
Weight	1.096 kg			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25; suitable for heavy loads; for use with wood screws d=6mm			

Product description		QU	PU	BP	Art. No.
S:FLEX roof hook plain tile 30x6 complete		pcs	20	960	720-200-071
	Material	Stainless steel A2; 1.4301			
	Material screw	Stainless steel A2-70			
	Type of roofing	Plain tile			
	Weight	0.600 kg			
	Dimensions W x H	Material thickness 30x6 mm			
	Drilling	2x9 mm for plate head wood screws			
	Article supplement	pre-assembled; incl. hammer-head bolt set			
	S:FLEX roof hook slate 30x5 complete		pcs	20	1,080
	Material	Stainless steel A2; 1.4301			
	Material screw	Stainless steel A2-70			
	Type of roofing	Slate			
	Weight	0.462 kg			
	Dimensions W x H	Material thickness 30x5 mm			
	Drilling	3x7 mm for countersunk wood screws			
	Article supplement	pre-assembled; incl. hammer-head bolt set			
	S:FLEX roof hook slate 35x6 complete		pcs	10	
	Material	Stainless steel A2; 1.4301			
	Material screw	Stainless steel A2-70			
	Type of roofing	Slate			
	Weight	0.620 kg			
	Dimensions W x H	Material thickness 35x6 mm			
	Drilling	3x7 mm for countersunk wood screws			
	Article supplement	pre-assembled; incl. hammer-head bolt set			

Product description	QU	PU	BP	Art. No.
---------------------	----	----	----	----------



Aluminium-roof tile type "Biber Vario"	pcs	15	1.440	720-200-701
Material	Aluminium EN AW-6063 T6			
Dimensions	178 x 360 x 8.8 mm			
Weight	0.418 kg			



Metal roof tile type "Biber Vario" zinc plated	pcs	30	900	720-200-102
---	------------	-----------	------------	--------------------

Material	Sheet steel zinc plated			
Dimensions	180 x 380 mm (coverage area), thickness 0.7 mm			
Weight	0.500 kg			
Article supplement	Delivery with foam wedges (self-adhesive)			

Metal roof tile type "Biber Vario" red – powder-coated	pcs	30		720-200-100
---	------------	-----------	--	--------------------

Metal roof tile type "Biber Vario" brown – powder-coated	pcs	30		720-200-101
---	------------	-----------	--	--------------------

Metal roof tile type "Biber Vario" dark grey – powder-coated	pcs	30		720-200-103
---	------------	-----------	--	--------------------



Metal roof tile type "Beton" zinc plated	pcs	20		720-200-105
---	------------	-----------	--	--------------------

Material	Sheet steel zinc plated			
Dimensions	385 x 425 mm, thickness 0.7 mm			
Weight	1.400 kg			
Article supplement	Delivery with foam wedges (self-adhesive) and plumb seal			

Metal roof tile type "Beton" red – powder-coated	pcs	20		720-200-106
---	------------	-----------	--	--------------------

Metal roof tile type "Beton" brown – powder-coated	pcs	20		720-200-107
---	------------	-----------	--	--------------------

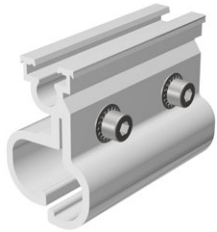
Metal roof tile type "Beton" darkgrey – powder-coated	pcs	20		720-200-108
--	------------	-----------	--	--------------------

More metal roof tiles for all common types of tile available upon request.

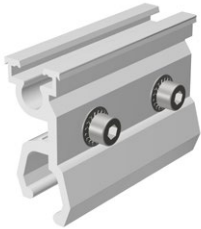


Shimming plate for roof hooks	pcs	20	500	720-200-600
--------------------------------------	------------	-----------	------------	--------------------

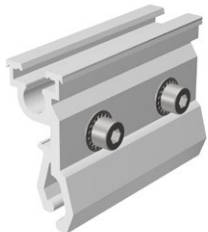
Material	Polypropylen			
Dimensions	100 x 52 x 6 mm			
Weight	0.012 kg			
Article supplement	Bearing strength 150 kg, temperature-resistant from -20° to +80° C			



Product description		QU	PU	BP	Art. No.
S:FLEX Standing Seam Clamp 2.1 complete		pcs	32	1,600	720-200-502
Material	Aluminium EN AW-6060 T66				
Material screw	Stainless steel A2-70				
Dimensions (L x W x H)	100 x 48 x 64 mm				
Weight	0.314 kg				
Type of roofing	Sheet metal / standing seam and round seam				
Article supplement	Pre-assembled, Direct mounting of modules without mounting rails possible				



S:FLEX Standing Seam Clamp CL complete		pcs	40	2,000	720-200-520
Material	Aluminium EN AW-6063 T6				
Material screw	Stainless steel A2-70				
Dimensions (L x W x H)	100 x 48 x 70.9 mm				
Weight	0.261 kg				
Type of roofing	Industrial metal system roofs				
Article supplement	Pre-assembled, Direct mounting of modules without mounting rails possible				



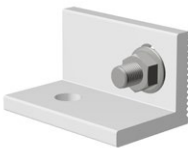
S:FLEX Standing Seam Clamp DCO complete		pcs	40	2,000	720-200-530
Material	Aluminium EN AW-6063 T6				
Material screw	Stainless steel A2-70				
Dimensions (L x W x H)	100 x 48 x 70.9 mm				
Weight	0.249 kg				
Type of roofing	Industrial metal system roofs				
Article supplement	Pre-assembled, Direct mounting of modules without mounting rails possible				

Product description	QU	PU	BP	Art. No.
---------------------	----	----	----	----------



Bracket 40mm, M8 complete	pcs	20	4,860	30-700-004
Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70			
max. height compensation	21 mm			
Weight	0.099 kg			
Screw diameter	for 8 mm screws			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			

Bracket 60mm, M10 complete	pcs	20	5,760	30-700-020
-----------------------------------	------------	-----------	--------------	-------------------



Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70			
Weight	0.087 kg			
Screw diameter	for 10 mm screws			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			

Bracket 60mm, M12 complete	pcs	20	5,760	30-700-018
-----------------------------------	------------	-----------	--------------	-------------------



Material	Aluminium EN AW-6063 T6			
Material screw	Stainless steel A2-70			
Weight	0.086 kg			
Screw diameter	for 12 mm screws			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			

Adapter rail I=366	pcs	20	640	30-500-019
---------------------------	------------	-----------	------------	-------------------



Material	Aluminium EN AW-6063 T6			
Dimensions L x W x H	366 x 40 x 92 mm			
Weight	0.552 kg			
Screw diameter	12.5 mm round hole / 13 x 30 mm long hole			

Adapter rail I=235	pcs	50	1,600	30-500-021
---------------------------	------------	-----------	--------------	-------------------



Material	Aluminium EN AW-6063 T6			
Dimensions L x W x H	235 x 92 x 40 mm			
Weight	0.352 kg			
Screw diameter	12.5 mm round hole / 13 x 30 mm long hole			



Product description		QU	PU	BP	Art. No.
Hanger bolt A2 M 8x200 pure		pcs	50	3,600	700-200-005
Material	Stainless steel A2				
Type of roofing	Corrugated cement sheets, trapezoidal / corrugated sheet metal				
Weight	0.090 kg				
Article supplement	pre-assembled with 3 self-locking nuts M8 and 1 EPDM sealing; drive thread M8				

Hanger bolt A2 M 10x200 pure		pcs	25	3,600	700-200-001
Material	Stainless steel A2				
Type of roofing	Corrugated cement sheets, trapezoidal / corrugated sheet metal				
Weight	0.138 kg				
Article supplement	pre-assembled with 3 self-locking nuts M10 and 1 EPDM sealing; wrench size 7				



Hanger bolt A2 M 10x250 pure		pcs	25	2,400	700-200-002
Material	Stainless steel A2				
Type of roofing	Corrugated cement sheets, trapezoidal / corrugated sheet metal				
Weight	0.144 kg				
Article supplement	pre-assembled with 3 self-locking nuts M10 and 1 EPDM sealing; wrench size 7				

Hanger bolt A2 M 12x250 pure		pcs	25	2,400	700-200-003
Material	Stainless steel A2				
Type of roofing	Corrugated cement sheets, trapezoidal / corrugated sheet metal				
Weight	0.220 kg				
Article supplement	pre-assembled with 3 self-locking nuts M12 and 1 EPDM sealing; wrench size 9				

Hanger bolt A2 M 12x300 pure		pcs	20	2,400	700-200-004
Material	Stainless steel A2				
Type of roofing	Corrugated cement sheets, trapezoidal / corrugated sheet metal				
Weight	0.253 kg				
Article supplement	pre-assembled				

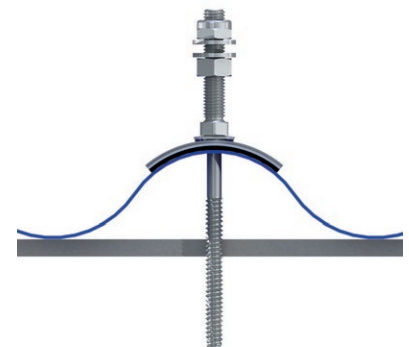
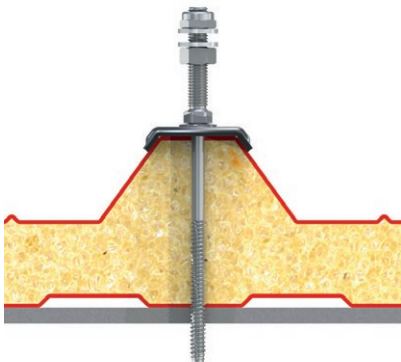
Hanger bolts in other sizes available upon request.



Product description		QU	PU	BP	Art. No.
Solar fasteners RSB-BZ 8,0/M10 x 100/50		pcs	20		700-700-001
Material	Stainless steel A2				
Type of roofing	Trapezoidal sheet metal, corrugated metal, corrugated cement sheets				
Screw length	156 mm (clamp area 35–80 mm)				
Thread	metric thread M10x50. drill thread 8.0x100				
Weight	0.110 kg				
Article supplement	pre-assembled with 2 nuts M10 and A2/EPDM sealing washer; 5 mm hexagon drive				
Solar fasteners RSB-BZ 8,0/M10 x 150/50		pcs	20		700-700-003
Material	Stainless steel A2				
Type of roofing	Trapezoidal sheet metal, corrugated metal, corrugated cement sheets				
Screw length	206 mm (clamp area 35–130 mm)				
Thread	metric thread M10x50. drill thread 8.0x150				
Weight	0.112 kg				
Article supplement	pre-assembled with 2 nuts M10 and A2/EPDM sealing washer; 5 mm hexagon drive				
Solar fasteners RSB-BZ 8,0/M10 x 200/50		pcs	20		700-700-005
Material	Stainless steel A2				
Type of roofing	Trapezoidal sheet metal, corrugated metal, corrugated cement sheets				
Screw length	256 mm (clamp area 135–180 mm)				
Thread	metric thread M10x50. drill thread 8.0x200				
Weight	0.127 kg				
Article supplement	pre-assembled with 2 nuts M10 and A2/EPDM sealing washer; 5 mm hexagon drive				

Solar fasteners type BZ of other lengths available upon request.

All solar fasteners with choice of calotte or corrugated cement sealing.

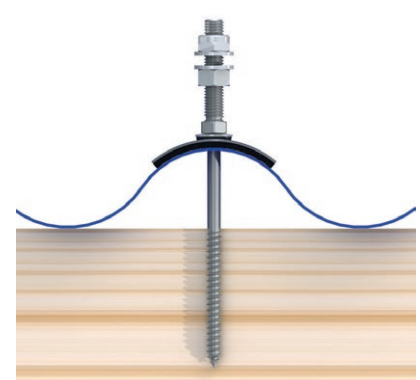
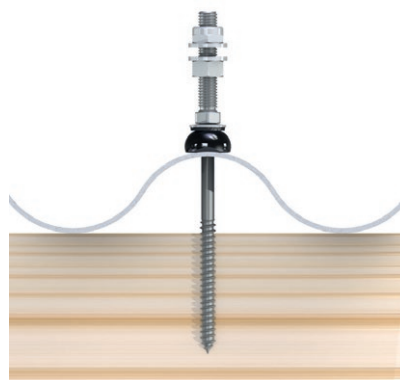
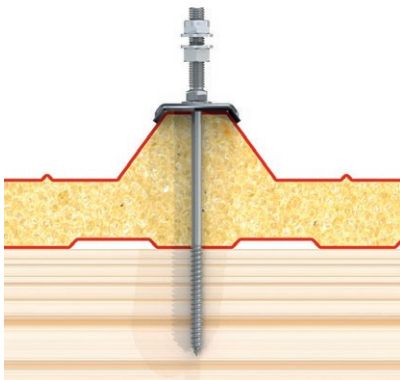




Product description		QU	PU	BP	Art. No.
Solar fasteners RSB-A 8,4/M10 x 100/50		pcs	20		700-700-021
Material	Stainless steel A2				
Type of roofing	Trapezoidal sheet metal, corrugated metal, corrugated cement sheets				
Screw length	156 mm (clamp area 20–60 mm)				
Thread	metric thread M10x50. drill thread 8.4x100				
Weight	0.100 kg				
Article supplement	pre-assembled with 2 nuts M10 and A2/EPDM sealing washer; 5 mm hexagon drive				
Solar fasteners RSB-A 8,4/M10 x 150/50		pcs	20		700-700-023
Material	Stainless steel A2				
Type of roofing	Trapezoidal sheet metal, corrugated metal, corrugated cement sheets				
Screw length	206 mm (clamp area 75–110 mm)				
Thread	metric thread M10x50. drill thread 8.4x150				
Weight	0.112 kg				
Article supplement	pre-assembled with 2 nuts M10 and A2/EPDM sealing washer; 5 mm hexagon drive				
Solar fasteners RSB-A 8,4/M10 x 200/50		pcs	20		700-700-030
Material	Stainless steel A2				
Type of roofing	Trapezoidal sheet metal, corrugated metal, corrugated cement sheets				
Screw length	256 mm (clamp area 125–160 mm)				
Thread	metric thread M10x50. drill thread 8.4x200				
Weight	0.127 kg				
Article supplement	pre-assembled with 2 nuts M10 and A2/EPDM sealing washer; 5 mm hexagon drive				

Solar fasteners type A of other lengths available upon request.

All solar fasteners with choice of calotte or corrugated cement sealing.





Product description		QU	PU	BP	Art. No.
S:FLEX wood screw 6x60 A2 TX 30		pcs	100	39,000	700-102-681
Material	Stainless steel A2				
Screw length	60 mm				
Weight	0.011 kg				
Article supplement	for roof hook slate, with drill bit and slice coating				



S:FLEX wood screw 6x80 A2 TX 30		pcs	100	39,000	700-102-680
Material	Stainless steel A2				
Screw length	80 mm				
Weight	0.015 kg				
Article supplement	for roof hook slate, with drill bit and slice coating				



S:FLEX wood screw 6x100 A2 TX 30		pcs	100	39,000	700-102-682
Material	Stainless steel A2				
Screw length	100 mm				
Weight	0.016 kg				
Article supplement	for roof hook slate, with drill bit and slice coating				



S:FLEX wood screw 6x120 A2 TX 30		pcs	100	26,000	700-102-683
Material	Stainless steel A2				
Screw length	120 mm				
Weight	0.017 kg				
Article supplement	for roof hook slate, with drill bit and slice coating				



Wood screw countersunk 6x80 A2 TX 25		pcs	200	57,600	700-100-202
Material	Stainless steel A2				
Screw length	80 mm				
Weight	0.010 kg				
Article supplement	for roof hook slate, with drill bit and slice coating				

Wood screws in other sizes available upon request.

Product description	QU	PU	BP	Art. No.
Wood screw plate head 8.0x80 TX 40	pcs	100	2,880	700-100-003



Material	Stainless steel A2
Screw length	80 mm
Weight	0.020 kg
Article supplement	With threading groove; for roof hook Alu

Wood screw plate head 8.0x100 TX 40	pcs	100	14,400	700-100-004
--	------------	------------	---------------	--------------------



Material	Stainless steel A2
Screw length	100 mm
Weight	0.025 kg
Article supplement	With threading groove; for roof hook Alu

Wood screw plate head 8.0x140 TX 40	pcs	50	14,400	700-100-140
--	------------	-----------	---------------	--------------------



Material	Stainless steel A2
Screw length	120 mm
Weight	0.030 kg
Article supplement	With threading groove; for roof hook Alu








Wood screw plate head 8.0x200 TX 40	pcs	50	9,600	700-100-006
--	------------	-----------	--------------	--------------------








Material	Stainless steel A2
Screw length	200 mm
Weight	0.060 kg
Article supplement	With threading groove; for roof hook Alu

Wood screws in other sizes available upon request.

Product description		QU	PU	BP	Art. No.
Cross adapter clamp AK II A		pcs	20	5,760	30-500-047
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Weight	0.048 kg			
	Article supplement	pre-assembled			
Slipping protection		pcs	25		30-700-002
	Material	Stainless steel A2-70			
	Thread	M6			
	Screw length	20 mm			
	Weight	0.008 kg			
	Article supplement	incl. hex nut M6			
Slider lock AK A		pcs	20	11,520	30-500-003
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Weight	0.022 kg			
	Article supplement	pre-assembled			
Slider lock XL AK A		pcs	20	11,520	30-500-002
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Weight	0.024 kg			
	Article supplement	pre-assembled			
Slider lock AK black		pcs	20	11,520	30-500-007
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Weight	0.022 kg			
	Article supplement	pre-assembled			

Product description		QU	PU	BP	Art. No.
Sheet metal screw A2 4.5x25		pcs	100	48,000	700-900-001
	Material	Stainless steel A2 / Bi-Metall plus EPDM sealing washer			
	Screw length	25 mm			
	Weight	0.005 kg			
	Article supplement	Swarf-free self-cutting for sheet metal installation, wrench size 8			
Sheet metal screw A2 6.0x25		pcs	100	52,000	700-900-002
	Material	Stainless steel A2 / Bi-Metall plus EPDM sealing washer			
	Screw length	25 mm			
	Weight	0.008 kg			
	Article supplement	Swarf-free self-cutting for sheet metal installation, wrench size 8			
Repair screw FAB A Type A 7,2x19 E19		Stk	100	52,000	700-900-006
	Material	Stainless steel A2 plus EPDM sealing washer			
	Screw length	19 mm			
	Weight	0,009 kg			
	Article supplement	For the repair of rivet or screw holes in metal sheets $\varnothing \leq 6,3$ mm			
Blind rivet multi-range S:FLEX/GESIPA		pcs	100		30-700-725
	Material	Aluminium / Stainless steel A2			
	Dimensions	4.8 x 12 mm (pin)			
	Weight	0.003 kg			
	Article supplement	Blind rivet for sheet metal installation			
Sealing tape EPDM, 25m reel		pcs	16	448	720-300-200
	Material	Closed-cell rubber EPDM			
	Dimensions	30 x 2 mm, 25 m reel			
	Weight	0.335 kg / 35 m reel			
Hammer-head bolt M8x25 Type 28/15		pcs	100	50,400	700-300-002
	Material	Stainless steel A2-70			
	Thread	M8			
	Screw length	25 mm			
	Weight	0.015 kg			
Hammer-head bolt M8x45 Type 28/15		pcs	100	21,600	700-300-003
	Material	Stainless steel A2-70			
	Thread	M8			
	Screw length	45 mm			
	Weight	0.019 kg			

Product description		QU	PU	BP	Art. No.
Serrated nut M8 DIN 6923		pcs	100		700-500-001
	Material	Stainless steel A2			
	Thread	M8			
	Weight	0.006 kg			
Serrated nut M10 A2 DIN 6923		pcs	100		700-500-002
	Material	Stainless steel A2			
	Thread	M10			
	Weight	0.011 kg			
Serrated nut M12 A2 DIN 6923		pcs	100		700-500-006
	Material	Stainless steel A2			
	Thread	M12			
	Weight	0.016 kg			
Serrated washer A4 M8 Form M		pcs	100		700-600-005
	Material	Stainless steel A2			
	Diameter	For M8 screws			
	Weight	0.002 kg			
Hexagon socket head cap screw M8x120 DIN 912 A2		pcs	40		700-411-003
	Material	Stainless steel A2			
	Diameter	13 mm			
	Screw length	120 mm			
	Weight	0.034 kg			

Product description	QU	PU	BP	Art. No.
---------------------	----	----	----	----------



Cable straps standard black	pcs	100	11,000	720-800-010
Material	UV-resistant polyamide			
Dimensions	300 x 4.8 mm			
Traction force	222 N			



Cable straps edge clip KC 15 (incl. cable straps)	pcs	100	48,000	720-800-004
Material	UV-resistant polyamide			
Dimensions	200 x 3.6 mm			
Traction force	182 N			
Clamp area	0.7 – 3.0 mm; cable route variable parallel / 90° to the edge			

Other cable straps edge clips available upon request.






Grounding clamp complete	pcs	50		720-800-023
Material	Aluminium, stainless steel A2-70			
Material screw	Stainless steel A2-70			
Dimensions	43 x 43 x 9 mm			
Weight	0.041 kg			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			








Grounding clamp DEH Uni complete HK	pcs	50		720-800-031
Material	Stainless steel 1.4301			
Material screw	Stainless steel A2-70			
Dimensions	37 x 32 x 14 mm			
Weight	0.057 kg			
Article supplement	pre-assembled; incl. hammer-head bolt set M8x25			



Gusset plate steel S235	pcs	50	50	720-100-006
Material	Stainless steel 1.4301			
Dimensions	120 x 106 x 3 mm; hole diameter 9.0 mm			
Weight	0.295 kg			
Drilling	Drill holes for the variable connection of rails			

Product description		QU	PU	BP	Art. No.
	Base triangle pure Vario 35°- 45°	pcs	1	40	30-800-020
	Material	Aluminium EN-AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Dimensions (HxLxW)	833-998 x 1230-1308 x 40 mm			
	Weight	3.210 kg			
	Article supplement	pre-assembled; manually adjustable in increments of 5° not including cross adapter clamps			
	Base triangle pure Vario 20°- 30°	pcs	1	40	30-800-021
	Material	Aluminium EN-AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Dimensions (HxLxW)	543-741 x 1230-1308 x 40 mm			
	Weight	2.808 kg			
	Article supplement	pre-assembled; manually adjustable in increments of 5° not including cross adapter clamps			
	Base triangle pure Vario 10°- 15°	pcs	1	40	30-800-022
	Material	Aluminium EN-AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Dimensions (HxLxW)	329-438 x 1340-1363 x 40 mm			
	Weight	2.750 kg			
	Article supplement	pre-assembled; manually adjustable in increments of 5° not including cross adapter clamps			

Product description		QU	PU	BP	Art. No.
Delta AK II 1230 10°		pcs	1	126	720-300-121
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Dimensions assembled	265.4 x 1230 mm (HxL)			
	Dimensions folded	93 x 44.4 x 1230 mm			
	Weight	2.038 kg			
	Article supplement	10° angle			
Delta AK II 1230 15°		pcs	1	126	720-300-122
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Dimensions assembled	368.6 x 1230 mm (HxL)			
	Dimensions folded	93 x 44,4 x 1230 mm			
	Weight	2.109 kg			
	Article supplement	15° angle			
Delta AK II 1230 20°		pcs	1	126	720-300-123
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Dimensions assembled	469.2 x 1230 mm (HxL)			
	Dimensions folded	93 x 44,4 x 1230 mm			
	Weight	2.180 kg			
	Article supplement	20° angle			
Delta AK II 1230 25°		pcs	1	126	720-300-124
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Dimensions assembled	566.4 x 1230 mm (HxL)			
	Dimensions folded	93 x 44.4 x 1230 mm			
	Weight	2.250 kg			
	Article supplement	25° angle			
Delta AK II 1230 30°		pcs	1	126	720-300-125
	Material	Aluminium EN AW-6063 T6			
	Material screw	Stainless steel A2-70			
	Dimensions assembled	659.5 x 1230 mm (HxL)			
	Dimensions folded	93 x 44.4 x 1230 mm			
	Weight	2.318 kg			
	Article supplement	30° angle			

Product description

QU PU BP Art. No.

Delta AK II 1230 35° **pcs 1 126 720-300-126**



Material Aluminium EN AW-6063 T6
Material screw Stainless steel A2-70
Dimensions assembled 747.8 x 1230 mm (HxL)
Dimensions folded 93 x 44.4 x 1230 mm
Weight 2.387 kg
Article supplement 35° angle

Delta AK II 1230 40° **pcs 1 126 720-300-127**



Material Aluminium EN AW-6063 T6
Material screw Stainless steel A2-70
Dimensions assembled 830.6 x 1230 mm (HxL)
Dimensions folded 93 x 44.4 x 1230 mm
Weight 2.454 kg
Article supplement 40° angle

Delta AK II 1230 45° **pcs 1 126 720-300-128**



Material Aluminium EN AW-6063 T6
Material screw Stainless steel A2-70
Dimensions assembled 907.2 x 1230 mm (HxL)
Dimensions folded 93 x 44.4 x 1230 mm
Weight 2.520 kg
Article supplement 45° angle

Diagonal bar Delta AS 1180mm **pcs 1 600 720-300-141**



Material Aluminium EN AW-6063 T6
Dimensions W x H x L 40 x 20 x 1180 mm
Material thickness 2 mm
Weight 0.370 kg
Article supplement One drilling 1 x 9 mm, fastening material not included