

SCHLETTER
The Solar Mounting Group



COMPONENT OVERVIEW
2018/2019

General information

Materials:

Roof hooks and their main components:
high-grade (stainless) steel 1.4301 or aluminum;

Screws/bolts:
high-grade (stainless) steel A2 or better

Sheet metal parts:
high-grade (stainless) steel 1.4301 or aluminum

Module clamps:
Aluminum

Rubber seal:
EPDM gasket (UV-resistant)

Deviating materials are described with the individual items.

Planning aid:

Configuration and structural dimensioning with the AutoCalculator Easy and the Schletter Configurator

Structural analysis:

Structural analysis in accordance with current national standards (in Germany EN 1991, EC1). Structural analysis annex for the dimensioning of the number of required fastening points, based on the structural analysis. Please make sure you observe the structural analysis information in each case! The verification of the adhesive force of the roof to the substructure is not included in the general structural analysis annexes!

Production-specific tolerances are to be considered with all dimension specifications.

On customer request, all companies of the Schletter Group can purchase goods from the Schletter factories in Germany, China (Shanghai) or the USA. All these three factories have been certified according to ISO 9001. Further details about the certifications are available on the respective Schletter websites.

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PRESENTATION

Brochures and Software

Sample case

Brochures and Software

Presentation

Brochures and Software

You will always find current brochures, product sheets, mounting instructions and further technical information as well as software in the download area at www.schletter-group.com.

If you are interested, we will be happy to send you our brochures in digital format.

Sample case

Presentation



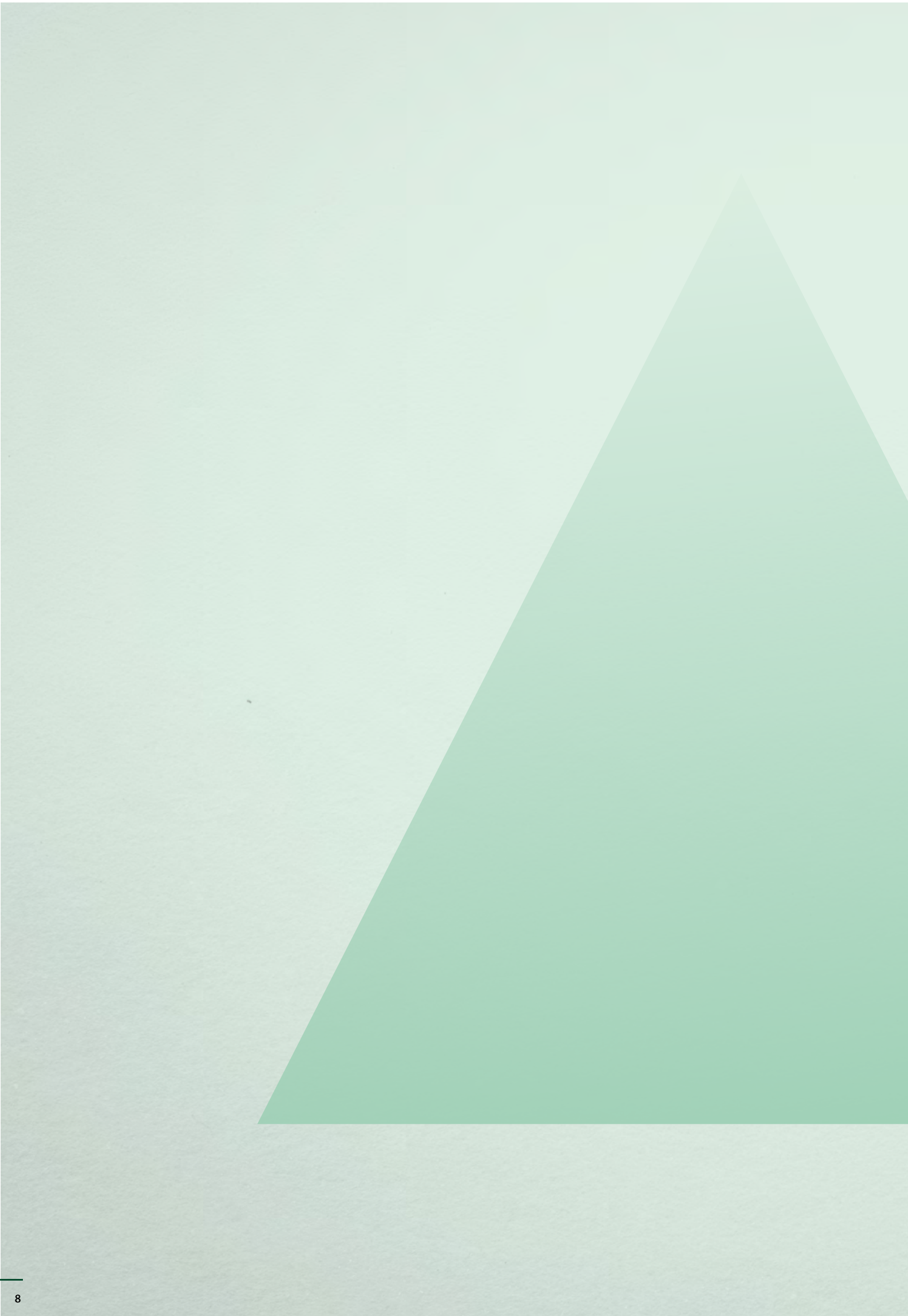
Similar illustration

Sample case

On request!

195000-297 Sample case rooftop and standard systems

Contains specimen of current Schletter mounting system products



ROOF HOOKS

Standard Roof hooks

Rapid²⁺Roof hooks

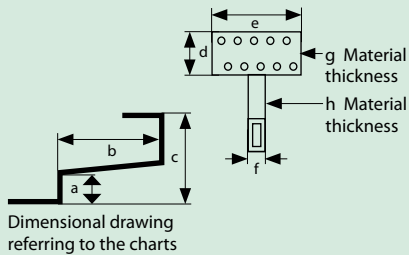
Alu-Tile

Roof hook Special Design

Roof hooks Accessories

Standard Roof hooks

Roof hooks



Standard Roof hooks

- All roof hooks are made of high-grade (stainless) steel
- Adjustable hooks are fully pre-assembled

Wood screws, square head bolts (M10 × 25 mm) and flange nuts must be ordered separately!

Roof hooks Eco S

- In stainless steel quality
- Welded
- Symmetric bar arrangement



100004-000 Roof hook Eco S 135 (normal height 135 mm)

	a	b	c	d	e	f	g	h	
mm	45	110	135	60	150	35	5	6	PU:20

Universal Roof hook

- In stainless steel quality
- Variable bar arrangement
- Adjustable at the front and rear
- Middle bar can be set in three different positions

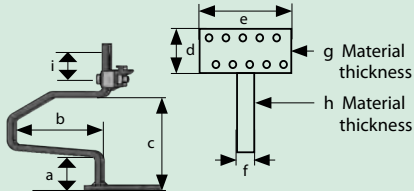


100001-000 Roof hook Universal (pantile "Frankfurter Pfanne" or interlocking tile)

	a	b	c	d	e	f	g	h	
mm	42-52	115	102-135	74	150	30	5	6	PU:20

Rapid²⁺Roof hooks

Roof hooks



Dimensional drawing referring to the charts

Rapid²⁺Roof hooks

- In stainless steel quality
- Welded
- Symmetric bar arrangement
- Pre-assembled



101001-000 Roof hook Rapid²⁺ 45

	a	b	c	d	e	f	g	h	i	
mm	45	110	118	60	150	35	5	6	30	PU:20

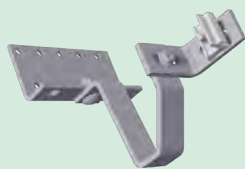
Comparable to: Eco S 100004-000



101002-000 Roof hook Rapid²⁺ 35

	a	b	c	d	e	f	g	h	i	
mm	35	110	108	60	150	35	5	6	30	PU:20

Like 101001-000, but 35 mm/1.38 inches bracket height for low battens



101004-000 Roof hook Rapid²⁺ Universal

	a	b	c	d	e	f	g	h	i	
mm	40-52	110	115-127	74	150	35	5	6	30	PU: 10

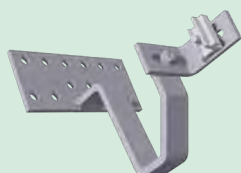
Universally adjustable, for vertical rail mounting (in portrait)
Comparable to: Universal 100001-000



101005-000 Roof hook Rapid²⁺ Max

	a	b	c	d	e	f	g	h	i	
mm	45	120	125	80	180	35	6	8	30	PU: 10

Like 101001-000, but with 35 × 8 mm/1.38 × 0.31 inches bracket height for heavy snow loads



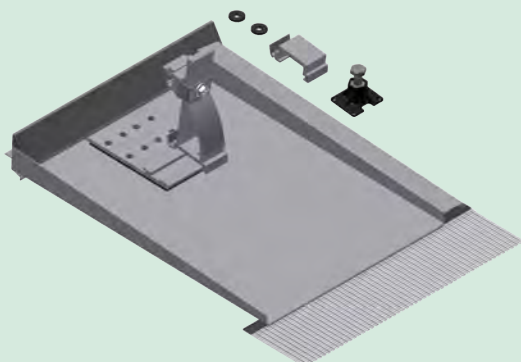
101006-000 Roof hook Rapid²⁺ MaxV

	a	b	c	d	e	f	g	h	i	
mm	45	120	125	80	180	35	6	8	30	PU: 10

Like 101005-000, but for vertical rail mounting (in portrait)

Alu-Tile

Roof hooks



Alu-Tile

Replaces a complete roof tile. Particularly suited to areas with high snow loads. Incl. system hook with rapid attachment. System hooks with sheet metal replacement tiles in aluminum, EPDM screw seal, load support in plastic with A2 stainless-steel screw.

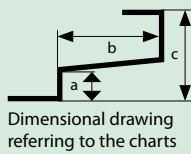
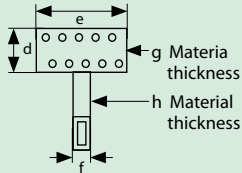
Summary list (sorted by tile manufacturer)		PU:10
Braas / Monier	Item No.	Non-coated aluminum
Frankfurt pantile ²	103003-000	Alu-Tile BEZ H+V Type 000 set
Taunus pantile ²	103003-000	Alu-Tile BEZ H+V Type 000 set
Harzer pantile ²	103003-000	Alu-Tile BEZ H+V Type 000 set
Double S tile ²	103003-000	Alu-Tile BEZ H+V Type 000 set
Topas 11V (batten distance: min. 330 mm!)	103003-009	Alu-Tile BEZ H+V Type 009 set
Topas 13V	103003-009	Alu-Tile BEZ H+V Type 009 set
Tegalit ¹	103003-014	Alu-Tile BEZ H+V Type 014 set
Bramac		
Classic / Donau ²	103003-000	Alu-Tile BEZ H+V Type 000 set
Ceda		
Mareno / Asimmetrica ²	103003-000	Alu-Tile BEZ H+V Type 000 set
Creton		
Göteborg / Heidelberg ²	103003-000	Alu-Tile BEZ H+V Type 000 set
Ratio	103003-009	Alu-Tile BEZ H+V Type 009 set
Ergoldsbacher		
Erlus E58 / S	103003-004	Alu-Tile BEZ H+V Type 004 set
Erlus large interlocking tile XXL	103003-006	Alu-Tile BEZ H+V Type 006 set
Erlus retro-style pantile XXL	103003-006	Alu-Tile BEZ H+V Type 006 set
Erlus Linea	103003-015	Alu-Tile BEZ H+V Type 015 set
Forma	103003-022	Alu-Tile BEZ H+V Type 022 set
Nelskamp		
S-Tile ²	103003-000	Alu-Tile BEZ H+V Type 000 set
Swiss manufacturer – ZZWancor Swiss		
Flat interlocking tile Jura 13	103003-009	Alu-Tile BEZ H+V Type 009 set
Züricher Ziegelei Istigh. 290	103003-009	Alu-Tile BEZ H+V Type 009 set
Flat interlocking tile Fama	103003-009	Alu-Tile BEZ H+V Type 009 set

¹The tiles must be slightly adapted! Please also read the supplements to our Mounting Instructions.

²If, in case of low batten distance, the roof hook is mounted exactly under a tile lug, this lug must be slightly adapted, as otherwise the tile lying on top will not cover the roof properly.

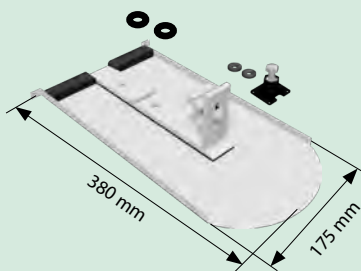
Roof hooks Special Design

Roof hooks



Plain Tile "Biberschwanz" Roof hooks

Please check if the hook design is suitable for the respective roof covering. EPDM screw seal, plastic load support with A2 stainless steel screw.

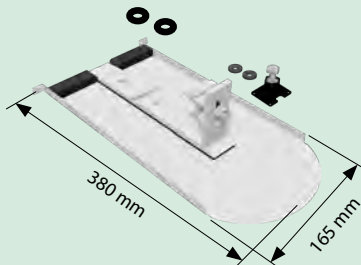


103014-000 Plain tile fastening kit Rapid 180 × 380

	a	b	c	d	e	f	g	h	
mm	--	228	--	--	35	35	--	7	PU:20

Plain tile (Biberschwanz) aluminum substitute tile with aluminum system hook

Suitable for plain tile (Biberschwanz) format 180/380 mm.

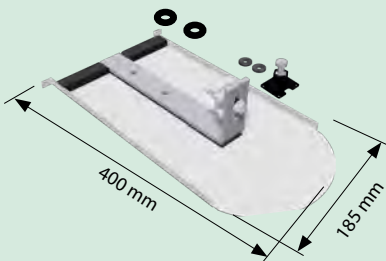


103014-001 Plain tile fastening kit Rapid 170 × 380

	a	b	c	d	e	f	g	h	
mm	--	228	--	--	35	35	--	7	PU:20

Plain tile (Biberschwanz) aluminum substitute tile with aluminum system hook

Suitable for plain tile (Biberschwanz) format 170/380 mm.

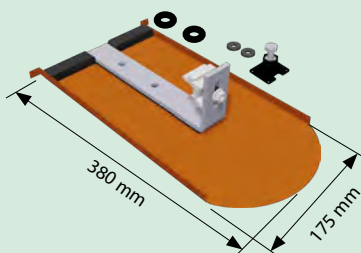


103014-002 Plain tile fastening kit Rapid 190 × 400

	a	b	c	d	e	f	g	h	
mm	--	250	--	--	35	35	--	6	PU:20

Plain tile (Biberschwanz) aluminum substitute tile with system hook made of high-grade (stainless) steel 1.4301

Suitable for plain tile (Biberschwanz) format 190/400 mm.



103014-010 Plain tile fastening kit Rapid copper 180 × 380

	a	b	c	d	e	f	g	h	
mm	--	250	--	--	35	35	--	6	PU:20

Plain tile (Biberschwanz) copper substitute plate with system hook made of high-grade (stainless) steel 1.4301.

Suitable for plain tile (Biberschwanz) format 180/380 mm.

Roof hooks Special Design

Roof hooks



Rapid 2L Roof hooks

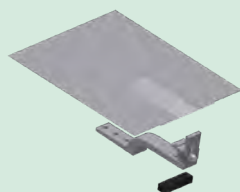
Roof hooks for system roofs made up of insulating roof elements.

101008-000 Roof hook Rapid 2L							PU:20
	a	b	c	d	e	f	g
mm	20	127	74	88	35	35	6

101008-002 Roof hook Rapid 2LV							PU:20
	a	b	c	d	e	f	g
mm	20	127	86	88	35	35	6

Rapid²⁺Slate Roof hook

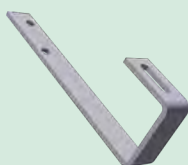
- Quick and easy installation
- Suitable for many types of shingles
- Cover plate with elastic corrugated ribbon
- Direct load transmission into the rafters



102002-002 Roof hook Rapid ²⁺ Slate 125 set		PU:20
For slate overlaps up to 125 mm		

Roof hooks for metal tiles and slate tiles (e.g. Prefa)

- In stainless steel quality
- Without plate



102001-000 Roof hook Slate (basic)				PU: 50
	Length	Height	Width	Thickness
mm	235	w75	30	5

SlatePlan for fastening with hanger bolts

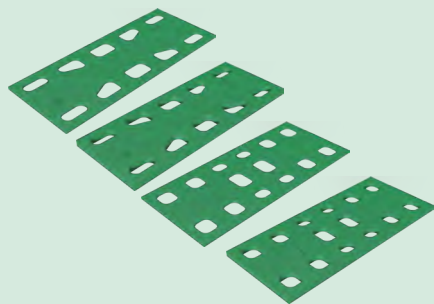
SlatePlan can be used on roofs with shingle covering, made of e.g. bitumen (asphalt shingle), fibre cement or slate, for fastening hanger bolt systems. **Accessories, see Hanger Bolts (page 18)**



109017-000 SlatePlan with seal 270 × 200 × 0.5 mm	PU:50
109017-001 SlatePlan with seal 370 × 200 × 0.5 mm	PU: 50

Roof hooks Accessories

Roof hooks

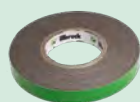


Roof hooks Accessories

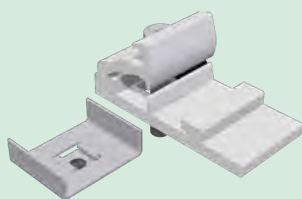
973000-017* Spacer plate 2 mm EcoG / EcoS / Rapid Standard	PU:50
973000-018* Spacer plate 5 mm EcoG / EcoS / Rapid Standard	PU:50
973000-019* Spacer plate 2 mm VaMax / Rapid Max	PU:50
973000-020* Spacer plate 5 mm VaMax / Rapid Max	PU:50

Spacer for Roof hook mounting

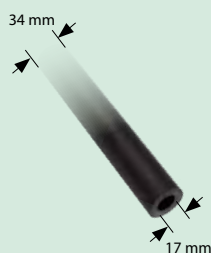
** Products end of life, will be exchanged as of Q4 by 1 Universal Spacer plate.*



973000-683 Roof hook sealing tape grey TP600 10 m	PU: 15
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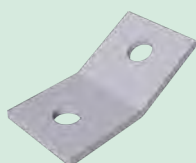


109008-003 RapFix attachment for Eco Roof hooks	PU: 50
Designed particularly for Roof hooks which are not available as a rapid version.	



925120-002 Plastic spacer bushing 1 meter

- For on-rafter insulation
- Applicable as a spacer for on-rafter insulations in combination with extra long fastening bolts
- Plastic design prevents thermal bridges
- Can easily be cut to the desired length
- Screws/bolts must be ordered separately!
- Consider the reduced permissible load per hook!



109010-000 Additional angle bracket Iso07	PU:20
For Roof hook fastening, Iso07 system	



SPECIAL FASTENINGS

Hanger bolts, FixPlan

Standing Seam Clamps

System VarioFix / SingleFix / FixZ Mounting Kit / EcoRapid

ClampFit

FixE, FixT, Fix T-K

Special fastenings Accessories

Hanger bolts, FixPlan

Special fastenings

Hanger bolts

For corrugated sheets (such as those of fiber cement) or trapezoidal sheet metal roofs, so-called fastening kits for corrugated roofs are used, comprising a special hanger bolt with EPDM gasket and a mounting plate. Please note that thread lengths can deviate from the corresponding figures.



110010-200	Hanger bolt kit 10 × 200 assembled M10 × 200 mm	PU:50
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110012-200	Hanger bolt kit 12 × 200 assembled M12 × 200 mm	PU:50
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110012-300	Hanger bolt kit 12 × 300 assembled M12 × 300 mm	PU:50
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Hanger bolt kit, compiled to customer requirements, with vulcanized EPDM gasket (UV-resistant) and 3 high-grade steel flange nuts (V4A), assembled



111110-200	Fastening kit for corrugated roofs 10 × 200 KlickTop M10 × 200 mm	PU:50
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111112-200	Fastening kit for corrugated roofs 12 × 200 KlickTop M12 × 200 mm	PU:50
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111112-300	Fastening kit for corrugated roofs 12 × 300 KlickTop M12 × 300 mm	PU:50
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KlickTop corrugated roof fastening kit incl. KlickTop kit, hanger bolt with vulcanized EPDM gasket (UV-resistant) and 3 high-grade steel flange nuts (V4A)

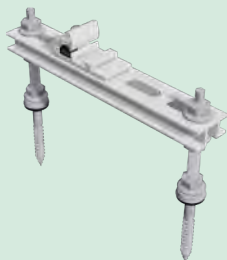


111310-200	Corrugated roof Plus 10 × 200 M10 × 200 mm	PU:25
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111312-200	Corrugated roof Plus 12 × 200 M12 × 200 mm	PU:25
-------------------	--	-------

111312-300	Corrugated roof Plus 12 × 300 M12 × 300 mm	PU:25
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Fastening kit for corrugated roof Plus (WelldachPlus) incl. Rapid attachment, hanger bolt with vulcanized EPDM gasket (UV-resistant), thread sealant and 3 high-grade steel flange nuts (V4A)

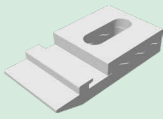
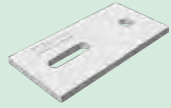


111412-200	Twin fastening kit for corrugated roofs Plus M12 × 200 mm	PU:25
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111412-300	Twin fastening kit for corrugated roofs Plus M12 × 300 mm	PU:25
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111410-200	Twin fastening kit for corrugated roofs Plus M10 × 200 mm	PU:25
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Double corrugated roof fastening set incl. rapid attachment, hanger bolt with vulcanized EPDM seal (UV resistant), thread sealing and 6 flange nuts in V4A, suitable for fiber cement panels or Berlin wave 133/177 mm



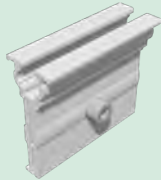
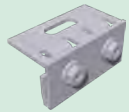
119002-000	Mounting plate for hanger bolt M10/M12 For hanger bolts M10 / M12, individual, aluminum 120 × 60 × 6 mm	PU:100
119014-000	Top-hat section 50 mm long d11 d13 d11 For hanger bolts M10/M12 (center hole), individual, aluminum center hole: 13 mm, outer holes: 11 mm	PU:100
119001-000	KlickTop attachment for hanger bolt For hanger bolts M10/M12, individual, aluminum	PU:50

Standing Seam Clamps

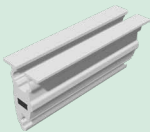
Special fastenings

Standing Seam Clamps

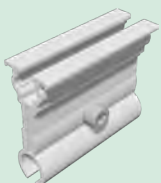
Please note: Tightening torque must be limited so that the sheet metal folds do not become distorted and the thermal lengthening of the sheets is not prevented!



for KlickTop



for KlickTop



for KlickTop



for KlickTop

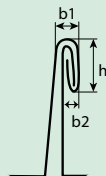
112001-000 Seam clamp 503 VA for standing seam roof PU:50

Please note: In case of roofs made of titanium zinc sheet metal, please verify that the standing seams have sufficient load-bearing capacity!

112001-005 Seam clamp 503 Rapid for standing seam roof PU:50

112001-010 Seam clamp 504 AL KK for standing seam roof PU:50

Especially suitable for doublelock standing seam roofs made of titanium zinc sheet metal



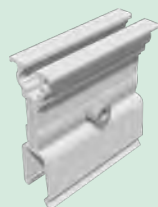
Possible dimensions of the flanged seam (see dimension drawing on the left) $h = 11-13$ mm, $b_1 = 4-6$ mm, $b_2 = \text{max. } 3$ mm

The seam clamp 504 has been developed in cooperation with the company Rheinzink for double lock standing seam roofs made of titanium zinc sheet metal and has been confirmed by Rheinzink as a good solution. The profiles mounted on the standing folding clamps must not exceed a length of about 3 m without thermal separation.

112002-003 Folding clamp 510 AL Rapid for KalZip and similar PU: 50

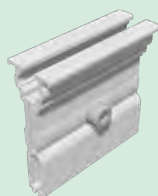
112003-003 Folding clamp 520 AL Rapid Zambelli RibRoof465 and similar

PU: 50



for KlickTop

112004-002 Folding clamp 522 AL Rapid Zambelli RibRoof500 PU:50
and similar

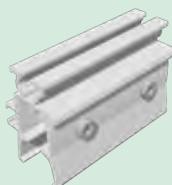


for KlickTop

112006-002 Folding clamp 524 Rapid Fischer KlipTec and similar PU: 50



112007-000 Folding clamp 525 VA for Domico Domitec PU: 50
for Domico and similar



112012-002 False clamp 540 AL KK for KlipLok 700/406 PU: 50
for KlipLok 700 HiStrength, Classic 700, 406
and similar

System VarioFix / SingleFix / FixZ Mounting Kit / EcoRapid

Special fastenings

System VarioFix / SingleFix / FixZ Mounting Kit / EcoRapid

The universal trapezoidal sheet fastener for steel and aluminum sheet from 0.5 mm;

Pay special attention to the usage notes!



113014-000 EcoRapid – Clamping directly on frame – for corrugation heights from 22 mm PU:200
Screws must be ordered separately, if needed.
Item number: 943000-360
EcoRapid on edge of module field: 2 screws
EcoRapid in middle of module field: 1 screw



113009-103 SingleFix-V Solo 20 pair set – for corrugation heights from 22 mm PU:50
(2 × SingleFix-V Solo, 4 sheet metal screws)
Used in connection with Solo mounting rail



113009-206 SingleFix-V Light 20 mounting kit – for corrugation heights from 22 mm PU:50
(2 × SingleFix-V Solo, 4 sheet metal screws, Profile piece EcoLight 450 mm)



113013-200 FixZ-7 mounting kit lower PU:25
(2 × SingleFix-V Solo, 4 sheet metal screws, profile piece FixZ-7 lower system profile 450 mm)



113013-201 FixZ-7 mounting kit upper PU:25
(2 × SingleFix-V Solo, 4 sheet metal screws, profile piece FixZ-7 upper system profile 450 mm)



113013-203 FixZ-15 mounting kit lower PU: 25
(2 × SingleFix-V Solo, 4 sheet metal screws, profile piece FixZ-15 lower system profile 450 mm)



113013-204 FixZ-15 system profile PU: 25
(2 × SingleFix-V Solo, 4 sheet metal screws, profile piece FixZ-15 upper system profile 450 mm)



113011-101 SingleFix-HU 20 set - for corrugation heights from 22 mm PU: 50
(2 × SingleFix-V Solo, 4 sheet metal screws, SingleFix-HU profile)

ClampFit

Special fastenings



ClampFit

The cost-optimized trapezoidal sheet fastening system for sheet steel and aluminum from 0.5 mm;

Pay special attention to the usage notes!






130004-100 ClampFit fastener

PU: 100

Module clamps for the frame height are also necessary


FixE, FixT, Fix T-K

Special fastenings

					Wood
					Steel
1	2	3	4	5	FixE/T Size

Usable sizes

FixE, FixT, Fix T-K

The innovative fastening solution for steel and wood purlins.
Order only through  checklist for FixE / FixT

111006-000 FixE size 1 simple fastening kit

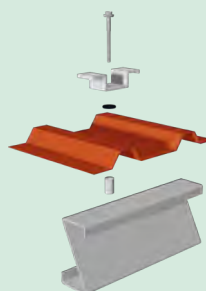


111008-000 FixE size 3 twin fastening kit top-hat rail

Manufacturing according to checklist



113004-000 FixT size 1 simple fastening kit



113005-000 FixT size 2 twin fastening kit

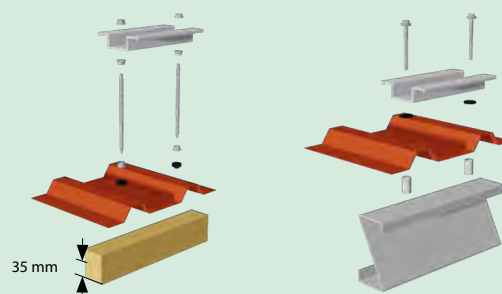
For high corrugation distances

- to 250 mm
- to hanger bolt size M10

113006-000 FixT size 3 twin fastening kit

For high corrugation distances

- larger than 250 mm



Applications

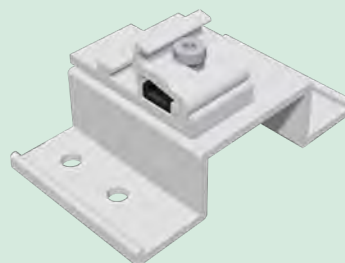
Elevation systems like CompactVario and CompactGrid.

Important statics notes

Using a checklist, the support components are adjusted to the roof covering, suitable screws are selected, and the length of the spacer sleeves is determined. The static layout of the entire construction (roof connections, support plates, elevation) is based on a user-friendly statics program.

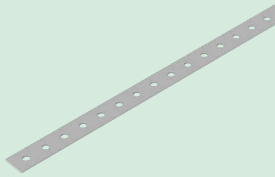
119014-012 Fix T-K

PU:50



Special fastening Accessories

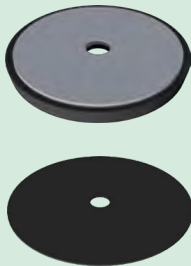
Special fastenings



Systems VarioFix / SingleFix / FixZ Mounting Kit Accessories

119015-002 Punched mounting tape 6–50 m

For connecting individual clamps as a potential connection or for fastening the string cabling if mounting rails cannot be deployed



Hanger Bolts Accessories – FixPlan

The alternative for at sheet metal roofs where fastening to the seams is not possible (for example titanium zinc metal roofs).

114003-000 FixPlan sealing plate PU:100

114004-000 Bituplan additional seal for FixPlan PU:100

For mounting on bitumen (asphalt shingle) roof coverings



MODULE CLAMPS

Module clamps for framed modules

Clamps for laminate modules

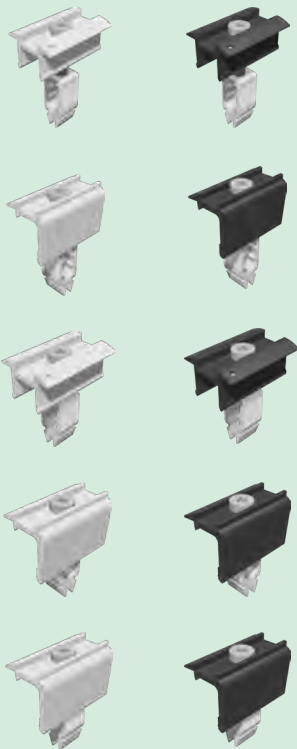
Laminate clamps Accessories

Module clamps for framed modules

Module clamps

Rapid¹⁶Aluminum Module Clamps System

The Rapid¹⁶ module clamp is the logical further development of our well-proven Rapid²⁺ module clamp that has already been installed millions of times. By providing variable application options, the number of items could be drastically reduced without limiting their possible fields of application. All module clamps are generally equipped with a grounding pin.



Non-coated aluminum	Anodized in black	Item name	Mounting
131121-002	131121-902	Middle Clamp Rapid ¹⁶ 40–50	V + H PU:100
131101-002	131101-902	End clamp Rapid ¹⁶ 40–50	V + H PU:50
131121-001	131121-901	Middle Clamp Rapid ¹⁶ 30–40	V + H PU: 100
131101-001	131101-901	End clamp Rapid ¹⁶ 30–40	V PU:50
131101-003	131101-903	End clamp Rapid ¹⁶ 30–40	H PU:50

Clamps for laminate modules

Module clamps

Clamps for laminate modules

Laminate Pro and Eco Series

For different module thicknesses

Note: Observe the tightening torque!

(see also: General Information on Laminate Mounting)

Laminate Profi Series

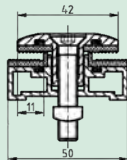
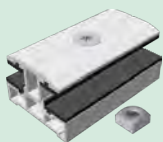
For laminate thickness 3–14 mm

clamp engagement length into the glass: Profi narrow 11 mm,

Profi wide 15 mm

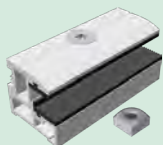
Length: 80 mm, gap between modules: approx. 20 mm

Incl. countersunk head bolt and square nut



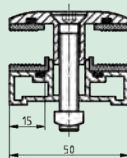
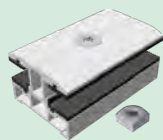
132201-308 Middle Clamp Profi narrow 3–8 mm set	PU:200
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132201-914 Middle Clamp Profi narrow 9–14 mm set	PU:200
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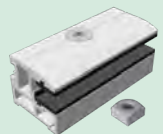
132101-308 End clamp Profi narrow 3–8 mm set	PU:200
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132101-914 End clamp Profi narrow 9–14 mm set	PU:200
--	--------



132202-308 Middle Clamp Profi wide 3–8 mm set	PU:200
--	--------

132202-914 Middle Clamp Profi wide 9–14 mm set	PU:200
---	--------



132102-308 End clamp Profi wide 3–8 mm set	PU:200
---	--------

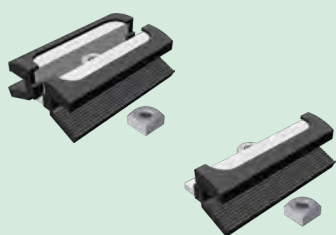
132102-914 End clamp Profi wide 9–14 mm set	PU:200
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Clamps for laminate modules

Module clamps

Laminate Eco Series

Length of the aluminum clamp: 70 mm, clamp engagement length into the glass: 11 mm, clearance between modules: about 22 mm, (no pressing of the laminate)



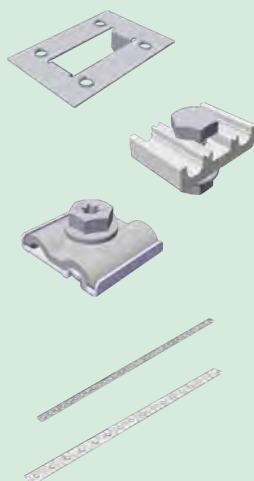
133264-168 Middle Clamp Eco6-S4 laminate 6.8 mm set	PU:100
133164-168 End clamp Eco6-S4 laminate 6.8 mm set	PU:100

*With accessories M8 × 20, without KlickIn click component
With EPDM rubber seal lining the aluminum clamp*

Certified clamps for First Solar module series 4 made of highly insulating EPDM rubber material. You can look up the certifications in the download area at www.schletter-group.com

Eco clamps also available on request in customized lengths

Lightning Protection and Potential Equalization



135004-000 Metal plate for module grounding	PU:100
Not suitable for laminate clamps!	
135003-000 Lightning protection clamp for 8 mm	PU:20
Aluminum completely pre-assembled (for DM 8 mm wire)	
135003-002 Grounding and lightning protection clamp stainless steel (VA) M8	PU:20
Clamping range edge 8-10 mm Connection single-/multi-wire 4-50 mm ²	
119015-002 Punched mounting tape 6–50 m	
119015-003 Punched mounting tape 16–50 m	
capable of carrying lightning current	

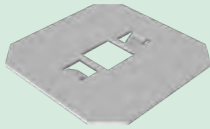
Laminate Clamps Accessories

Module clamps

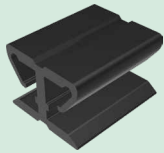
Laminate Clamps Accessories

Non-coated aluminum

139004-000	Bearing plate for module clamp Eco	PU:200
	To raise the contact surface	

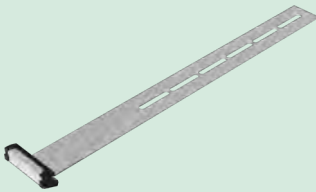


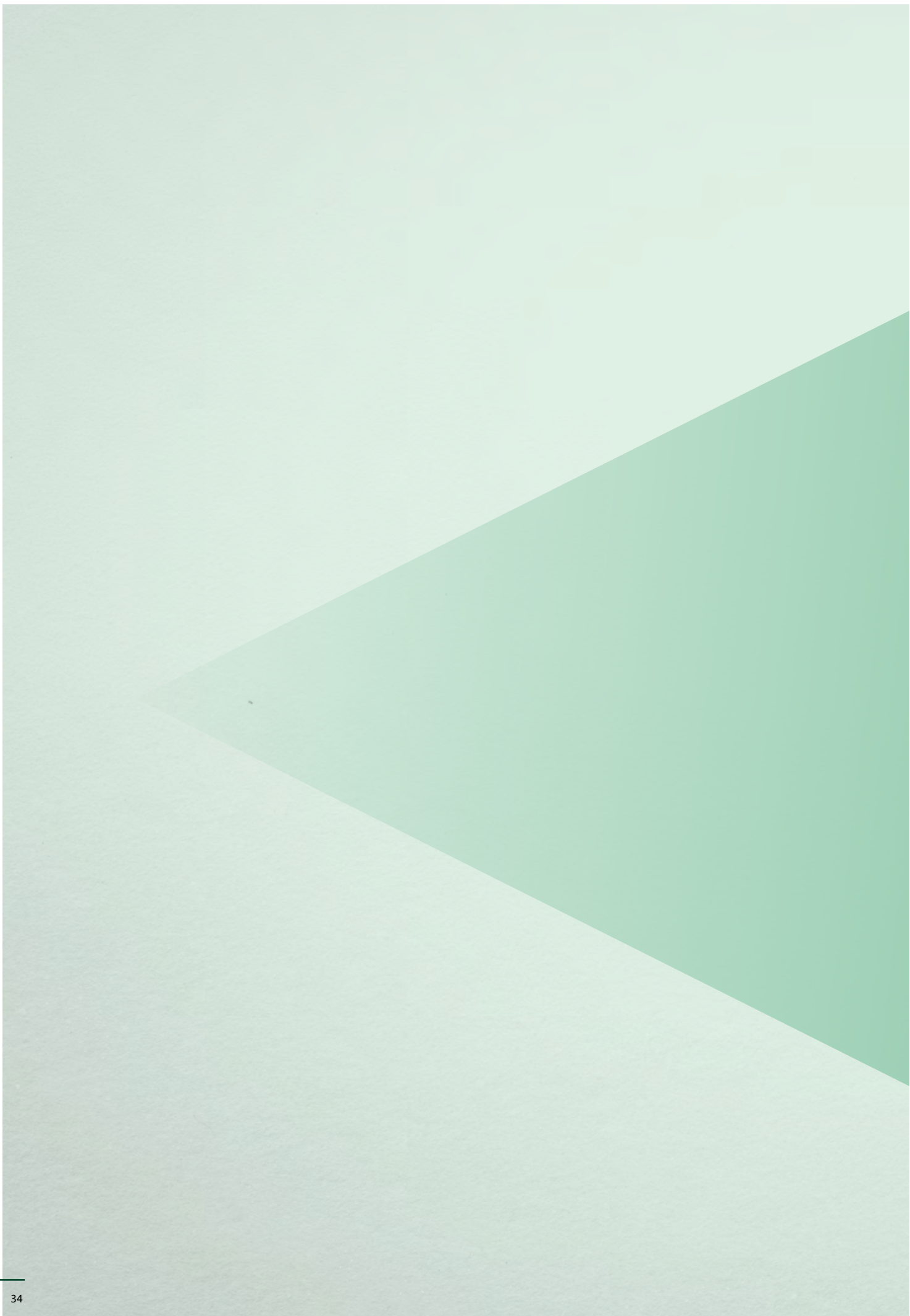
973000-012	Module spacer	PU:100
	For laminate thickness of 4-10 mm	



Non-coated aluminum

139008-006	Safety hook laminate 3–8 mm	PU:100
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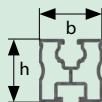
PROFILES/RAILS

Rail series 05

Profiles/Rails Accessories

Rail series 05

Profiles/Rails



Rail series 05

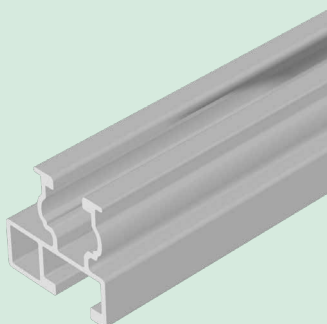
The rail series 05 for the proven Klick system with compatible accessories. Assembly with square nuts, Klick system and Rapid²⁺

➔ [Structural analysis tables for cross beams](#)

➔ [Load Determination software on the internet:](#)

www.schletter-group.com

(Download > Solar Mounting Systems > Software & Calculation)



Module-bearing Rail EcoLight

Mechanical connection

At the top: M8 Klick groove

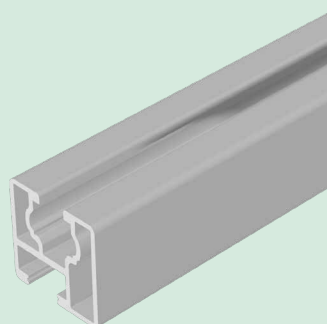
At the bottom: M10 screw duct

b	h
30 mm	30 mm

Non-coated aluminum

120011-04200 4.2 m

120011-06200 6.2 m



Module-bearing Rail Eco05

Mechanical connection

At the top: M8 Klick groove

At the bottom: M10 screw duct

b	h
30 mm	30 mm

Non-coated aluminum

120001-04200 4.2 m

120001-006 6.0 m

120001-06200 6.2 m

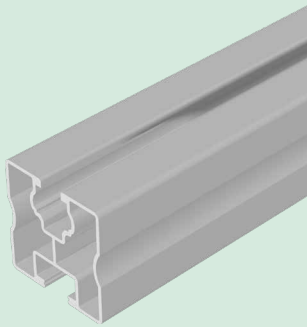
For narrow spans

Module-bearing Rail Solo

Mechanical connection

At the top: M8 Klick groove
At the bottom: M10 screw duct

b	h
40 mm	40 mm



Non-coated aluminum Anodized in black

120005-04200 **120005-94200** 4.2 m

120005-006 **120005-906** 6.0 m

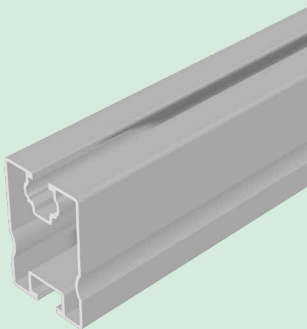
120005-06200 6.2 m

Module-bearing Rail SoloPlus

Mechanical connection

At the top: M8 Klick groove
At the bottom: M10 screw duct

b	h
40 mm	60 mm



Non-coated aluminum

120006-04200 4.2 m

120006-006 6.0 m

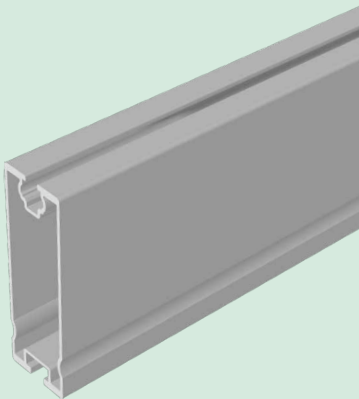
120006-06200 6.2 m

Module-bearing Rail Solo XL-6200mm

Mechanical connection*

At the top: M8 Klick groove
At the bottom: M10 screw duct

b	h
40 mm	120 mm



Non-coated aluminum

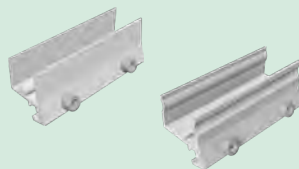
120015-06200

* The M10 screw duct at the bottom is only suitable for connecting with square head bolt 943410-025. Not for Rapid cross connector, KlickTop or similar connections.

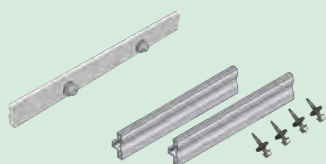
Profiles/Rails Accessories

Profiles/Rails

Accessories for Rail Series 05



129001-003	Connector E Eco, pre-assembled	PU:100
129002-002	Connector E Solo, SoloPlus, FixZ-7, FixZ-15, pre-assembled	PU:100



129001-004	Eco interior connector kit	PU:50
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129060-001	Slide-in connector Solo / Profi kit	PU:50
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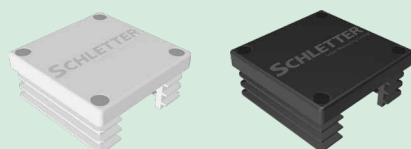


Non-coated aluminum

129063-000	Rapid cross connector Completely pre-assembled for Klick groove M8 for cross rail system	PU:200
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[➤ Rapid Cross Connector - Product Sheet](#)

129063-900	Rapid cross connector	PU:200
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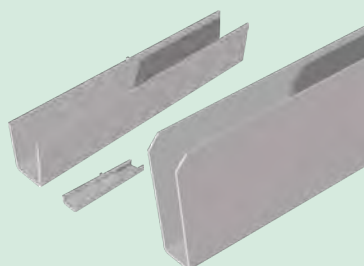


Gray Anodized in black

129011-000	129011-900	Plastic end cap Solo	PU:100
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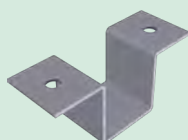
129061-001	Ridge connector kit	PU:50
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129001-007	SoloPlus interior connector	PU:25
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129001-008	EcoLight interior connector	PU:25
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129001-009	SoloXL interior connector kit	PU:25
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129023-000	Dowel clamp Solo 40/40 For special applications	PU:100
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SUPPORTS

Flat roof system supports

Flat roof system supports and facade systems

Supports Accessories

Flat roof system supports

Supports

Flat roof system supports

With all fastening systems for solar plants on roofs, a diagonal bracing of the supports can be recommendable depending on the substructure and the type of fastening. If required, these bracings can be added by the customer using our punched mounting tape 16-50 m 119015-003. Other angles 15°-60° in 5° increments possible.

Mounting beam



Serie07



Flex Console

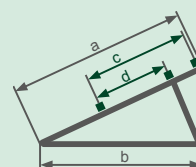
Base rail



Light U



Profi U



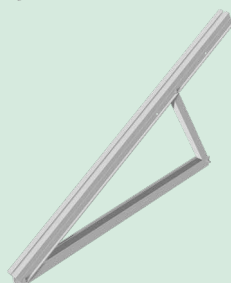
Supports, 30 degrees

other angles 15°-60° in 5° increments possible



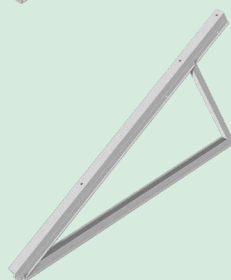
Flat roof support Light U (30 degrees, aluminum, bolted)

Series 07	Module height	a	b	c	d
150001-130	approx. 1300 mm	1195 mm	1193 mm	850 mm	600 mm
150001-150	approx. 1500 mm	1445 mm	1193 mm	960 mm	690 mm



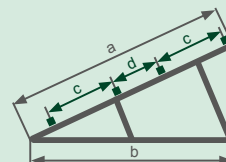
Flat roof support Light U (30 degrees, aluminum, bolted)

Flex Console	Module height	a	b	c	d
150101-130	approx. 1300 mm	1195 mm	1193 mm	--	--
150101-150	approx. 1500 mm	1445 mm	1193 mm	--	--

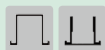
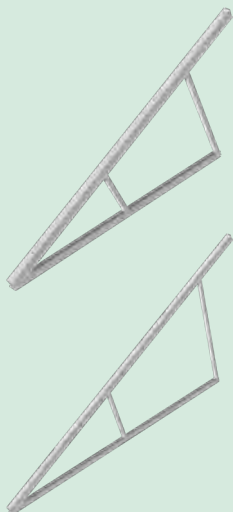


Flat roof support Profi U (30 degrees, aluminum, bolted)

Series 07	Module height	a	b	c	d
151001-150	approx. 1500 mm	1445 mm	1193 mm	960 mm	690 mm



Support, 30 degrees
other angles 15°–30° in 5° increments possible



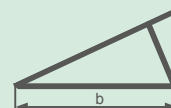
Flat roof support Profi U (30 degrees, aluminum, bolted)

Series 07	Module height	a	b	c	d
151001-220	approx. 2200 mm	2200 mm	2216 mm	747 mm	461 mm



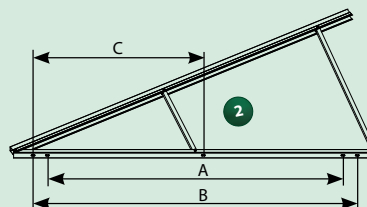
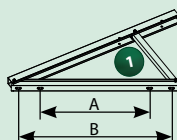
Flat roof support XL (30 degrees, aluminum, bolted)

Series 07	Module height	a	b	c	d
155001-320	approx. 3200 mm	3195 mm	2635 mm	1072/1080 mm	733 mm



Hole spacing in mm

Module height approx.	1300	1500	1800	2200	3200
Base rail (b)	995			2216	2795
Dimensional drawing	1	1		1	2
A	743	743		1756	2185
B	963	963		1961	2405
C					1202.5



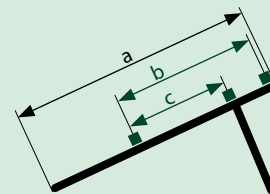
The slotted holes in the base rail allow for a mounting tolerance of +/- 8 mm.

Flat roof system supports and facade systems

Supports

Support upper parts for application with systems incorporating continuous beams

So-named fastening kits must be considered when compiling and ordering systems.



Support, 30 degrees
other angles 15°-60° in 5° increments possible



Flat roof support upper part Light

Series 07	Module height	a	b	c
150003-001	approx. 1300 mm	1195 mm	850 mm	600 mm
150003-002	approx. 1500 mm	1445 mm	960 mm	690 mm



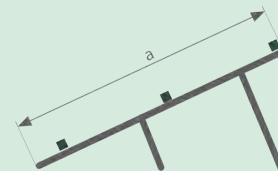
Flat roof support upper part Light

Flex Console	Module height	a	b	c
150103-001	approx. 1300 mm	1195 mm	--	--



Flat roof support upper part Profi

Series 07	Module height	a	b	c
151003-000	approx. 1500 mm	1445 mm	960 mm	690 mm



Support, 30 degrees
other angles 15°-30° in 5° increments possible



Flat roof support upper part

Flex Console	Module height	a	b	c
151103-001	approx. 2200 mm	2200 mm	--	--

Special supports

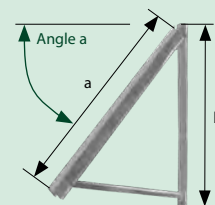


Vegetated-roof support for modules of up to 1.6 m

Angle of 15–30° in 5° increments possible

Please specify the desired inclination!
Aluminum, bolted, approx. 0.4 m ground clearance
Length of mounting beam: approx. 1.3 m

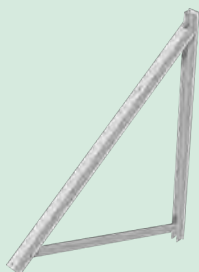
152001-000 Vegetated-roof support for modules up to 1.6 m



Facade support for modules 1.3–1.6 m

Angles of 30°–75° in 5° increments possible

To select the support angle (angle a), please specify the module inclination relative to the horizontal

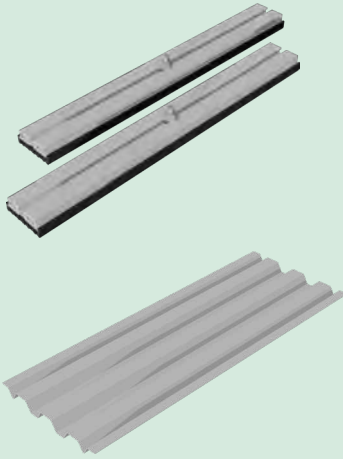


Facade support

	Module height	a	b	
156001-160	Facade supports for modules 1.3-1.6 m	approx. 1.3–1.6 m	1285 mm	1323 mm

Supports Accessories

Supports



Loading

159000-007 Concrete block loading kit, aluminum	PU:50
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For loading with concrete slabs/kerbstones or similar
In pairs incl. 2 screw/bolt kits

160002-001 SolRack aluminum (1 plate)	
--	--

Material thickness: 1 mm, Surface: 0.55 m²

Accessories SolRack

(order 2 pieces for each plate!)

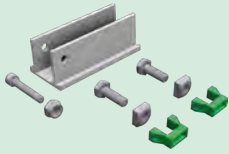
943610-025 Screw/bolt M10 × 25 hexagon DIN933 A2 GMB	PU:100
943922-010 Large Washer M10 DIN9021 A2	PU:100
943912-010 Flange nut M10 serrated DIN6923 A4	PU:100

Supports Accessories

Supports

Supports Accessories

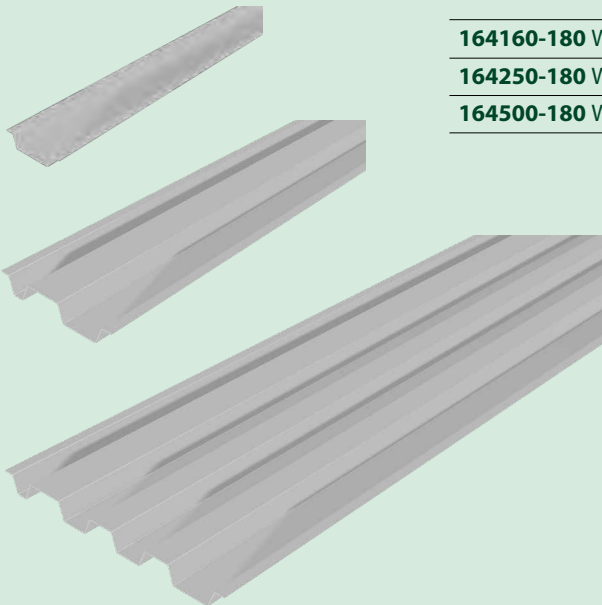
So-named fastening kits must be considered when compiling and ordering systems. Mounting material is suitable for click groove M8.



159000-002 Fastening kit 07 for CompactVario, basic For mounting support upper parts to the rails i.e. the rail series 05	PU:100
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Windsafe (project-specific)

Rear wall paneling for elevated PV systems to reduce wind loads.



164160-180 Windsafe Vario aluminum 160 × 1830 mm
164250-180 Windsafe Vario aluminum 250 × 1830 mm
164500-180 Windsafe Vario aluminum 500 × 1830 mm

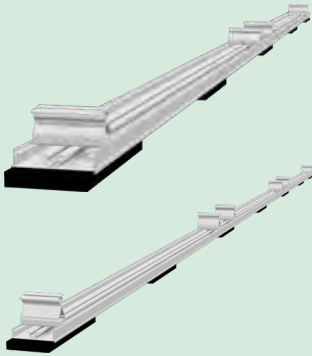
LOAD-OPTIMIZED FLAT ROOF SYSTEMS

FixGrid

FlatGrid

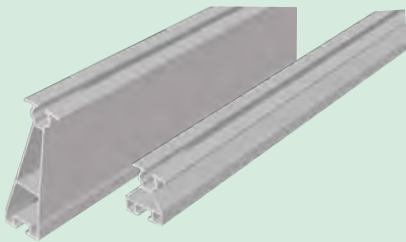
FixGrid

Load-optimized flat roof systems

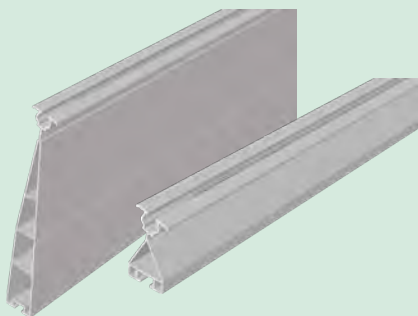


FixGrid

KITS		
163000-201	FixGrid18 100 kit 6° set of 2	PU:25
163000-202	FixGrid18 100 kit 6° set of 3	PU:25
163000-203	FixGrid18 100 Kit 13° set of 2	PU:25
163000-204	FixGrid18 100 kit 13° set of 3	PU:25
163000-301	FixGrid18 South kit 6° set of 2	PU:25
163000-302	FixGrid18 South kit 6° set of 3	PU:25
163000-303	FixGrid18 South kit 13° set of 2	PU:25
163000-304	FixGrid18 South kit 13° set of 3	PU:25



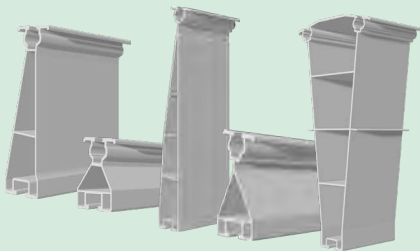
FixZ-7	
121001-04200	FixZ-7 upper system rail 4200 mm
121001-06200	FixZ-7 upper system rail 6200 mm
121010-04200	FixZ-7 lower system rail 18 4200 mm
121010-06200	FixZ-7 lower system rail 18 6200 mm



FixZ-15	
121008-04200	FixZ-15 upper system rail 18 4200 mm
121008-06200	FixZ-15 upper system rail 18 6200 mm
121009-04200	FixZ-15 lower system rail 18 4200 mm
121009-06200	FixZ-15 lower system rail 18 6200 mm

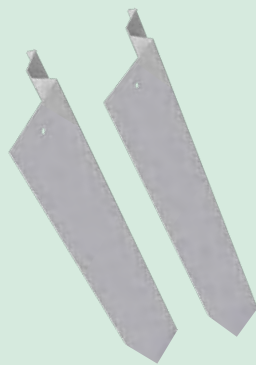
FixGrid

Load-optimized flat roof systems

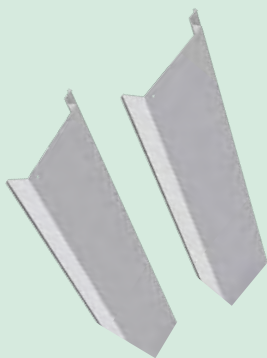


FixZ rail pieces incl. FixGrid screw-in connector		
163900-011	FixZ-7 upper system rail 96 mm with connector	PU:25
163900-012	FixZ-7 lower system rail 96 mm with connector	PU:25
163900-001	FixZ-15 upper system rail 96 mm with connector	PU:25
163900-002	FixZ-15 lower system rail 96 mm with connector	PU:25
163900-003	FixZ-15 center system rail 96 mm with connector	PU:25

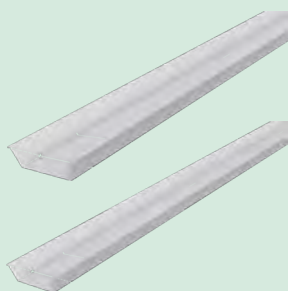
For heavy snow loads up to 5.4 kN/m².



FixZ-7 Windsafe	
169018-170	FixZ-7 Windsafe18 to 1700 mm
169018-210	FixZ-7 Windsafe18 to 2067 mm



FixZ-15 Windsafe	
169019-170	FixZ-15 Windsafe18 up to 1700 mm
169019-210	FixZ-15 Windsafe18 to 2067 mm

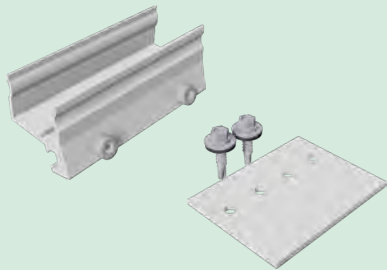


Ballast trays	
169020-170	FixGrid ballast tray 18 to 1700 mm
169020-210	FixGrid ballast tray 18 to 2067 mm

For compatible module clamps, please see page 30 following.

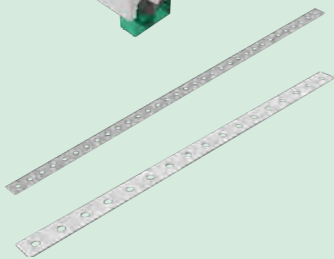
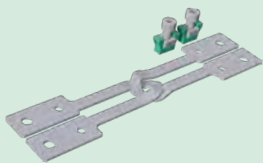
FixGrid

Load-optimized flat roof systems



Connectors

129002-002	Connector E, pre-assembled	PU:100
129019-001	Additional connector kit for FixZ-15 top	PU:100



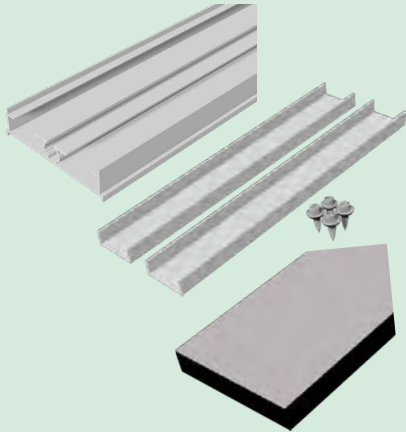
Further accessories

129063-000	Rapid cross connector	PU:200
129062-001	Tension connector set M8	PU:100
135003-005	Lightning protection clamp M8	PU:25
119015-002	Punched mounting tape 6–50 m	
119015-003	Punched mounting tape 16–50 m	

For compatible module clamps, please see page 30 following, module support profiles see page 37 following.

FlatGrid

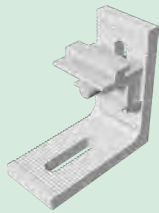
Load-optimized flat roof systems



FlatGrid

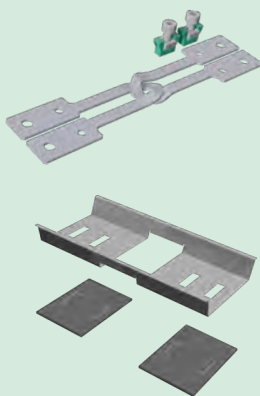
Basic FlatGrid for structure protection mat

128039-006	Base rail FlatGrid 6 m	
129078-000	Interior connector FlatGrid kit	PU:25
169004-003	Structure protection mat 300 × 110 × 20 mm SK cut	



Bracket connector Rapid²⁺ L and accessories

119026-001	Bracket connector Rapid ²⁺ L	PU:100
943308-120	Hexagon socket bolt M8 × 20	PU:100
943922-008	Washer M8	PU:100
943914-008	Square nut M8	PU:100
129010-008	KlickIn click component for nut M8	PU:100



Further accessories

129062-001	Tension connector set M8	PU:100
169017-000	Additional load tray	PU:50
169004-007	Surface protection mat 230 × 200 × 6	

SCREWS, BOLTS AND SMALL ITEMS

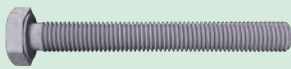
Screws, bolts and small items

Screws, bolts and small items

Screws, bolts and small items

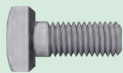
Screws, bolts and small items

Hexagon head screw/bolt, stainless steel (VA)



943610-020 M10 × 20	PU:100
943610-025 M10 × 25	PU:100
943610-030 M10 × 30	PU:100
943610-035 M10 × 35	PU:100
943610-045 M10 × 40	PU:100
943610-090 M10 × 90	PU:50

Square head screw/bolt, stainless steel (VA)



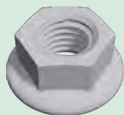
943410-025 M10 × 25	PU:100
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Carriage bolt, (VA)



943510-025 M10 × 25	PU:100
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Flange nut serrated



943912-008 M8	PU:100
943912-010 M10	PU:100
943912-012 M12	PU:100

Large Washer, stainless steel (VA)



943922-008 M8	PU:100
943922-010 M10	PU:100
943922-012 M12	PU:100

Hexagon socket bolt



943308-120 M8 × 20 serrated	PU:100
943308-125 M8 × 25 serrated	PU:200
943308-130 M8 × 30 serrated	PU:200
943308-135 M8 × 35 serrated	PU:200

Screws, bolts and small items

Screws, bolts and small items



943914-008 Square nut M8, 4A	PU:100
Compatible with all Schletter system rails, in combination with M8 Klick groove and KlickIn click component	



129010-008 KlickIn click component for M8 nut	PU:100
For a simplified insertion of the M8 square nut at any point of the M8 KlickIn groove	



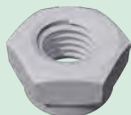
943914-010 Square nut M10, 4A	PU:100
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943914-108 Special square nut M8, 4A (design as with M10)	PU:100
Compatible with all Schletter system rails, can be combined with Klick groove M10 and KlickIn click components	



129010-001 KlickIn click component for nut M10	PU:100
For a simplified insertion of the square nut M10 at any point of the M10 KlickIn groove	

Self-locking nut, stainless steel 4A (V4A)



943911-008 M8	PU:500
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943911-010 M10	PU:200
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943911-012 M12	PU:200
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For steel of at least 1.5 mm



943718-064 8 x 64	PU:100
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943718-100 8 x 100	PU:100
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943718-125 8 x 125	PU:100
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943718-150 8 x 150	PU:100
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943718-200 8 x 200	PU:50
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Screws, bolts and small items

Screws, bolts and small items



Fastening screws for metal components and metal sheets

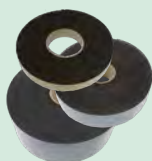
943755-925	5.5 × 25 self-drilling screw A2 (e.g. for connectors)	PU:100
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943000-360	6.0 × 25 thread-cutting screw A2 with sealing washer	PU:100
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943772-019	Repair screw 7.2 × 19 self-tapping FABA-A A2	PU:500
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EPDM rubber insert 3 mm self-adhesive, 10 m-roll, UV-resistant

for example for trapezoidal sheet metal, or for laminate modules



973000-013	25 mm wide
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973000-014	48 mm wide
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973000-015	80 mm wide
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Wood screw

We recommend at least 80 mm for non-boarded roofs, and at least 120 mm for roofs with boarding and counter battens!

Wafer-head wood screw, stainless steel (VA)



Example

943208-080	8 × 80	PU:100
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943208-100	8 × 100	PU:100
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943208-120	8 × 120	PU:50
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Wafer-head wood screw, galvanized

942208-080	8 × 80	PU:50
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942208-100	8 × 100	PU:50
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942208-120	8 × 120	PU:50
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Seal (gasket) for wafer-head screws



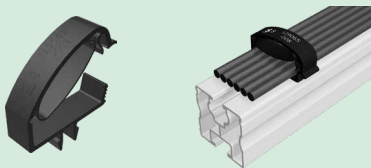
119016-000	dm 8 EPDM
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Screws, bolts and small items

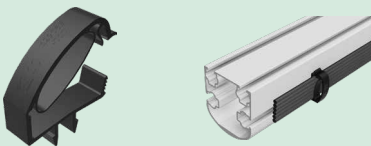
Screws, bolts and small items

Cable routing

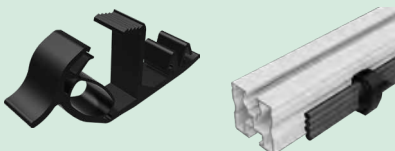
Cable fasteners made of UV and temperature-resistant plastic material



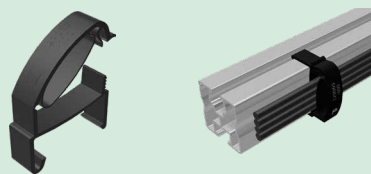
129065-008 Proklip-Multi 8			
Profiles/Rails	Systems	Number of cables	
Klick or screw duct M8, module bearing rails S, module bearing rails Solo, Eco05, FixZ-7, FixZ-15	FixZ-7, FixZ-15, FS System, carport, special projects	about 6*	PU:100



129065-010 Proklip-Multi 10			
Profiles/Rails	Systems	Number of cables	
BF girder, T girder, Klick or screw duct M10	IsoTop, PvMax3, FS System (all designs), special projects	about 6*	PU:100



129065-001 Proklip-Multi 10S			
Profiles/Rails	Systems	Number of cables	
Solo and screw duct M10	-	about 4*	PU:100



129065-000 Proklip-Multi C			
Profiles/Rails	Systems	Number of cables	
Solo	GridNorm, special projects	about 6*	PU:100



149023-001 Cable fastening retainer 1.0–3.0 mm, guidance at the top	
Fastening to edges with a width from 1.0 to 3.0 mm; cable retainer length: 200 mm	PU:100



149023-002 Cable fastening retainer 1.0–3.0 mm, guidance at the side	
Fastening to edges with a width from 1.0 to 3.0 mm; cable retainer length: 200 mm	PU:100



149023-003 Cable fastening retainer 3.0–6.0 mm	
Fastening to edges with a width from 3.0 to 6.0 mm; cable retainer length 200 mm	PU:100

* assuming 6 mm diameter cables with core of 6 mm²

Our personnel are always at your disposal to provide comprehensive and competent technical advice for the planning of your solar plant and to answer questions relating to logistics and order processing.



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