S:FLEX

Photovoltaic mounting systems

For pitched and flat roofs of all kinds, facades and open grounds
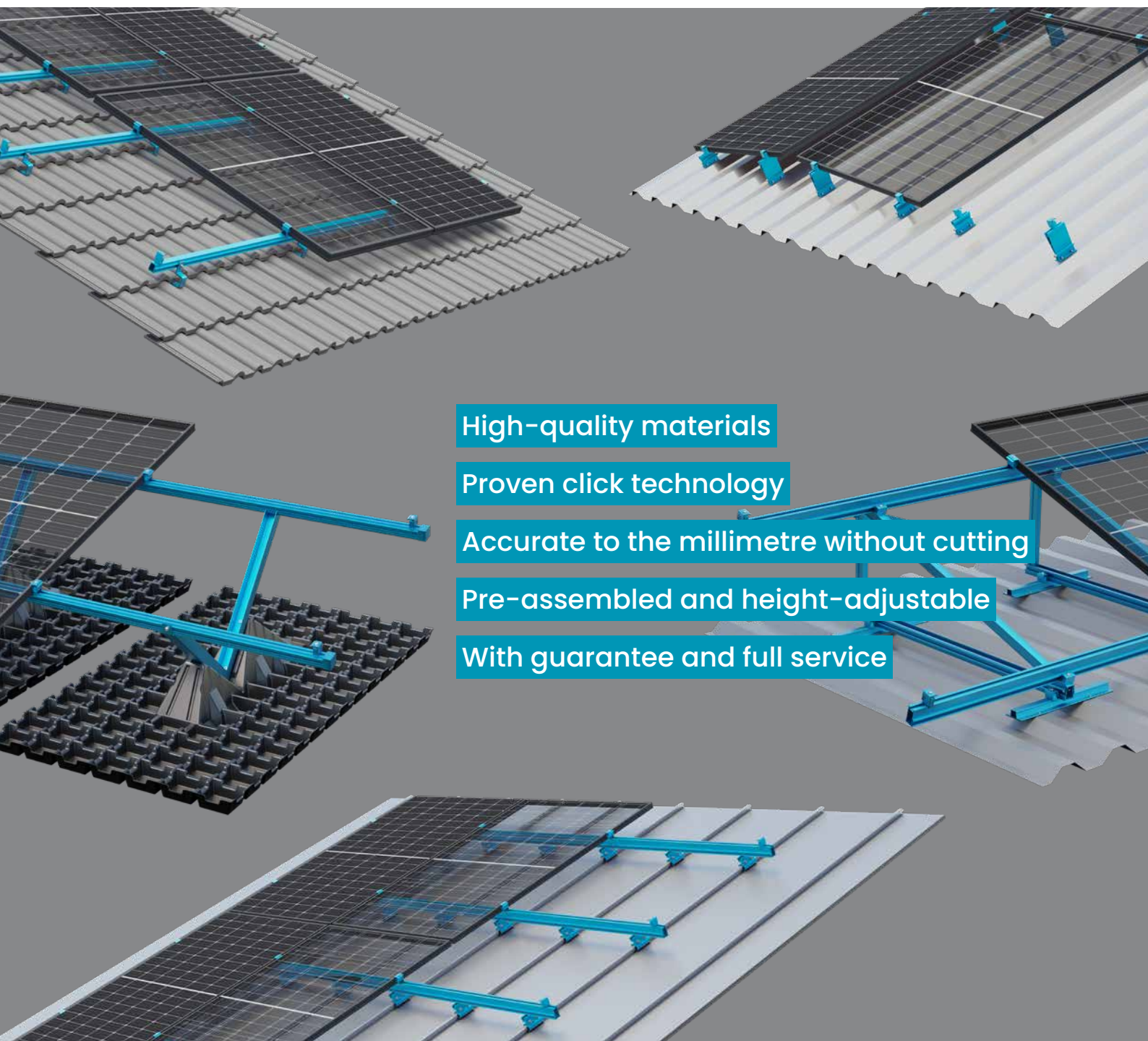
- High-quality materials
- Proven click technology
- Accurate to the millimetre without cutting
- Pre-assembled and height-adjustable
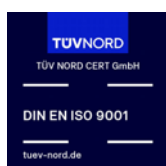- With guarantee and full service

Sustainable energy – securely anchored.

More than two decades of experience in the solar industry and frame technology flow into the design and production of each of our products. Whether flat roofs, pitched roofs or ground-mounted systems – our range of high-quality mounting systems covers everything from pre-assembled and partially pre-installed substructures to tailor-made solutions, which we always develop in close collaboration with our partners.

In addition to optimising our assembly process-es and developing innovative frame details, we place a particular focus on providing services and support for our specialist partners. Advice on product selection, fast delivery direct to the build-ing site, preparation of the structural analysis as well as project   planning – S:FLEX is always on hand to help and advise you.

Get to know a team that always makes time to cater to your requirements and to support your project holistically in accordance with your par-ticular needs.

S:FLEX Systems
Contents

Legend: ● = included · ○ = prior authorization of the manufacturer to mount onto the cover shell necessary · ⊙ = optional

	Application											Roof coverings, Surfaces A–Z																Clamping area			
	Pitched roof	Flat roof	Facade	Open ground	Carport	Bitumen	Brickwork	Concrete	Corrugated sheet	Corrugated fibre cement	Foil	Gravel	Green roof	Industrial metal system roofs (e.g. Domico, Klip Lok)	Noise barrier wall	Pan sheet	Plain tiles	Rear-ventilated facade	Roof tiles	Sandwich roofing	Seam roofing	Slate	Soil	Thermal insulation system	Trapezoidal sheet	Trapezoidal sheet (curved)	Long Side	Short Side	Edge	Insertion system
S:FLEX INmount	●																		●								●	●		
S:FLEX ELS	●		●				●	●	●						●			●	●		●			●	●		●	●		●
S:FLEX Roof hooks	●																●		●			●					●	●		
S:FLEX Roof mounting kit	●								⊙								⊙		●			⊙			⊙		●	●		
S:FLEX Standing seam clamps	●													●							●						●	●		
S:FLEX High-bead rail HK 125 / 172	●																			○					●		●	●		
S:FLEX High-bead rail HK 125 XL 50 / 100	●																			○					●		●	●		
S:FLEX Bracket for sheet metal	●																			○					●		●	●		
S:FLEX High-bead rail Lift	●																			●					●		●	●		
S:FLEX Trapezoidal sheet metal rail Lift/Vario	●															●									●	●	●	●		
S:FLEX Trapezoidal sheet metal rail	●								●											○					●		●	●		
S:FLEX Hanger bolts & Solar fasteners	●								●	●										●					●		●	●		
S:FLEX Flat Direct	●					●					●									●							●	●		
S:FLEX Triangle Delta	●	●				●		●	●	●	●	●								●					●		●	●		
S:FLEX LEICHTmount RAIL 2.1 S		●				●		●			●	●																●	●	
S:FLEX LEICHTmount RAIL 2.1 EW		●				●		●			●	●																●	●	
S:FLEX LEICHTmount CF S		●				●		●			●	●																	●	
S:FLEX LEICHTmount CF EW		●				●		●			●	●																	●	
S:FLEX GreenLight		●						●				●	●										●				●	●		
S:FLEX GreenLight ON TOP		●						●				●	●										●				●	●		
S:FLEX LEICHTmount SNAP		●				●		●			●	●																●	●	
S:FLEX Delta Concrete		●		●				●																			●	●		
S:FLEX LEICHTmount G S				●				●				●											●						●	
S:FLEX LEICHTmount G EW				●				●				●											●						●	
S:FLEX Carport					●			●																			●	●		

○ prior authorization of the manufacturer to mount onto the cover shell necessary
⊙ optional

S:FLEX INmount
For pitched roofs with tile coverings

**S:FLEX INmount
Adapter portrait, 210 mm**

**Corrugated
aluminium sheet**

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Pitched roofs with tile/concrete tile roof covering

Roof construction:
battening analogue to tile roofing

Roof pitch:
22° – 45° (above upon request)

Module type:
framed and frameless modules

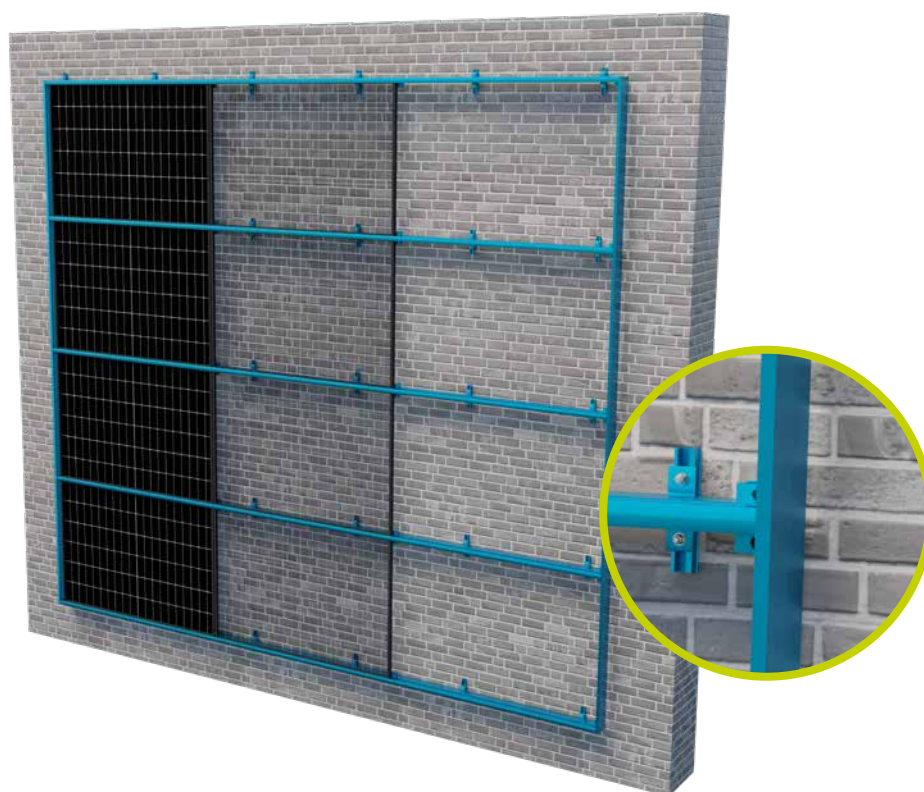**Module orientation:**
portrait / landscape

Module layout:
contiguous surfaces, covering of the entire roof
surface and integration of skylights possible
(prior inspection required)

Advantages:
- Simple and quick to install solution for visually appealing roof integration in old and new buildings
- Replaces existing roof covering
- Connection to existing battens optimises force transmission and avoids thermal bridges
- For all common rafter distances

S:FLEX ELS

For facades, noise barrier walls, solid balustrades, metal roofs and pitched roofs with tiles

European patent

S:FLEX

PATENT PENDING

Insertion system

EP 22172283.8

ELS rail

ELS side cladding

ELS eaves cladding

ELS fix clamp

ELS cross adapter clamp

Application:
Facades, noise protection walls and massive balustrades or pitched roofs with roof tiles, sheet metal roofs

Fastening:
Facade: on-site
Pitched roof: compatible with all S:FLEX fastening solutions for tiled roofs and metal sheet roofing

(Roof-) Pitch:
Pitched roof: 10° – 75°
Facade: 75° – 90°

Module type:
framed modules

**Module orientation:**
portrait / landscape

Advantages:
- Aesthetically pleasing modular surfaces with clean finishes
- All components for a special look available in black
- Suitable for module frame heights of 25 to 45 mm – using just one type of insertion rail
- Newly developed module clamps that prevent rattling of the modules and thermally induced glass breakage/cracks
- Optimized service-friendliness: maintenance joints allow easy access to modules

Assembly instructions
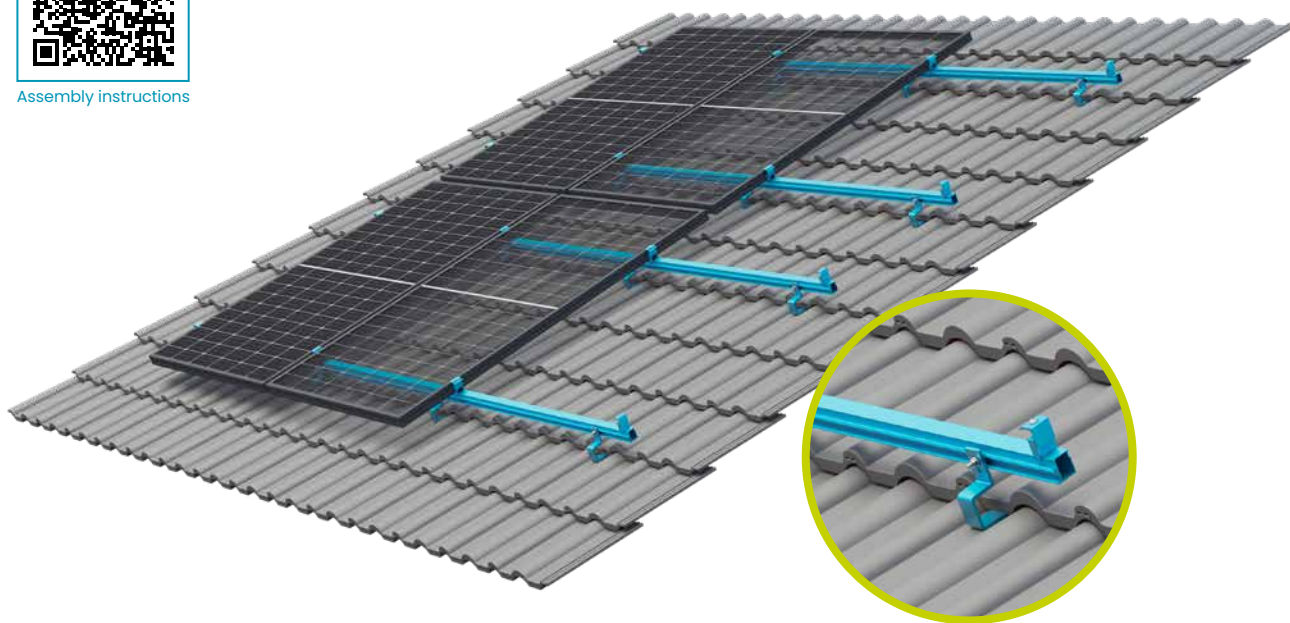
Mounting rail ST-AK 5/40
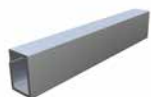
Splice 5

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
(e.g. roof tiles, interlocking tiles)

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

Roof pitch:
up to 75°

Module type:
framed and frameless modules

Module orientation:
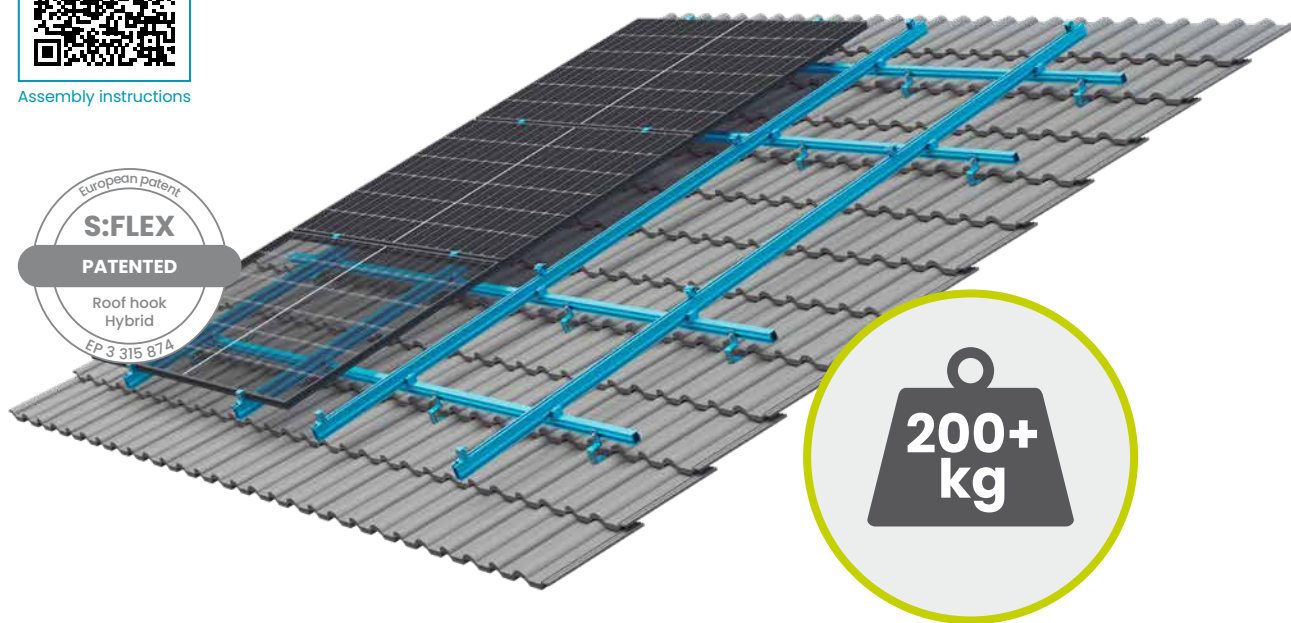portrait / landscape

Mounting method:
single layer / 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

Assembly instructions

European patent
S:FLEX
PATENTED
Roof hook Hybrid
EP 3 315 874

200+ kg

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 (XL) 8 mm

Metal roof tile e.g. concrete type

Application:
Pitched roof with tiles
(e.g. roof tiles, interlocking tiles)

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

Roof pitch:
up to 75°

Module type:
framed and frameless modules

Module orientation:
portrait / landscape
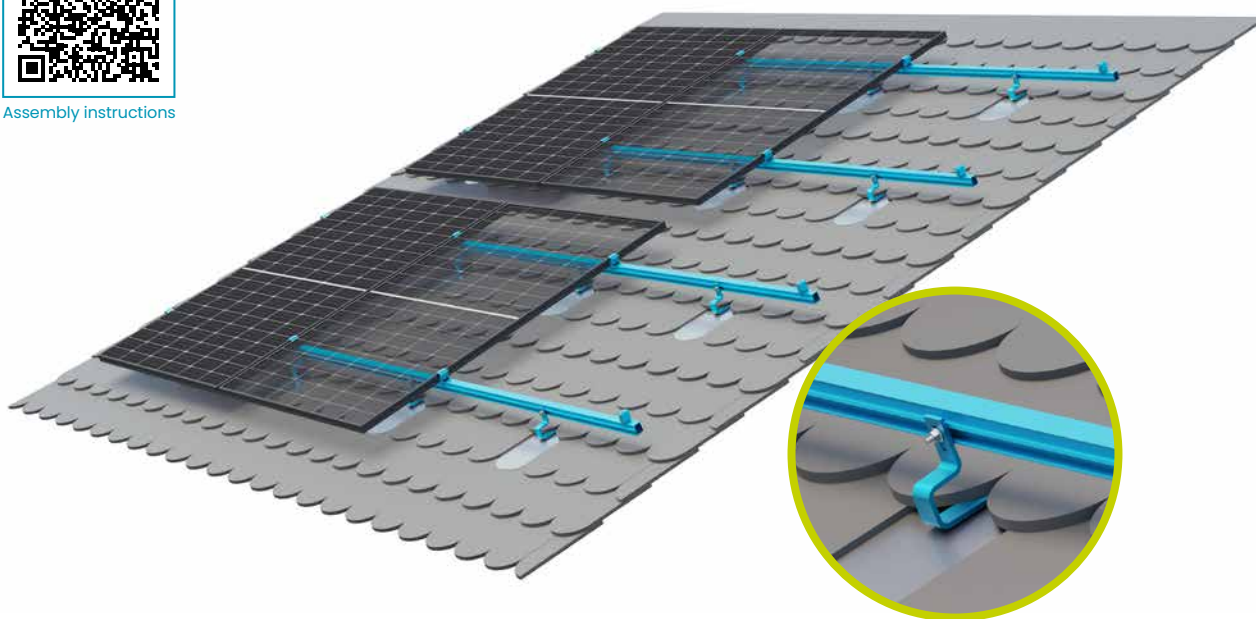
Mounting method:
single layer / double layer

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

S:FLEX Roof hooks plain tile
For pitched roofs with plain tile covering

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°

Module type:
framed and frameless modules

Module orientation:
portrait / landscape

Mounting method:
single layer / double layer

Advantages:
- Every size of module array possible
- For all common rafter distances
- Installation from a rafter width of 48 mm possible
- Components made of weather-resistant aluminium and stainless steel
- Structural design by our team includes the structural analysis as well as the mounting rail- and fastener plan

Assembly instructions
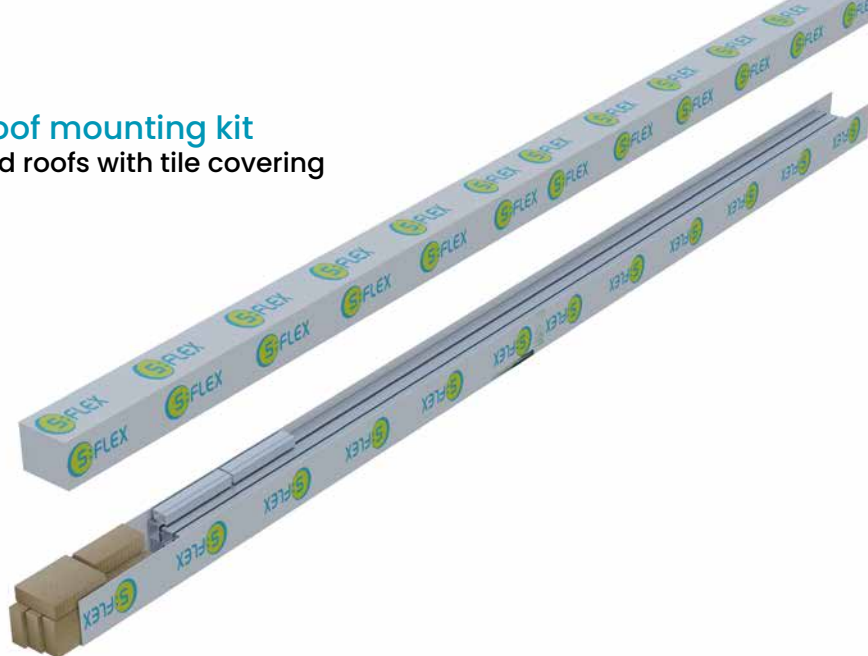
Kit	Mounting rails	Cover caps	Splices	Roof hooks	Mid clamps	End clamps	Wood screws
Basis 1 module	2	4		4		4	12
Expansion 1 module	2		2	3	2		9
Expansion 2 modules	4		4	6	4		18
Universal 3 modules	3	4	2	10	6	4	30

Mounting rail ST-AK 5/40

Splice 5

Roof hook Alu 93-7-45

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Wood screws

Application:
Pitched roof with tiles, optionally also available for plain tiles, slate tiles and sheet metal roofing

Module type:
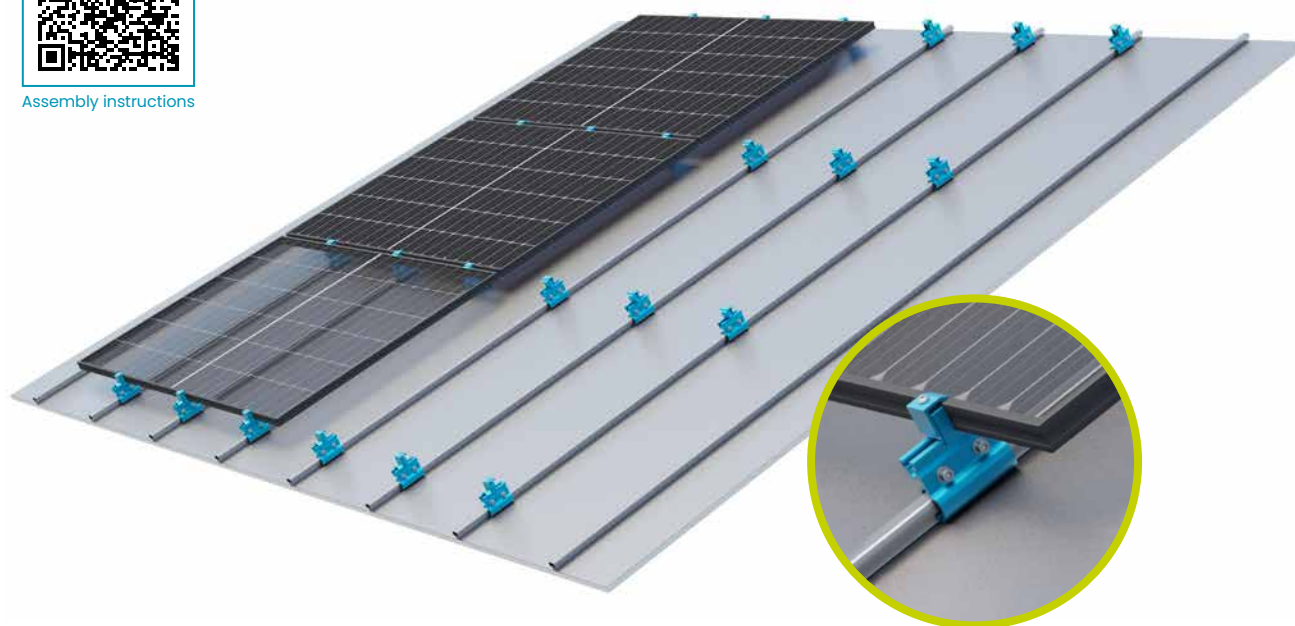framed modules

Module orientation:
portrait,
optionally also available for landscape installation

Advantages:
- Flexible and universal application via basic packages and extension sets with all components for individual configurations
- Minimal planning effort without time-consuming creation of parts lists
- Short term availability, low shipping costs and excellent suitability for storage
- Fast installation thanks to thought out technology and numerous pre-installed parts

S:FLEX Standing seam clamps
For pitched roofs with standing seam sheet metal covering or metal system roofs

Assembly instructions

Standing seam clamp 2.1

Standing seam clamp CL

Standing seam clamp DCO

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 und CL:
Industrial metal roof systems,
e.g. Domitec/GBS, Klip-Lok 700, RibRoof 465

Fastening:
non-penetrative

Roof pitch:
up to 75°

Module type:
framed modules

Module orientation:
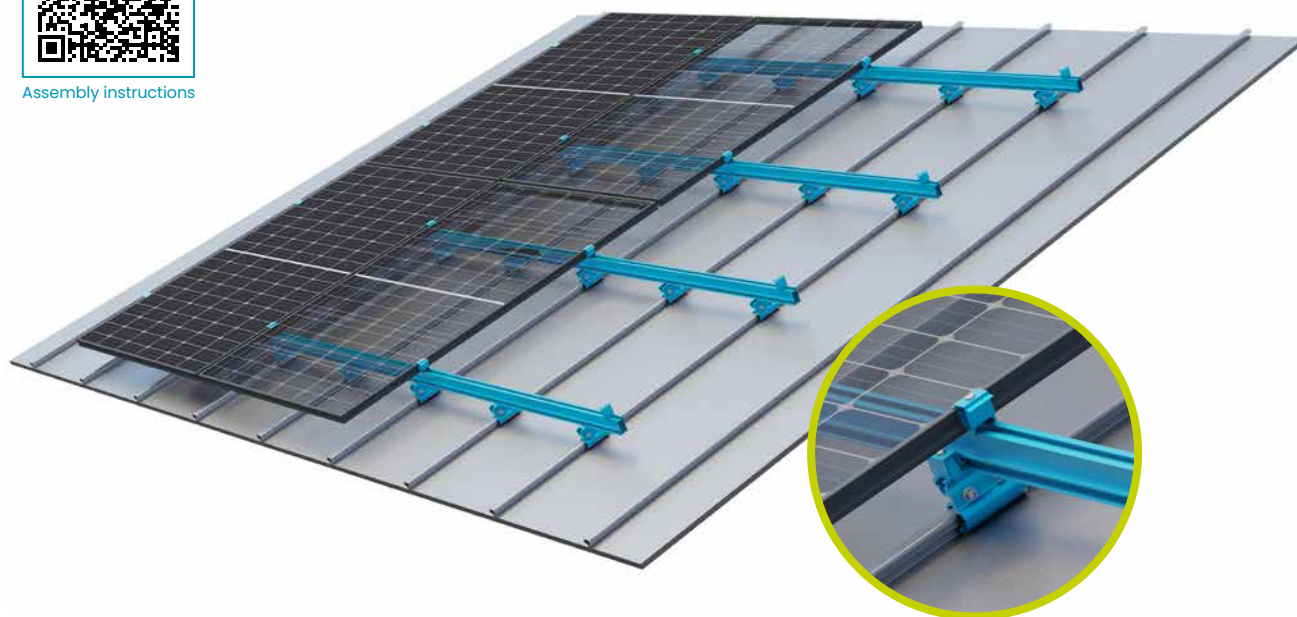portrait / landscape (for clamping on the short side)

Mounting method:
direct clamping

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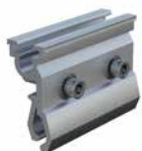- Quick mounting
- No roof penetration

S:FLEX Standing seam clamps and rails
For pitched roofs with standing seam sheet metal covering
or metal system roofs

Assembly instructions

Standing seam clamp 2.1

Standing seam clamp CL

Standing seam clamp DCO

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 und CL:
Industrial metal roof systems,
e.g. Domitec/GBS, Klip-Lok 700, RibRoof 465

Fastening:
non-penetrative

Roof pitch:
up to 75°

Module type:
framed modules

Module orientation:
portrait / landscape (for clamping on the short side)
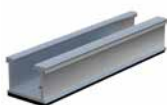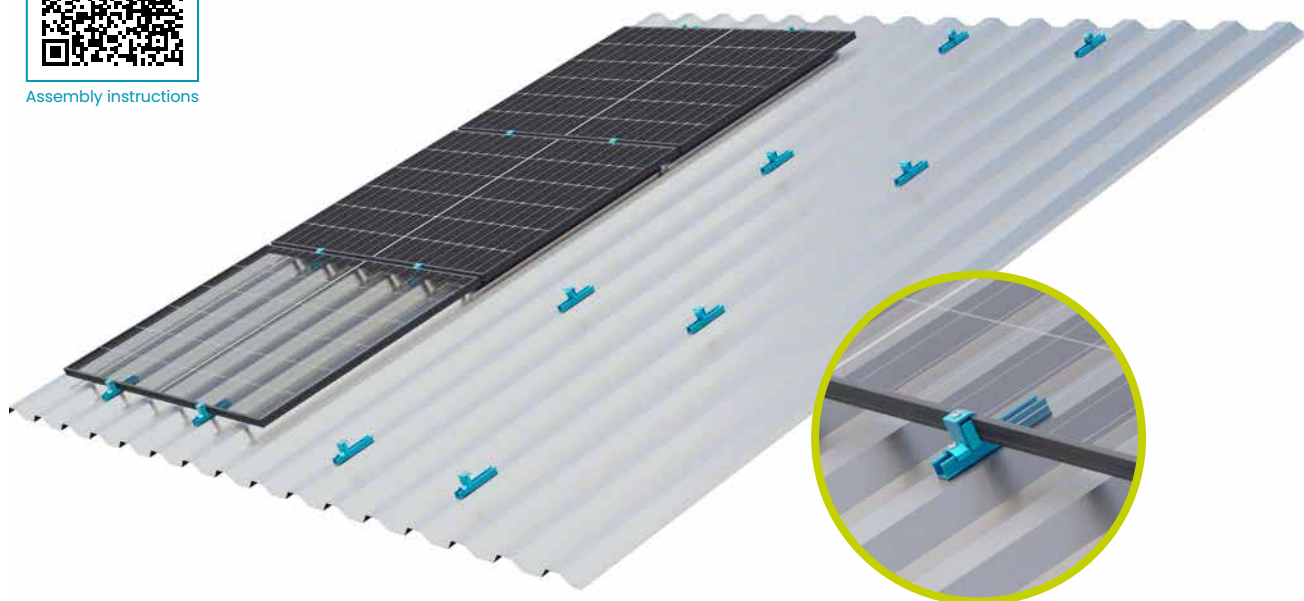
Mounting method:
single layer

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

S:FLEX High-bead rail HK 125 / 1722
For trapezoidal sheet roofs

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 6,0x25

Application:
Trapezoidal sheet metal

Fastening:
screwed onto raised corrugations

Roof pitch:
up to 75°

Module type:
framed modules

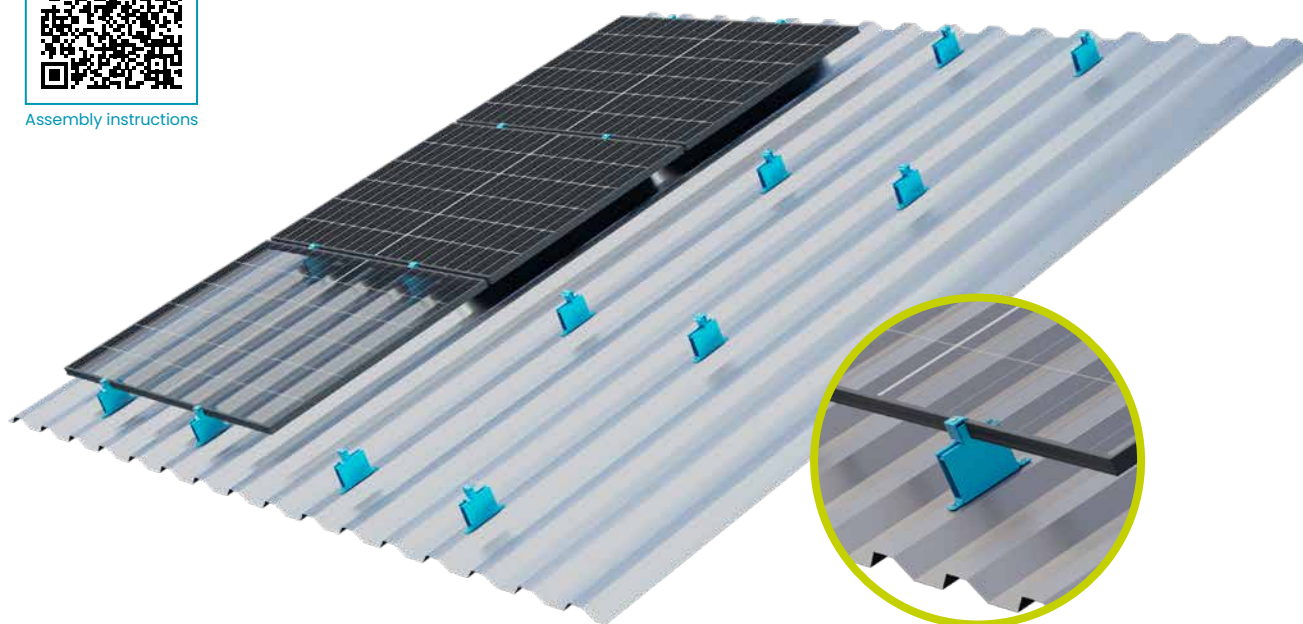**Module orientation:**
landscape

Mounting method:
direct clamping

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 l=125 mm and l=172 mm are supplied pre-fabricated with EPDM sealing tape, the 125 mm rail with 2 x 2 pre-drilled holes (5 / 6 mm), the 172 mm rail with 2 x 4 pre-drilled holes (5 / 6 mm)

Assembly instructions

HS rail HK 125 XL 50 complete

HS rail HK 125 XL 100 complete

HS bracket XL 130-6,5

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

Roof pitch:
up to 75°

Module type:
framed modules

Module orientation:
landscape

Mounting method:
direct clamping, floating mounting

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

S:FLEX Bracket for sheet metal
For trapezoidal sheet roofs

**Bracket for
sheet metal installation**

Mounting rail ST-AK 5/40

Mounting rail ST-AK 13/60

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Trapezoidal sheet metal

Fastening:
riveted or screwed onto raised seams

Roof pitch:
up to 75°

Module type:
framed and frameless modules

Module orientation:
portrait / landscape

Mounting method:
single 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

S:FLEX High-bead rail Lift
For trapezoidal sheet roofs

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

Orientation:
south and east-west

Fastening:
screwed with sheet metal screws onto raised seams

Roof pitch:
up to 20°

Module type:
framed modules

Module orientation:
portrait / landscape

Module pitch:
5° with portrait installation
7° witch landscape installation
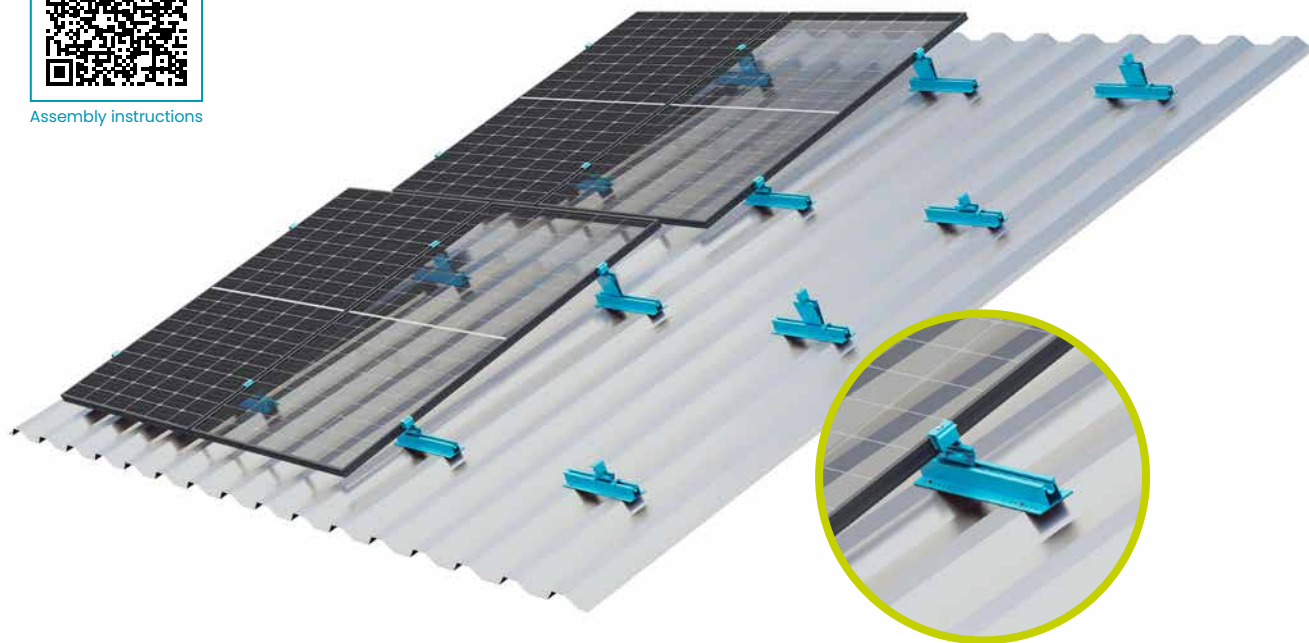
Mounting method:
direct clamping

Advantages:
• Low material and fitting costs
• Optimised irradiation angles for higher yields
• Better self-cleaning
• Prefabricated with holes and EPDM sealing tape

Assembly instructions

Lift Multi adapter rear

Lift Multi adapter front

Trapezoidal sheet metal rail Lift375

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Trapezoidal sheet metal

Fastening:
riveted or screwed onto raised seams

Roof pitch:
up to 15° with portrait installation,
up to 13° with landscape installation

Module type:
framed modules

Module orientation:
portrait / landscape

Module pitch:
5° with portrait installation
7° with landscape installation
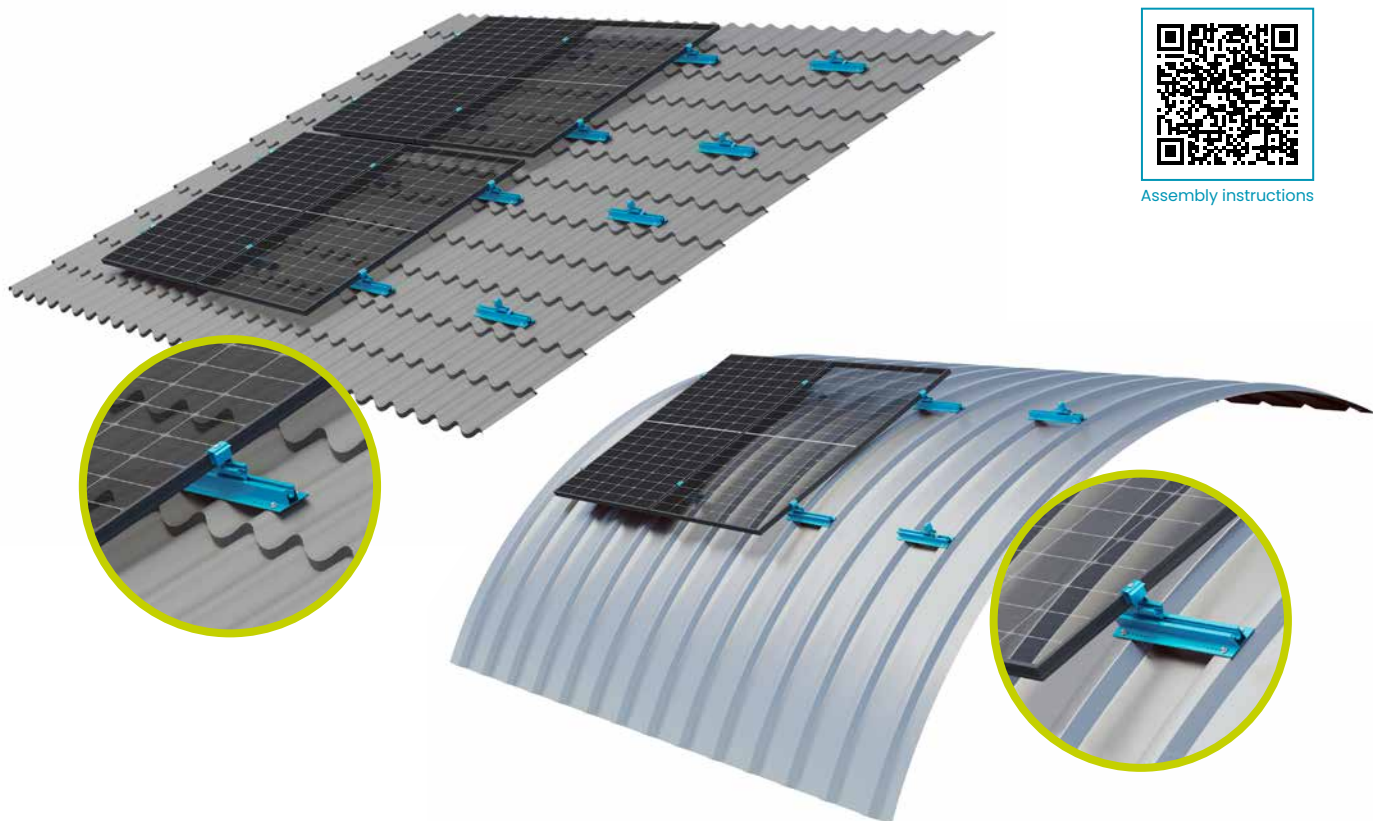
Mounting method:
direct clamping

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

Assembly instructions

Trapezoidal sheet metal rail Vario with Multi adapter front

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Curved pan- and trapezoidal sheet metal
(barrel roofs with a radius larger than 3.5 m)

Fastening:
riveted or screwed onto raised seams

Roof pitch:
up to 75°

Module type:
framed modules

Module orientation:
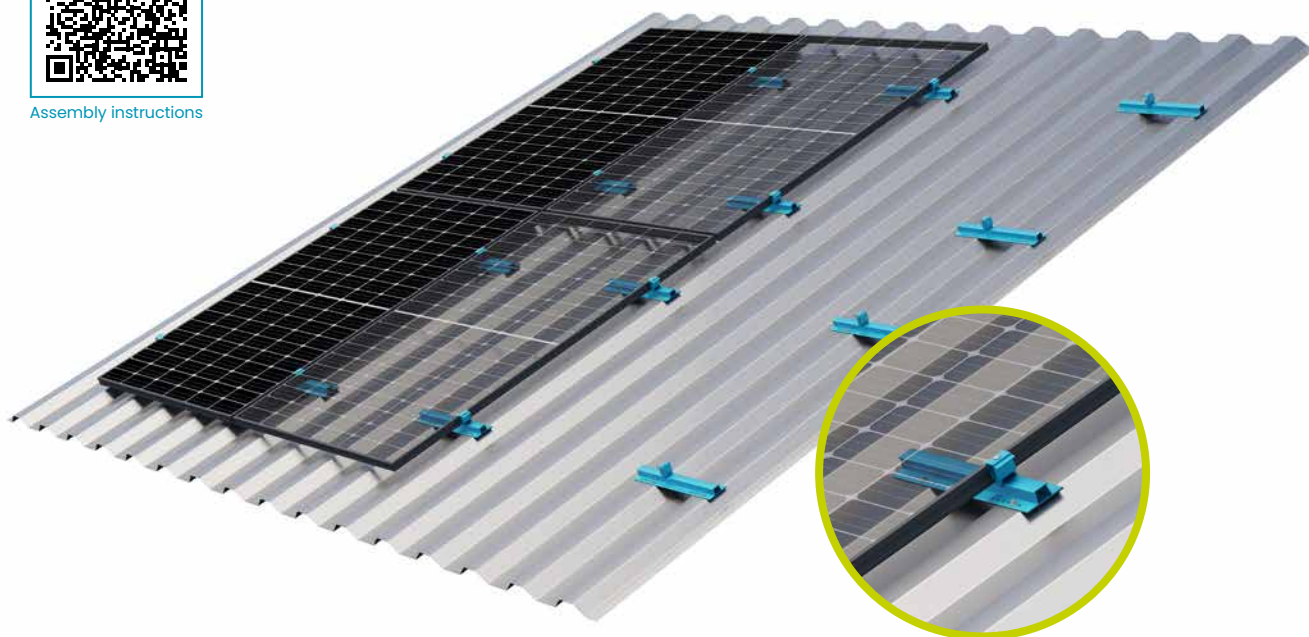portrait / landscape

Mounting method:
direct clamping

Advantages:
- Tension-free installation on barrel roofs
- Tension-free installation on pan sheet roofs
- Perfectly adapted to the roof shape
- Trapezoidal sheet metal rail Vario is supplied prefabricated with 26 holes (5 mm) and EPDM sealing tape

Assembly instructions

Trapezoidal sheet metal rail AK l=395 mm

Mounting rail ST-AK 13/60

Cross adapter clamp AK

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

Roof pitch:
up to 75°

Module type:
framed and frameless modules

Module orientation:
portrait / landscape
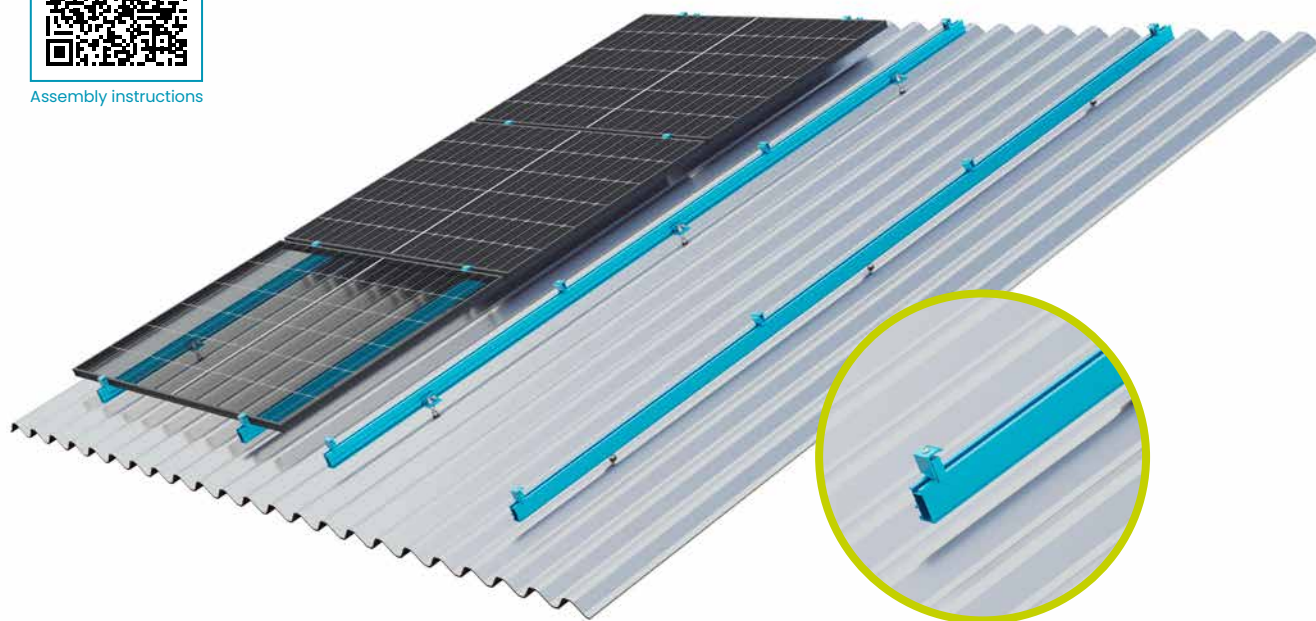
Mounting method:
direct clamping, single layer, optional double layer

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 l=395 mm)
  are supplied prefabricated with 24 holes (5 mm)
  and EPDM sealing tape

Mounting rail ST-AK 13/60

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Bracket 60mm, M10

Solar fastener type BZ 8,0/M10x200/50 for metal rafters

Hanger bolt M10x200

Application:
Trapezoidal sheet metal-, corrugated fibre cement-, sandwich roofs

Fastening:
Hanger bolts / solar fasteners with brackets

Roof pitch:
up to 75°

Module type:
framed and frameless modules

Module orientation:
portrait / landscape
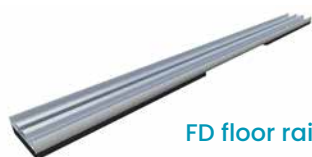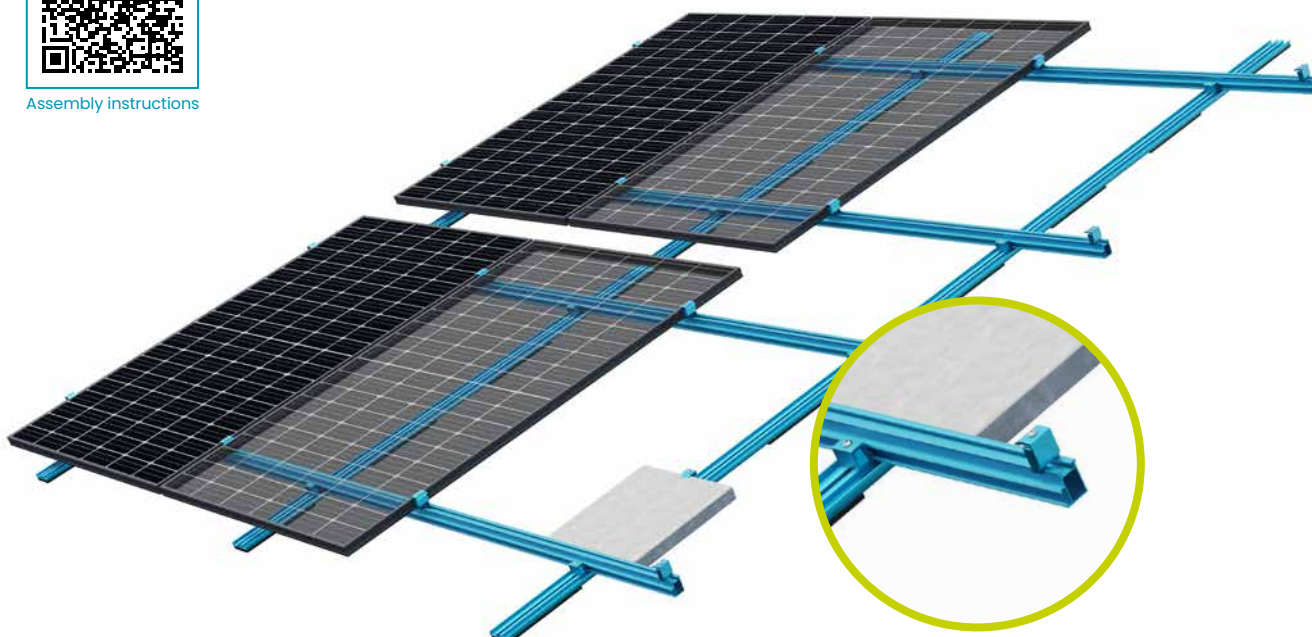
Mounting method:
single layer, optional double layer

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
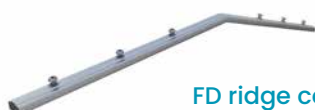
![S:FLEX logo] **S:FLEX Flat Direct**
For foil-, bitumen-, and sandwich roofs

Assembly instructions

FD floor rail

FD ridge connector Type 750 II

Mounting rail ST-AK 7/47

Cross adapter clamp AK

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Pitched roofs with foil / bitumen roofing and sandwich elements; other roof types upon request

Fastening:
aerodynamic, parallel to the roof, non-penetrative, additional ballast

Roof pitch:
up to 30°

Module type:
framed modules

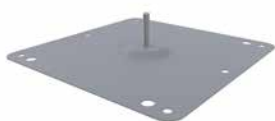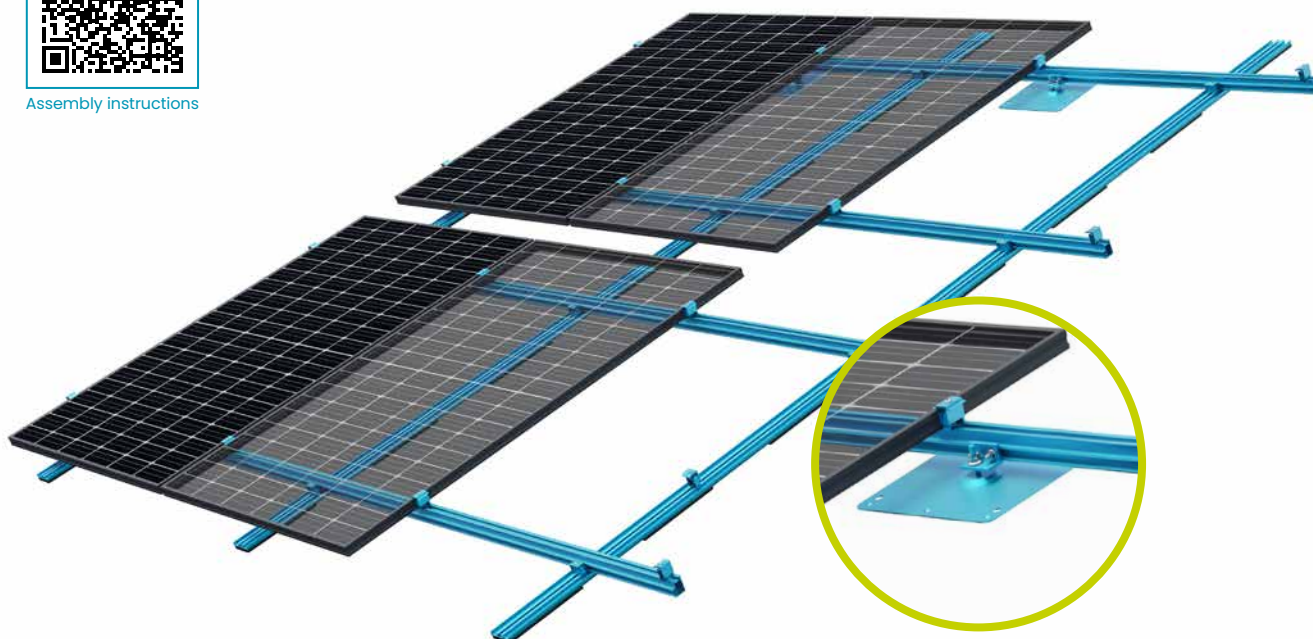**Module orientation:**
portrait

Mounting method:
double layer

Advantages:
- No roof penetration
- Minimised additional ballast thanks to aerodynamic optimisation
- Perfect for east-west orientation like saddle roof, double-sided
- Has lightning-current-carrying capacity
- Optional roof connection points extend potential uses

S:FLEX Flat Direct with assembly posts
For foil- and bitumen roofs

Assembly instructions

Assembly post PVC pure

Ridge rail FS 9/40

Covering

Bracket 60mm, M10

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Pitched roofs with foil / bitumen roofing;
other roof types upon request

Fastening:
aerodynamic, parallel to the roof,
minimal amount of roof penetrations

Roof pitch:
up to 30°

Module type:
framed modules

Module orientation:
portrait

Mounting method:
double layer

Advantages:
- Mounted with building authority approved assembly posts, also optional for reducing ballasting
- Minimised additional ballast thanks to aerodynamic optimisation
- Perfect for east-west orientation like saddle roof, double-sided
- Has lightning-current-carrying capacity
- Optional roof connection points extend potential uses

Assembly instructions
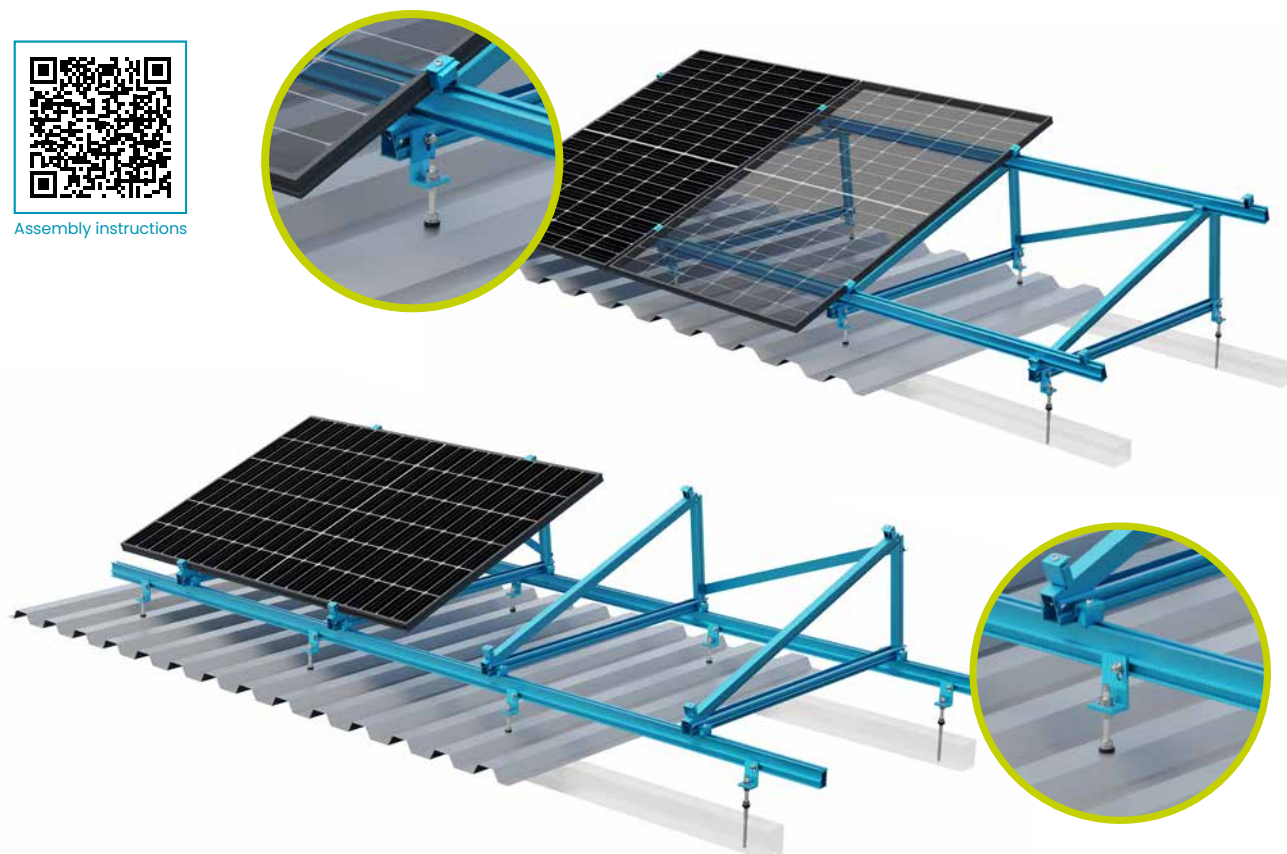
Mounting rail ST-AK 13/60

Cross adapter clamp AK

Bracket 60mm, M10

Hanger bolt M10x200

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

Application:
On flat pitched and pitched roofs with coverings made of trapezoidal sheet metal, corrugated fibre cement and sandwich elements

Module type:
framed and frameless modules

Module orientation:
portrait / landscape

Module pitch:
available in increments of 5° up to 45°, other angles available upon request

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

Assembly instructions

Mounting rail ST-AK 13/60

Trapezoidal sheet metal rail l=395 mm

Cross adapter clamp AK

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

Application:
On flat pitched and pitched roofs with coverings made of trapezoidal sheet metal, corrugated fibre cement and sandwich elements. Ballasted on flat roofs.

Module type:
framed and frameless modules

Module orientation:
portrait / landscape

Module pitch:
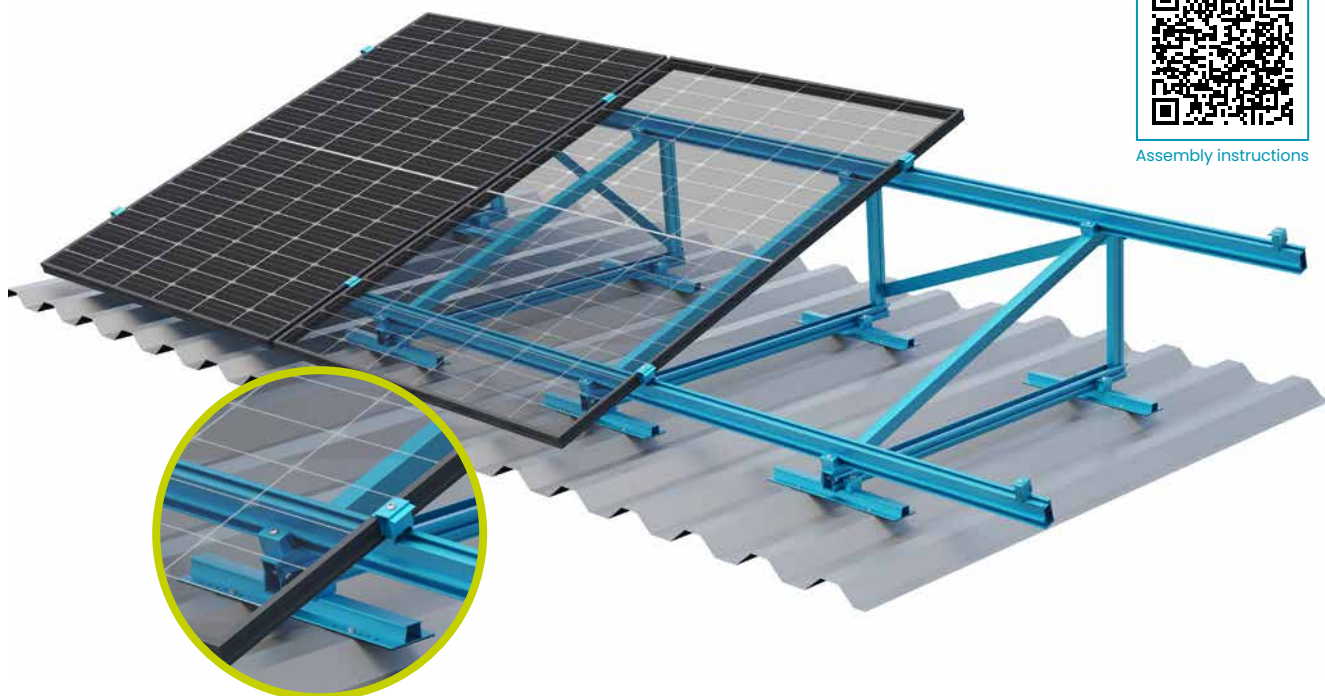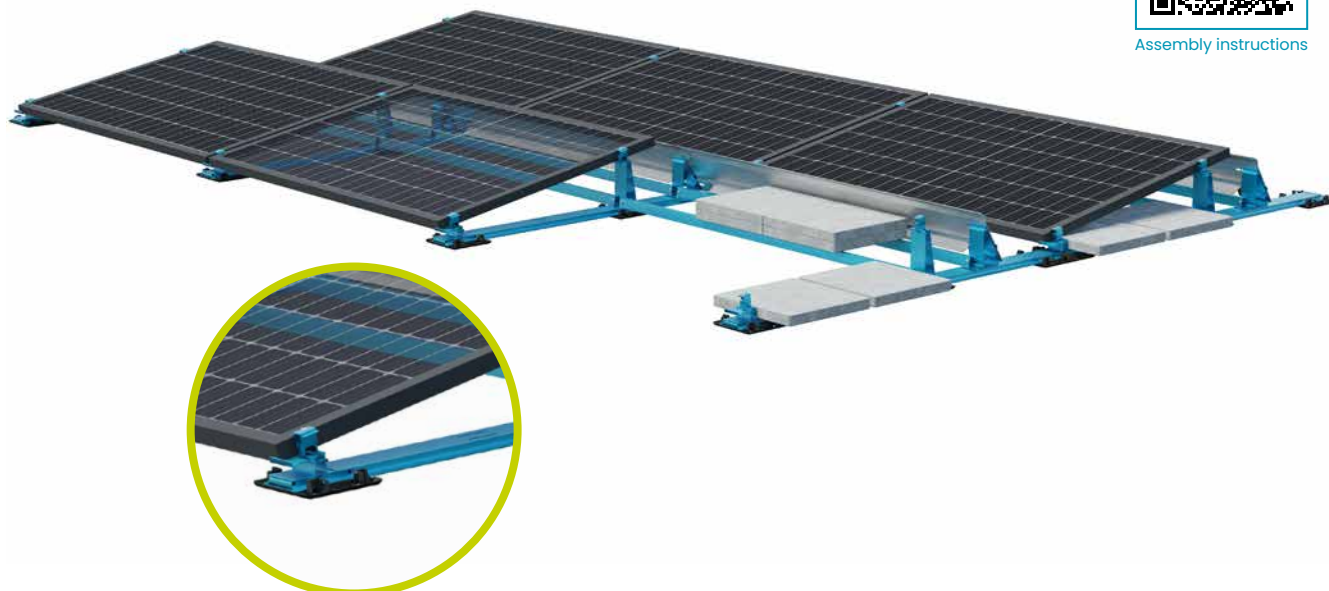available in increments of 5° up to 45°, other angles available upon request

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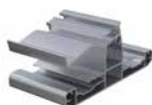- Triangles are shipped folded up for less freight and storage costs

LEICHTmount RAIL 2.1 S
Ground rail

LEICHTmount RAIL 2.1
Foot plate

LEICHTmount RAIL 2.1
Base

LEICHTmount RAIL 2.1
Tower

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Flat roof with foil, bitumen, gravel, concrete

Orientation:
south

Fastening:
S:FLEX Foot plate (optional)

Roof pitch:
up to 5° (up to 10° upon request)

Building height:
up to 25 m (up to 50 m upon request)

Module type:
framed modules

Module pitch:
10° / 15°

Module field size:
max. 20 x 20 m

Advantages:
- Installation without roof penetration possible
- Low area load: minimised ballast thanks to aerodynamic design
- Optimised load distribution through ground rails and foot plates
- Installation in the roof edge and corner regions is possible
- Lightning-current-carrying capacity according to DIN EN 62561 (VDE 185-561-1):2013-02

S:FLEX LEICHTmount RAIL 2.1 EW
For roofs with foil, bitumen, gravel or concrete

Assembly instructions

LEICHTmount RAIL 2.1 EW
Ground rail

LEICHTmount RAIL 2.1
Foot plate

LEICHTmount RAIL 2.1
Base

LEICHTmount RAIL 2.1
Tower

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Flat roof with foil, bitumen, gravel, concrete

Orientation:
east-west

Fastening:
S:FLEX Foot plate (optional)

Roof pitch:
up to 5° (up to 10° upon request)

Building height:
up to 25 m (up to 50 m upon request)

Module type:
framed modules

Module pitch:
10° / 15°

Module field size:
max. 20 x 20 m

Advantages:
• Installation without roof penetration possible
• Low area load: minimised ballast thanks to aerodynamic design
• Optimised load distribution through ground rails and foot plates
• Installation in the roof edge and corner regions is possible
• Lightning-current-carrying capacity according to DIN EN 62561 (VDE 185-561-1):2013-02

Assembly instructions
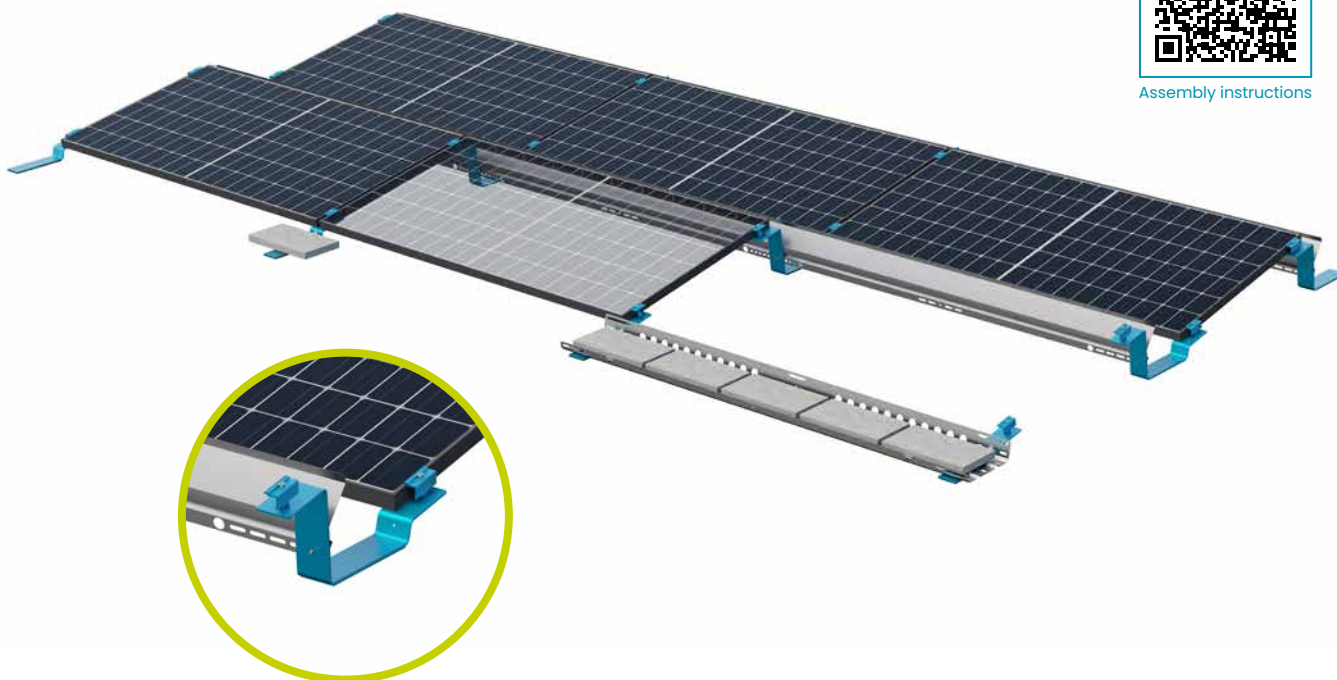
LEICHTmount CF
Front part

LEICHTmount CF
End part

LEICHTmount CF
Connector

LEICHTmount
Ballast tray 880

LEICHTmount
Ballast tray 1800/2050/2300

Application:
Flat roof with foil, bitumen, gravel, concrete

Orientation:
south

Roof pitch:
up to 5° without roof anchors, above with roof anchors

Building height:
up to 25 m

Module size (L x W):
1500 – 2250 mm x 950 – 1150 mm

Module pitch:
5° / 10° / 15°

Row spacing:
module pitch 5° = 18° shading angle
module pitch 10° & 15° = 18° or 25° shading angle

Module field size:
max. 20 m x 20 m

Advantages:
• Short assembly times due to few components
• Low area load: minimised ballast thanks to
  aerodynamic design
• Non-penetrative roof connection possible
• Also suitable for roof edge zones
• Roof unevenness can be easily levelled out
• Problem-free water drainage, good module rear ventilation
• Certified to UL 2703, UL 1703 and IEC 61215

S:FLEX LEICHTmount CF EW
For roofs with foil, bitumen, gravel or concrete

Assembly instructions

**LEICHTmount CF
Front part**

**LEICHTmount CF
Top part**

**LEICHTmount CF
Bottom part**

**LEICHTmount
Ballast tray 880**

**LEICHTmount
Ballast tray 1800/2050/2300**

Application:
Flat roof with foil, bitumen, gravel, concrete

Orientation:
east-west

Roof pitch:
up to 5° without roof anchors, above with roof anchors

Building height:
up to 25 m

Module size (L x W):
1500 – 2250 mm x 950 – 1150 mm

Module pitch:
10°

Row spacing:
module pitch 10° = 18° shading angle
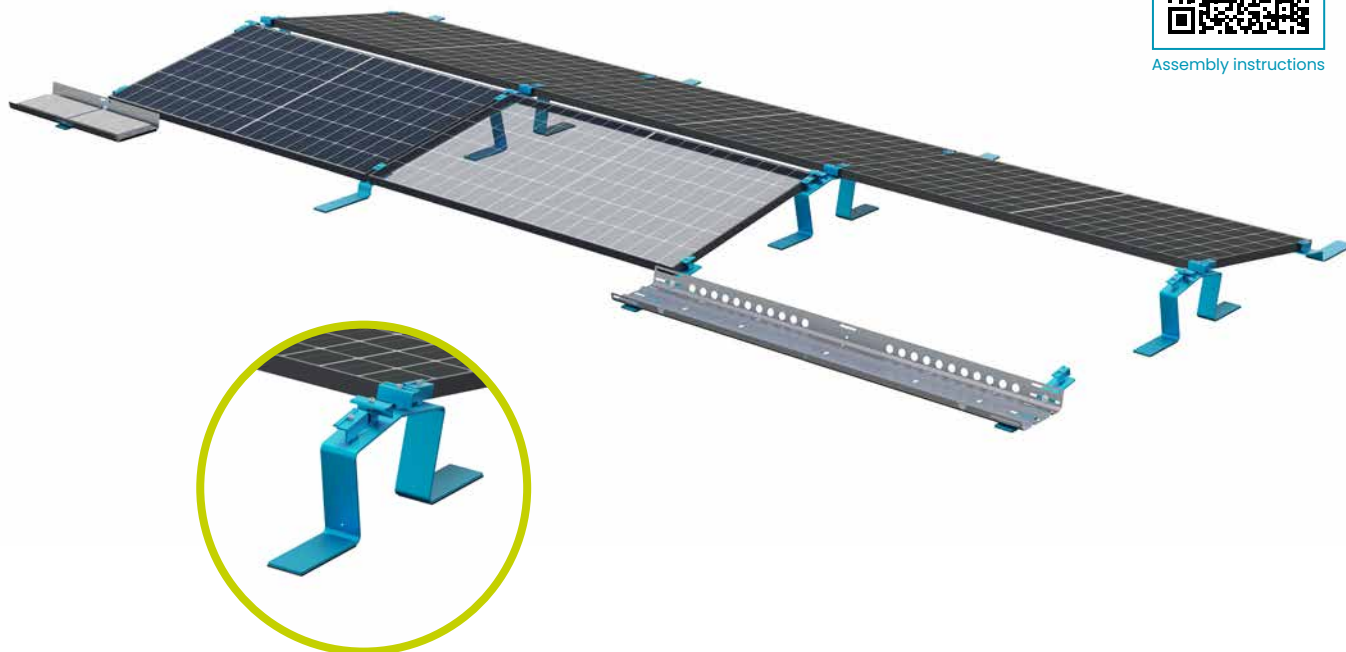
Module field size:
max. 20 m x 20 m

Advantages:
- Short assembly times due to few components
- Low area load: minimised ballast thanks to aerodynamic design
- Non-penetrative roof connection possible
- Also suitable for roof edge zones
- Roof unevenness can be easily levelled out
- Problem-free water drainage, good module rear ventilation
- Certified to UL 2703, UL 1703 and IEC 61215

S:FLEX GreenLight
For green roofs with gravel or substrate

Assembly instructions

S:FLEX GreenLight ST Universal profile

S:FLEX GreenLight Knickfix

S:FLEX GreenLight Base plate

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Green roof (intensive and extensive), gravel roof

Orientation:
south and east-west

Fastening:
non-penetrative, additional ballast

Roof pitch:
up to 5°

Module type:
framed modules

Module orientation:
landscape / portrait

Module pitch:
10° / 15° / 20°

Module field size:
min. two modules

Advantages:
- No roof penetration
- High water storage volume
- Extremely fast installation
- Suitable for all common module sizes
- Integrated fall protection (optional)

S:FLEX GreenLight ON TOP
For existing green roofs with gravel or substrate

Assembly instructions

S:FLEX GreenLight ON TOP Floor rail

S:FLEX GreenLight ON TOP Knickfix

S:FLEX GreenLight ST Universal profile

End clamp AK II Klick 30-50 A

Mid clamp AK II Klick 30-50 A

Application:
Existing green roof, gravel roof

Orientation:
south and east-west

Fastening:
non-penetrative, additional ballast

Roof pitch:
up to 5°

Module type:
framed modules

Module orientation:
landscape / portrait

Module pitch:
10° / 15° / 20°

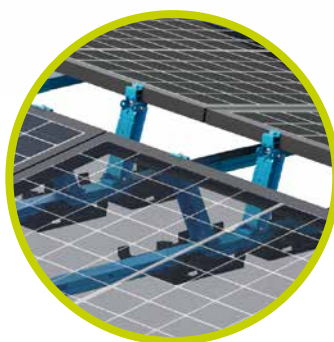**Module field size:**
min. two modules

Advantages:
- No roof connection required, system is applied onto the existing green or gravel roof
- Suitable for all common module sizes
- Integrated fall protection (optional)

S:FLEX LEICHTmount SNAP
For roofs with foil, bitumen, gravel or concrete

Assembly instructions
edge clamping

Assembly instructions
quarter-point clamping

**LEICHTmount SNAP
Ground rail**

**LEICHTmount SNAP
Foot plate**

**LEICHTmount SNAP
Tower Single / Double**

**LEICHTmount SNAP
Base Single / Double**

Application:
Roofs with foil, bitumen, gravel or concrete

Orientation:
east-west

Fastening:
non-penetrative
(Roof connection according to flat roof guideline)

Roof pitch:
up to 10°

Module size (L x W):
1600 - 2500 mm x 990 - 1230 mm
Height: 30 - 40 mm

Module pitch:
10°

Module field size:
max. 30 x 30 m

Advantages:
- System installation without roof penetration possible
- Reduced ballast due to systematic aerodynamic optimisation
- Optimised pressure load distribution due to wide support surface
- Installation in the roof edge and corner regions is possible
- Low system surface load: incl. modules / without ballast from 12.5 kg/m²
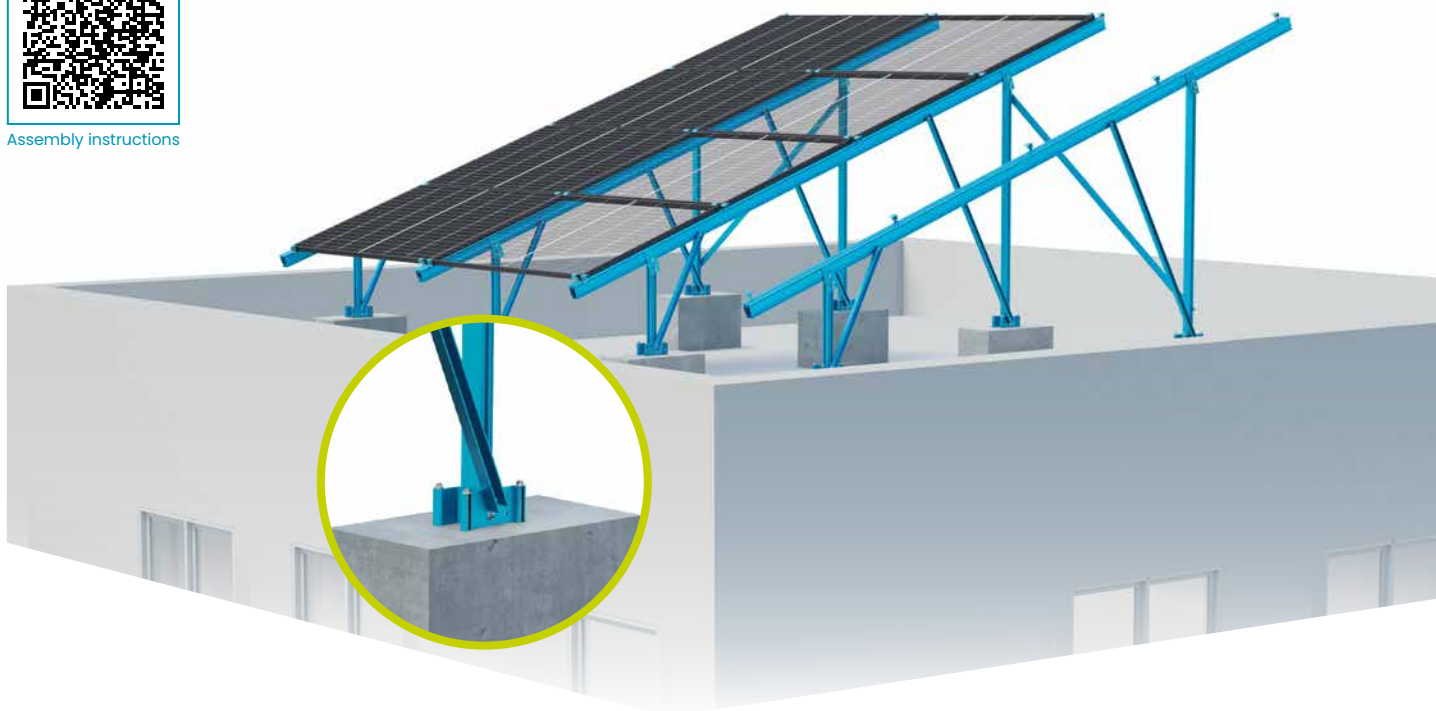
S:FLEX Delta Concrete
For flat roofs with concrete foundation

Assembly instructions

Delta Concrete Base rail

Delta Concrete Pillar FS 9/40

Delta Concrete Top

Delta Concrete Base

Application:
Flat roof

Orientation:
south and east-west

Fastening:
Concrete, screw fastening

Module type:
framed, frameless (additional horizontal rail), bifacial modules

Module orientation:
landscape / portrait

Module pitch:
up to 20°

Module field size:
12 x 4 modules (landscape) / 12 x 3 modules (portrait)

Advantages:
- Designed to be used on flat concrete roofs
- Excellent rear ventilation ensuring high yields, making it particularly suitable for hot regions
- Light-weight, material-saving design
- Offers the possibility to build over obstacles
- No drilling of aluminium on site

S:FLEX LEICHTmount G S
For open grounds with earth, gravel or concrete base
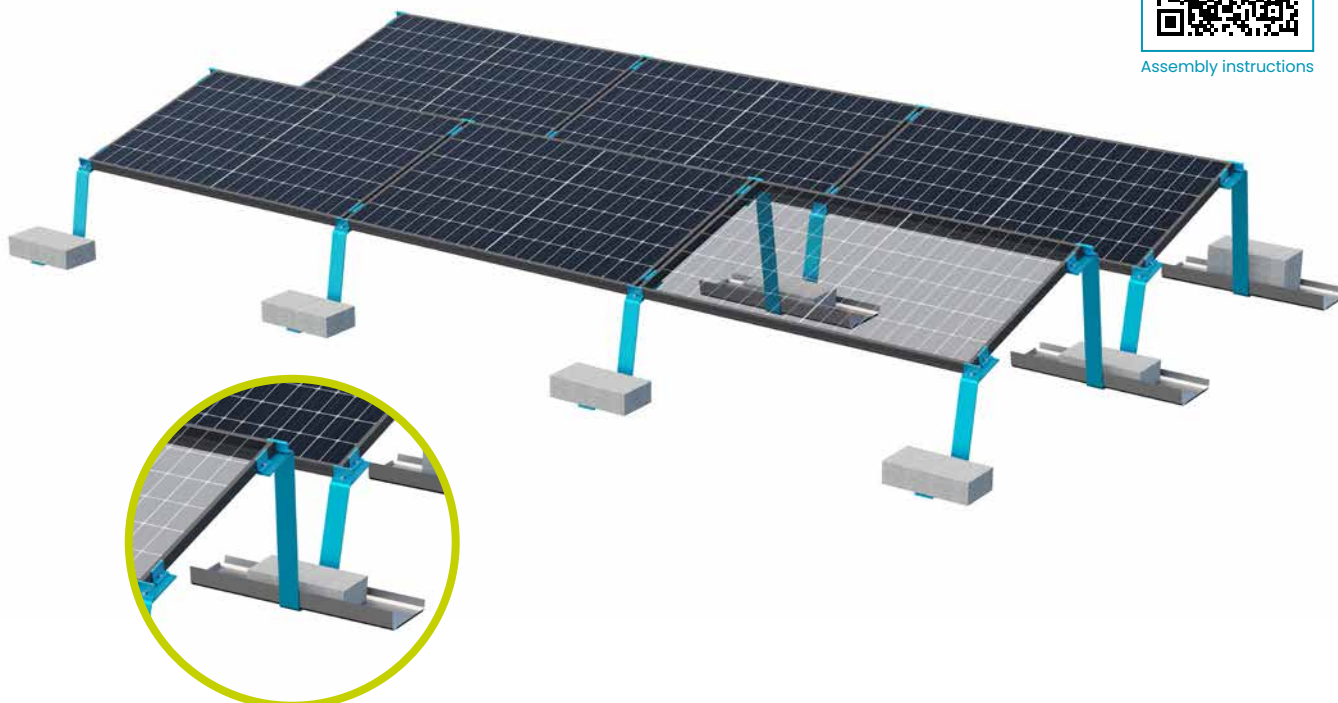
LEICHTmount G S
Connector

LEICHTmount G S
Front part

LEICHTmount G S
End part

LEICHTmount
Ballast tray 880

Application:
Open ground

Orientation:
south

Ground inclination:
up to 20°

Module type:
framed modules

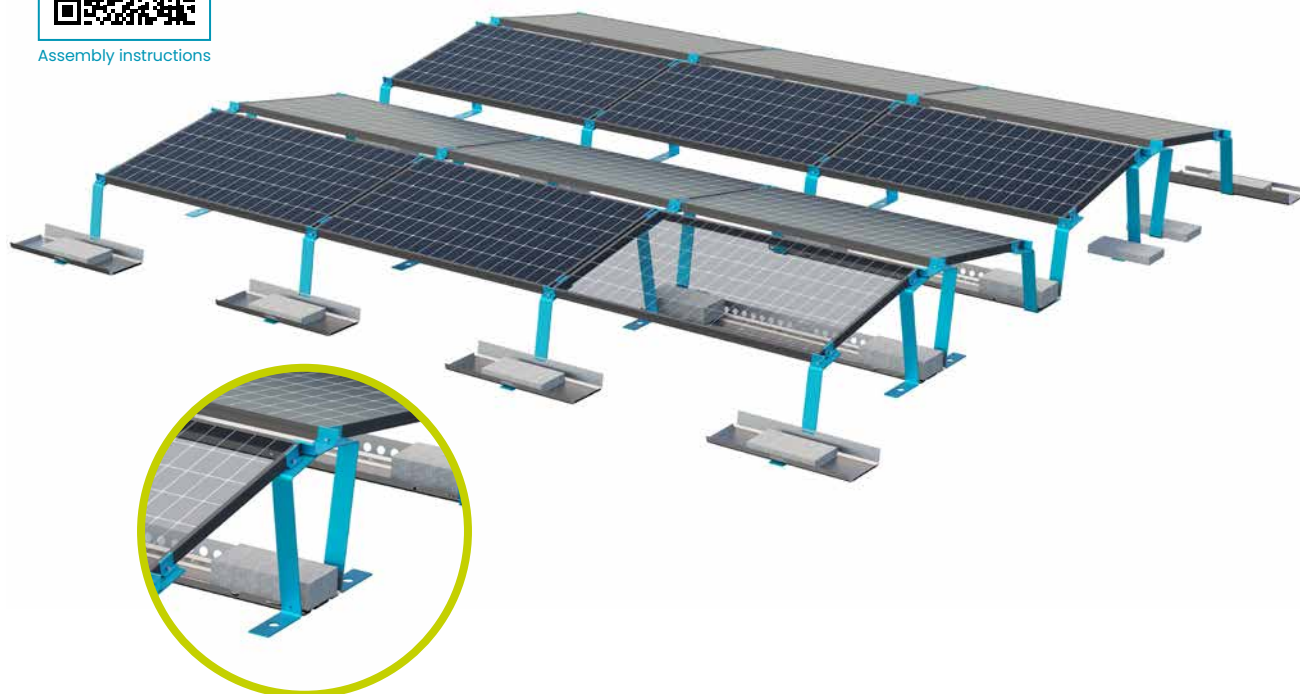**Module pitch:**
15° / 20°

Module field size:
min. 2 x 3 modules

Advantages:
- No pile driving or major excavation work needed
- Suitable for a wide range of surfaces such as earth, gravel, concrete
- Reduced transport and storage costs thanks to low volume packaging

S:FLEX LEICHTmount G EW
For open grounds with earth, gravel or concrete base

Assembly instructions

LEICHTmount G EW
Top part

LEICHTmount G EW
Front part

LEICHTmount
Ballast tray 880

LEICHTmount
Ballast tray 1880

Application:
Open ground

Orientation:
east-west

Ground inclination:
up to 20°

Module type:
framed modules

Module pitch:
10°

Module field size:
min. 2 x 4 modules

Advantages:
• No pile driving or major excavation work needed
• Suitable for a wide range of surfaces such as earth, gravel, concrete
• Reduced transport and storage costs thanks to low volume packaging

Assembly instructions

Delta Concrete Base rail

Delta Concrete Pillar FS 9/40

Delta Concrete Top

Delta Concrete Base

Application:
Open grounds with concrete foundation, on-site

Orientation:
south and east-west

Fastening:
Concrete, screw fastening

Ground inclination:
N-S: any; E-W: module area 1° / terrain 10°

Module type:
framed, frameless (additional horizontal rail), bifacial modules

Module orientation
landscape / portrait

Module pitch:
up to 20°

Module field size:
12 x 4 modules (landscape) / 12 x 3 modules (portrait)

Advantages:
• Designed for ground-mount on concrete foundations
• Light-weight, material-saving design
• Offers the possibility to build over obstacles
• No drilling of aluminium on site

S:FLEX Carport
Solar carports in segmental design

Assembly instructions

S:FLEX Carport Single

S:FLEX Carport Double

Parking lots:
1 or 2 parking spaces, expendable up to 12 freely combinable single /double segments for a maximum of 24 parking spaces

Fastening:
anchored in the ground / concrete

Roof pitch:
6°

Height:
headroom: 2.09 m / max. height: 2.95 m

Module orientation
landscape / portrait

Module field size:
Single: 22 m² / 10 modules
Double: 35 m² / 15 modules

Material:
Carport: hot-dip galvanized steel, powder coated
Sheet metal: continuous, 0.75 mm thick
Solar fastening: aluminium

Colour:
Matt black (RAL 9005), anthracite trapezoidal sheet

Grounding clamp DEHN Uni

- To integrate the mounting system into the building's equipotential bonding system and to connect it to earth
- Stainless steel to prevent contact corrosion
- Connection by means of hammerhead bolt and locking nut (positive and frictional locking)
- Diameter of clamping area for aluminium round wire: 8 - 10 mm / Connection cross-section of equipotential bonding conductor: 4 - 50 mm²

OBO equipotential bonding clamp

- For equipotential bonding of the mounting rails by means of aluminium round wire
- Connection by means of hammerhead bolt and locking nut (positive and frictional locking)
- Diameter of clamping area for aluminium round wire: 8 - 10 mm

Splice 5 / 7 / 13 Grounding

- Equipotential bonding between the rails by means of a corresponding connector with stainless steel grounding blades
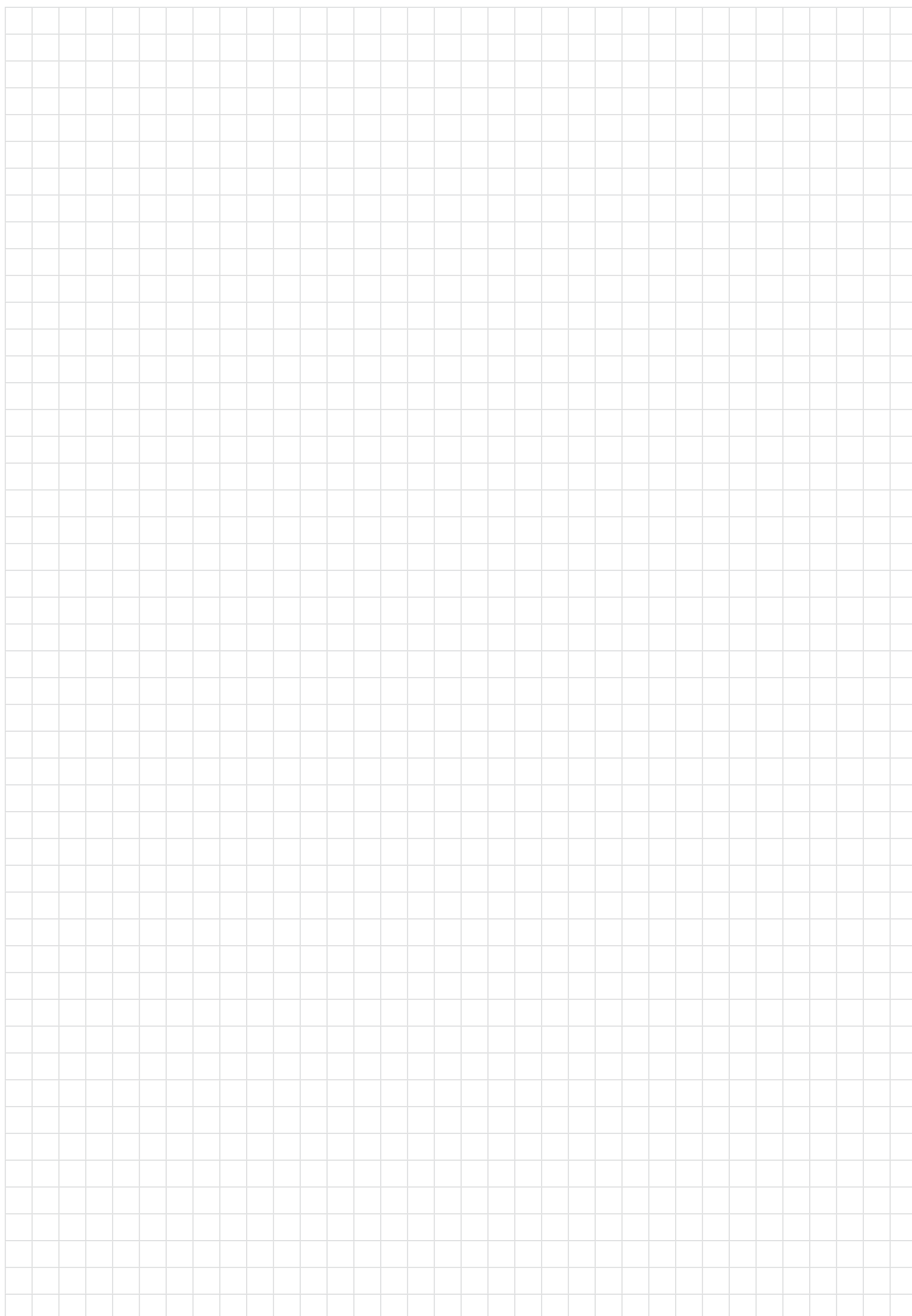
Grounding kit MH AK Klick 30-50mm / Grounding kit EH AK Klick 30-50mm / Grounding kit 4x2

- For integration of the module frames into the equipotential bonding system
- Equipotential bonding between the module frame and substructure
- Breaks through the anodised layer
- Stainless steel
- For pre-assembly and installation on site

Notes

S:FLEX

Sustainable energy – securely anchored.

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