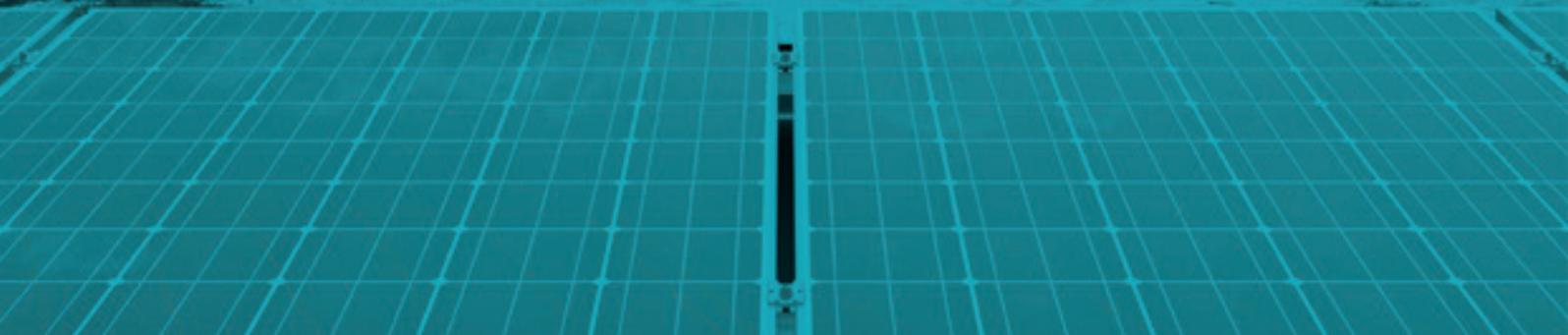
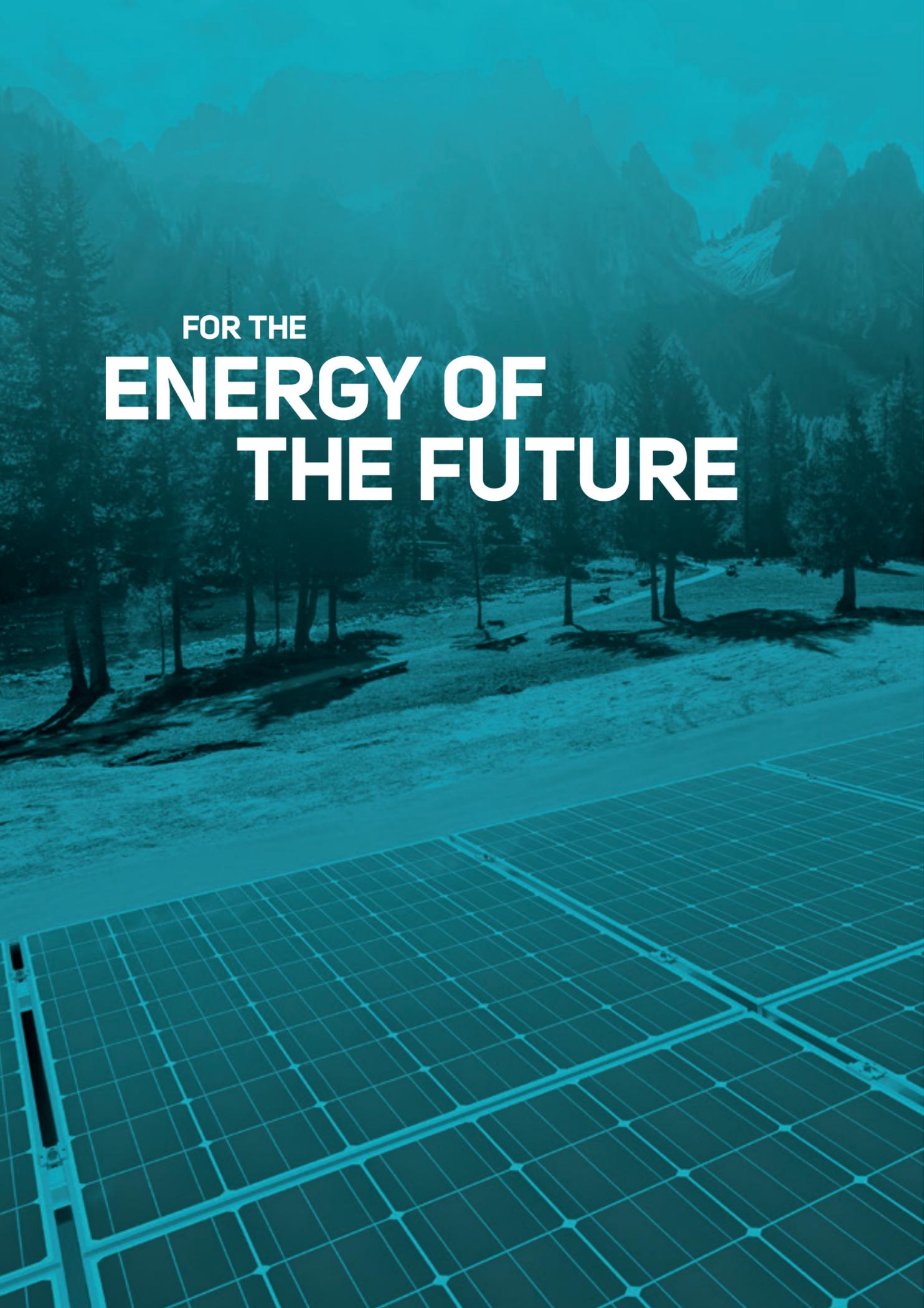


AEROCOMPACT®

INTELLIGENT SOLAR RACKING





FOR THE
**ENERGY OF
THE FUTURE**

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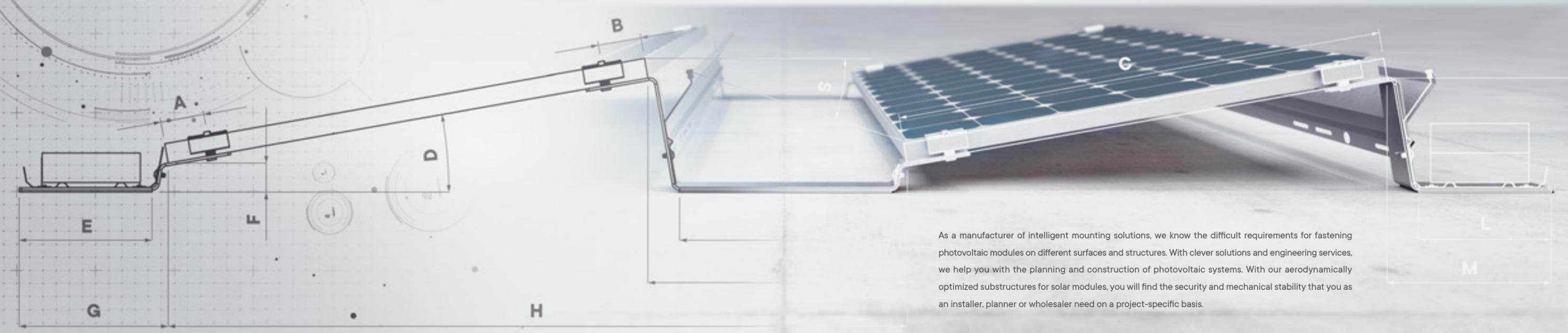
INTERNATIONAL LOCATIONS

58



OUR VISION & MISSION

WITH OUR INTELLIGENT ASSEMBLY SOLUTIONS, WE ENABLE PEOPLE TO SECURELY FASTEN SOLAR SYSTEMS.



As a manufacturer of intelligent mounting solutions, we know the difficult requirements for fastening photovoltaic modules on different surfaces and structures. With clever solutions and engineering services, we help you with the planning and construction of photovoltaic systems. With our aerodynamically optimized substructures for solar modules, you will find the security and mechanical stability that you as an installer, planner or wholesaler need on a project-specific basis.

ACHIEVE MORE

WITH OUR INTELLIGENT RACKING SOLUTIONS...

... WE ARE

A 360° PROVIDER

for photovoltaics mounting systems.

We not only provide stable and aerodynamic racking solutions for the photovoltaic modules for practically all roof types and ground mount surface, but also deliver the entire package: from planning to installation technology, depending on the surface and structure of the subsurface.

The planning concept is created using our AeroTOOL project software - quickly, easily and in great detail. The software produces an editable CAD file as well as a detailed construction drawing. The integration of Google/Bing Maps enables a pictorial representation of the roof layout.

This comprehensive concept offers our customers planning security, saves resources and minimizes errors.

... WE OFFER

SOLAR-TECHNICIANS

a more effective assembly.

Customer benefit is our top priority: Our product solutions only make sense if they make our customers' work easier! This benefit is successfully achieved in daily practice: By using pre-assembled components, installers save valuable time when installing solar modules. The fact that our metal roof solutions can be combined with one another and assembled in a modular system increases the effectiveness and productivity of our customers' systems.

Optimized working

- Technically mature products
- Simple installation due to the modular system
- Warranty for construction and material
- Rust-free
- Pre-assembled components ensure short assembly times
- Easy handling thanks to aluminum components
- Comprehensive technical documentation

... WE PROVIDE

WHOLESALE CUSTOMERS

our support to sell high quality products.

Wholesalers benefit not only from our quick delivery capacity, but also from our lightweight components, the compact transport containers and thus also from the low transport costs of our products. We have designed our partner program especially for this customer group so that they are optimally supported in the system planning and engineering as well as with sales and service, in the form of external presentations and advertising, internet presence and training.

Flexibility thanks to greater availability

- AEROCOMPACT® partner program
- High delivery capacity
- Compact transport containers
- Pre-assembled components
- Engineering services
- Comprehensive marketing tools

... WE SUPPORT

PROJECT DEVELOPERS

with fully engineered mounting solutions.

The planning of photovoltaic systems often poses major challenges. We are happy to be involved in the planning process and support project developers in the design and calculation of systems. Our experience in the EPC area - specifically in the process steps of planning, procurement and construction of large systems - qualifies us as a specialized contact in the area of racking technology.

Creating value through dialogue

- Planning support from specialists
- Powerful product portfolio
- Proven tested safety
- 25 year warranty
- 3D-supported calculation and statics software
- Short assembly times due to pre-assembled components
- Comprehensive technical documentation

AEROTOOL

MORE FOR YOU.

Comprehensive planning plays a special role in the safety and efficiency of large photovoltaic systems. Our AeroTOOL project software supports you in system planning - quickly, easily and in detail. With its realistic simulation, AeroTOOL enables the preparation of offers and plans without an on-site appointment. This saves time and costs.

Visualization and planning software

- Save resources and minimize errors
- Google Maps of roof layout
- Quick and easy project planning
- Static analysis according to EN standards
- Includes shadow effects
- Design certainty
- Allocation and assembly plans

MORE PRODUCT SOLUTIONS

As a manufacturer of intelligent mounting solutions, we are familiar with the difficult requirements for the secure mounting of photovoltaic modules on different surfaces and structures.

That is why we pay attention to the special shapes and the high-quality processing of our bearing components. These two factors form the basis for stability and safety and also provide the best result in the ratio of load capacity and dead weight.

Planning and simulation can be easily and conveniently implemented in just a few steps with the AeroTOOL 3D online software. The software provides extensive information in a project report as well as a material list with price for the automated ordering of AEROCOMPACT® products.

MORE FLEXIBILITY

The components and accessories are partly cross-system, pre-assembled and flexible in their arrangement. This leads to minimal storage and short assembly times.

COMPACT **FLAT**

Flat roof systems
From page 12



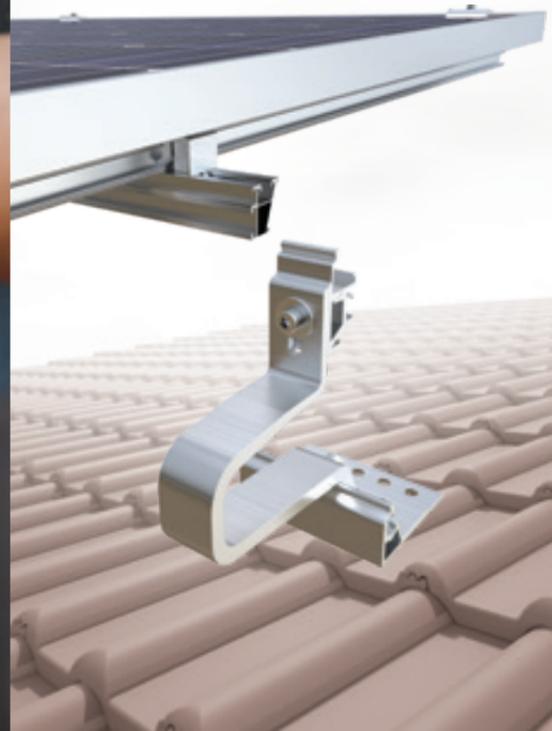
COMPACT **GROUND**

Ground-mount systems
From page 22



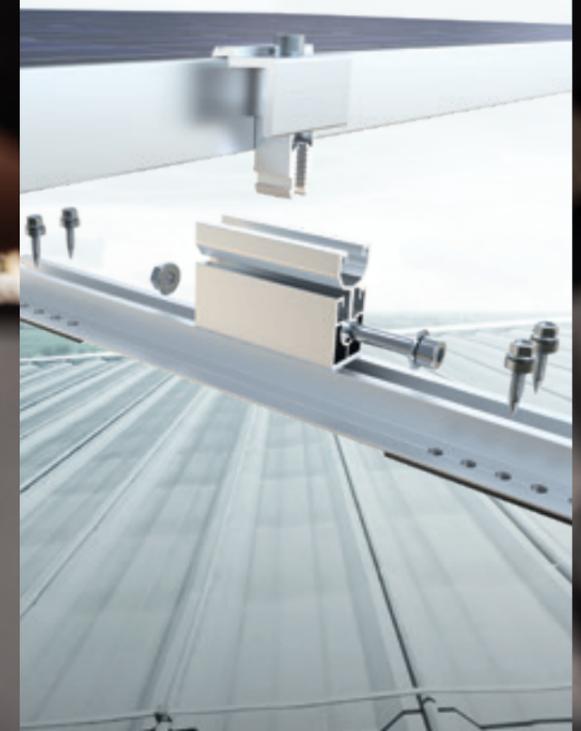
COMPACT **PITCH**

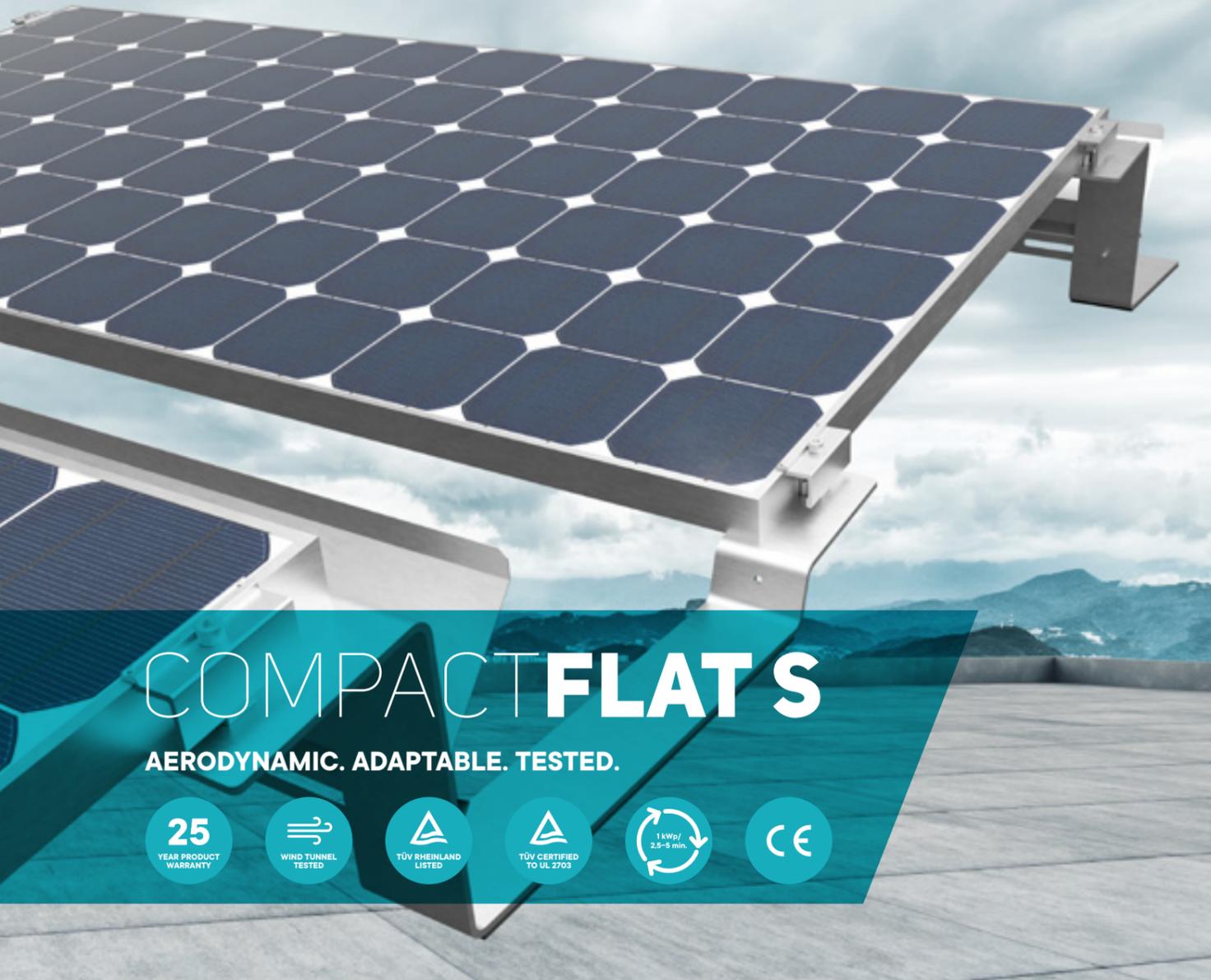
Pitched roof systems
From page 32



COMPACT **METAL**

Metal roof systems
From page 44





COMPACTFLAT S

AERODYNAMIC. ADAPTABLE. TESTED.

25

YEAR PRODUCT WARRANTY



WIND TUNNEL TESTED



TÜV RHEINLAND LISTED



TÜV CERTIFIED TO UL 2703



1 kWp/2,5-5 min.



CE

Flat roof bracket system

Safe and tested substructures for mounting photovoltaic modules on flat roofs

The CompactFLAT system family offers systematically structured substructures for the effortless installation of photovoltaic modules on flat roofs. The aerodynamic design boasts exceptional structural properties and requires considerably less ballast than other systems on the market. Due to the special "spring effect" of the feet, the substructure adjusts optimally to the conditions of the surface structure. Since the design is not rail-bound, water drainage is provided on all sides.

More efficiency

Short assembly times and lower transport costs due to fewer components

Safety

Certified and wind tunnel tested

Reliability

The AeroTOOL software offers reliable information about statics, wind loads and snow loads



ADDITIONAL COMPONENTS

Roof connection

AEROCOMPACT® offers a sophisticated hybrid solution for roofs that cannot withstand the additional weight of a photovoltaic system. The combination of roof fastening points and ballast reduces the overall weight of the system. This option can also be used in areas with seismic activity to prevent the system from shifting due to earthquake influences.



Alpine version

Our alpine version is used from a certain snow load, which is calculated by our online software AeroTOOL based on the project.



Ballast trays

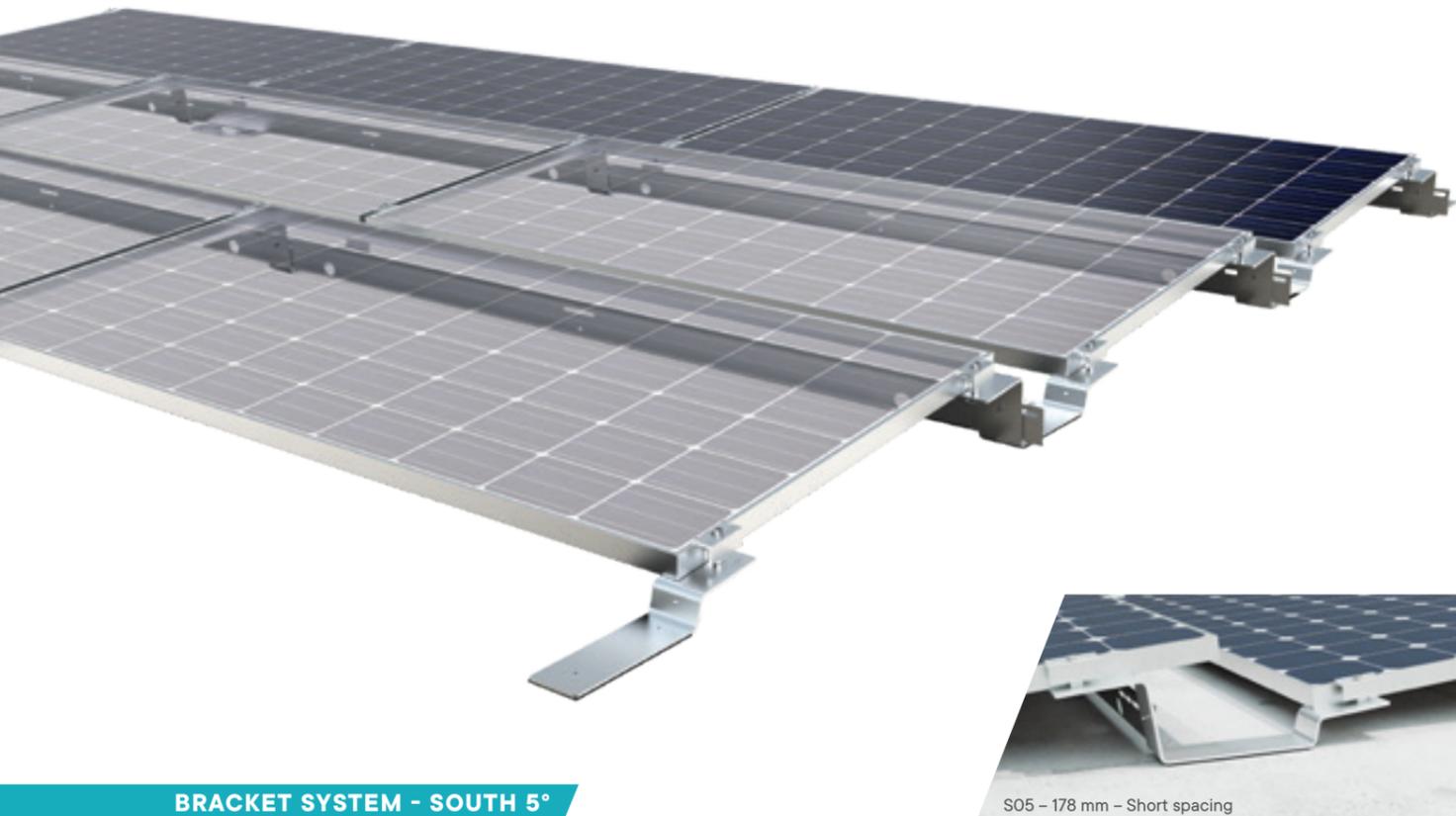
This system variant with ballast trays is mainly used in areas with high wind loads and roofs with low point loads. The main advantages of this installation variant are, on the one hand, the additional ballast that can be installed per module and, on the other hand, the even distribution of the concentrated load on the roofing. The ballast tray can also be used for ballasting on gravel roofs by putting the gravel into the ballast trays.



Cable management – The cable management solution for string cabling of the rows is UL-certified and available as a standard product.

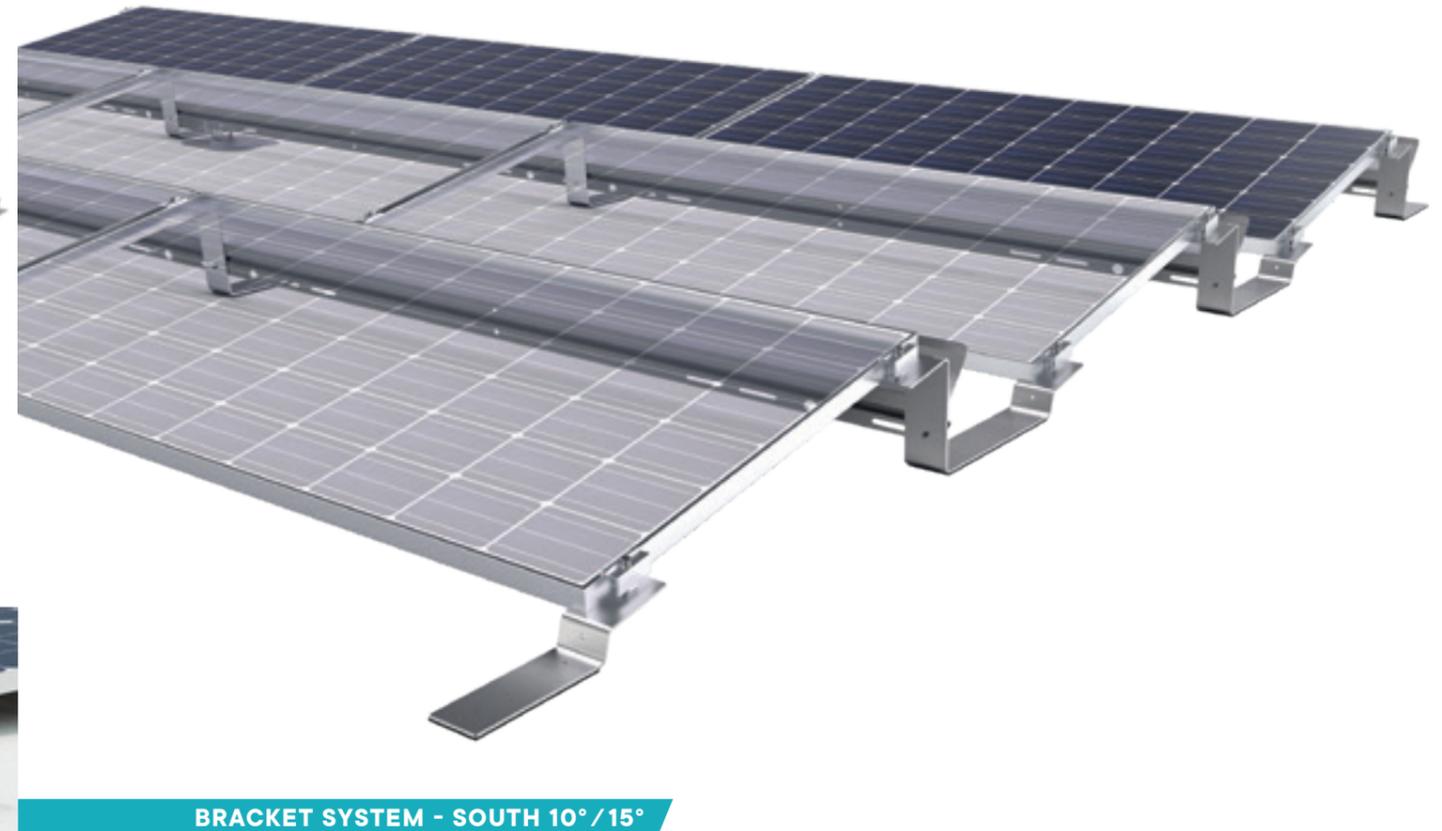


Micro inverter bracket – A UL certified micro inverter and optimizer bracket is now available with the updated system



BRACKET SYSTEM - SOUTH 5°

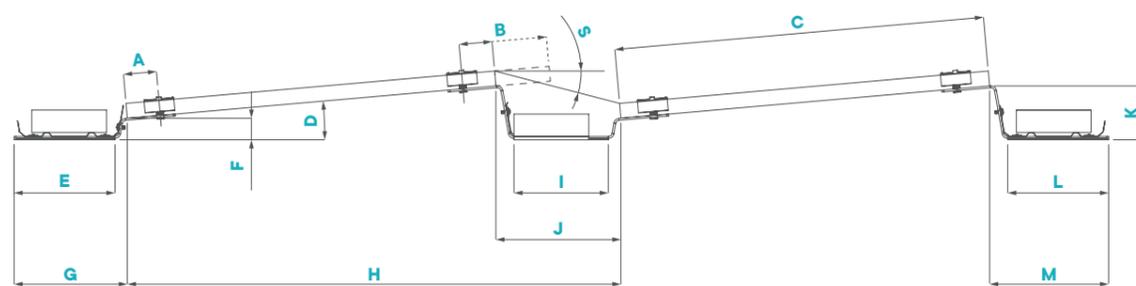
S05 - 178 mm - Short spacing



BRACKET SYSTEM - SOUTH 10° / 15°

COMPACTFLAT S05

The CompactFLAT S05 is a south-facing aerodynamic flat roof fastening system including pre-assembled PES building protection mat for framed PV modules. The module inclination is 5° and results in row spacings of 178 mm and 335 mm. The row spacing of 178 mm with a shading angle of 30° is achieved by moving the modules back on the connector. It is also available as an alpine version.

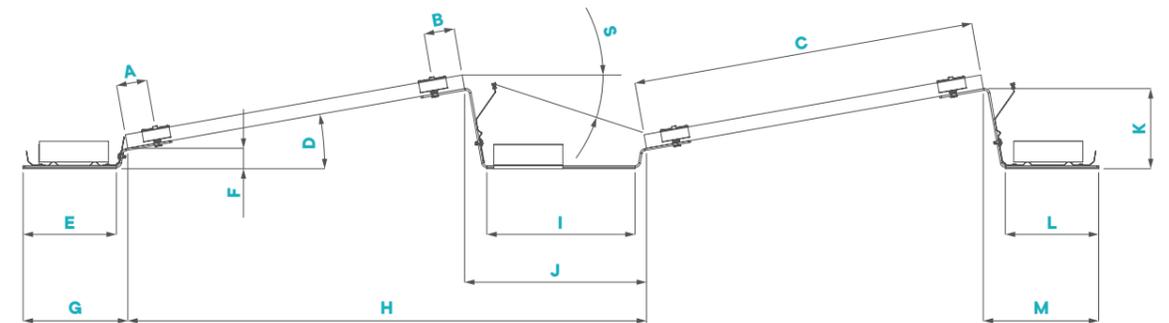


	A [mm]	B [mm]	C* [mm]	D [°]	E [mm]	F [mm]	G [mm]	H* [mm]	I [mm]	J [mm]	K [mm]	L [mm]	M [mm]	S [°]
S05 - 178mm - Short spacing	88.5	245	950-1150	5	270	58	303	1124-1325	252	178	144	270	318	30
S05 - 335mm - Long spacing	88.5	88.5	950-1150	5	270	58	303	1281-1482	252	335	144	270	318	15

* depending on the PV-module dimensions

COMPACTFLAT S10/15

The CompactFLAT S10/15 is another south-facing aerodynamic flat roof fastening system including pre-assembled PES building protection mat for framed PV modules. It is available with an inclination of 10° and 15°, as well as various row spacings and is available as an alpine version as well.



	A [mm]	B [mm]	C* [mm]	D [°]	E [mm]	F [mm]	G [mm]	H* [mm]	I [mm]	J [mm]	K [mm]	L [mm]	M [mm]	S [°]
S10 - 380mm - Short spacing	88.5	88.5	950-1150	10	270	60	303	1314-1517	282	380	232	270	334	25
S10 - 527mm - Long spacing	88.5	88.5	950-1150	10	270	60	303	1461-1664	429	527	232	270	334	18
S15 - 571mm - Short spacing	88.5	88.5	950-1150	15	270	60	303	1486-1692	458	571	317	270	350	25
S15 - 790mm - Long spacing	88.5	88.5	950-1150	15	270	60	303	1705-1911	677	790	317	270	350	18

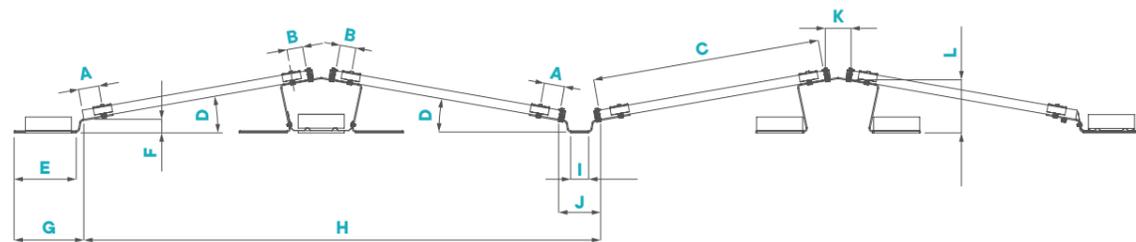
* depending on the PV-module dimensions



BRACKET SYSTEM – EAST / WEST 10°

COMPACTFLAT S10PLUS

The system, as part of the CompactFLAT product range, is an aerodynamic east-west-substructure for the fixing and aligning of PV modules on flat roofs. The module inclination is 10° and results in row spacings of 297 mm and 464 mm. The aerodynamic design has outstanding static properties and requires surprisingly little ballast. This system is also available as an alpine version.



	A [mm]	B [mm]	C* [mm]	D [°]	E [mm]	F [mm]	G [mm]	H* [mm]	I [mm]	J [mm]	K [mm]	L [mm]
S10PLUS – 182mm – Short spacing	88.5	69	950–1150	10	270	59	303	2163–2568	78	182	112	230
S10PLUS – 350mm – Long spacing	88.5	69	950–1150	10	270	59	303	2331–2736	245	350	112	230

* depending on the PV-module dimensions



AUSTRIA / 799.92 kWp / S05



AUSTRIA / 546.30 kWp / S10



COMPACTFLAT SN

AERODYNAMIC. FLEXIBLE. TESTED.

- 25
YEAR PRODUCT WARRANTY
- WIND TUNNEL TESTED
- TÜV RHEINLAND LISTED
- TÜV CERTIFIED TO UL 2703
- 1 kWp/
2,5-5 min.
- CE

Rail-based modular system for the elevation of PV systems on flat roofs

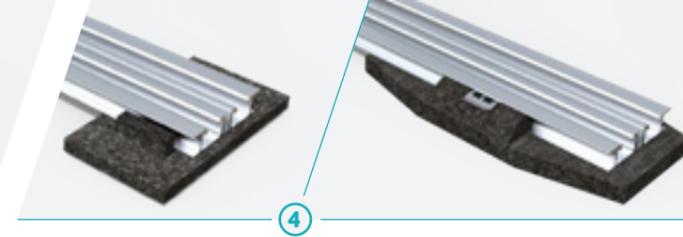
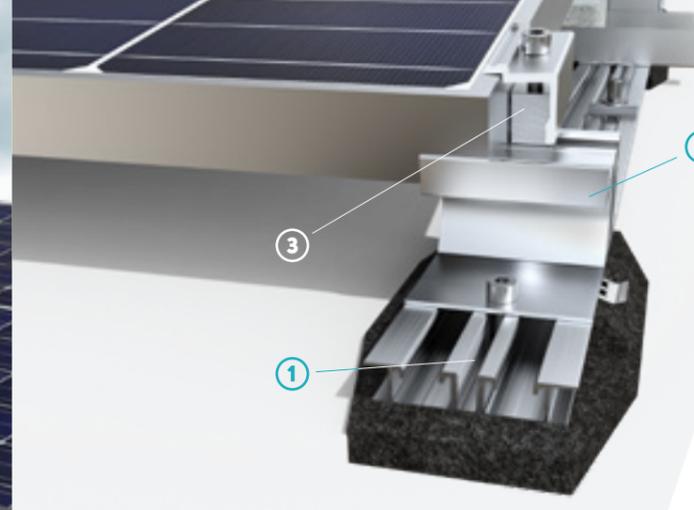
The CompactFLAT SN is a flexible, rail-based, modular system that can be used for different flat roof applications and offers short-side and long-side clamping. The same components are used for the south-facing system CompactFLAT SN10 as for the east/west system CompactFLAT SN10plus.

Quick and convenient planning and installation

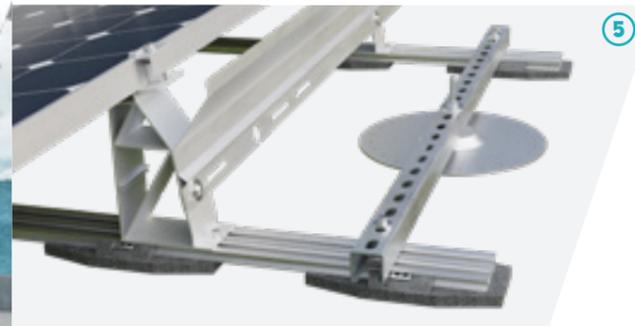
Innovative mounting methods, such as the longitudinal screw channel, enable the fastest possible installation at the highest level of safety. They also save on additional screw parts. One person, while standing, can pre-assemble the system without modules, thus avoiding downtimes due to delivery bottlenecks, for example. The click clamps help installers mount the rails and modules quickly and effortlessly. The system can be planned and simulated conveniently and easily in a few steps using the free 3D online software AeroTOOL.

All benefits at a glance

- Suitable for high wind and snow loads
- Low point loads through integrated building protection pads
- Can be planned in the AeroTOOL software
- Approved for all PV modules
- Clamping from 30 - 46 mm infinitely variable
- Four variations of cross-platform components
- One-man installation possible
- Long and short side clamping
- Minimum stock keeping required
- Integrated module positioning aids
- One screw for all fixations
- Tested in wind tunnel
- Developed in Austria
- 25-year product warranty



- 1 Continuous M8 screw channel for flexible mounting of components and accessories
- 2 Front foot with integrated stop for fast positioning of the modules
- 3 Universal Click Clamp with infinitely variable adjustment to fit the PV module thickness (30 - 46 mm), incl. integrated grounding pins
- 4 Premium Pads for best building protection and horizontal compensation
- 5 The optionally available anchor fixation impresses with its simple assembly and flexibility. It allows a large number of anchor positions and thus speeds up assembly. Due to the direct screw connection to the rails, high loads are not a problem.



Stable and safe

Thanks to its long-side clamping, CompactFLAT SN withstands the highest snow and wind loads. Maximum safety is ensured by extensive tests conducted in the wind tunnel at wind speeds of up to 250 kilometres per hour and by AEROCOMPACT's 25-year product warranty. The integrated building protection pads minimize point loads, compensate for horizontal movements and ensure that water can drain away easily. The "Premium Pads", available optionally, offer additional protection for particularly soft insulation surfaces. There is no need for adhesive bonding because they can be attached to the mounting system with clips.

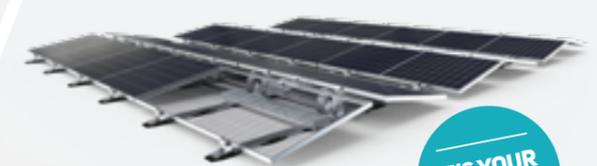


THE VERSIONS

On load-bearing roof coverings at locations with low to moderate snow loads, the framed modules can be clamped on the short-side, which not only is cost-effective but also saves material. The system can be installed with longitudinal screw channels, standard screws and low ballast. For roof coverings with lower load-bearing capacity, high wind and snow loads and large modules, clamping on the long side is a good option.



COMPACTFLAT SN10 long-side clamping



COMPACTFLAT SN10PLUS long-side clamping

IT'S YOUR CHOICE



COMPACTFLAT SN10 short-side clamping



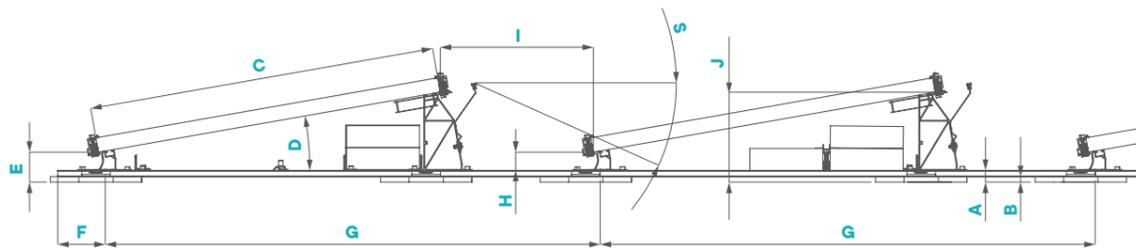
COMPACTFLAT SN10PLUS short-side clamping



RAIL-BASED – SOUTH 10°

COMPACTFLAT SN10

The CompactFLAT SN10 rail system as part of the CompactFLAT product family is an aerodynamic south / north substructure for the attachment and alignment of framed PV modules on flat roofs. It is available with a 10° incline. With the innovative assembly system, the modules can be clamped on the long side and short side.



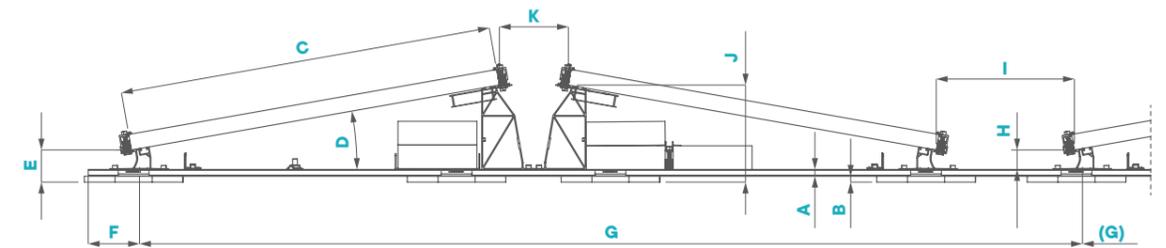
	A [mm]	B [mm]	C* [mm]	D [°]	E [mm]	F [mm]	G [mm]	H [mm]	I* [mm]	J [mm]	S* [°]
SN10 short-side clamping	32	15	950-1050	10	77	130	1355	45	421-218	251	24-50
SN10 long-side clamping	32	15	950-1050	10	82	130	1355	50	419-217	246	24-45

* depending on the PV-module dimensions

RAIL-BASED – EAST / WEST 10°

COMPACTFLAT SN10PLUS

The CompactFLAT SN10PLUS is a compact and tested substructure for the two-sided (east / west) elevated mounting of PV modules on flat roofs. With the innovative assembly system, the modules can be clamped on the long side and short side. Two mirrored standard back feet are used for the middle bracket.



	A [mm]	B [mm]	C* [mm]	D [°]	E [mm]	F [mm]	G [mm]	H [mm]	I* [mm]	J [mm]	K [mm]
SN10PLUS short-side clamping	17	15	950-1050	10	77	130	2390	45	397-194	251	122
SN10PLUS long-side clamping	17	15	950-1050	10	81	130	2390	49	344-141	246	175

* depending on the PV-module dimensions



COMPACTGROUND G

LIGHTWEIGHT. ROBUST. INTELLIGENT.

-
-
-
-
-

Ground-mounted system

Safe and tested substructures for the elevated mounting of photovoltaic modules on open spaces

The CompactGROUND solution for open spaces has outstanding static and aerodynamic properties. It requires considerably less ballast than other systems on the market. The product family impresses with its unique flexibility and is known for its easy assembly. Planning can be easily and conveniently implemented in just a few steps with the AeroTOOL 3D online software. The software provides extensive information in a project report with structural data as well as a material list with price for the automated ordering of AEROCOMPACT® products.

More efficiency

Short assembly times and lower transport costs due to fewer components

Flexibility

Different ballast options

Reliability

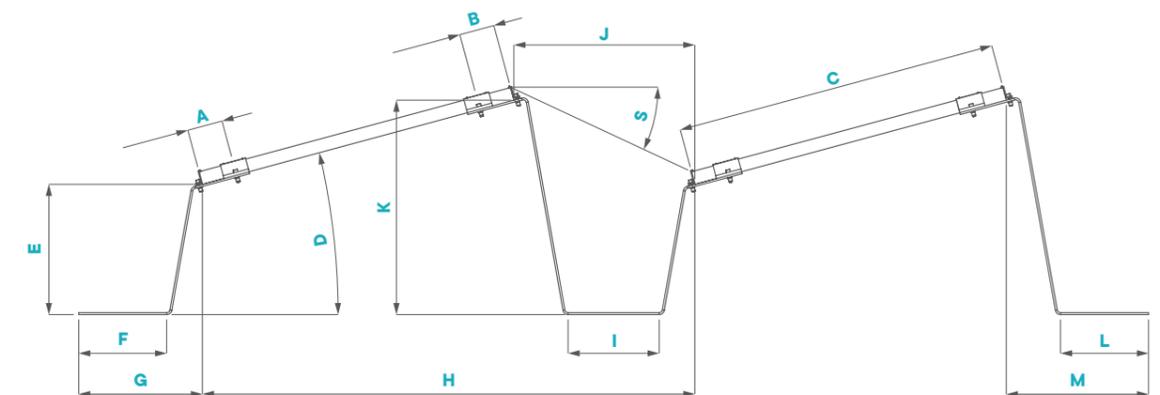
The AeroTOOL software offers reliable information about statics, wind loads and snow loads. Depending on the application, you can choose between the bracket-based G system or the rammed RAM system.



BRACKET SYSTEM - SOUTH 15° / 20°

COMPACTGROUND G15 / 20

CompactGROUND G is our south-facing ground-mount system with an inclination of 15° and 20°. As the fastest ground-mounted system on the market, it is also possible to load up to 700 kWp into a truck. The system is built with ground anchors or ballast stones.



	A [mm]	B [mm]	C* [mm]	D [°]	E [mm]	F [mm]	G [mm]	H* [mm]	I [mm]	J [mm]	K [mm]	L [mm]	M [mm]	S [°]
G15 - 555mm - Short spacing	108	108	950-1150	15	400	270	380	1470-1676	279	555	658	270	436	25
G15 - 797mm - Long spacing	108	108	950-1150	15	400	270	380	1711-1918	521	797	658	270	436	18
G20 - 735mm - Short spacing	108	108	950-1150	20	318	270	363	1622-1834	474	735	658	270	436	25
G20 - 1054mm - Long spacing	108	108	950-1150	20	318	270	363	1941-2153	793	1054	658	270	436	18

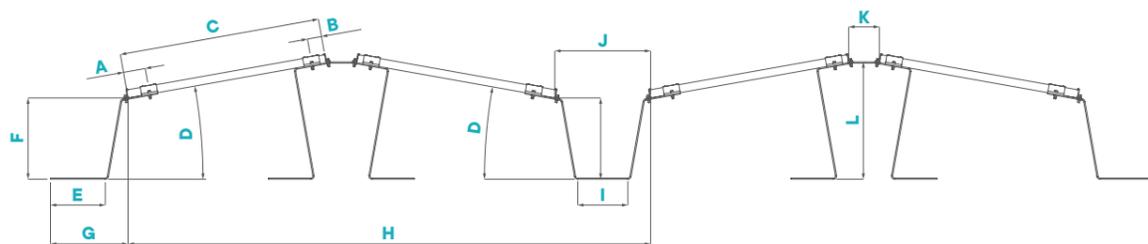
* depending on the PV-module dimensions



BRACKET SYSTEM - OST / WEST 10°

COMPACTGROUND G10PLUS

GROUND G10PLUS is our east / west oriented ground-mounted system with an inclination of 10° and a ground clearance of 400 mm. With the east / west orientation, up to 30 % more modules can be installed in the same area. The system is built with ground anchors or ballast stones.



	A [mm]	B [mm]	C [mm]	D [°]	E [mm]	F [mm]	G [mm]	H* [mm]	I [mm]	J [mm]	K [mm]	L [mm]
G10PLUS - 472mm	108	70	950-1150	10	270	400	382	2491-2896	247	472	151	577

* depending on the PV-module dimensions



USA / 250 kWp / G10PLUS

COMPACTGROUND





COMPACTGROUND RAM

EFFICIENT. SIMPLE. SAFE.

- 10
YEAR PRODUCT WARRANTY
- WIND TUNNEL TESTED
- TÜV RHEINLAND LISTED
- CE

Efficient open space racking system solution

The CompactGROUND RAM product range has been specially developed to meet the worldwide requirements of an efficient ground-mounted racking system. In addition to high-quality materials and an ergonomic design, the range of short assembly times was also considered as the main criterion. The CompactGROUND RAM system combines high quality materials, well thought-out construction and customer-oriented thinking with "detailed efficiency."

All benefits at a glance

- Numerous cable guiding options within the system
- Fast module fastening with click clamps
- Shortest assembly times
- Optimized statics for maximum efficiency
- Two-pole system for maximum system performance



COMPACTGROUND RAM 2.1 STANDARD

- Short delivery times thanks to storage
- Use for numerous module sizes possible
- Can withstand higher loads and load combinations
- Static improvement assured
- Small projects up to 3MWp as a niche

UP TO 750 kWp

	SET 1 - Module sizes from 1980 x 995 to 2100 x 1050 mm		SET 2 - Module sizes from 2250 x 1050 to 2384 x 1150 mm		SET 3 - Module sizes from 1720 x 995 to 1850 x 1055 mm	
	Standard	Alpine	Standard	Alpine	Standard	Alpine
Number of modules horiz.	3	3	3	3	4	4
Number of modules vertical	5	5	5	5	5	5
Inclination	20°	20°	20°	20°	20°	20°
Pole distance east – west	3.65 m***	2 x 2.20 m***	4.10 m***	2 x 2.20 m***	4.20 m***	2 x 2.60 m***
Pole distance north – south	3.00 m	3.00 m	3.30 m	3.00 m	3.00 m	3.00 m
Ground clearance (approx.)	0.80 m	0.80 m	0.80 m	0.80 m	0.80 m	0.80 m
Ramming depth (approx.)	1.7 m	1.7 m	1.7 m	1.7 m	1.7 m	1.7 m
Poles per table	4	6	4	6	4	6
Snow load up to (approx.) *	2.9 kN field-table and 1 kN edge-table **	4.5 kN field-table and 4 kN edge-table **	1.9 kN field-table and 0.5 kN edge-table **	3.6 kN field-table and 1.8 kN edge-table **	1.9 kN field-table and 0.8 kN edge-table **	3.6 kN field-table and 1.8 kN edge-table **
Wind load up to *	vb,0 = 27.5 m/s qb,0 = 0.47 kN/m ²	vb,0 = 27.5 m/s qb,0 = 0.47 kN/m ²	vb,0 = 27.5 m/s qb,0 = 0.47 kN/m ²	vb,0 = 27.5 m/s qb,0 = 0.47 kN/m ²	vb,0 = 27.5 m/s qb,0 = 0.47 kN/m ²	vb,0 = 27.5 m/s qb,0 = 0.47 kN/m ²

* pending on the region / project-related check needed

** The tables in the first two rows (south side) and the tables in the last two rows (north side) are generally considered to be edge-tables. The first two (west side) and the last two (east side) tables in a row are also considered edge-tables.

*** depending on the PV-module dimensions

Figure of example system structure on page 28

COMPACTGROUND RAM 2.1

- Two-pole system for maximum system performance
- Flexible module configuration (4/5/6 modules horizontally)
- Shortest assembly times
- Fast module fastening with click clamps
- Numerous cable-guiding options within the system
- Module inclination 10°/15°/20°/25° possible
- Minimum distance of the lower edge of the module to the ground: 400 mm
- 4 modules side by side

These are standard values that can be adjusted according to customer requirements and a certain minimum purchase.

Arrangement variants

Other arrangements are possible after consultation.



FROM 750 kWp



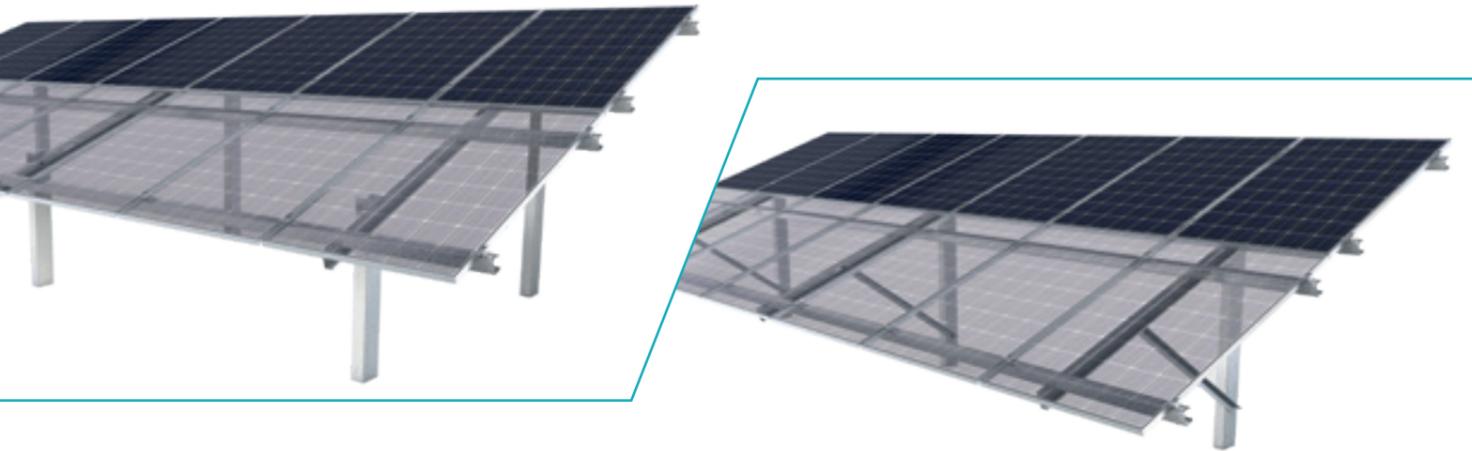
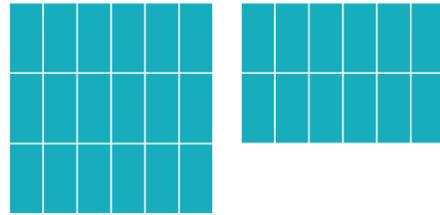
COMPACTGROUND RAM 2.2

The two-pole RAM 2.2 system is suitable for table lengths of up to 30 meters and module inclinations of 10 to 25 degrees.

- Two-pole system for maximum system performance
- Module orientation vertical (portrait)
- Module inclination 0 - 25° possible
- Suitable for table lengths up to 30 m
- Fast module fastening with click clamps
- Minimum distance of the lower edge of the module to the ground: 400 mm

**FROM
3 MW**

Varianti di disposizione
Altre disposizioni possibili
previa consultazione.



AUSTRIA / 3 MW / RAM 2.1

COMPACTGROUND

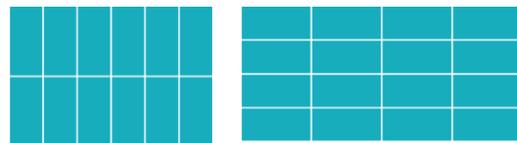
COMPACTGROUND RAM 1.1

The vertical as well as horizontal module arrangement in the RAM 1.1 single-pole system increases the application possibilities and lowers the system costs.

- Single-pole system – ideal for mowing
- Module orientation vertical (portrait) or horizontal (landscape)
- Module inclination 0 - 30° possible
- Suitable for table lengths up to 30 m
- Shortest assembly times
- Fast module fastening with click clamps
- Minimum distance of the lower edge of the module to the ground: 400 mm

**FROM
5 MW**

Varianti di disposizione
Altre disposizioni possibili
previa consultazione.



AUSTRIA / 3 MW / RAM 2.1







COMPACTPITCH

LIGHTWEIGHT. STABLE. INTELLIGENT.

- 25
YEAR PRODUCT
WARRANTY
- WIND TUNNEL
TESTED
- TÜV RHEINLAND
LISTED
- 1kWp/
2.5-5 min.
- CE

Pitched roof mounting system

Simple and robust installation of PV modules on pitched roofs

The CompactPITCH system family is used to attach framed photovoltaic modules to pitched roofs. It is characterized by the many mounting options. In this way the system enables the installation of the PV modules in vertical and horizontal format. The components can also be combined in different ways. Planning can be easily and conveniently implemented in just a few steps with the AeroTOOL online software. The software provides extensive information in a project report with statics data as well as a material list with price for the automated ordering of AEROCOMPACT® products.

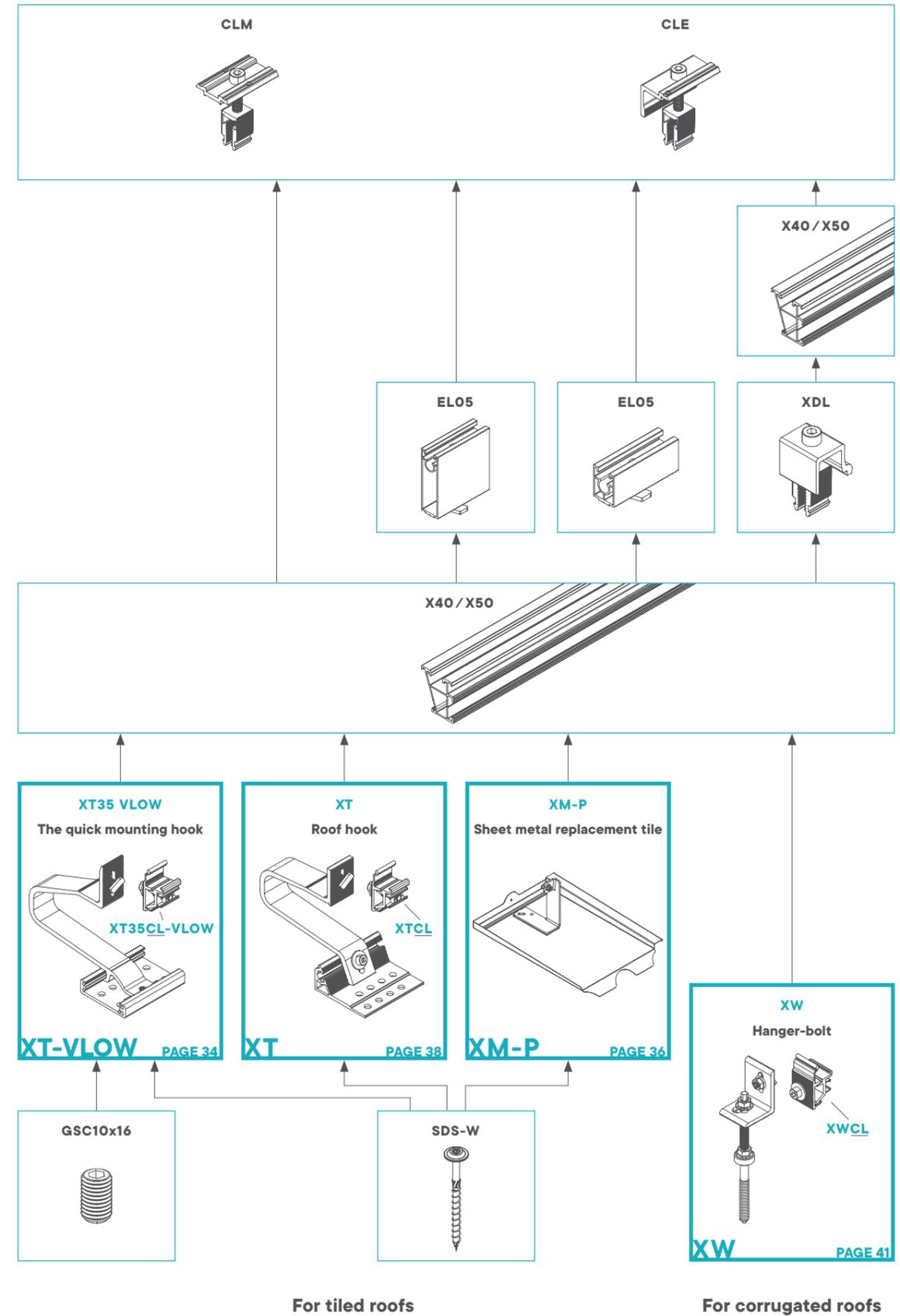
Simple assembly

Fast and user-friendly assembly

More yield

The system enables optimized rear ventilation and thus an increase in yield.

The components of the CompactPITCH modular system offer the possibility of being combined with one another in different ways.



COMPACTPITCH XT-VLOW

The XT-VLOW quick mounting hook delivers what it promises - fast and powerful mounting options with high flexibility and multiple adjustment options. For roofing with mission tiles or for applications with low roof battens such as Portuguese, the aluminum hook can fully maximize all its possibilities. The roof hook is a member of the CompactPITCH product family and is compatible with all X-mounting rails and components from the modular system. The XT-VLOW quick-assembly hook is stored and programmable in the planning and engineering software AeroTOOL.

THE 3-IN-1 HOOK

The sophisticated design of the base plate and the XT-VLOW roof hook allows for tool-free assembly. The hook must only be inserted from the side into the guides of the base plate - done. Depending on the application, the appropriate type of screw for hook anchoring is selected.

Centered base plate / mounting screw

The fastening of the base plate is fixed by wood screws. Fine adjustment of the hook is made by moving it horizontally along one of the two guide planes. The final fastening is done with a single wood screw. This pulls the hook towards the base plate and prevents it from moving laterally. This function can be used at both guide levels.

Decentralized base plate / positioning screw

If decentralized mounting of the base plate is necessary, this can be done quickly and easily. Wood screws are used to attach the cantilever base plate to the substructure. The decentralized fastening of the roof hook is done with a threaded pin with an internal hexagon included in the delivery. This is fixed in the base plate by tightening. Shifting in a lateral direction is thus no longer possible.

Selection of fastening screws

Fastening screws and positioning screws are available as accessories for the XT-VLOW quick-assembly hook. All three positioning options are possible with these screws.

A **Fastening screw** for simultaneous positioning and mounting of the roof hook

B **Positioning screw** for positioning the roof hook for decentralized base plate and for concrete anchoring.



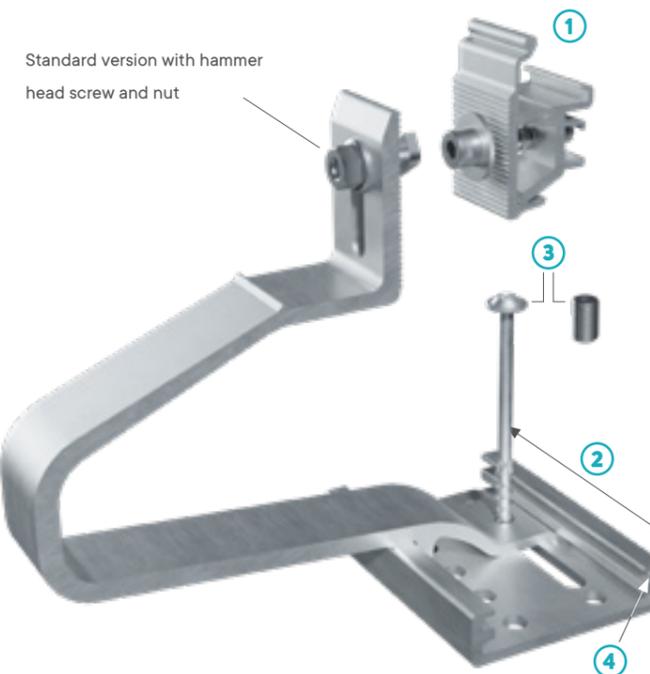
Base plate fixing in concrete

The base plate can be anchored in concrete without any problems using the appropriate concrete anchoring technology. The positioning screw is used to easily control the lateral positioning. Height adjustability is also unrestricted on concrete surfaces.

THE QUICK MOUNTING HOOK

1 The CL quick release adapter

When it has to go even faster! In this case, the XT35-VLOW roof hook with pre-mounted quick-release CL adapter is available as an alternative. It is able to accommodate all X-mounting rails quickly and conveniently using the innovative click mechanism.



Standard version with hammer head screw and nut

2 Positioning

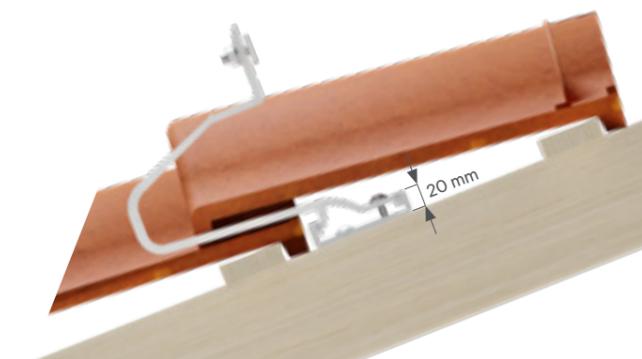
With the help of the integrated guides in the base plate, lateral adjustment is made easy. For height adjustment, one of the two guides can be used for height adjustment.

3 Attachment

For final fixing, a single screw is sufficient to utilize the full static capacity of the hook.

4 Height adjustment

Unlike standard roof hooks for PV systems on pitched roofs, the XT35-VLOW has two vertical positions instead of the usual plates with serrations and screws. This design saves installers on the roof a lot of time adjusting the hooks in relation to each other.



Extra flat base plate

The base plate of the roof hook has a height of 20 mm. This flat design allows the roof hook to be used with particularly flat battens. These properties make the XT35-VLOW particularly suitable for roof coverings such as mission or Portuguese.



Portuguese tiles



Mission tiles

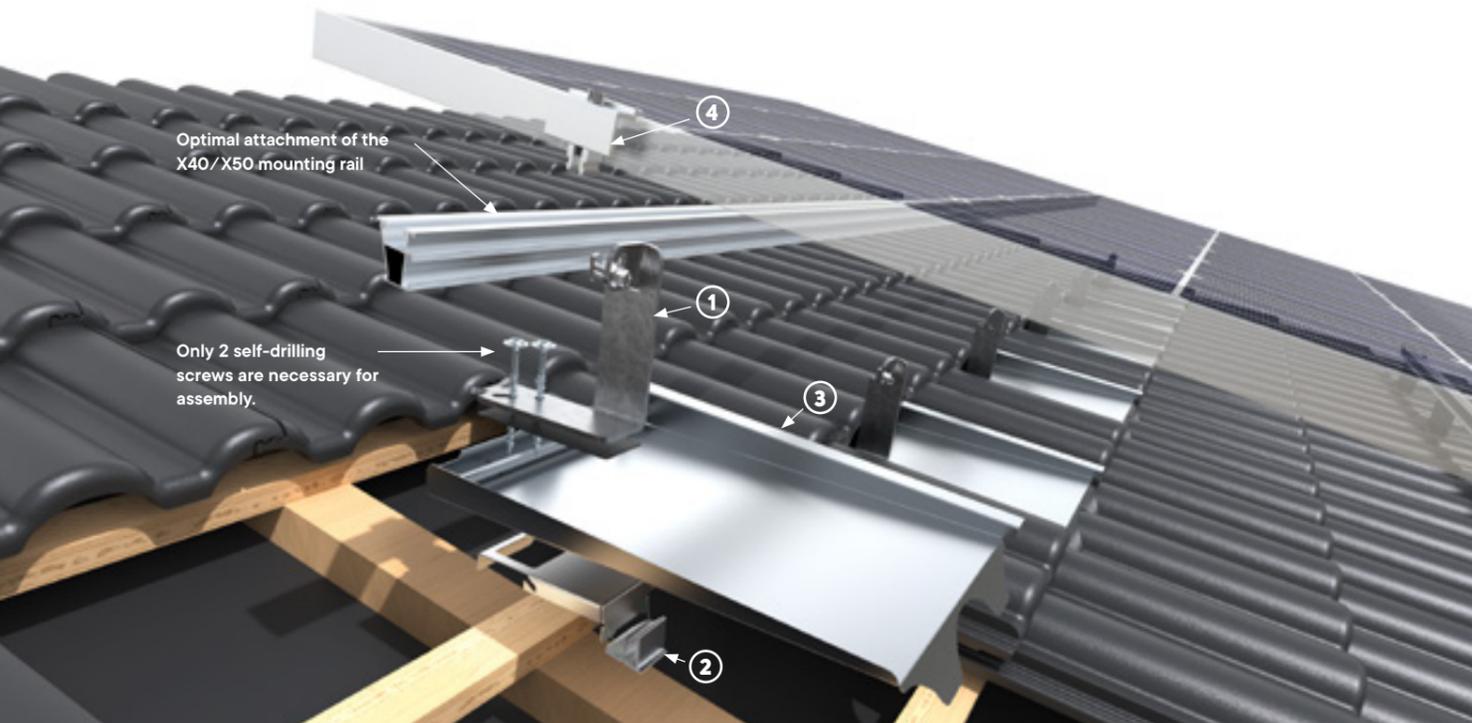
Cross connection

Using the optionally available X40/X50 mounting rail, it is possible to install modules in landscape mode. The additional module rails are attached directly to the base rails with the XPN cross connector. This variant is also possible for the roof hook with quick-release fastener and can be planned in AeroTOOL.



COMPACTPITCH XM-P

The XM-P roof hook system offers effortless installation of photovoltaic systems on tiled roofs. AEROCOMPACT®'s XM-P sheet metal replacement tile eliminates several steps in preparation and installation. It is flexible, fast and saves a lot of time. It greatly speeds up the installation of PV systems. The innovative concept impresses with its flexible and stable components. The design from the ground up prevents chafing between the hook and the sheet metal tile.



Optimal attachment of the X40/X50 mounting rail

Only 2 self-drilling screws are necessary for assembly.

With commercially available solutions for mounting roof hooks, tiles must be painstakingly machined and prepared on the roof with the help of angle grinders. Due to high forces caused by snow and wind, contact may occur between the tile and the roof hook. Broken tiles and consequential damage to the roof structure are often the result.

THE SOLUTION

1 Heavy-duty bracket for all XM-P metal tiles

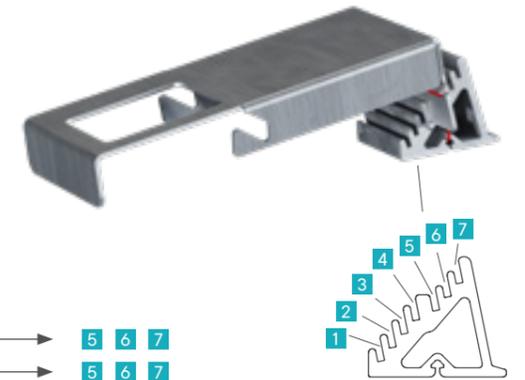
The sturdy roof hook is made of stainless steel and enables enormously high snow loads due to its innovative design. The installation is very simple. It is easily fastened with wood screws through the non-rusting metal roof tile into the rafters below. The X40/X50 mounting rails can be connected to the roof hook with ease.

The design also allows the hook to slide on the roof tile, which greatly facilitates optimal positioning over the rafters.



2 Support socket for all XM-P metal tiles

The loads of the roof hook are transferred to the rafter via the supplied support socket. No tools are needed with the „staircase serration“ to adjust the support socket to the height of the roof batten. The load is applied to the substructure in the most direct way possible, thus ensuring maximum stability.



Roof battens (width * height)

Height < 30 mm → 1

50 * 30 mm → 2 3 4

60 * 40 mm → 5 6 7

50 * 40 mm → 5 6 7

3 Metal tiles

The basis of the system consists of several types of roof tiles. With its flexible design, the system can therefore be used for any roof structure. An aluminum roof tile is available for almost all standard roof tiles. Precise manufacturing provides a high accuracy of fit and promises an exact match with the adjacent roof tiles.



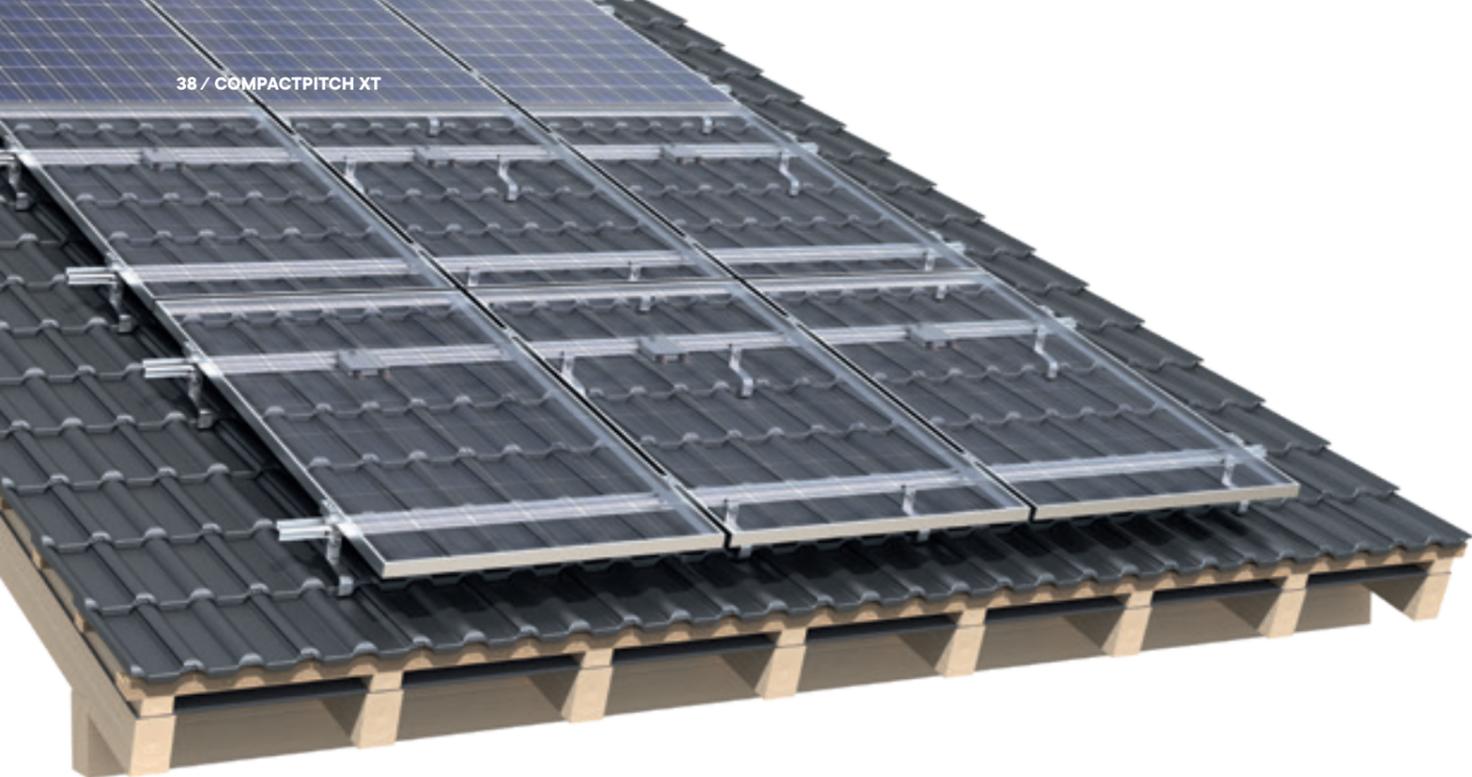
XM-P026 Tondach Biberfalz XM-P095 Nelskamp Nibra F10 Süd XM-P025 Braas Tegalit XM-P003 Braas Frankfurter XM-P102 Braas Rubin 15 V XM-P110 Nelskamp F12 Ü - Süd XM-P047 Tondach Mulde

Matchcode	Tile type	Matchcode	Tile type
XM-P003	Braas Frankfurter	XM-P102	Braas Rubin 15 V
XM-P009	Nelskamp Finkenberger	XM-P108	Braas Rubin 13 V
XM-P011	Braas Taunus	XM-P109	Braas Donau
XM-P016	Braas Harzer 7 (Big)	XM-P110	Nelskamp F 12 Ü - Süd
XM-P022	Braas Harzer	XM-P119	Nelskamp Nibra F8 1/2
XM-P023	Braas Frankfurter Big	XM-P126	ZZ Wancor Arteso
XM-P025	Braas Tegalit	XM-P127	Istighofener LEC
XM-P026	Tondach Biberfalz	XM-P136	ZZ Wancor Vauban Falzbiber
XM-P047	Tondach Mulde	XM-P142	Wienerberger Flachdach A11
XM-P095	Nelskamp Nibra F10 Ü	XM-P147	Bramac Donau
XM-P100	Nelskamp Reform R13 S		

4 Click clamp

The PV modules can be attached to the X40/X50 support rail using the click clamp with integrated grounding pins. The system-wide universal clamp is height-adjustable between 30 – 46 mm and can be conveniently clicked into place.

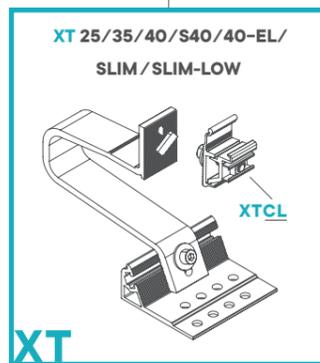
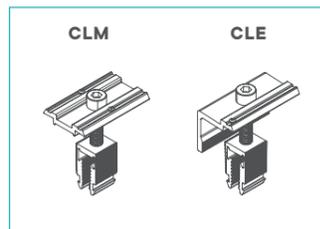
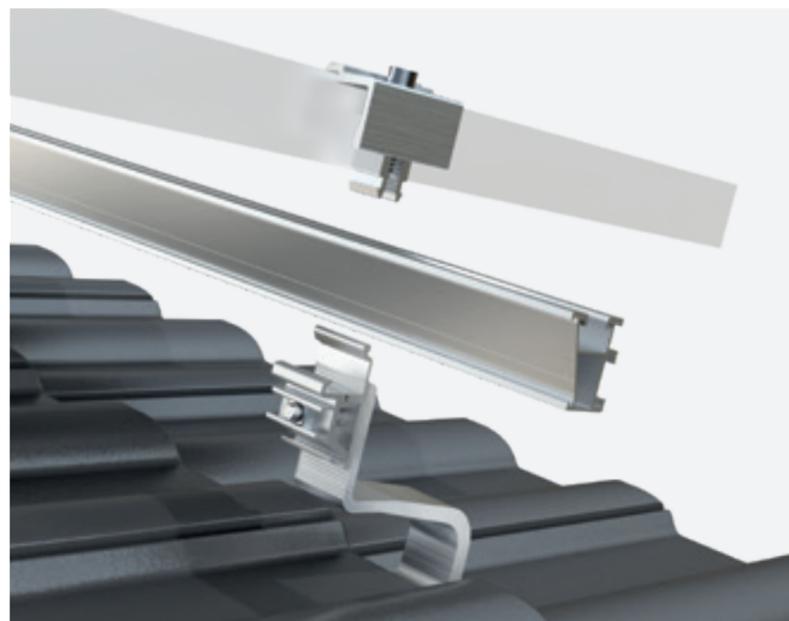




COMBINATION: XT - X40 / X50 - CLE / CLM

COMPACTPITCH XT

- XT roof hook
- X40 / X50 mounting rail
- CLE end clamp Click 30 - 46 mm / CLM middle clamp Click 30 - 46 mm



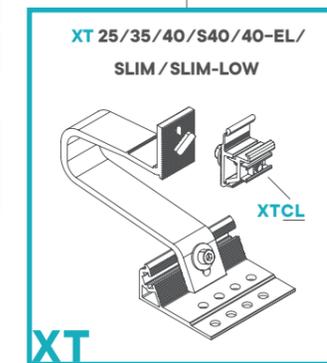
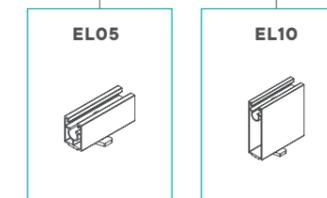
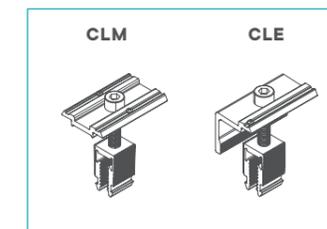
XT



COMBINATION: XT - X40 / X50 - EL05 / 10 - CLE10 / CLM10

COMPACTPITCH XT

- XT roof hook with quick click assembly
- X40 / X50 mounting rail
- EL05/10 height adapter
- CLE end clamp Click 30 - 46 mm / CLM middle clamp Click 30 - 46 mm



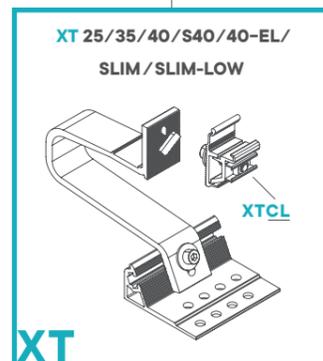
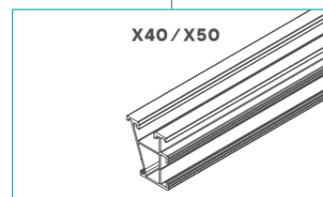
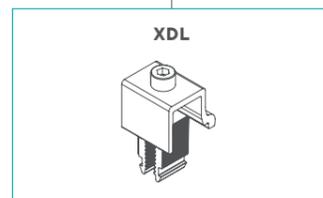
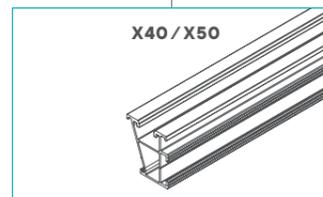
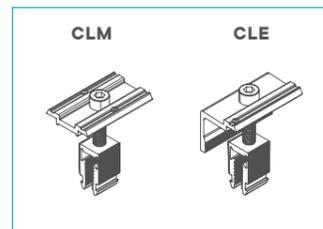
XT



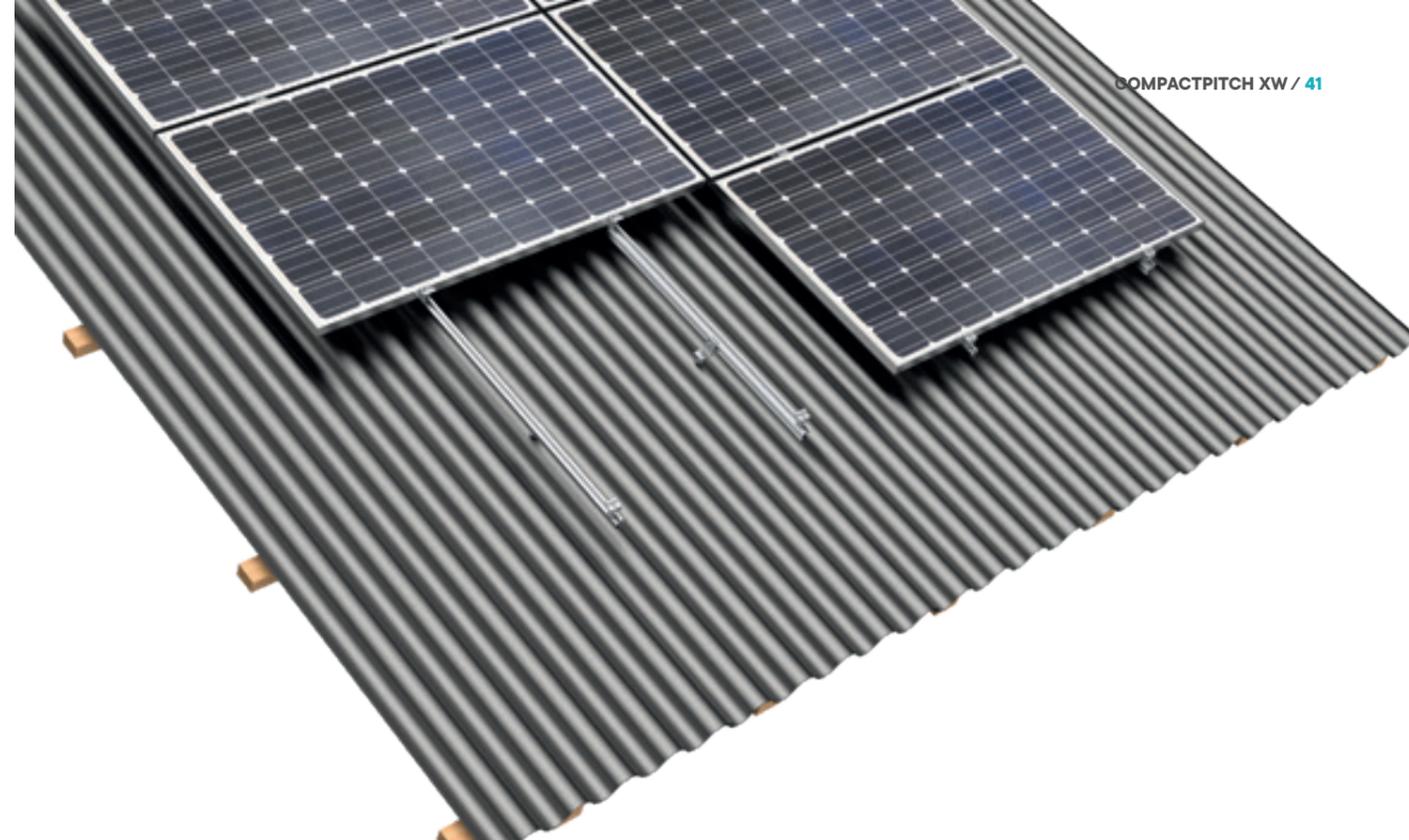
COMBINATION: XT - X40/X50 - XDL - X40/X50 - CLE/CLM

COMPACTPITCH XT

- XT roof hook
- X40/X50 mounting rail (2x)
- XDL cross connector
- CLE end clamp Click 30 - 46 mm / CLM middle clamp Click 30 - 46 mm



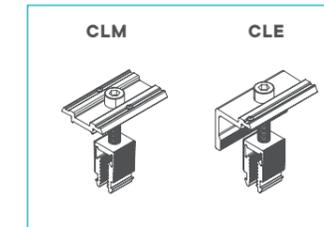
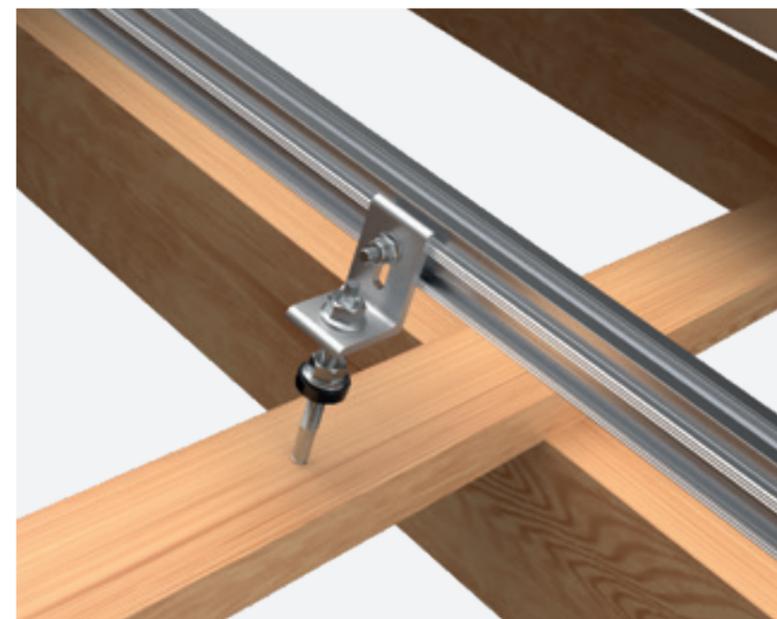
XT



COMBINATION: XW - X40/X50 - CLE10/CLM10

COMPACTPITCH XW

- XW hanger-bolt kit
- X40/X50 mounting rail
- CLE end clamp Click 30 - 46 mm / CLM middle clamp Click 30 - 46 mm



XW

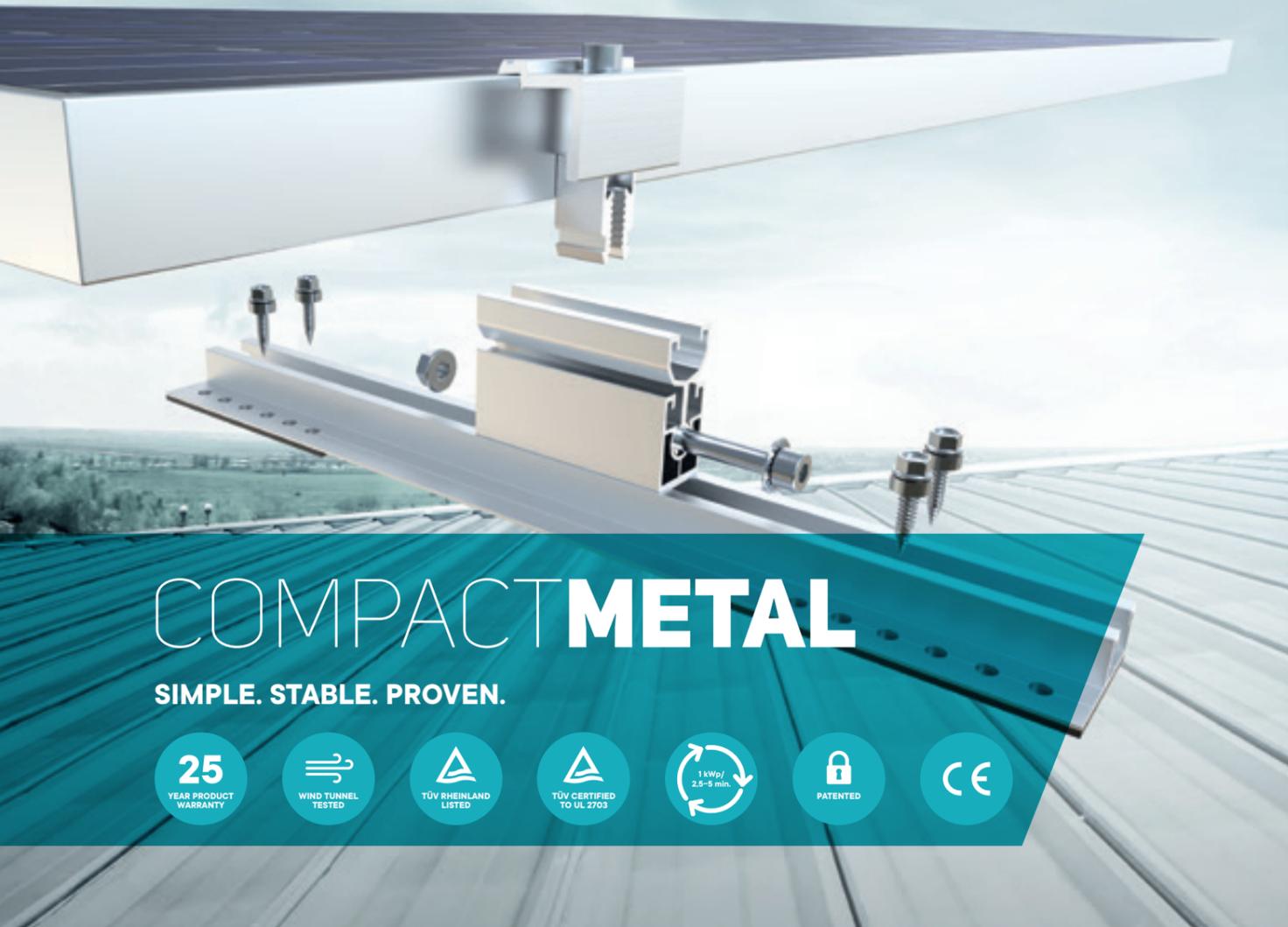


AUSTRIA / 7.7 KWP



AUSTRIA / 5.025 KWP





COMPACTMETAL

SIMPLE. STABLE. PROVEN.

- 25
YEAR PRODUCT
WARRANTY
- WIND TUNNEL
TESTED
- TÜV RHEINLAND
LISTED
- TUV CERTIFIED
TO UL 2703
- 1kWp/
2.5-5 min.
- PATENTED
- CE

Metal roof system

Compact and robust installation of PV modules on metal roofs

The CompactMETAL system family is used to attach framed photovoltaic modules to metal roofs and enables the PV modules to be installed in vertical and horizontal format. It is characterized by its simple and modular system. The components offer the possibility of being combined in different ways. Planning can be easily and conveniently implemented in just a few steps with the AeroTOOL 3D online software. The software provides extensive information in a project report with structural data as well as a material list with price for the automated ordering of AEROCOMPACT® products.

Flexibility

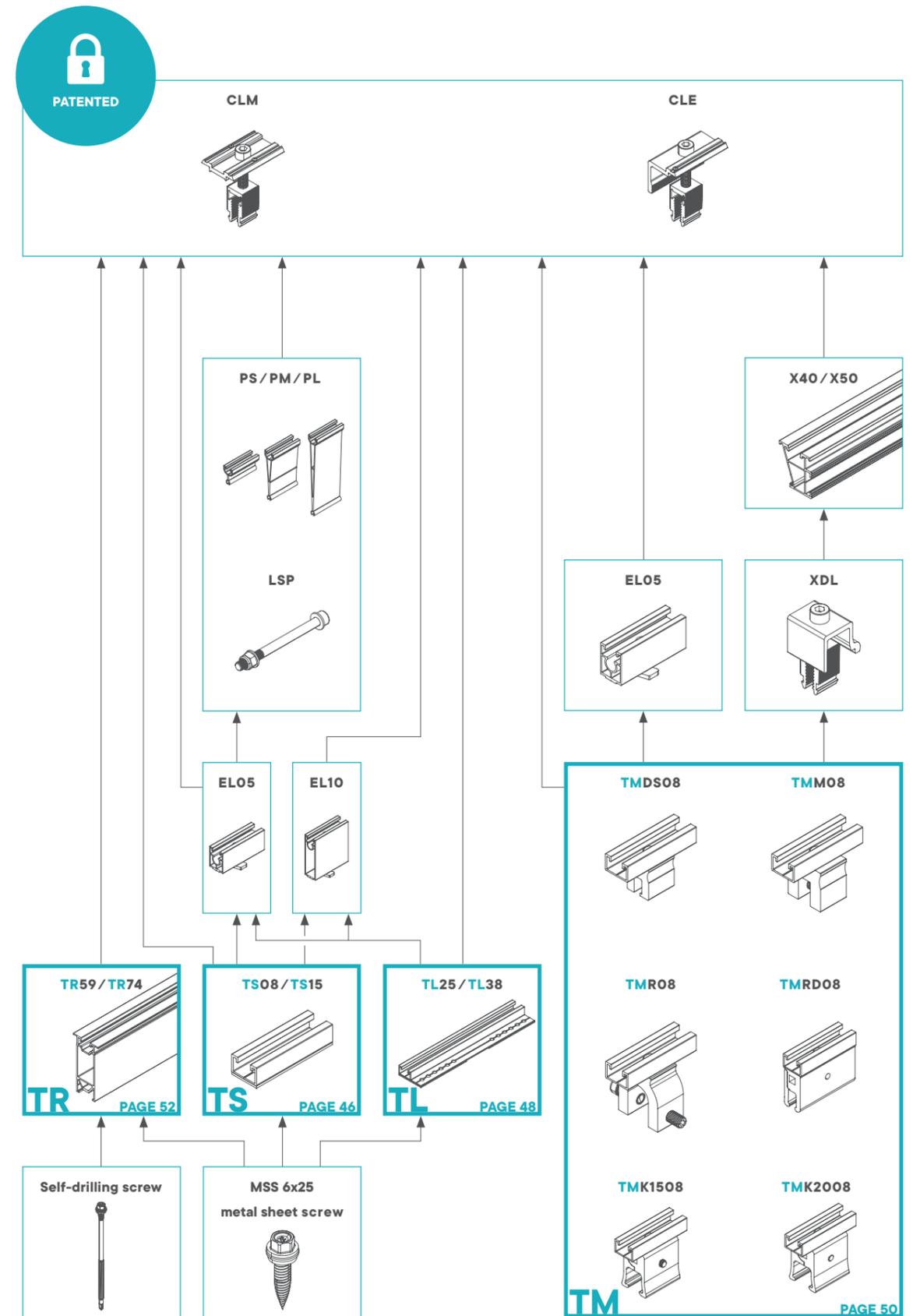
CompactMETAL offers solutions for all types of metal roofs.

More profit

The system enables optimized rear ventilation and thus an increase in yield.

Reliability

The AeroTOOL software offers reliable information about statics, wind loads and snow loads. The components of the CompactMETAL modular system offer the possibility of being combined with one another in different ways.



For trapezoidal sheet and sandwich roofs

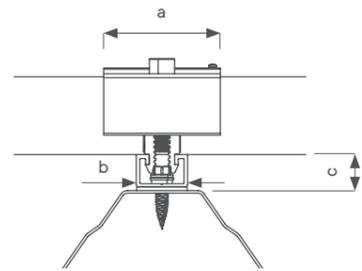
For standing seam metal roofs

TRAPEZOIDAL SHEET ROOF - SHORT RAIL SYSTEM

COMPACTMETAL TS

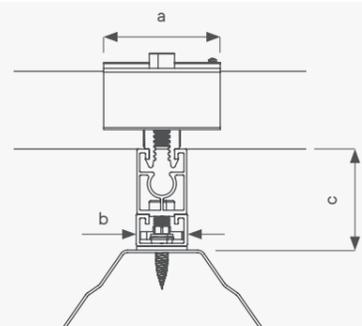
The CompactMETAL TS08 and TS15 are our trapezoidal sheet short rails with the best price-performance rate. The rails are pre-assembled with sealing tape.

THE VERSIONS



TS08/TS15

- TS08 trapezoidal sheet short rail, length 80 mm / TS15 trapezoidal sheet short rail, length 150 mm
- CLE10 end clamp Click 30 - 46 mm
- CLM10 middle clamp Click 30 - 46 mm
- MSS 6x25 metal sheet screw



TS08/TS15 - EL05/EL10

- TS08 trapezoidal sheet short rail, length 80 mm / TS15 trapezoidal sheet short rail, length 150 mm
- EL05/EL10 height adapter
- CLE10 end clamp Click 30 - 46 mm
- CLM10 middle clamp Click 30 - 46 mm
- MSS 6x25 metal sheet screw

	a [mm]	b [mm]	c [mm]	d [mm]	e [mm]
TS08/TS15	60	26	18,5	-	-
TS08/TS15 - EL05	60	26	52	-	-
TS08/TS15 - EL10	60	26	102	-	-
TS08/TS15 - EL05 - PS	60	26	-	38	34
TS08/TS15 - EL05 - PM	60	26	-	118	34
TS08/TS15 - EL05 - PL	60	26	-	204	34

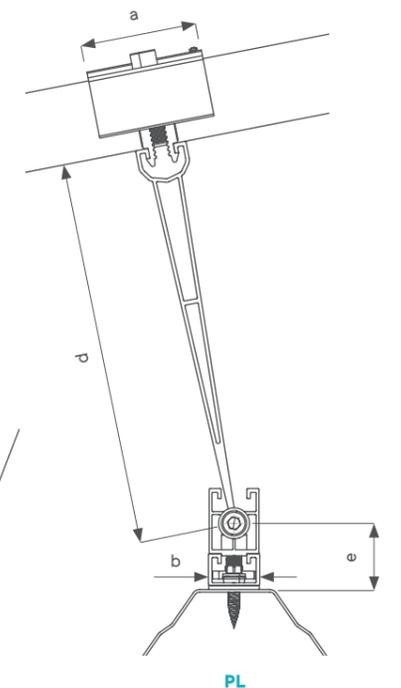
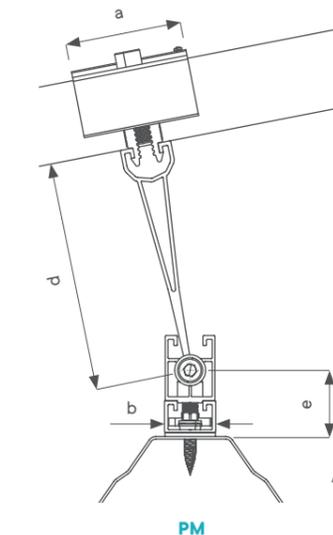
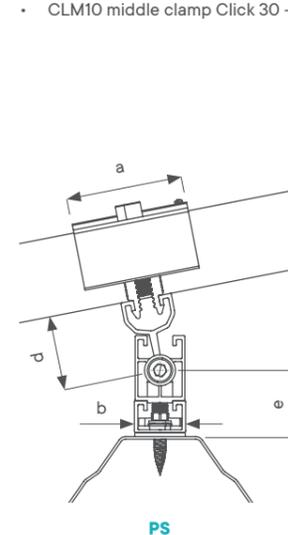


COMPACTMETAL

AEROTOOL
COMING SOON

TS08/TS15 - EL05 - PS/PM/PL

- TS08 trapezoidal sheet short rail, length 80 mm / TS15 trapezoidal sheet short rail, length 150 mm
- EL05 height adapter
- PS front inclination adapter
- PM rear inclination adapter
- PL rear inclination adapter
- CLE10 end clamp Click 30 - 46 mm
- CLM10 middle clamp Click 30 - 46 mm
- LSP locking screw set to secure the inclination adapters
- MSS 6x25 metal sheet screw

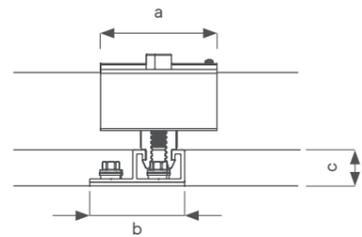


TRAPEZOIDAL SHEET ROOF - BRIDGE SYSTEM

COMPACTMETAL TL

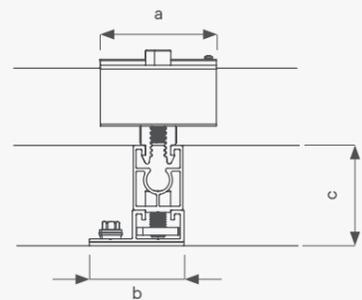
The CompactMETAL TL25 and TL38 trapezoidal sheet bridges are for longitudinal and transverse mounting. The bridges are pre-assembled with sealing tape.

THE VERSIONS



TL25/TL38

- TL25 trapezoidal sheet bridge, length 250 mm/
TL38 trapezoidal sheet bridge, length 380 mm
- CLE10 end clamp Click 30 - 46 mm
- CLM10 middle clamp Click 30 - 46 mm
- MSS 6x25 metal sheet screw



TL25/TL38 - EL05/EL10

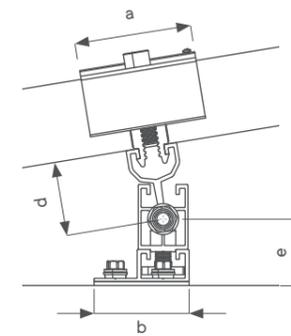
- TL25 trapezoidal sheet bridge, length 250 mm/
TL38 trapezoidal sheet bridge, length 380 mm
- EL05/EL10 height adapter
- CLE10 end clamp Click 30 - 46 mm
- CLM10 middle clamp Click 30 - 46 mm
- MSS 6x25 metal sheet screw

	a [mm]	b [mm]	c [mm]	d [mm]	e [mm]
TL25/TL38	60	49	18,5	-	-
TL25/TL38 - EL05	60	49	52	-	-
TL25/TL38 - EL10	60	49	102	-	-
TL25/TL38 - EL05 - PS/PL	60	49	-	38	34
TL25/TL38 - EL05 - PS/PM	60	49	-	118	34
TL25/TL38 - EL05 - PS/PL	60	49	-	204	34

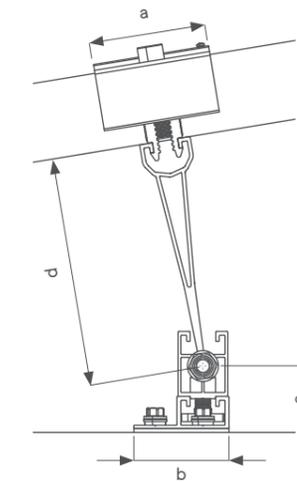


TL25/TL38 - EL05/EL10 - PS/PM/PL

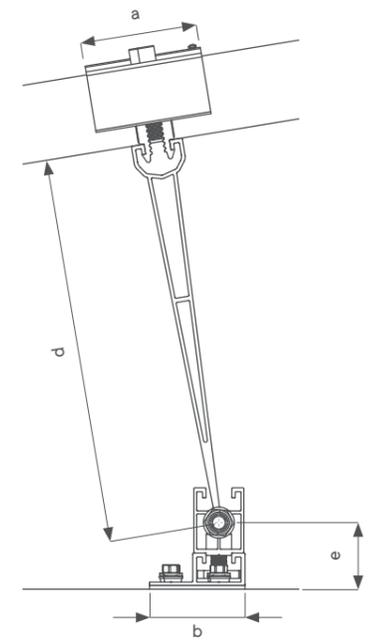
- TL25 trapezoidal sheet bridge, length 250 mm/
TL38 trapezoidal sheet bridge, length 380 mm
- EL05 height adapter
- PS front inclination adapter
- PM rear inclination adapter
- PL rear inclination adapter
- CLE10 end clamp Click 30 - 46 mm
- CLM10 middle clamp Click 30 - 46 mm
- LSP locking screw set to secure the inclination adapters
- MSS 6x25 metal sheet screw



PS



PM



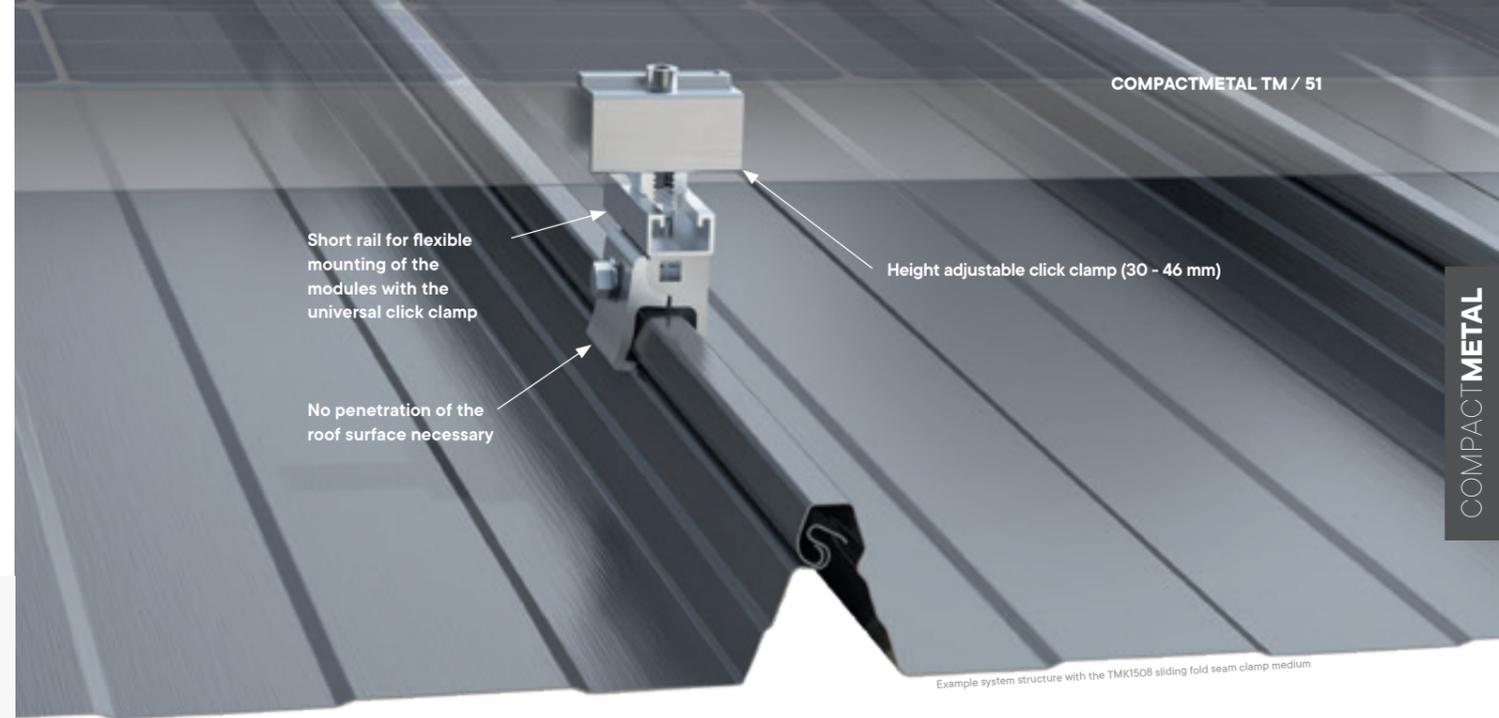
PL



SEAM CLAMPS SERIES

COMPACTMETAL TM

With the standing seam series CompactMETAL TM, the installation of PV modules on practically all seam sheet roof types is possible. Clamps with the pre-assembled short rail are designed for direct fastening of PV modules. By optionally attaching the X40/X50 mounting rail, the alignment of the modules is also possible in portrait mode (portrait format).



COMPACTMETAL

TMDS08

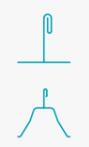
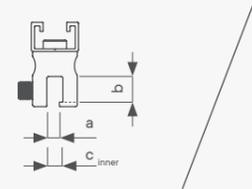
TMM08

TMR08

TMRD08

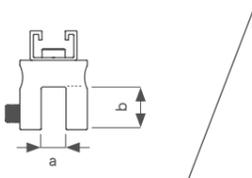
TMK1508

TMK2008



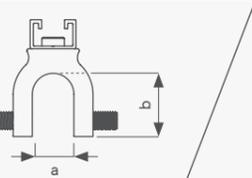
TMDS08 double seam clamp

Penetration-free fastening on the handcrafted double lock standing seam, optimum form fit due to convex/concave preformed fixing screws.



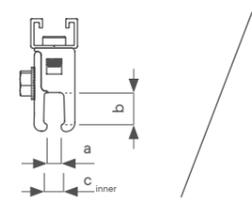
TMM08 Angle and Snap Seam Clamp

Penetration-free fastening on the craftsman angled standing seam and snap seam profiles such as Nordic Klickfalz¹, etc. Optimum form fit due to convex/concave preformed fixing screws.



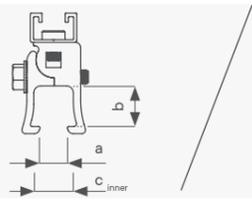
TMR08 round seam clamp

Penetration-free fastening to round seam roofs like BEMO², Kalzip³, Aluform⁴ or RIB-ROOF Evolution⁵. Optimal form fit thanks to convex/concave preformed fixing screws.



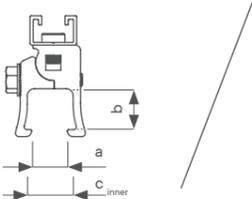
TMRD08 sliding fold seam clamp small

Two-piece and form-fitting clamp, especially designed for system sliding fold seam roofs such as RIB-ROOF 465⁵ and GBS⁶.



TMK1508 sliding fold seam clamp medium

Two-piece and form-fitting clamp, especially designed for system sliding fold seam roofs such as Domitec⁴, KLIP-LOK 406⁷, SAFLOK 410⁸, etc.



TMK2008 sliding fold seam clamp large

Two-piece and form-fitting clamp, especially designed for system sliding fold seam roofs such as KLIP-LOK 980 Optima⁷, KLIP-LOK 700⁷, WeatherClip 655⁹, WeatherClip 700⁹, etc.

	TMDS08			TMM08		TMR08	TMRD08	TMK1508		TMK2008
Max. pressure [kN]	1.5	1.5	2.97	1.5	2.54	2.38	1.5	1.5	1.75	2.36
Max. shear force [kN]	1.94	1.53	1.56	1.94	2.24	2.69	0.8	0.41	0.59	0.43
Max. pull [kN]	0.97	1.33	2.97	0.97	2.54	2.38	1.16	1.29	1.75	2.36
Tested on	Prefalz ¹ roof, 0.7 mm, aluminum	Rheinznik ¹¹ roof, 0.7 mm, titanium zinc	600LMR ¹² roof, 0.66 mm, galvanised steel	Handcrafted angle seam roof, 0.7 mm, aluminum	Nordic Klick Falz ¹ roof, 0.6 mm, galvanised steel	RIB-ROOF Evolution ⁵ roof, 0.8 mm, aluminum	GBS ⁶ roof, 0.8 mm, aluminum	Domitec ⁴ roof, 0.5 mm, aluminum	KLIP-LOK 406 ⁷ roof, 0.5 mm, galvanised steel	KLIP-LOK 980 ⁷ roof, 0.5 mm, galvanised steel
a [mm]	7			14		24	8	15		20
b [mm]	14.5			24		36	16	23		23
c [mm]	9			-		-	12	22.5		26



DSA10 Stainless steel saddle

The stainless steel saddle enables the TM standing seam series to be used on copper roofs. It prevents direct contact between the aluminum of the clamps and the copper of the covering and thus prevents electrochemical corrosion.

Portrait Mode with X rail

The installation of modules in portrait mode (portrait format) is easily possible using the X40/X50 mounting rail from the CompactPITCH modular system. The rail is attached directly to the standing seam clamp with the XPN cross connector provided for this purpose. This variant can be planned in AeroTOOL.



Registered trademarks, by company: ¹ DS Stahl GmbH; ² BEMO SYSTEMS GmbH; ³ Kalzip GmbH; ⁴ Aluform System GmbH & Co. KG; ⁵ Zambelli Holding GmbH; ⁶ DOMICO Dach- und Fassadensysteme KG; ⁷ BLUESCOPE STEEL LIMITED; ⁸ Safintra South Africa (Pty) Ltd; ⁹ DMI Building Products (M) Sdn Bhd; ¹⁰ PREFA Aluminiumprodukte GmbH; ¹¹ RHEINZINK AUSTRIA GMBH; ¹² Astron Buildings GmbH

SANDWICH SHEET METAL ROOF SERIES

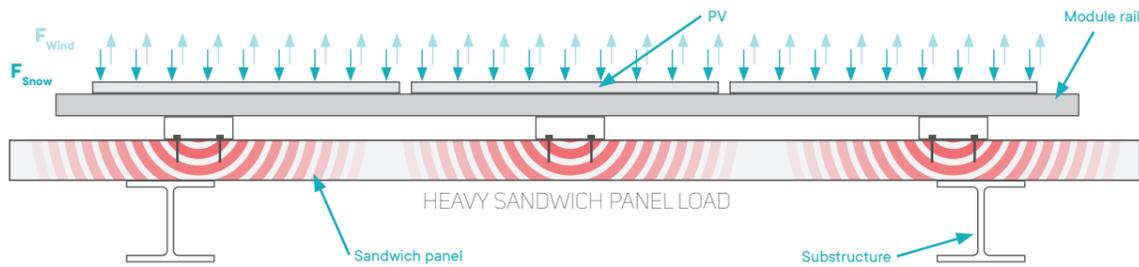
COMPACTMETAL TR



THE CHALLENGE

A common way of attaching PV systems to sandwich panels is to screw the substructure directly onto the top layer of the panels with thin sheet metal screws. The interaction of forces caused by snow and wind can in the long run lead to permanent damage to the upper level.

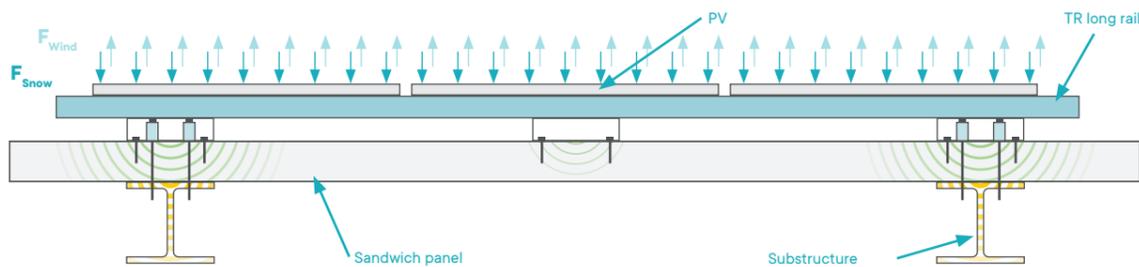
The result is leakage, detachment of the outer shell and the resulting "static uncertainty". Sandwich panel manufacturers report of extensive damage to building roofs.



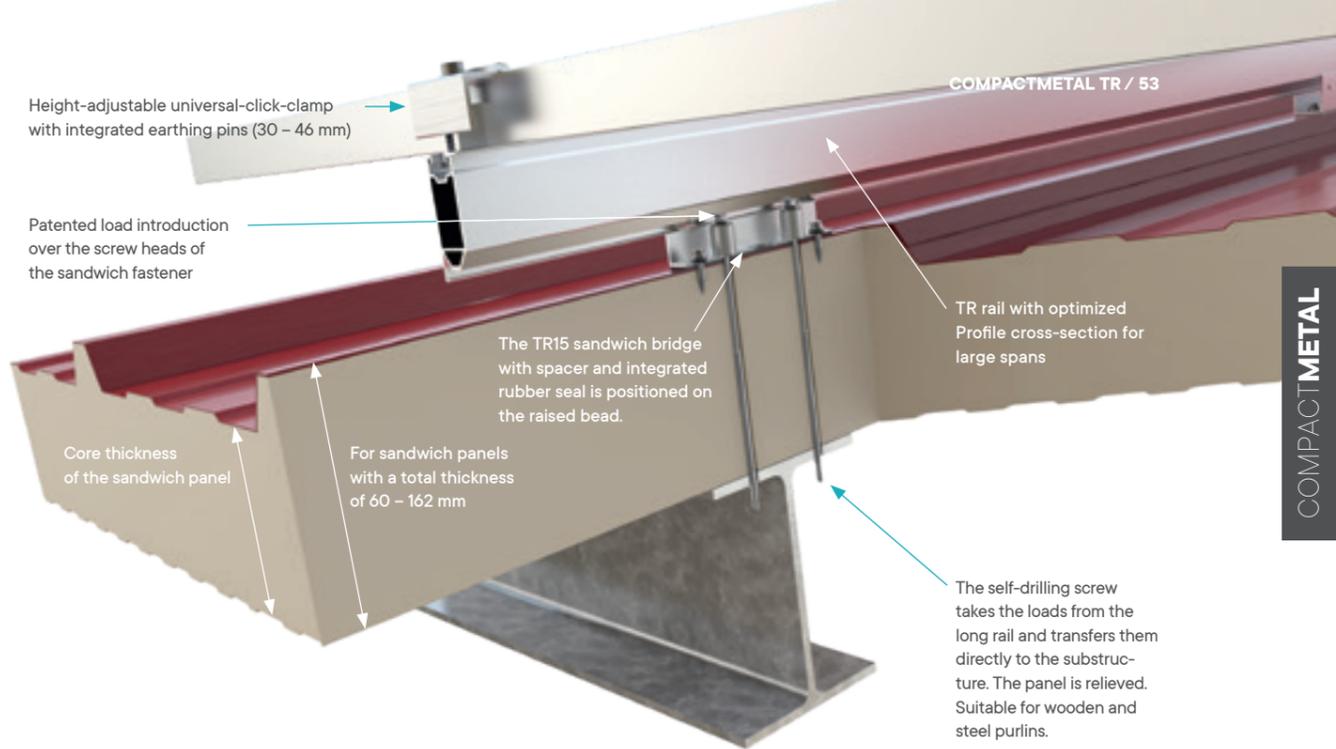
THE SOLUTION

AEROCOMPACT® has developed a revolutionary fastening solution for PV modules on sandwich sheet metal roofs. By using innovative and patented components from the CompactMETAL modular system, the panels are only activated up to their permitted load limit.

The main role in the system is assumed by the TR long rail, which can assume loads over large distances. Wind loads are only absorbed via the sandwich fasteners and the rail. Snow loads are introduced directly into the substructure using a patented support concept. A patented structural algorithm regulates the maximum permissible bearing load for the intermediate bearings.



Intermediate support positions are statically determined and prevent the rail from touching the roof. This prevents damage to the panel. Self-tapping screws make assembly quick, easy and efficient. The clearly structured concept of the system is easy to understand and assembly errors are therefore minimized. Only self-tapping screws are used.



THE VERSIONS

Version	TR74	TR59
Legend		
a [mm]	60	60
b [mm]	99	84
c [mm]	78	63
d [mm]	67	52
Application	With high wind and snow loads	With reduced snow load

The PV modules can be attached to the TR long rails using the click clamp with integrated earthing pins. The cross-system universal clamp is height adjustable between 30 and 46 mm and can be conveniently clicked into place.





ITALY / TL38



USA / TL38



CROSS-SYSTEM CLICK-CLAMPS

MODULE CLAMPS

Click clamp is not click clamp. The difference is in the details.

Due to the optimized spring legs and the preformed click area an easy assembly is possible. The retaining ring makes the positioning of the PV modules easier. Due to the massive pressure piece, there is a clamping and form-firm connection with the mounting bracket. The stable clamp has two pins which break through the anodized layer and thus enable a good electrical contact and grounding. They also counteract the high torque and allow for easy positioning, thus ensuring greater safety during dynamic mounting.

The popular flat roof bracket system uses only two types, the end and middle clamp. This saves storage costs and the installer always has the right clamp at hand. The click clamp is the heart and forms a stable unit with the substructure.

Profit for the buyer

- Cost savings due to reduced inventory
- Only 3 types

- Cross-System

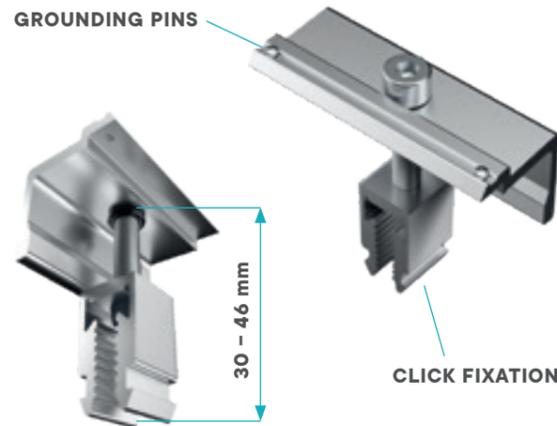
Increased performance for the customer

- System compatibility: Always the right clamp with you
- Final screw fixation entails locking of the clamp and screw
- Stiffness of the connection of the substructure (bracket system)
- Soft spring legs: Effortless assembly

- Massive design of the click part (jamming and "straightening" when screwing) as well as screw guidance through formed thread.
- Positioning aid for module mounting
- Robust design: Allows dynamic assembly (cordless screwdriver)

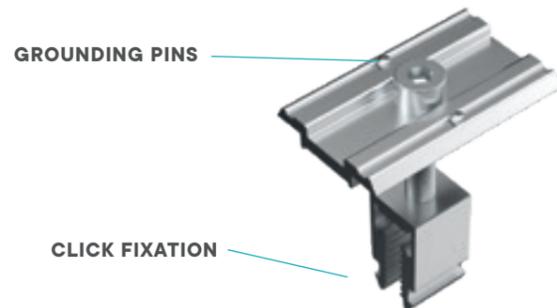
End clamp CLE10

AEROCOMPACT® click-clamp for PV module racking on endpositions, with the length of **60 mm**. 30 - 46 mm adjustable with integrated grounding pin. The clamp is also available in black (CLEB10).



End clamp CLE10+

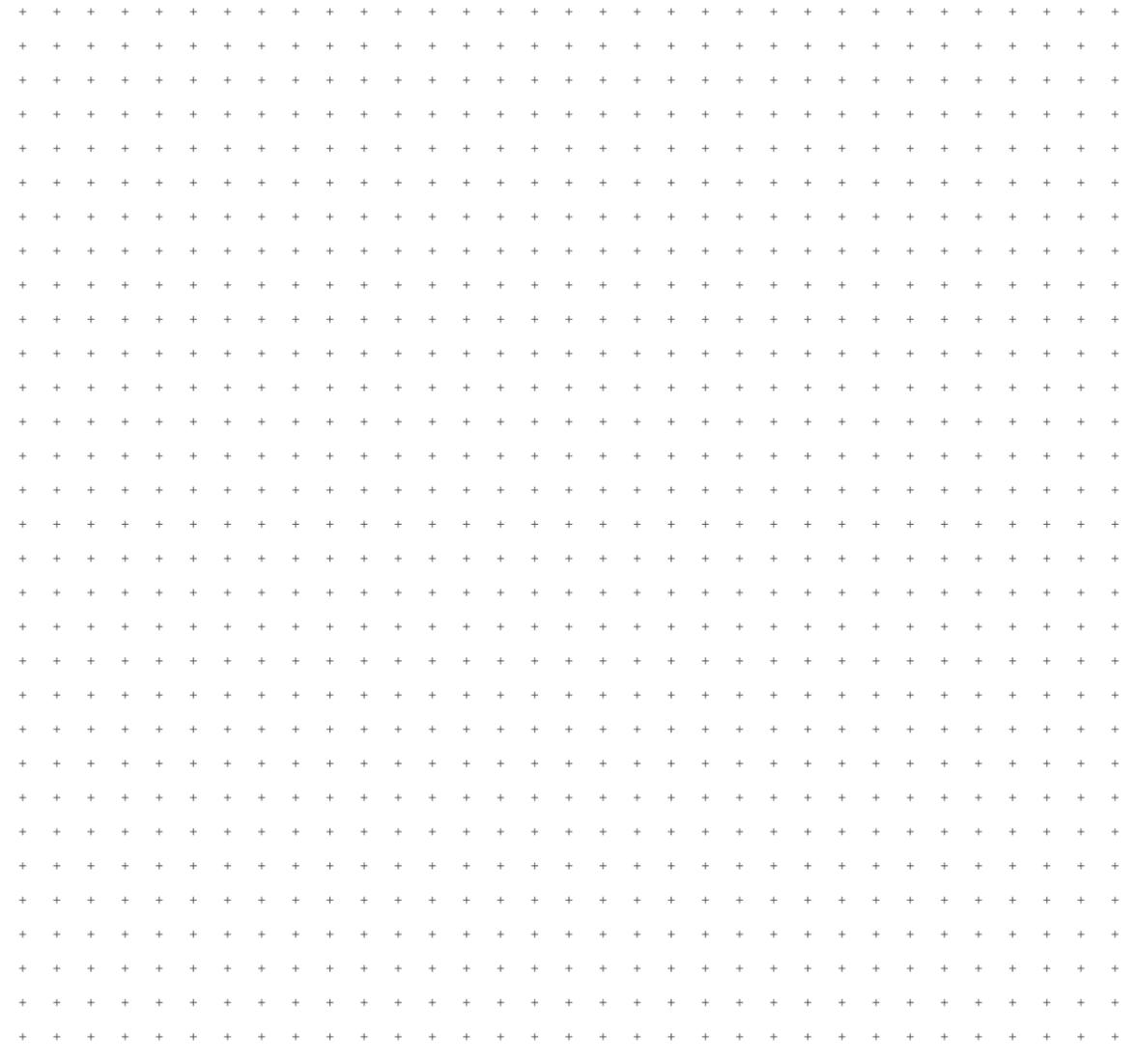
AEROCOMPACT® click-clamp for PV module racking on endpositions, with the length of **80 mm**. 30 - 46 mm adjustable with integrated grounding pins. The clamp is also available in black (CLEB10+).



Middle clamp CLM10

AEROCOMPACT® click-clamp for PV module racking at midpositions, with the length of **60 mm**. 30 - 46 mm adjustable with integrated grounding pins. The clamp is also available in black (CLMB10).

NOTES



INTELLIGENT
SOLAR
RACKING

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