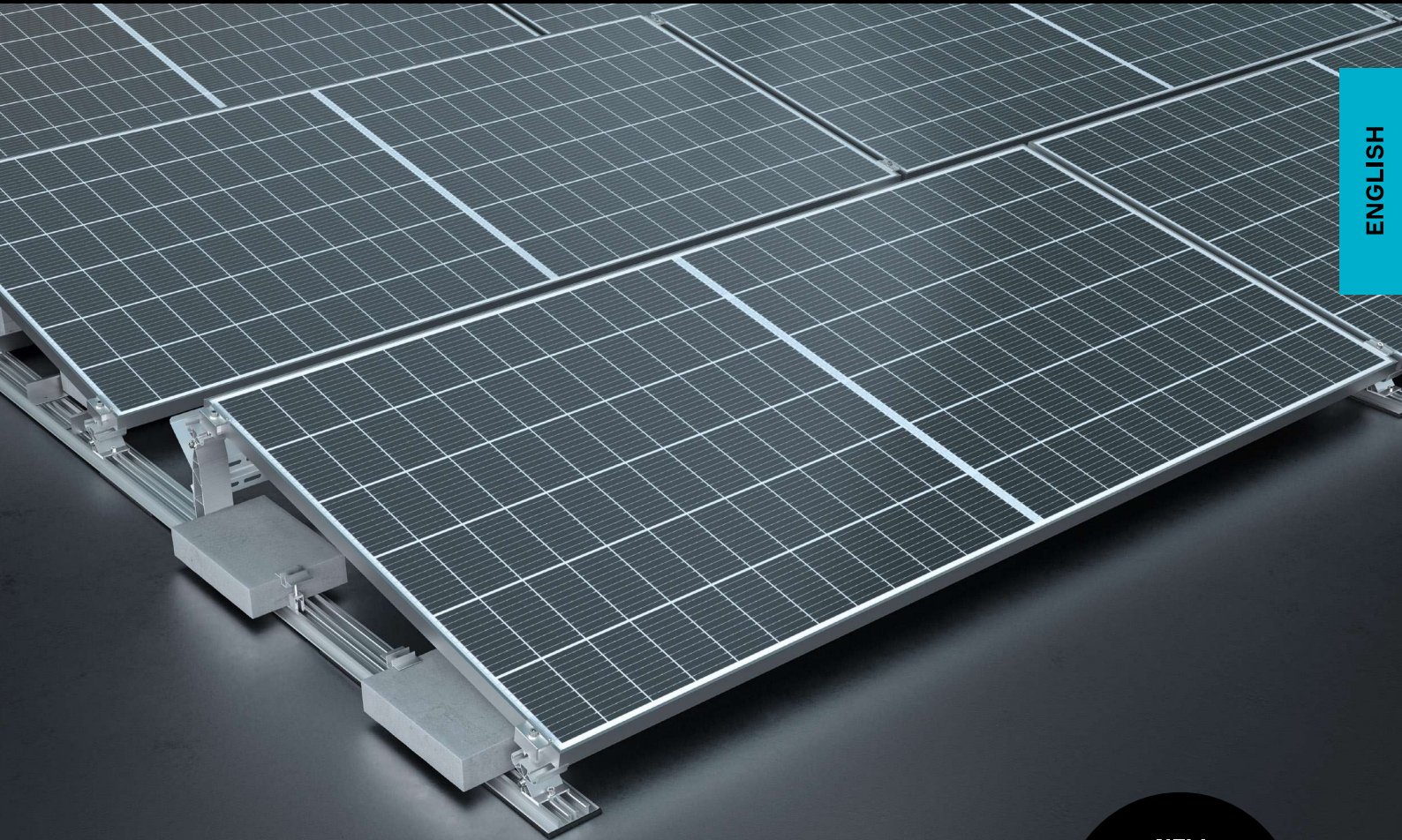


# AEROCOMPACT®

ENGLISH



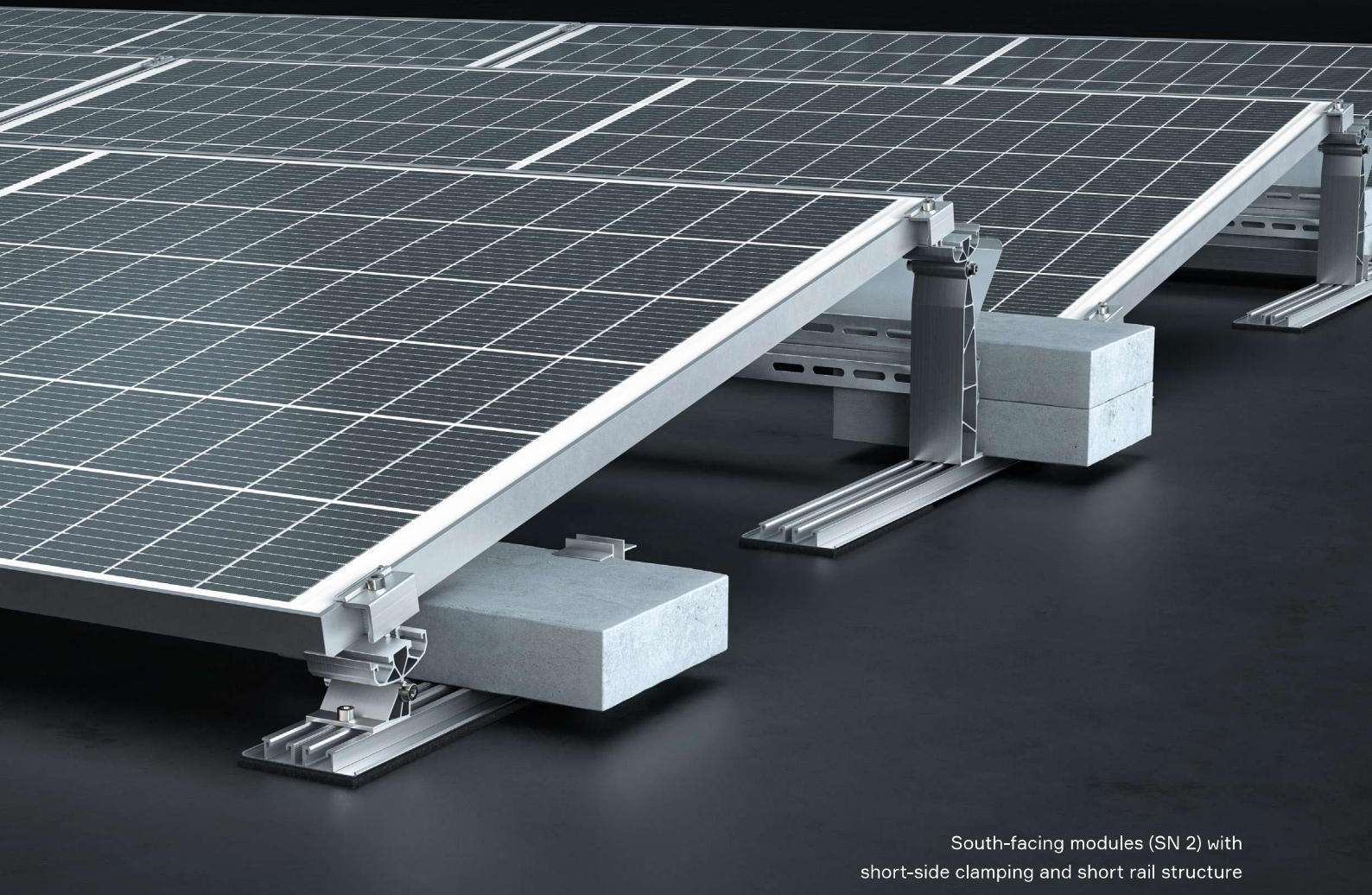
NEW  
WITH FALL  
PROTECTION  
**SYSTEM**  
AND CABLE  
MANAGEMENT

## COMPACTFLAT SN 2

THE COMPACTFLAT SN 2 IS BASED ON THE PREVIOUS SYSTEM AND ALLOWS THE USE OF EVEN LARGER PV-MODULES TO BE USED. THE FLEXIBLE, RAIL-BASED MODULAR SYSTEM OFFERS A SOLUTION FOR EVERY CONCEIVABLE FLAT ROOF APPLICATION AND ENABLES SHORT-SIDE AND LONG-SIDE CLAMPING. THE SAME COMPONENTS ARE USED IN THE SOUTH-FACING SYSTEM AS IN THE EAST / WEST-FACING SYSTEM.

### **INTELLIGENT SOLAR RACKING**

- + Module sizes up to 2,384 x 1,303 mm
- + Low point loads
- + Short-side and long-side clamping
- + Suitable for high wind and snow loads
- + Flexible system with few components
- + Preassembled components, plug & play



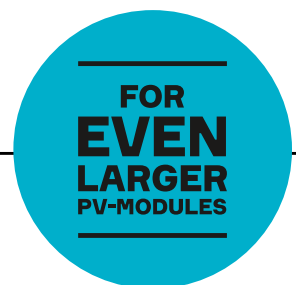
South-facing modules (SN 2) with short-side clamping and short rail structure

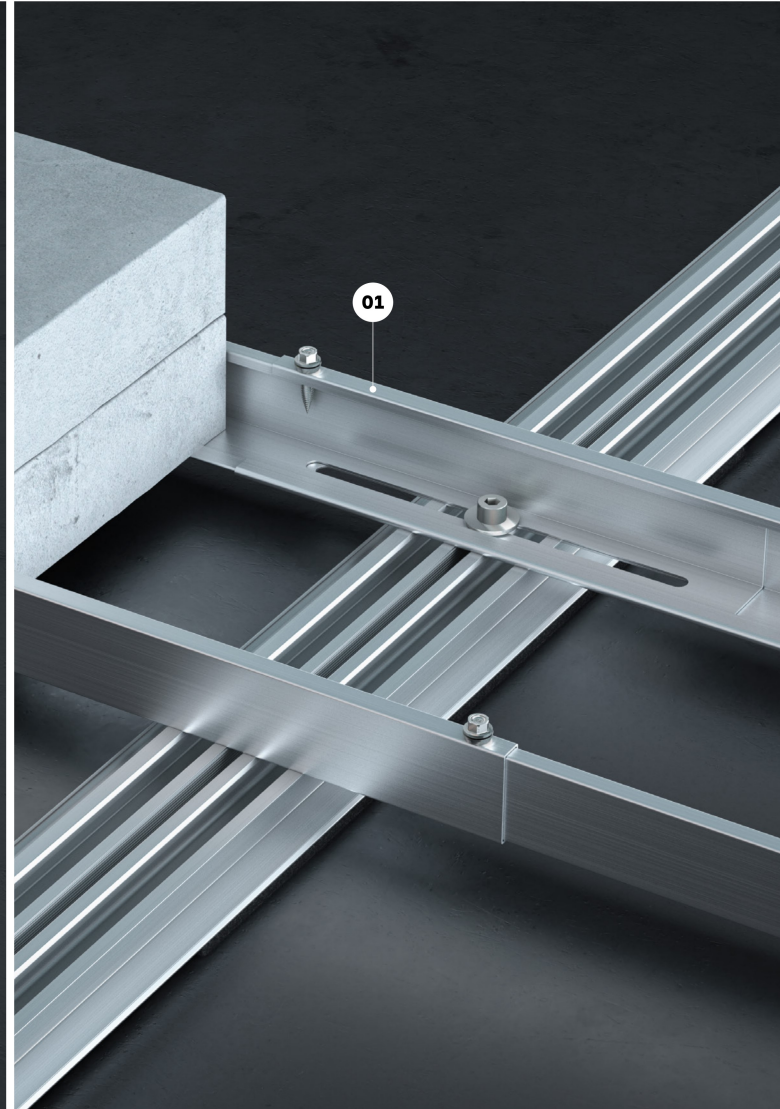
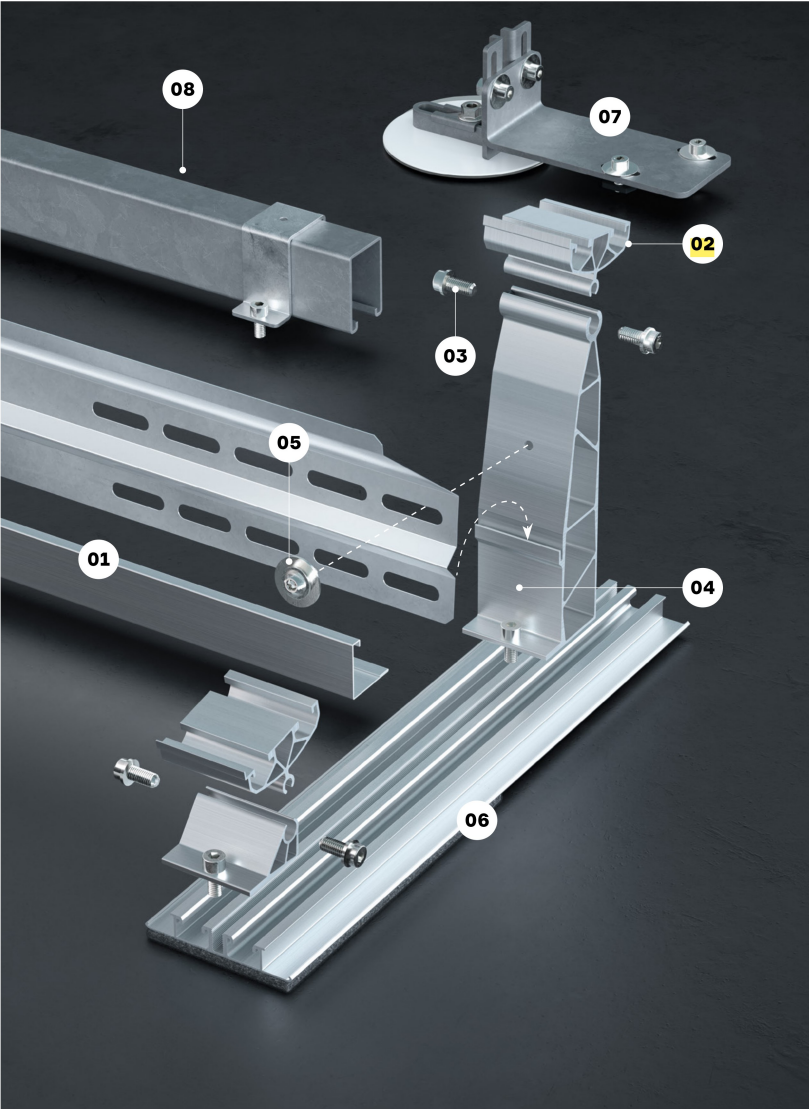
## THE CHALLENGE

The steadily growing size of modules poses particular challenges for manufacturers of racking systems. Reliable and flexible racking systems that don't just withstand heavy snowfall and severe wind, but also offer a quick and uncomplicated mounting and thus save costs during assembly, are in more demand than ever.

## THE SOLUTION

The trimmed-down product concept for the COMPACTFLAT SN 2 is impressive due to its high load-bearing capacity and resistance to extreme weather conditions. This cost-optimized system can be quickly and easily attached to flat roofs in just a few simple steps. It now allows PV-module sizes of up to 2,384 x 1,303 mm. Thanks to pre-assembled components of the further developed fastening system, only one fitter is required for installation. This effectively saves both time and costs during assembly.





01 The rail connectors simultaneously function as ballast carriers. As the module's length is continuously adjustable, the preassembly of the system without modules is a breeze.

02 The preassembled tilt adapter continuously adjusts so that it adapts to the correct angle depending on the module's width. Two grooves allow two types of clamping, short-side and long-side clamping. They provide flexible adjustment during assembly.

03 Bolts and EPDM washers hold the tilt adapter in position and allow the PV module to be positioned.

04 Structural-optimized brackets allow the system to withstand even the highest snow and wind loads.

05 The wind deflector can be placed in the guide rail and is then fastened with just a single screw.

06 Rails with preinstalled pads guarantee the fastest possible assembly; additional pads ensure the height remains level in the event of uneven roof surfaces or as extended drainage.

07 Our single roof anchor is a cost-optimized solution for fastening the system on the roof, mainly for pieced rail shoring or for anchoring at the edge of the field.

08 To achieve greater load distribution with fewer anchors, we created our double anchor for the connected rail structure.

# THE OPTIONS

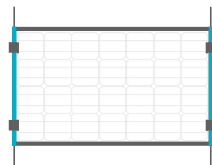
The systems variety allows perfect adjustments for every single project. Two clamping options can be combined with three rail structure options as desired. This means all advantages are used in an optimal matter. Despite all these possibilities, only a few components are required.

## 1. CLAMPING OPTION

In the event of moderate snow loads, the PV modules can be clamped on the short side, saving material. Long-side clamping is recommended if the pressure load increases or large modules are used. Quarter Clamping offers higher loads than short-side clamping with a lower cost than long-side clamping.

### SHORT-SIDE CLAMPING

- + Quick assembly
- + Reduced material costs

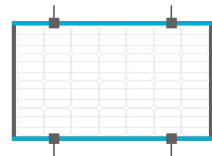


South-facing modules (SN 2)

East / west-facing modules (SN 2 PLUS)

### LONG-SIDE CLAMPING

- + High loads
- + Large modules



South-facing modules (SN 2)

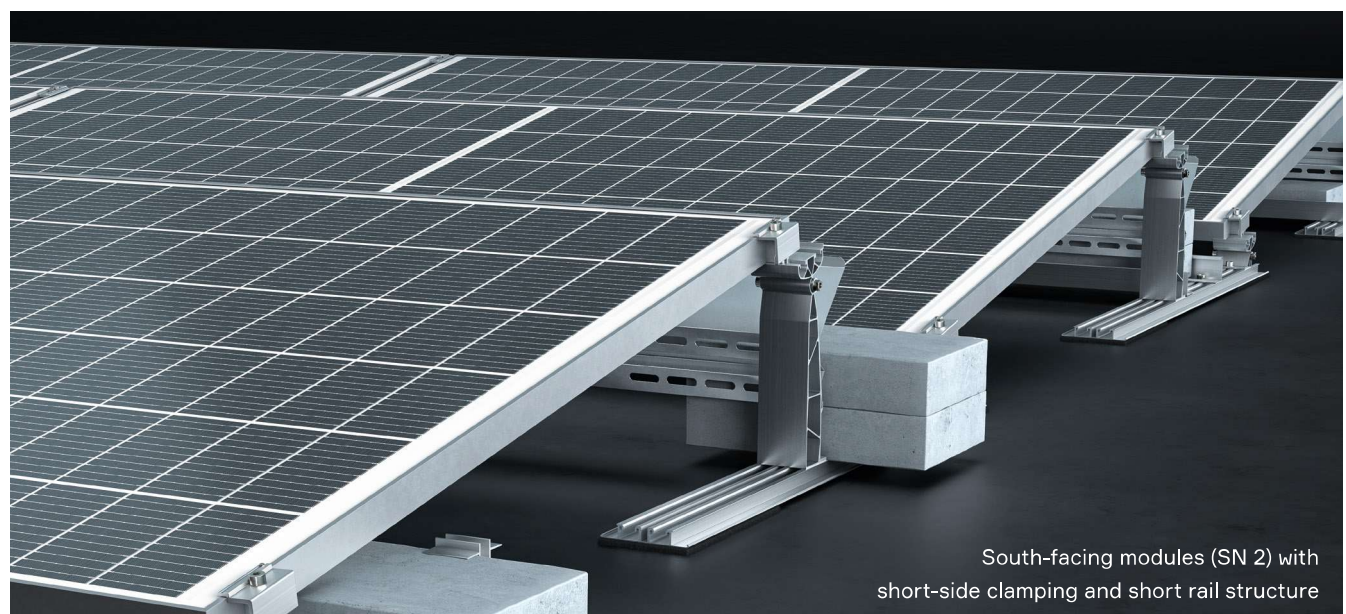
East / west-facing modules (SN 2 PLUS)

## 2. Rail structure (see below)

Short

Connected

Long



South-facing modules (SN 2) with short-side clamping and short rail structure

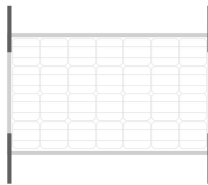
IT'S YOUR  
CHOICE

## 2. RAIL STRUCTURE

As there are different possibilities for the rail structure, the system can be individually configured to suit the respective application, regardless of the project's scale.

### SHORT RAIL STRUCTURE

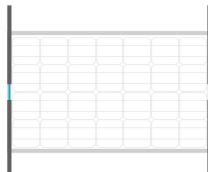
- + Reduced material costs
- + Easy shipping
- + No caterpillar effect



MAX. 900 mm RAIL LENGTH

### CONNECTED RAIL STRUCTURE

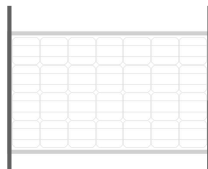
- + High load capacity
- + Preassembly without module
- + Easy shipping



MAX. 1.980 mm RAIL LENGTH

### LONG RAIL STRUCTURE

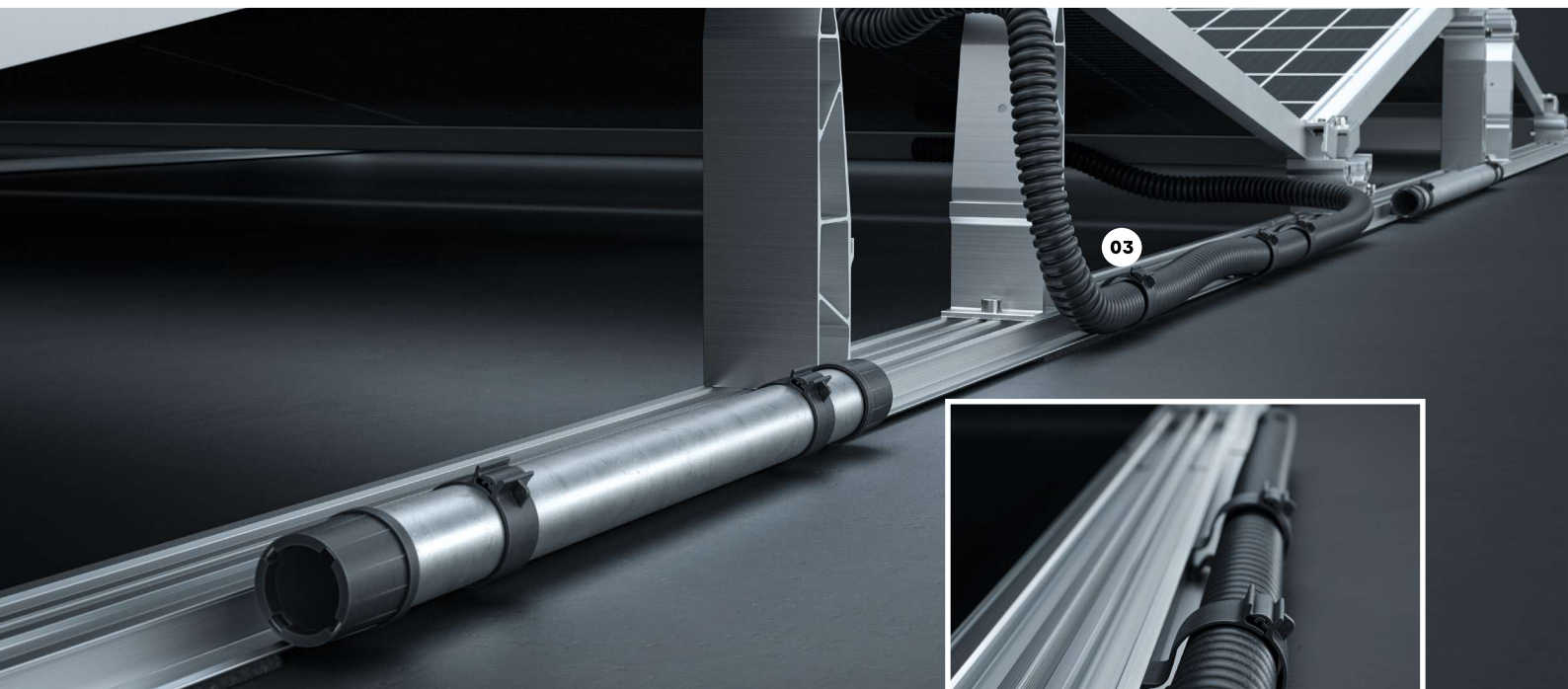
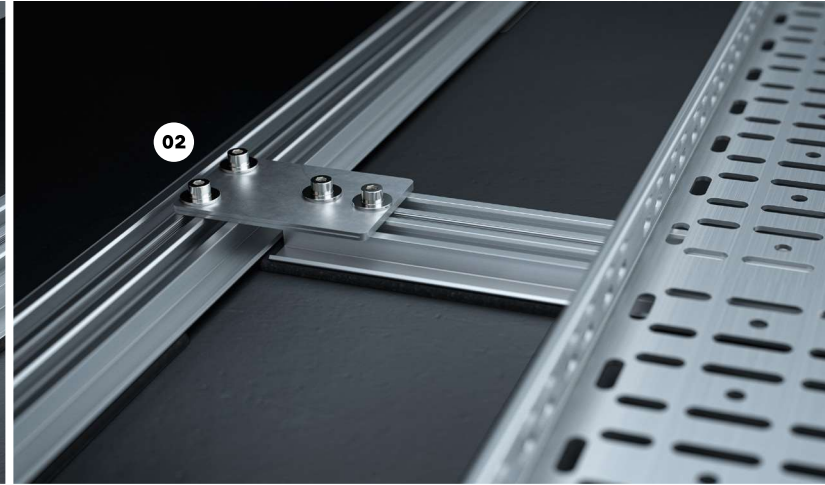
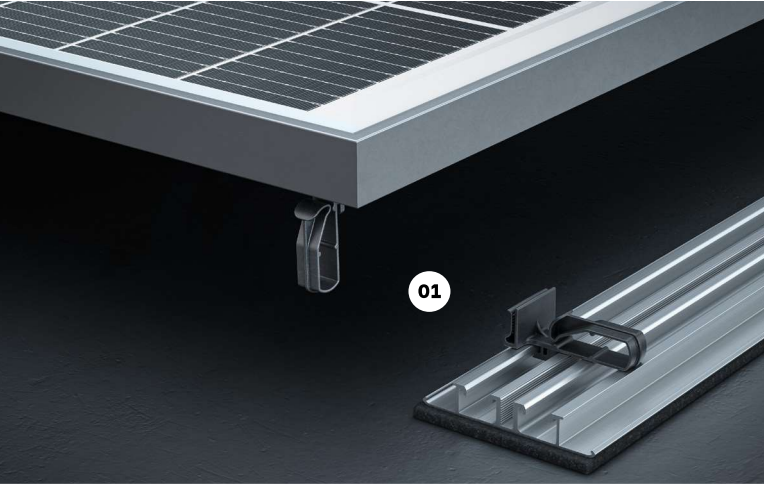
- + Fastest assembly time
- + High loads
- + Preassembly



5.800 mm RAIL LENGTH



East / west-facing modules (SN 2 PLUS) with long-side clamping and long rail structure



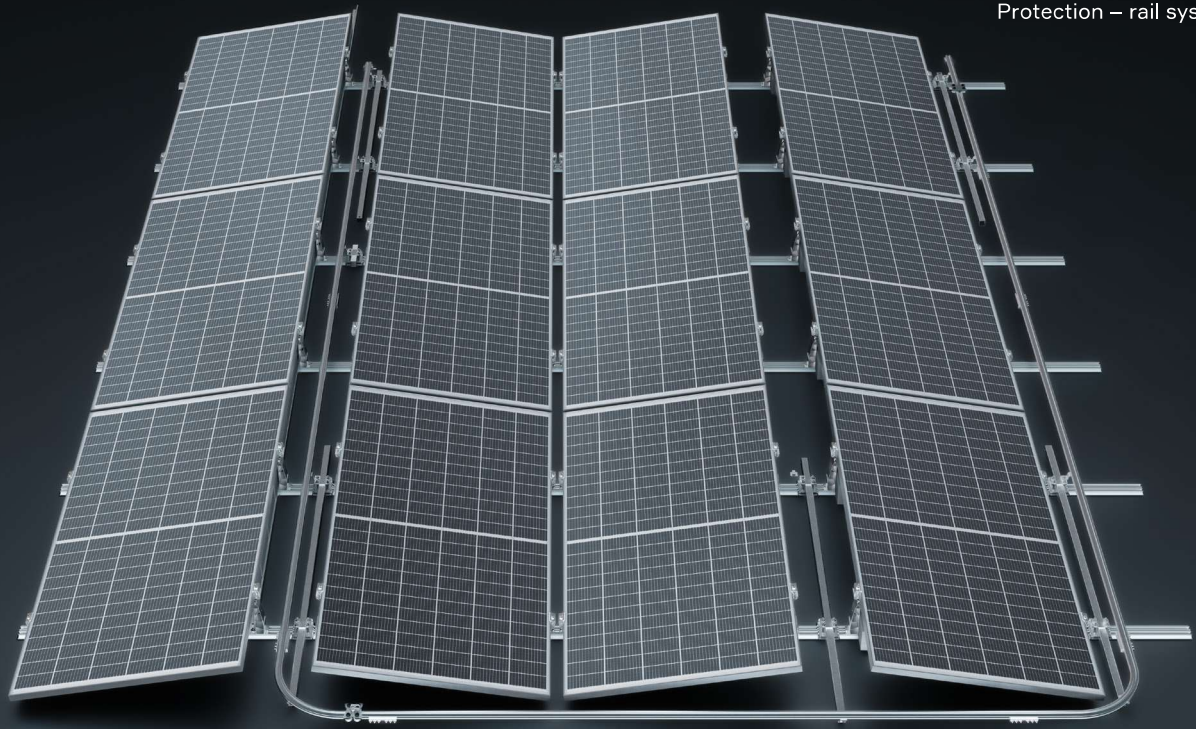
# INTELLIGENT CABLE MANAGEMENT SYSTEM

The COMPACTFLAT SN 2 range is extended with a high-quality cable management system, fall protection and lightning protection elements. The assembly is, as usual, simple and time-saving.

- 01** The universal cable clip enables an easy fixing of the cables. It can be fixed either to the module frame or to the rails. The universal cable clip can be used for all existing flat roof systems.
- 02** The cable connection plate allows the adaptation of a 450 mm rail to the SN 2 system. Any cable tray can be attached to this rail.
- 03** The rail clip is ideal for laying cables along the SN 2 rail. The cables can be laid directly on the rail or protected in a cable conduit.

## LIGHTNING PROTECTION OPTION

The mounting system offers a certified lightning current carrying capacity, which allows SN 2 systems to replace parts of the external lightning protection as well as to be integrated into already existing lightning protection systems. Our specially developed lightning protection clamp allows a time and cost efficient installation. The rails of our SN 2 system allow a versatile installation of down conductors, connections or air-termination rods and thus enable the lightning protection planner an environmentally friendly installation.



Rope system



Rail system



Protection – single anchor point

## SYSTEM-INTEGRATED FALL PROTECTION

The demand for an effective fall protection is increasing. If the guarding is not attached directly to the system, valuable space is lost. The integrated solution is available for all SN 2 variants with long rails and is produced and supplied by Innotech.

### THE VIA RAIL SYSTEM – TAURUS HORIZONTAL INNOTECH

is optimal for fall protection in roof photovoltaic systems with an inclination angle of up to 5°. A major benefit of the horizontal rail system is the flexibility in positioning anchor points for rope access. When used as a fall protection system, a distance of 3 meters between the fasteners is possible. With appropriate additional measures, attachment distances of up to 5 meters can be achieved, which has a positive effect on the economy of the entire installation process.

### THE VIA ROPE SYSTEM – AIO ROPE SYSTEM – TABLE INNOTECH

fall protection system is used wherever a horizontal surface has to be secured up to an inclination angle of 5°. Complex buildings as well as the substructure do not pose any problems for the rope system. The modular system components ensure simple and error-free installation. The rope glider allows the intermediate rope holders and curves to be driven over, thus completely eliminating the need for cumbersome re-hooking or unhooking.

**INNOTECH**

 More informations on [innotech.at](http://innotech.at)

# AEROCOMPACT®

- + One-man installation possible
- + Minimal storage
- + Optimized for pre-assembly
- + PV module positioning support
- + Wind tunnel tested
- + Developed in Austria

<b>DESCRIPTION</b>	Rail-based racking system for mounting framed PV modules on flat roofs. Optimal load distribution for any built-up roof. Positioned on continuous rails. Preassembly even without PV modules. The clamping on the long module side allows the system to withstand high wind or snow loads as well as the use of large scaled PV modules.
<b>AREA OF APPLICATION</b>	On membrane and bitumen roofs with and without thermal insulation under the membrane, as well as on concrete and gravel roofs.
<b>MODULE DIMENSIONS</b>	950–1,303 mm x 1,550–2,384 mm (width x length)
<b>INSTALLATION ANGLE</b>	5° and 10° (may vary slightly depending on module width)
<b>CLAMPING OPTIONS</b>	Long-side clamping; short-side clamping.
<b>DISTANCE TO ROOF SURFACE</b>	Approx. 70 mm, less on gravel roofs if necessary.
<b>DISTANCE FROM THE ROOF EDGE</b>	Without parapet to roof edge, with parapet, dependent on height.
<b>MAX. BUILDING HEIGHT</b>	100 m (adaptation to higher buildings on request)
<b>MAX. ROOF INCLINATION</b>	Up to 3° in the case of long rail structure, 5° in the case of connected or short rail structure; With anchoring, up to 10°.
<b>MAX. FIELD SIZE</b>	23 x 20 m
<b>MIN. FIELD SIZE</b>	2 modules side by side or behind one other.
<b>WIND LOAD</b>	Up to 2,4 kN/m <sup>2</sup> *
<b>SNOW LOAD</b>	Up to 5,4 kN/m <sup>2</sup> *
<b>DESIGN / PROOF OF STABILITY</b>	Supported by software based on wind tunnel tests as well as code and construction standards.
<b>ON-SITE REQUIREMENTS</b>	It must be ensured on site that the roof structure and building structure have the sufficient structural load-bearing capacity and that the roof structure has sufficient compressive load-bearing capacity. The general terms and conditions, warranty conditions and the user agreement apply. The module release must also be checked by the customer.
<b>COMPONENTS</b>	Module clamps with grounding pins, base rails, front foot, back foot, cross struts, building protection pads, wind deflectors, ballast blocks (provided by the customer); optional ballast angle, roof anchor, earthing and lightning protection clamp, grounding and bonding protection, optimizer mount.
<b>MATERIALS</b>	Load-bearing connecting parts and module clamps made from EN AW–6063 T66 aluminum, screws made from A2–70 stainless steel, cross struts, wind deflectors and ballast trays made from steel with protective coating against corrosion, building protection mat made from polyester fleece.

\* depending on the system variation and PV modules used