



# COMPACTFLAT S05

## **AERODYNAMIC. STABLE. INTELLIGENT.**

Compact and tested substructure for the single-sided stand-mounting of PV modules on flat roofs

The system, as part of the Compact**FLAT** product range, is an aerodynamic south-facing substructure for the fixing of framed PV modules on flat roofs. It is available at an incline of 5° and with different row spacing. No additional components are necessary for reducing the clearance between the modules. With the smallest row spacing, the amount of empty space is reduced considerably, and the system offers more installed modules – meaning more performance and yield – per unit area.

## **AEROCOMPACT®**



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.

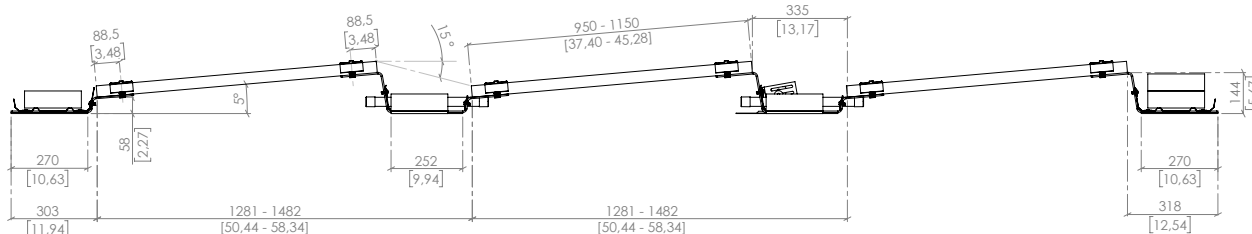
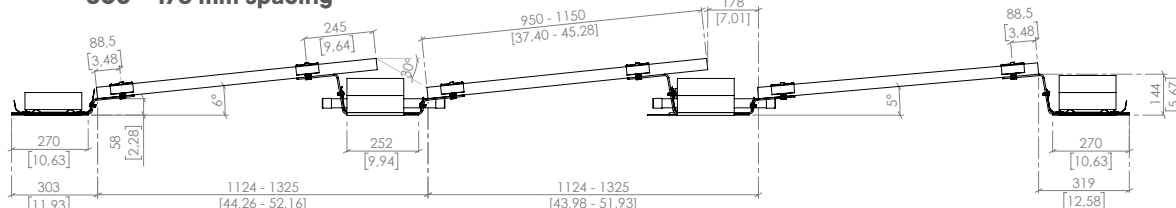
Like the Compact**FLAT S10plus**, the Compact**FLAT S05** also has a 25-year warranty, has been wind tunnel-tested, TÜV-certified in line with UL 2703, and is supplied with a pre-installed building protection mat. With special loading tests, all variants were tested and approved by TÜV Rheinland in accordance with UL 2703, as well as a fire test in line with UL 1703. The wire management solution for the string-wiring of module rows is UL-certified and available as an accessory with the substructure.

The Compact**FLAT S05** is stored in our 3D engineering software **AeroTOOL**. The **AEROCOMPACT®** customer center is able to issue clear and competent project reports based on empirical data (wind load, snow load, structural analysis).

The Compact**FLAT S05** is delivered partly pre-assembled, including a newly developed building protection mat – with long-term durability testing.

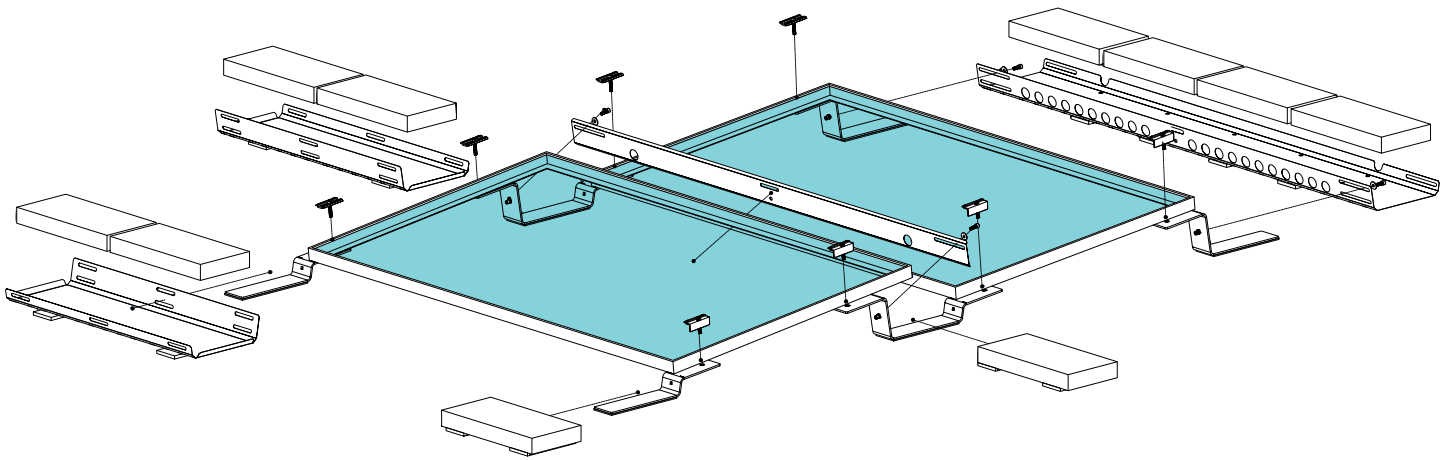
This system version with ballast trays is primarily used in areas with high wind loads and on roofs with a low point-loading capacity. The key advantages of this installation version are the extra ballast which can be installed for each module on the one hand, and the even distribution of point loads on the roof surface on the other. The ballastray can also be deployed if roof graveling is used as ballast. The gravel is then filled in the plate tray for weight.

With only three main components, the Compact**FLAT S05** achieves an exceptional price-performance ratio. In addition to the attractive system price, the simple installation and high transport density of the innovative system saves time and resources.

**S05 – 335 mm spacing****S05 – 178 mm spacing**

## TECHNICAL DATA

<b>Description</b>	Aerodynamic installation system for the stand-mounting of framed PV modules on flat roofs.
<b>Scope of use</b>	On foil and bitumen roofs with and without heat insulation beneath the sealing, as well as on concrete roofs; can be adapted for gravel and green roofs upon request
<b>Module dimensions</b>	950 – 1'150 mm x 1'500 – 2'250 mm (width x length)
<b>Installation angle</b>	5°, unilateral
<b>Row spacing</b>	CompactFLAT S05 (15° internal shading angle): 335 mm CompactFLAT S05 (30° internal shading angle): 178 mm
<b>Distance from the roof surface / floor surface</b>	Approx. 60 mm; potentially less on gravel roof
<b>Distance from roof edge</b>	1,200 mm (less corner spacing upon request); roof areas F and G as per EN 1991-1-4 can be covered
<b>Max. building height</b>	25 m (adapted for taller buildings upon request)
<b>Max. roof pitch</b>	Up to 5° possible without roof anchors; above 5° only with roof anchors
<b>Max. field size</b>	12 x 10 rows; 120 modules
<b>Min. field size</b>	1 rows for every 2 modules
<b>Wind load</b>	Suction load up to 2.4 kN/m <sup>2</sup>
<b>Snow load</b>	Pressure load of CompactFLAT S05 Standard up to 2.4 kN/m <sup>2</sup> Pressure load of CompactFLAT S05 Alpin up to 4.4 kN/m <sup>2</sup>
<b>Design/stability verification</b>	Software-supported based on wind tunnel analyses
<b>On-site requirements</b>	Sufficient structural load-bearing capacity of the roof structure and the building's supporting structure, as well as adequate compressive strength of the roof structure, must be ensured on site. The general terms and conditions, terms of warranty, and the user agreement apply.
<b>Module approval</b>	The list of approved modules is provided by AEROCOMPACT®; individual approvals through the module manufacturer
<b>Components</b>	Module clamps with grounding pins, flat-roof brackets, wind deflector plates, ballast stones; optional lateral plates, ballast trays, roof anchors
<b>Materials</b>	Bearing connecting parts made from aluminum EN AW 6060 T64; module clamps made from aluminum EN AW 6063 T66; screws made from stainless steel A2-70; wind deflector plates and ballast trays made from steel with aluminum-zinc coating; building protection mat made from polyester fleece



- › **Module clamps with integrated grounding pins**
- › **No roof penetration necessary**
- › **Also suitable for roof edge areas**
- › **Main structure produced from aluminum and stainless steel**
- › **Water drainage provided on all sides**
- › **Optimum module ventilation**
- › **Pre-installed building protection mat**
- › **700 kWp per truck or 40-foot container**
- › **Minimum order quantity only 2 kWp**
- › **Quickest installation: 1 kWp / 5 min. / 2 people**
- › **Optimized wind suction openings**
- › **Low transport costs**
- › **Fire-tested as per UL 1703**
- › **TÜV-certified as per UL 2703**
- › **Wind tunnel-tested**
- › **Engineered in Europe**
- › **General building inspectorate approval applied for**
- › **25 years product warranty**



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