

Specifications mounting system for flat roofs

General system description

System type:	Ballasted flat roof photovoltaic mounting system
Module orientation:	East/West, North/South, South
Nominal module inclination:	at least 10°
Module mounting:	landscape
Materials:	Aluminium, V2A, PE
Manufacturer's warranty:	12 years

Roof suitability

Inclination:	max. 5°
Substrate:	All pressure-resistant undergrounds

Properties

Row spacing:	2230-2483 mm
Min. distance to the edge of the roof:	max. 500 mm
Attachment to the roof:	Penetration-free installation, permanent drainage of the roof must be ensured
Permissible module widths:	995 mm - 1145 mm (l x w)
Clamping of the modules:	<p>Clamping of the modules on the short side of the module to reduce the assembly time by reducing the number of clamps per module (max. 3 clamps per module).</p> <p>The terminals must be mountable by screwing them into the mounting profile by hand. After screwing in, the clamps must remain in place. It must be possible for 1 person to insert the modules into the clamp.</p>
Electrical properties:	An approved way to integrate the mounting system into the lightning protection/equipotential bonding system.

Assembly of the system:	<p>Machining (drilling, sawing) on the construction site must be ruled out.</p> <p>All screws must be fastened with a socket of the same size.</p> <p>Components must be prefabricated as far as possible. Assembly, especially of small parts on the construction site, is not permitted. The maximum number of standard components must not exceed 10 pieces.</p> <p>Assembly positions of components must be clearly marked at the factory to avoid incorrect assembly.</p>
Component dimensions:	<p>Logistically optimized dimensions of the components with the maximum dimensions of 2,000 mm in length</p>
Ballasting:	<p>A ballasting plan adapted to the location by software recommended by the manufacturer must also be supplied. The ballast planning must take into account the following criteria: wind and snow load according to EUROCODE and SIA standards</p> <p>Load transfer via continuous or connected base rails for ballast reduction</p>
Approvals/standards:	<p>A design of the mounting system with corresponding wind tunnel tests is mandatory</p> <p>CE marking</p>
Documentation:	<p>Static proof for the stability of the entire system, ballasting plan, occupancy plan, 3D overall occupancy overview, surface load of actually occupied area, max. point load incl. snow load, testing of the support pressure, assembly documentation adapted to the module size.</p>