



RHEINZINK-PV

The parallel-to-roof, integrated Solar Solution for RHEINZINK-Standing Seam Roofing

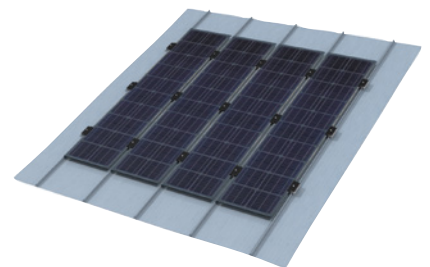
RHEINZINK-PV is an extremely flat-mounted, parallel-to-roof solar system. The specially developed seam and module clamps are fastened simply to the double standing seams. They also fix the frameless solar modules that are adapted to the section widths of the RHEINZINK-Double Standing Seam System. The innovative PV system is an architecturally sophisticated and visually solution that appears integrated into the roof.

Roof-integrated, metal roof-typical optics

Seam and module clamp in one product

Frameless solar modules - roof-parallel, vertical installation

Coordinated to the panel widths of the RHEINZINK double standing seam roofing



RHEINZINK-PV – Simply aesthetic

Not many solar systems offer an architecturally appealing solution for metal roofs. With RHEINZINK-PV, there is now a solution available that is integrated in the roof and is visually adapted to the standing seam system.

With RHEINZINK-PV, it is now possible to clad RHEINZINK double standing seam roofs having centre-to-centre measurements of 530 mm (600 coil width) and 430 mm (500 coil width) with solar modules adapted specifically to the seam geometry.

Consultation and sales in cooperation with solar specialist consultants

RHEINZINK-PV and the module clamps are available from specialist wholesalers. RHEINZINK-PV can be used for different possibilities of power consumption, whether for feeding into the public grid or for independent consumption by using innovative storage technology.

The competent planning has to be done here project-related by solar planners, solar installers or electricians. These solar systems are planned in coordination with the design of the entire system depending on the usage concept (inverter, integration in building services, etc.).

The result: an electrically optimised system that fits harmoniously into the architecture of RHEINZINK standing seam roofs.

An innovative System

A module clamp fitted to the standing seams with just one screw ensures the optimum fastening of the solar modules. The amount of module clamps to be used depends on the object-related wind loads.

A connection box installed on the bottom side of the solar modules ensures their electrical connection. Overall, there is an installation height of about 40 mm. The arrangement of the glass modules is therefore only slightly above the standing seams.

An intelligent solution

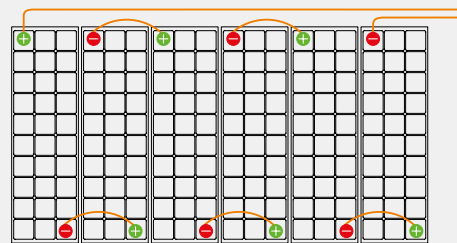
The patented PV clamp boasts an entirely new clamping principle. In the case of this clamp, it is fixed to the standing seam exclusively with vertical clamping and enables the unframed solar modules to be mounted at the same time. The module clamp is mounted on the seam with only one hexagon socket screw, tightened to 6 Nm. It does not affect the thermal elongation of the panels. The clamps required depending on the wind load are to be arranged evenly over the long side of the modules with a maximum spacing of 550 mm.

Technical data

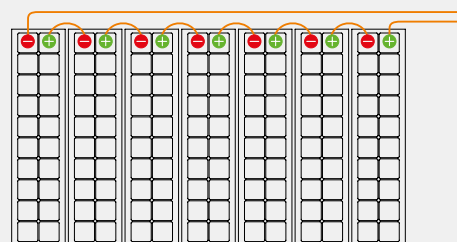
Solar modules	Glass-film laminate, frameless 30 or 20 monocrystalline solar cells
Application range	max. roof pitch 60° max. snow load 2.4 KN/m ² Use 4 clamps for module 30 from 2.0 KN m ²
Certificate	IEC 61215 resp. IEC 61730
Module dimensions	Length about 1650 mm Module 30, tailored to the section width 530 mm Module 20, tailored to the section width 430 mm
Output	Module 30 on request Module 20 on request Current data sheets are available at https://www.rheinznk.com/products/roof-systems/solar-system-rheinznk-pv/
Installation height	about 40 mm
Material	Seam or module clamp (aluminium extrusion press profile) included EPDM pressed rubber and socket head screw

Connection

Module 30



Module 20





Reference object Residential building in Datteln / Germany

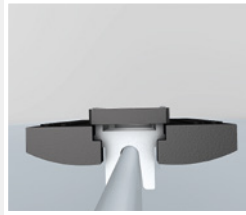
Number of PV clamps per module side	Centre distance of the PV clamps from each other	Centre distance of the outer PV clamps from the end of the module
3	550 mm	270 mm
4	400 mm	220 mm
5	330 mm	160 mm
6	280 mm	120 mm
7	240 mm	100 mm
8	200 mm	120 mm

Design wind load [kN/m ²]	Number of clamps per module side [pc.]	
	Coil width 500 mm Section width 430 mm	Coil width 600 mm Section width 530 mm
-0,3	3	3
-0,6	3	3
-0,9	3	3
-1,2	3	3
-1,5	3	3
-1,8	3	4
-2,1	4	4
-2,4	4	5
-2,7	4	5
-3,0	5	6
-3,3	5	6
-3,6	5	6
-3,9	5	6
-4,2	5	7
-4,5	6	7
-4,8	6	7
-5,1	7	8

Wind load table for direct mounting of the RHEINZINK-PV system on roofs with RHEINZINK double standing seam covers.

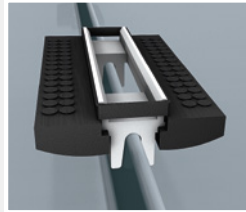
The required number of RHEINZINK-PV clamps based on the rated resistance of the RHEINZINK clips of 600 N/clip. Generally at least 3 PV clamps/module side are required.

Specifications for Germany under consideration of the safety factor 1.5 on the adhesive side. In other countries, further safety factors may apply.



1 Application of the clamping bottom parts

- Perfect hold on the double standing seam
- Even distribution of the PV clamps – see table
- Fit the lower part accurately



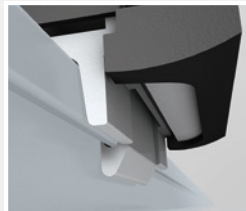
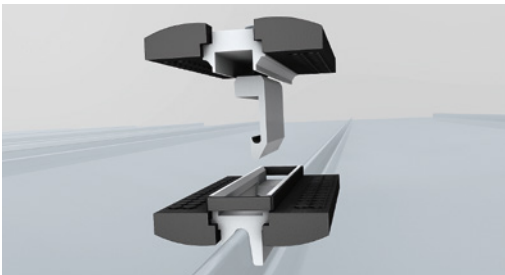
2 Placing the solar modules

- Secure, non-slip incorporation of the solar modules



3 Clipping on the clamping upper parts

- Affixing with 6 Nm
- Clamping principle: Clamping hook must enclose the double standing seam



4 Seam or module clamp

- Hexagon socket screw fixes the clamping hook and the module
- Affixing with 6 Nm



5 Placing and wiring additional solar modules

- Connection – see page 2



6 Installation of additional solar modules

- Affixing with 6 Nm
- Clamping principle – see 3