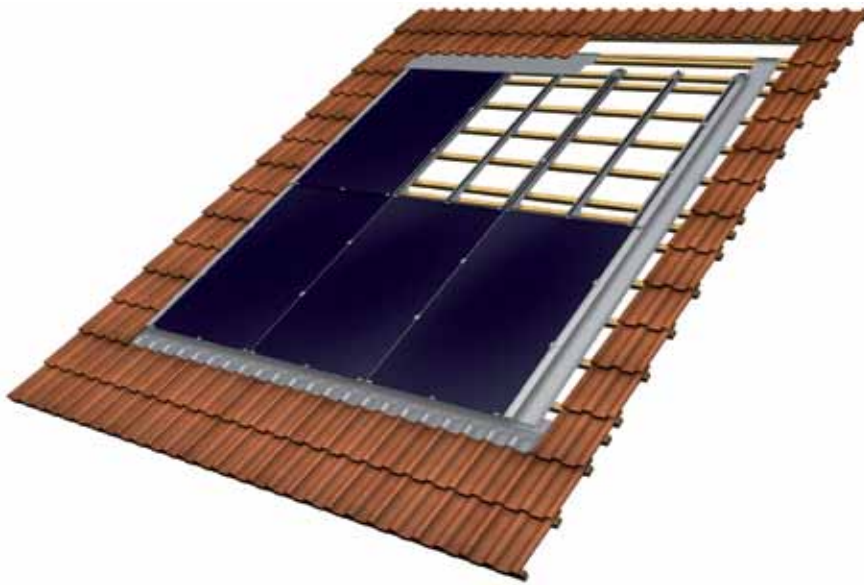




mounting
systems



Kappa

Flexible application

Kappa readily allows the integration of unframed photovoltaic modules into new and old roofs regardless of the type of roof covering.¹ Kappa is mounted onto the existing roof battens and replaces the regular roof cladding.

Rapid mounting

All components (including the flashing) are pre-fitted according to the chosen PV module and module configuration. Further reduction in installation time and cost is achieved through a maximum of pre-assembly and the patented click-system of the support rails.

High impermeability

In terms of impermeability Kappa fulfils the requirements of conventional tile roofs. The special supporting profiles guarantee proper rear ventilation and rainwater drainage.

Individual array

The roof can be entirely or partly covered with modules. Essentially, all connected module arrangements and integration of windows³ are possible.

Appealing optics

Levelling the modules with the roof covering, Kappa is the most appealing method of mounting PV modules.

Maximum service life

All profiles and flashings (aluminium), while being completely recyclable, guarantee maximum service life through their high resistance to corrosion.



In-roof



Unframed module



Orientation portrait



Orientation landscape²



Double Roman Tiles



Bitumen shingles



Slate



Plain Tiles



Fire behaviour tests in accordance with DIN EN 13501-5:2010-02

CEIAB
compliant

CSTB
Mechanical load test

CSTB
Avis Technique in progress

ETN
in progress



Mechanical load test in accordance with IEC 61215:2005

¹ Kappa is compatible with nearly all types of tiles, formwork and slate coverings. For detailed information, please contact us during the planning stages of your project.

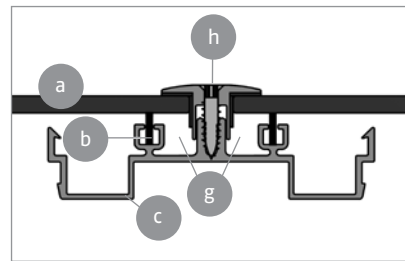
² Only possible if junction box is positioned at least 55 mm from the module edge.

³ Subject to previous checking.

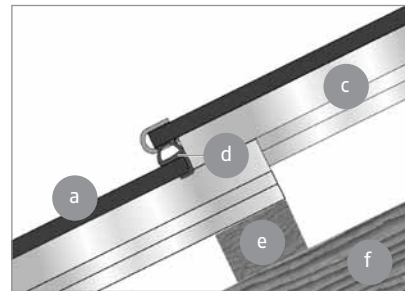


Application	Pitched roof – roof integration
Roof cladding	Suitable for nearly all types of roof coverings
Roof slope	> 16° (lower upon request)
PV modules	Unframed ¹
Total height of PV system	41 mm + height of laminate module
Module layout	Connected surface, as well as entire roof. Integration of windows possible (subject to previous checking).
Module thickness	<10 mm (>10 mm upon request)
Module orientation	Portrait, landscape ²
Module layout and position on the roof	Max. 5 modules vertically; max. 6 m roof above the PV field
Roof construction	The standard screws delivered are meant for mounting on wooden battens sized 40 x 40 mm ³
Standards	Eurocode 1 – Actions on structures Eurocode 9 – Design of aluminium structures
Certificates and material testing	<ul style="list-style-type: none"> · MPA Dresden: Fire behaviour tests in accordance with DIN EN 13501-5:2010-02 · CEIAB: compliant · CSTB: Mechanical load test 800 Pa · CSTB: Avis Technique approval in progress with GSS, First Hybrid Energy und Solarwatt (No: 2010234 / LT1) · ETN: approval in progress with KPV · Mechanical load test 2.400 Pa (Conergy, Solon, Solarwatt) and 2.400 / 5.400 Pa (KPV) according to IEC 61215:2005
Supporting profiles	Extruded aluminium (EN AW 6063 T66)
Hooks, small parts	Stainless steel (V2A)
Flashings	Aluminium (EN AW 1050 A H16)
Seals	EPDM
Colour	Profiles/flashings: plate finish (colour coating optional)
Warranty	10 years ⁴

Warning! Waterproofing the roof is heavily dependent on correct installation! To avoid problems, we offer practical trainings.



Horizontal section



Side view

- a PV module
- b Rubber profile
- c Module-supporting profile
- d Edge protection rubber
- e Batten
- f Rafter
- g Drainage
- h Suction safeguarding

1 Compatible with nearly all current unframed modules.
 2 Only possible if junction box is positioned at least 55 mm from the module edge.
 3 Variation on request; with adapted maximum permissible loads, installation on thinner supports for example complete sheathing is also possible.
 4 Please find the exact terms in the Mounting Systems GmbH Warranty document.