

STANDARD PRODUCT
CUSTOM PRODUCT
PROTOTYPE

SOLRIF

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Sponsoring at the Demosite
FORTUM POWER AND HEAT OY
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Development
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SYSTEM DESCRIPTION

SOLRIF (Solar Roof Integration Frame)

A new photovoltaic (PV) system for tilted roofs.

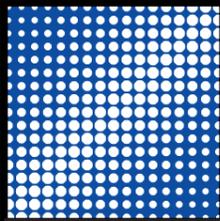
SOLRIF combined with any solar panel forms a sealed roofing layer that generates electricity, a sustainable solution without greenhouse gases at zero operating costs.

This new system is suitable for almost any type of tilted roof in existing or new buildings and meets high esthetical demands too.

The innovative design has been optimised with regard to cost, ecology and functionality.

The mounting of the SOLRIF is proposed to be done in the same manufacturing line as for the PV laminates. Instead of mounting the conventional frame, this new option for integration is applied.





APPLICATION FIELD

Building type	All types of tilted roofs (more than 15°)
Building elements	Tight roof skin without further sealing, comparable to standard clay tiles
Mounting technology	As tiles, without other components, except small screwed stirrups
PV Module	Universal usage for different laminate sizes and makes

AT DEMOSITE

PV Area	11,4 m ²
PV Module	Fortum, polycrystalline, laminate framed with Solrif
Power, voltage	50 W, 17 V (standard test conditions)
Size	1010 x 470 mm
Connection	6 x 4 modules in series

SOLRIF

Solrif was designed and developed by Enecolo AG (Mönchaltorf, Switzerland).

The system is now produced by the company Ernst Schweizer AG (Hedingen, Switzerland).

Fortum Advanced Energy Systems (Fortum AES), Finland provided the modules as sponsoring for the promotion stand at Demosite. Fortum AES (formerly NAPS-NESTE Advanced Power Systems) is the leading North European PV systems company selling world-wide under the trademark FortumSolar. Several grid-connected PV systems have been supplied to Finland, Sweden, Denmark, Germany and Switzerland using a variety of novel building integration methods.

SYSTEM TECHNOLOGY

The SOLRIF system consists of any type of PV laminate and four specially designed aluminium profiles for framing.

The SOLRIF aluminium profile system, which replaces conventional framing of standard PV laminates, is independent of the size and makes of the PV laminates and therefore suited to different products.

PV modules framed with SOLRIF provide watertight roofing, comparable to standard clay tiles. SOLRIF modules replace conventional roof covering with clay tiles, shingles or other materials. They can be used length- or edgewise. SOLRIF modules may also be used to cover tilted roofs completely.

The profiles join in a way, that allows plenty of horizontal play (sectional view horizontal). Vertically, the modules are held down by metal stirrups fixed to the roof battens (sectional view vertical).

