



# MV3i System, the building integrated photovoltaic solution with thermal insulation for all types of building

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Your Best Support

en

**COMPLYING**  
with CEIAB

The MV3i building integrated photovoltaic system, allows to realize your photovoltaic cover while insuring the thermal and phonic insulation of your building.

The MV3i system ensures that you get the highest feed-in tariff.

Ideal for HEQ and LCB buildings.

#### Adaptability & flexibility

- Insulation from 40 to 100 mm thick (polyurethane foam, rock wool...)
- All types of framed modules
- All types of roof structure, direct fixation on purlins
- All types of sloping roof from 5 to 50°
- All types of side finishes can be used
- Maximum weight 8.5 kg/m<sup>2</sup>

#### Reliability & long life

- Control of expansion stresses between roof structure and photovoltaic modules
- Materials used are recyclable and selected for long-term weather-resistance (aluminium profiles, stainless steel fastenings...)

#### Easy to set up and install

- Conduits provided for cable runs
- Designed in close collaboration with qualified professional installers
- Only a few tools required

#### Design

- The system blends in aesthetically with the roof structure ensuring a perfect finish both outside and inside the building
- Aluminium profiles can be treated with coloured lacquer in a colour of your choice (black, blue...)

#### Optimization & profitability

- Support profiles equipped with thermal breaks to ensure complete insulation of the roof covering
- Insulation on the roof slope leading to savings in fitting out the building interior
- Can be cantilevered up to 0.5 m above the ridge purlin and 1.1 m below the gutter, equalling an extra module per vertical array
- The integration system can be coupled to a heat pump to recover heat from the warm air between the modules and the insulation

#### Maintenance & monitoring

The system has no areas which are vulnerable to dirt build-up or moss growth, ensuring that your roof stays clean all year round.

#### Training

MECOSUN, which is officially approved as a training organization, provides you with training and assistance through a course on system installation. The day-long course provides you with the best possible advice for your first installation and also gives you our "materials" warranty.



#### > Your guarantee of MECOSUN's experience:

- \* 1,000,000 m<sup>2</sup> of installations using our solutions since 2006
- \* Industrial support compliant with the Technical Evaluation of the CSTB
- \* All solutions complying with CEIAB criteria's

## General technical specifications

	Standard beams	Attachment method
For metal roof structures	IPN from 80 to 180 (standard) IPE from 80 to 200 (standard) HEA, HEB from 100 to 120 Thin sheeting profiles (e> 1.5 mm)	Special fixing clips Special fixing clips Special fixing clips Fixing clips
For wooden roof structures	Traditional or laminated	Fixing clips
For concrete roof structures	Beams with metal inserts	Fixing clips
Structural load	Maximum 8.5 kg/m <sup>2</sup>	
Permissible roof slope	5° to 50° (8% to 120%)	
Distance between 2 support beams	Maximum 2m	
Wind areas (NV 65)	Zone 4 - Zone 5 (on case study)	
Snow areas (NV 65)	Zone 4 - Alt. 900	
Module orientation	Portrait	
Length of roof slope	Maximum 27 m for standard installation, 40.5 m special installation (above these lengths consult us)	

## Insulation (structural)

Thickness	40, 50, 60, 80, 90 and 100 mm
Dimensions	Breadth adapted to the system
Structural load	Maximum 5 kg/m <sup>2</sup>
Materials	Polyurethane foam, rock wool...

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1. Example of an installation combined with a heat pump

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2. Installation on industrial and collective roofs



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