

THE UNIT FOR  
PERFECT IN-ROOF  
ASSEMBLY  
= SOLARWATT

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## THE SOLARWATT EASY-IN SYSTEM SETS NEW STANDARDS.

AS WEATHERPROOF ROOFING, THE SOLARWATT EASY-IN SYSTEM REPLACES CONVENTIONAL ROOF TILES. IT IS ALSO A HIGH-PERFORMANCE SOLAR POWER SYSTEM AND A ROOF THAT REFINANCES ITSELF.

The SOLARWATT Easy-In system is designed for sloping roofs with inclination angles from 22° to 65° and is based on the standard modules SOLARWATT Easy-In M or SOLARWATT Easy-In Black. These modules are delivered as an installation-ready system with all mounting materials including flashing.

The special thing about SOLARWATT Easy-In: the module frame is simultaneously the installation system. The modules are simply suspended in the roof battens with the upper module frame, pushed together with a tongue-groove connection and screwed in place. Thus, with little material expenditure and few tools, weatherproof roofing, well-ventilated from the rear is produced in an unbelievably short period of time.

\*16° roof pitch possible with usage of a water-tight sub-roof according to the guidelines of the ZVDH (Central Association of German Roofers)

### ADVANTAGES:

- ▶ Modules replace the roof tiles: direct attachment to the roof battens.
- ▶ No additional assembly system required: The module frames are functioning as assembly system.
- ▶ Manageable number of components: low-effort installation.
- ▶ Easy to install: the modules are mounted into the roof battens and are fitted into each other via a groove-feather-connection.
- ▶ Rear ventilation of the modules guarantees high power yields.

# SOLARWATT

## PowerPackage



The SOLARWATT Easy-In system is available with the new SOLARWATT PowerPackages as a complete package with extensive additional services in 2 versions:

PowerPackage  
**premium**

1. SOLARWATT Easy-In System  
(In performance classes: 3, 5 and 10 kWp)
2. Plug connections and cabling
3. SMA inverter
4. Data logger
5. SOLARWATT full Coverage

PowerPackage  
**basic**

1. SOLARWATT Easy-In System  
(In performance classes: 3, 5 and 10 kWp)
2. Plug connections and cabling
3. SMA inverter

### 3 kWp:

12 modules of SOLARWATT Easy-In (2 x 6 / 3 x 4)  
Output: 12 x 240 Wp = 2,880 Wp  
Required roof space: 22 m<sup>2</sup>

### 5 kWp:

20 modules of SOLARWATT Easy-In (2 x 10 / 4 x 5)  
Output: 20 x 240 Wp = 4,800 Wp  
Required roof space: 36.5 m<sup>2</sup>

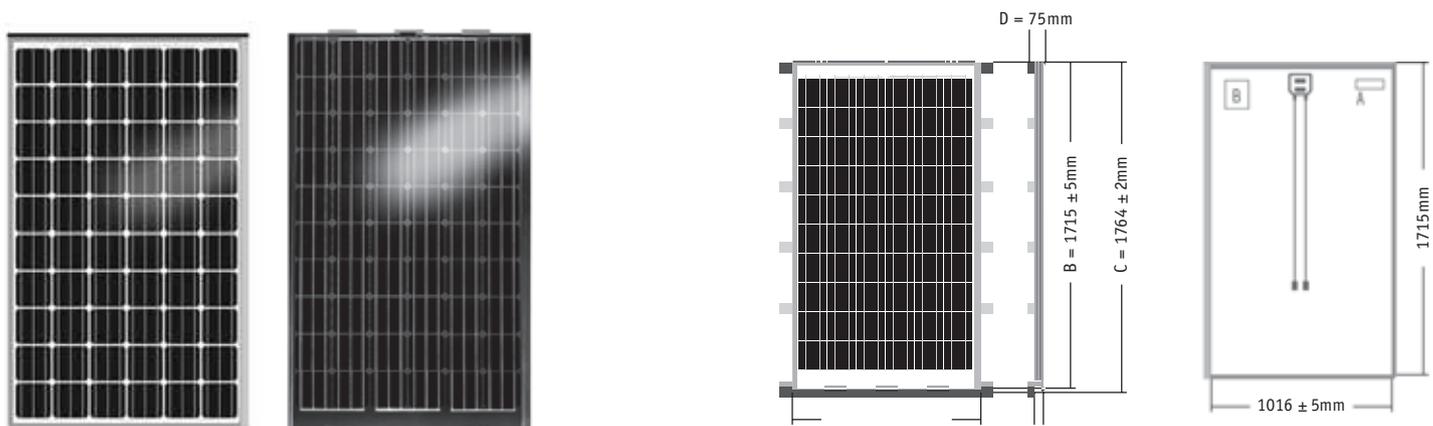
### 10 kWp:

40 modules of SOLARWATT Easy-In (4 x 10)  
Output: 40 x 240 Wp = 9,600 Wp  
Required roof space: 73 m<sup>2</sup>

Of course the packages can be expanded with individual modules.

You can find further information on the SOLARWATT PowerPackages in the corresponding product folders.

# INFORMATION ABOUT THE MODULE



You can receive data sheets with the electrical data either directly from your installer or at [www.solarwatt.de](http://www.solarwatt.de).

GENERAL INFORMATION	Additional information can be found in the data sheet	
Application site	Roof integration / sloping roof	
Roofing	Suitable for nearly all roofing types up to 25 m building height	
Roof pitch min.	22°*	
Roof pitch max.	65°	
Module dimensions (LxWxH)	1.764 x 1.035 x 47 mm	
Roofing dimensions (LxWxH)	1.715 x 1.016 x 47 mm	
Module orientation	Upright; flashing of the entire roof surface only possible following prior testing	
Electrical data P <sub>max</sub> @ STC*	SOLARWATT Easy-In M 240/245/250 Wp	SOLARWATT Easy-In Black 235/240 Wp
Weight	Approx. 14 kg/m <sup>2</sup>	
Frame	Aluminum nature anodized	Aluminum black anodized
Roof structure	This must fulfill the general requirements according to the guidelines of the ZVDH (Central Association of German Roofers). The suction anchors and threaded connections are designed for 40 x 60 mm roof battens.	
Mechanical load-bearing capacity	Suction load tested to 2,400 Pa (wind speed of 130 km/h with safety factor 3) Imposed load tested to 5,400 Pa	
Warranty	See guarantee conditions at <a href="http://www.solarwatt.de">www.solarwatt.de</a>	
Certification	Certification pursuant to IEC 61215, Ed. 2, IEC 61730 in preparation	

\*16° roof pitch possible with usage of a water-tight sub-roof according to the guidelines of the ZVDH (Central Association of German Roofers)

# DELIVERY PACKAGE

- a) Module Easy-In M
- b) Module Easy-In Black

## Individual parts for the substructure

- c) Sarking membrane: UV-resistant and durable material, specially developed for PV applications and temperature-resistant up to 120°C
- d) Aluminum guide rail incl. mounting element: Optimal dimensional stability is ensured and enables easy installation

## Advantages:

- ▶ Improved safety
- ▶ Simplified assembly due to fewer tolerances
- ▶ Better grounding of the modules through the aluminum guide rails (d)

## Materials for module mounting:

- e) Suction anchors incl. screws for mounting



- f) Cross seal with seal insert



## Roof connection materials

- g) Module-side connection (flashing) is provided.
- h) Roof-side connection (flashing) takes place with standard material provided by the customer.



Fig. a)



Fig. b)

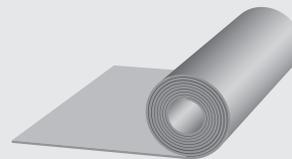


Fig. c)



Fig. d)



Fig. e)



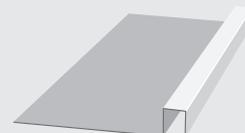
Fig. f)



Fig. g)



Fig. h)



# ASSEMBLY OF THE EASY-IN SYSTEM

## SARKING MEMBRANE

The sarking membrane is laid free of crimps and wrinkles parallel to the eaves and fastened to the rafters or the roof boards.

## ALUMINIUM GUIDE RAIL

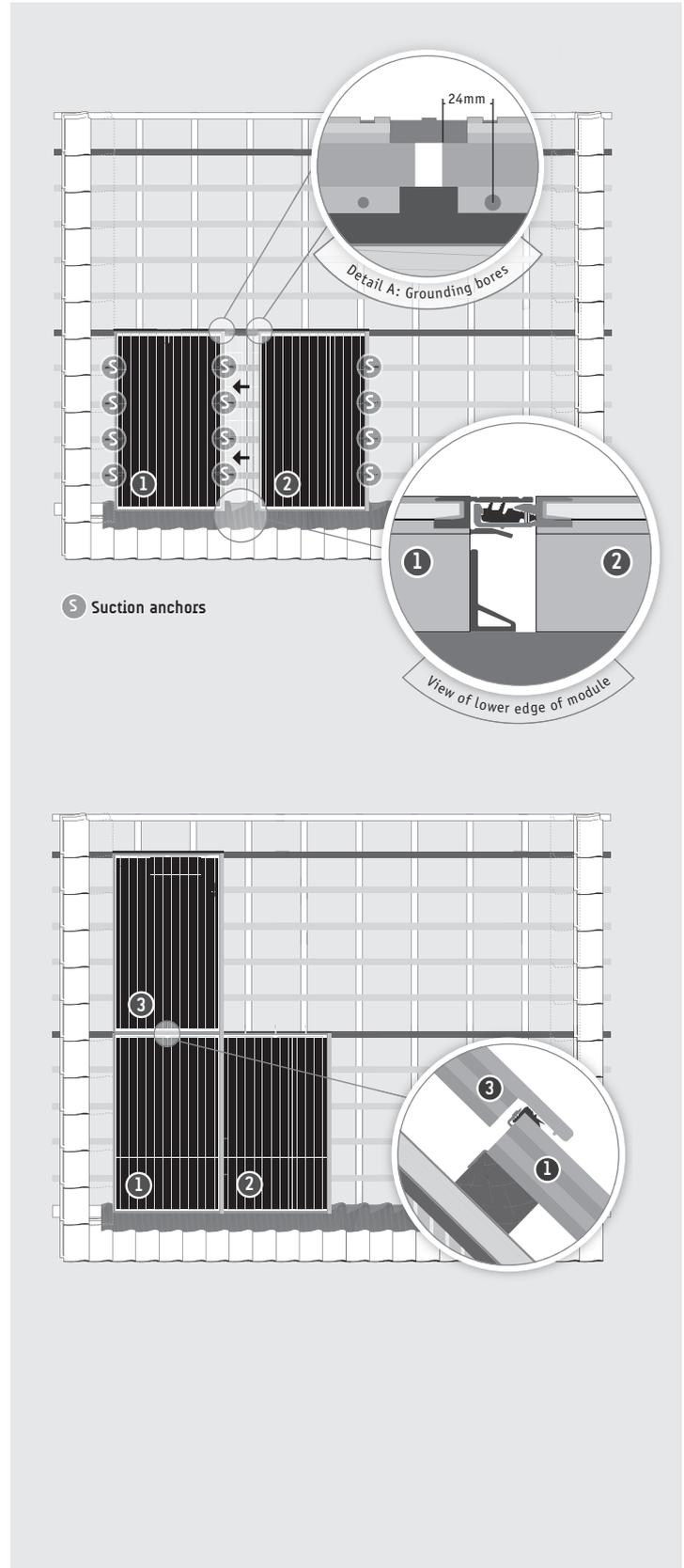
One aluminum rail is installed for each module row for dimensionally stable mounting and for the grounding of the solar modules.

## LAYING OF THE MODULES

The modules with the upper module frame can now be hooked into the aluminum guide rail and pushed together laterally with a tongue-and-groove connection. They are mounted with suction anchors screwed directly to the module and the roof battens.

## FLASHING

The module field is incorporated into the roof with flashing in the same manner as skylights. This ensures a weatherproof and rainproof roof cladding with good rear ventilation.



# TECHNICAL DETAILS – IMPROVED REAR VENTILATION

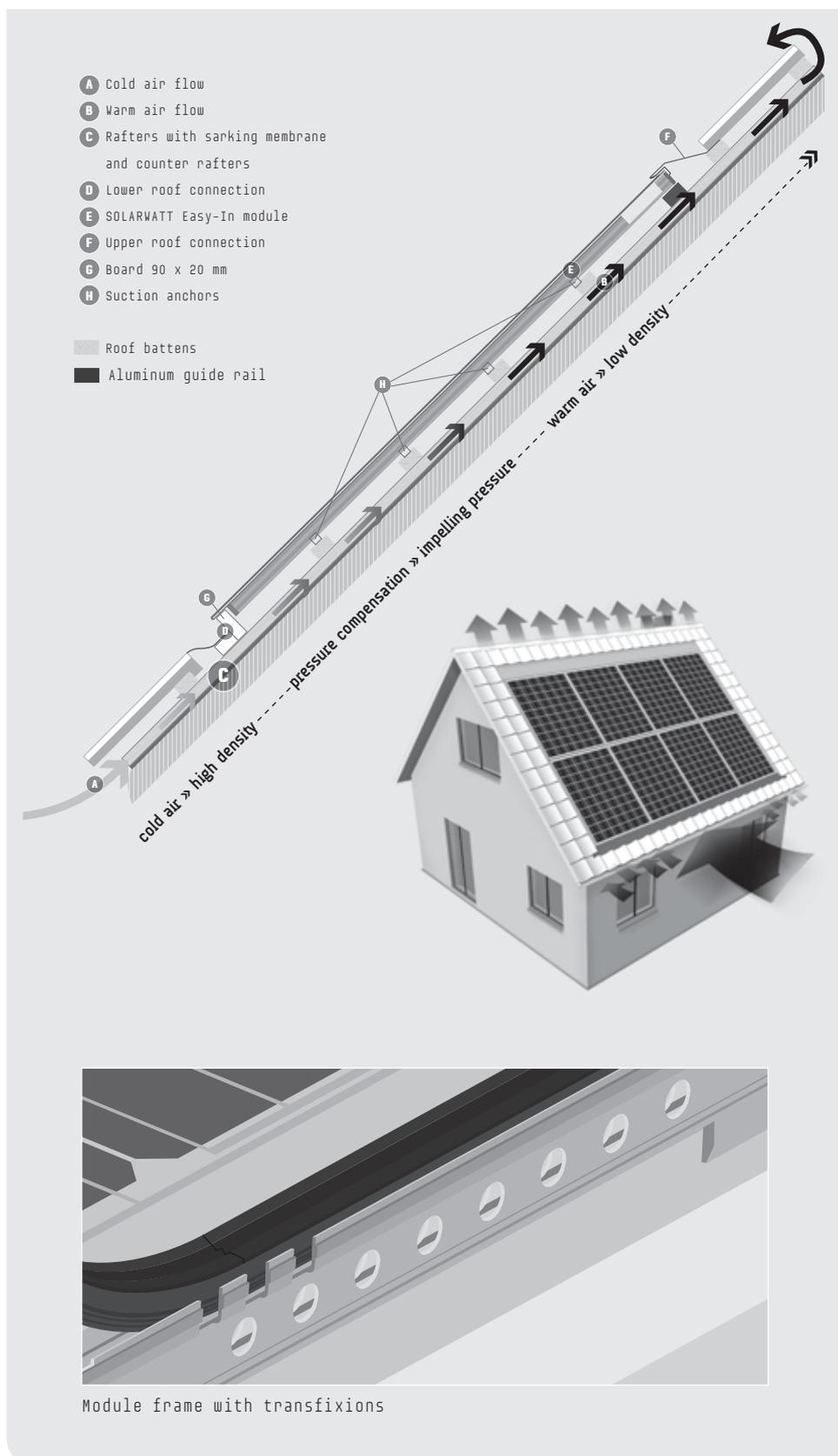
With the novel frame construction of the SOLARWATT Easy-In Module, the rear ventilation area level beneath the module is enlarged by up to 12 percent. This is enabled by special openings in the module frame. Due to the shingled structure of the overlapping modules, there are also no projecting components at the rear ventilation level.

The incoming ambient air finds its way between the solar modules and the roof substructure through air inlets on the eaves side (e.g. anti-bird mesh). The warming air ascends with a chimney effect into the rear ventilation level (counter-rafter level) and escapes via the exhausting crest of the roof or ventilation tiles to be installed while cooler air from below follows. This air exchange can thus take place unhindered and ensures that the SOLARWATT Easy-In system is cooled sufficiently, guaranteeing optimal performance even at high temperatures.

A gap for thermal expansion is already provided for in this construction, so that the installer doesn't need to carry out any additional measures, such as the partitioning of larger PV fields.

## AT A GLANCE:

- ▶ Rear ventilation level up to 12% larger.
- ▶ New module frame with integrated rear ventilation openings.
- ▶ Nearly unobstructed air exchange.
- ▶ Gap integrated into the module for thermal expansion.
- ▶ Optimal performance, even at high temperatures.





Are you interested in our products and services?  
We would be happy to advise you. Just give us a call.

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