

Bifacial photovoltaic modules



Bifacial photovoltaic modules, inserted in a free-standing spandrel panel

Bifacial photovoltaic modules: impressive technology and design


Bifacial solar modules allow efficient use of the front and rear sides of the module for generating electricity. This innovative technology has two main uses: Firstly, these special photovoltaic modules are ideally suited to vertical installation in spandrel panels and in sound insulation units. Compared with a conventional module of similar size, they achieve a significantly higher yield. Secondly, because of their light permeability, the photovoltaic modules fitted with bifacial cells can be used in façades and skylight constructions in prestigious design projects.



Schüco – the address for windows and solar products

As leading innovator in system-based construction, Schüco supplies components for the entire building envelope, including specialised software solutions for design, construction, calculation and fabrication.

- **Aluminium systems** Comprehensive range of profiles for façades, skylights, windows, doors, conservatories, balconies, balustrades, protection and security constructions
- **Steel systems** Individual profile solutions for façades, industrial doors and door technology
- **PVC-U systems** A broad range of products and a wide variety of design options from high-quality PVC-U system technology
- **Standard units** Prefabricated units for individual building ideas made from PVC-U, aluminium and timber, available for all your new-build or renovation needs
- **Solar energy systems** Photovoltaic and solar thermal transfer units perfectly tailored to one another guarantee a uniform installation system
- **Schüco Design** Advanced aluminium system technology for a broad range of designs

 Schüco International KG
www.schueco.com

Schüco solar technology – only for qualified installer

Direct communication

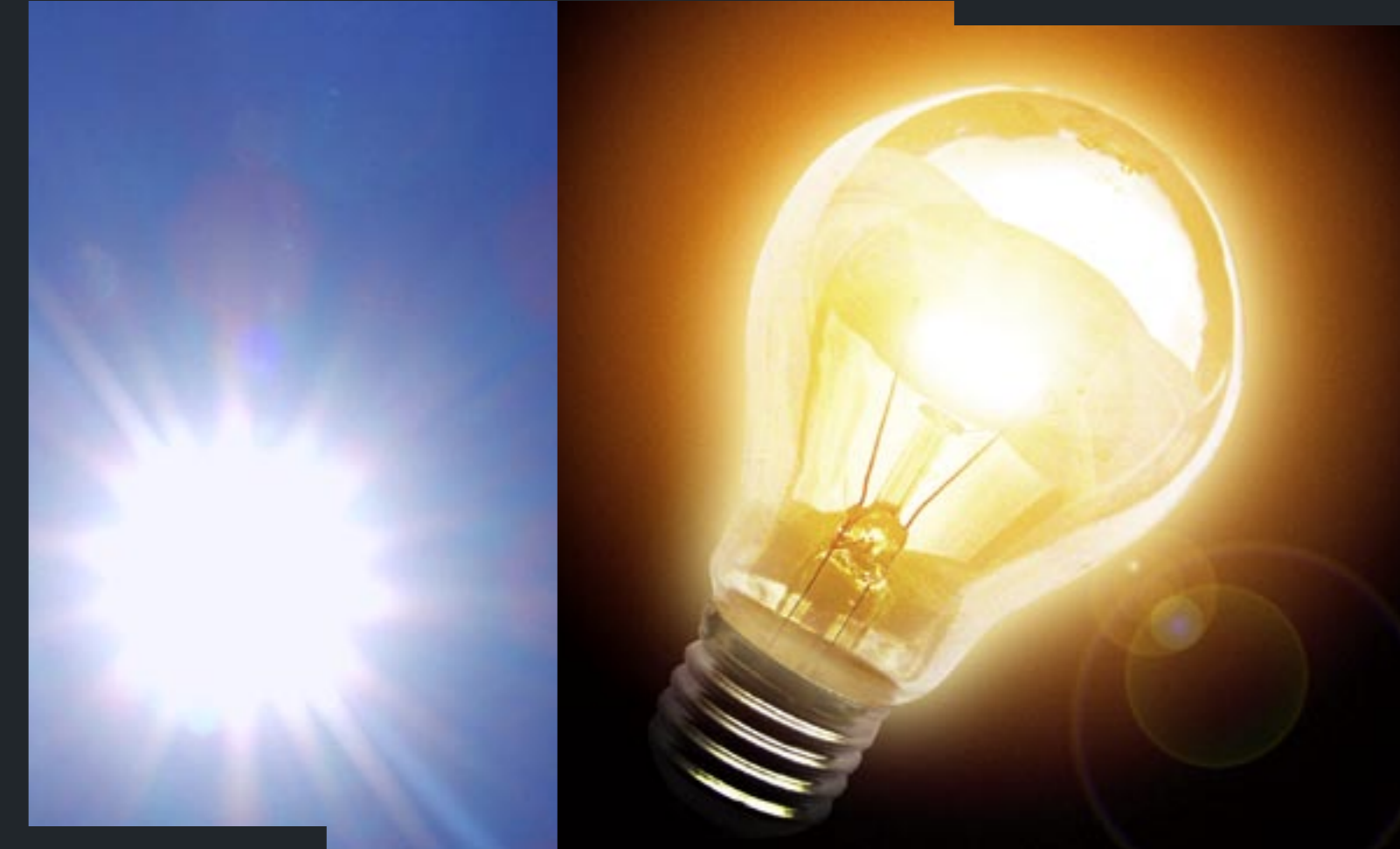
Our large, highly-qualified sales team facilitates frequent, personal contact between Schüco and the fabricators. This enables us to deal with the requirements of private customers quickly and easily, especially regarding special orders.

Schüco solar training

The wide range of training courses on offer at Europe's largest solar training centre enables your employees to gain extensive knowledge of the range of products and their installation.

Photovoltaic with Schüco

Solar power generation for a variety of applications



All aluminium, steel, PVC-U and solar systems developed by Schüco are characterised by their high level of structural reliability and superior quality. The pursuit of perfection, teamwork and a dynamic organisation ensure success. The corporate partnership with Team McLaren Mercedes is a commitment that symbolises the leading position of Schüco International.

Schüco is involved in the following initiatives:



Photovoltaic with Schüco: grid-connected and stand-alone systems

Grid-connected systems

A solar energy system for generating electricity is a major investment. An investment in Schüco is particularly profitable. Schüco solar modules only use highly efficient solar cells from leading manufacturers.

They are protected in the long term from even the harshest weather conditions by a glass/

Tedlar laminate in the photovoltaic module.

In addition, only inverters with at least 96 % efficiency are available. This system efficiency guarantees maximum utilisation of solar energy, consistently high yields and the highest possible return over many years.



PV-Light on-roof construction with 120 modules



Premium canopy construction with a total output of 7 kWp



Premium complete roof construction, 22 modules and integration of a roof window



PV-Light flat-roof construction with a total output of 20 kWp

Stand-alone systems

A photovoltaic stand-alone system can be specially configured according to the customers' energy requirements. The number of photovoltaic modules depends on how long they last and how much electricity the consumer requires.

The direct current generated by the photovoltaic modules can be consumed directly or stored in rechargeable batteries for later use.

Storing electricity also means that there is a basic supply for lighting or to keep the fridge running during the night or during bad weather.

Schüco photovoltaic systems allow solar power to be used for various AC and DC electrical devices as well as generator-supported hybrid systems and backup systems for emergency power supply.

Façades and skylight integration

Schüco photovoltaic installations enable surfaces of public or commercial buildings to be used to generate electricity.

Photovoltaic modules can be stylishly integrated in the building façade or in a skylight construction in place of conventional glazing.

Semi-transparent solar cells in the modules are particularly striking as they allow the sunlight to shine into the building and thereby generate electricity. Façades and skylights therefore have an additional active energy-saving function

Schüco Premium and Schüco PV-Light – two product lines for integration and secure installation

The Schüco Premium line for perfect integration

Within the Premium line, photovoltaic modules, thermal collectors, hot-air collectors and roof windows can be used in any combination. The Premium line enables all types of installation – on-roof, in-roof, complete roof, flat-roof, canopy or façade.

Comprehensive choice of colours

Another feature of the Schüco Premium line is the option of selecting the module frame and the substructure in any RAL colour shade. This means that all customers' design requirements can be fulfilled.

Schüco PV Light – secure installation for every PV module

There are currently around 500 different solar modules available on the German market, from over 60 manufacturers. Schüco is able to install all these modules securely. Our PV-Light substructure system offers the right fixing units for every module construction type and the right fixing anchors for every type of roof covering.

The system components of the substructure have been tested for structural strength. The appropriate certificates can be provided on request.



Aluminium skylight construction – internal view.
147 m² module surface



Aluminium façade construction.
600 m² module surface



Aluminium skylight construction – external view.
60 modules in 20 different sizes with a total output
of 11 kWp



234 frameless modules with a
total output of 45 kWp in a
special canopy construction



Premium in-roof construction with
28 modules and a total output
of 9 kWp