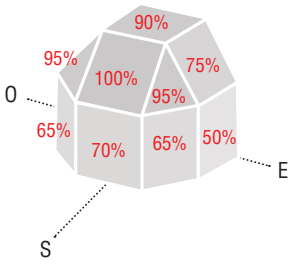
Solar
Retrofit

SOLAR RETROFIT IS THE ONLY MOUNTING SYSTEM
OF PV MODULES DEVELOPED FOR FAÇADES

GREEN BUILDING

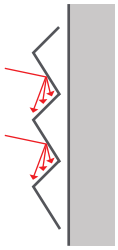
BIPV

THE MAIN ADVANTAGE OF THE **SOLAR RETROFIT** SYSTEM IS ENERGY EFFICIENCY



OPTIMAL 30° INCLINATION OF THE PV MODULE

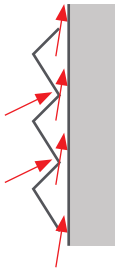
The position of the photovoltaic module with reference to the sun notably influences the quantity of energy captured and therefore the quantity of energy generated.
When compared to the solution angled at 30°, the photovoltaic system loses 30% efficiency when applied to a vertical surface.



LIGHT REFLECTOR

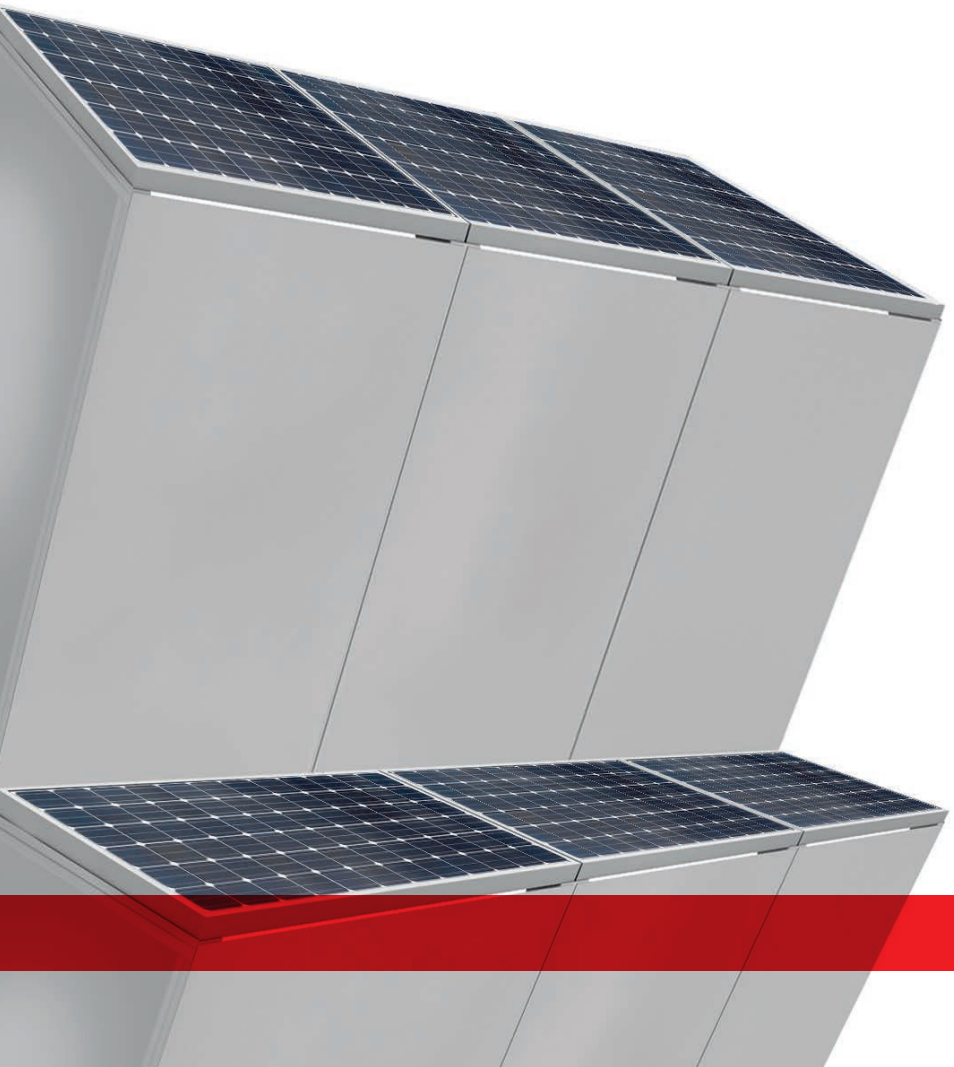
Radiation which reaches the PV module consists of:
- Direct radiation: from the sun.
- Diffused radiation: from the sky and reflections from nearby buildings
- Albedo: Reflective component of the earth.

The primary function of the reflector is to increase the diffused radiation with a higher irradiation of the PV module of about 10%.



REAR VENTILATION

The efficiency of photovoltaic module lessens the higher the temperature is.
The shape of **Solar Retrofit** favors natural air ventilation at the rear of the module, this way increasing the efficiency by around 10% compared to a tradition flat system without ventilation.



Solar Retrofit long model

Economic and simple installation using aerial platforms and without scaffolding.

Refurbishing for existing buildings in terms of energy.

Aesthetic renewal of the building: numerous possibilities of colour, inclination, and reflector material.

Installing lower powered modules equivalent to the energy produced means less cost and maintenance.

Structures suitable for thermal and hybrid modules.

Structure suitable for residential, industrial, and commercial buildings.

Plant **Solar Retrofit** Gelsia Spa
Seregno (I) - kW 5,28

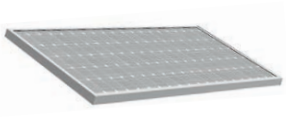
Plant **Solar Retrofit** ACAM Centrogas e acque
La Spezia (I) - kW 8,36

Plant **Solar Retrofit** Zaffiro
Locarno (CH) - kW 5,88

Plant **Solar Retrofit** LKW
Schaan (FL) - kW 17,250

FOR THE SAME COVERED SURFACE AREA **SOLAR RETROFIT** ASSURES THE BEST SOLUTION

SOLAR RETROFIT SYSTEM

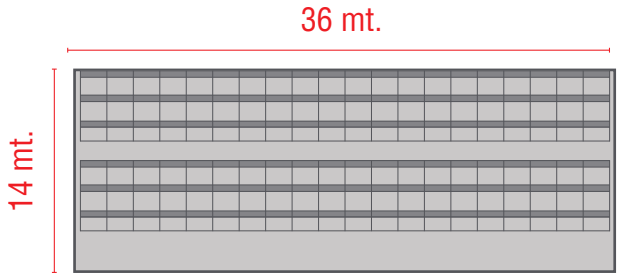


x 128

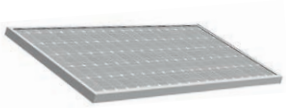
128 MODULES X 200 Wp = 25.600 Wp

ANNUAL PRODUCTION

kWh 28.930



TRADITIONAL SYSTEM

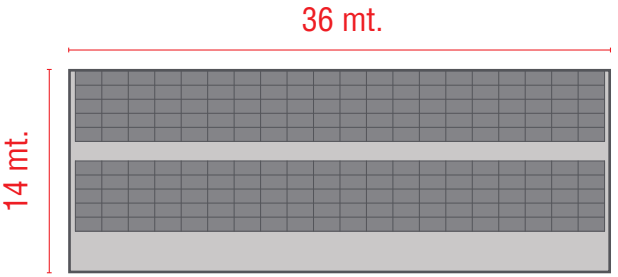


x 208

208 MODULES X 200 Wp = 41.600 Wp

ANNUAL PRODUCTION

kWh 28.990



As with covered façade surfaces, the **Solar Retrofit** Solution results in a better yield in parity to the power of the installation. Considering the energetic production per square meter, we can see how the **Solar Retrofit** solution is more efficient when compared with the solution of applying the fixture to the façade with an increase of around 50% in production per metre squared.

This is mainly due to the 30° horizontal inclination of the modules up against the coplanar solution on the façade- and better ventilation at the rear of the module. Further to this the use of reflectors positioned on the back of the upper module guarantees an increase in irradiation on the active area.

Using the **Solar Retrofit** system instead of the Traditional system will bring a saving of 25.600 Wp installed compared to 41.600 Wp, guaranteeing an Annual productions equivalent to 28.930 kWh compared to 28.900 kWh.

Plant **Solar Retrofit** Gelsia Spa
Seregno (I) - kW 8,64

Solar Retrofit

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