



SolteQ UK

The Exclusive Premium-Roof of the Future SolteQ-Quad40-Roof-Tiles *Stylish Roof + Photovoltaic + Solarthermics in One*

The perfect solution for building an integrated Photovoltaic (BIPV) Energy Roof with highly efficient PV-tiles, brilliant slate-look and integrated safety system BFA.

*Building integration with style:
classic and rustic slate-look, combined
with modern photovoltaic technology*



A Roof like a Diamond



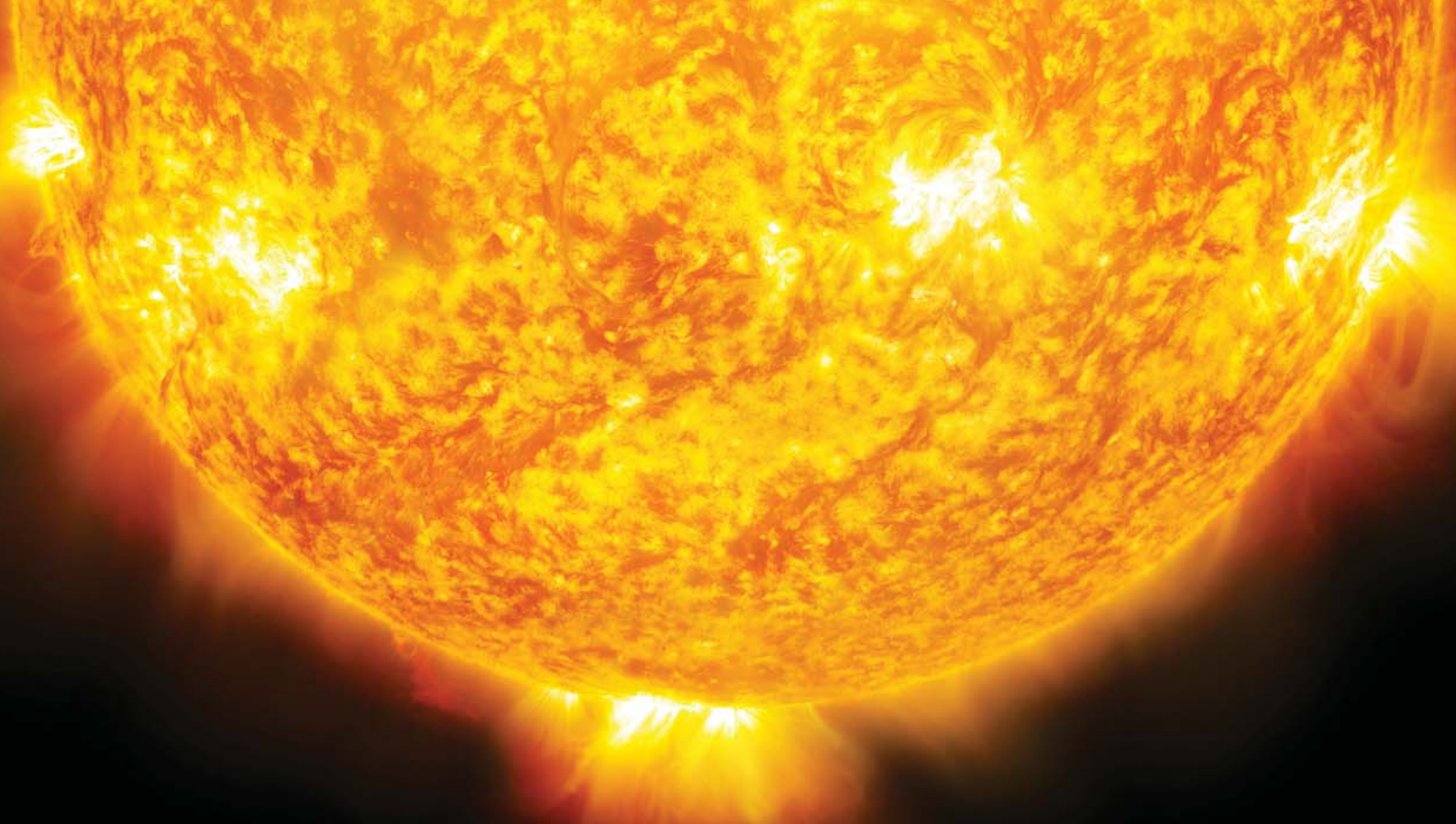
SolteQ-Energy Roof
with nice slate look
...the next generation

- High performance PV-module with 156x156 mm monocrystalline cells producing over 173 / 208 Wp/m²
- Easy to install on conventional laths
- Maximum and efficient use of roof area
- Up to 36% more efficiency than a conventional PV roof
- Surface with self-cleaning effect
- Safety glass
- 4 mm solar safety glass, mechanical loading up to 8500 Pa
- Anti-reflexion, prismatic glass
- 100% quality controlled product
- TPS certified
- Power tolerance +3%
- Frameless design
- 100% waterproof and storm-resistant
- UV and weatherproof
- Integrated safety system, automatic or manual safety
- Overheat protection
- Fire prevention
- Efficiency 15 years: 90% of Nominal Power
- Efficiency 25 years: 85% of Nominal Power
- Efficiency 40 years: 80% of Nominal Power
- Product warranty: 5 years, expandable up to 20 years
- **Estimated Lifetime: >50 years with >>90% power**
- Made in Germany

www.SOLTEQ.uk

Made in Germany





Our Sun

Distance from earth:	150 million km
Diameter:	1,39 million km (109-times diameter of earth)
Age:	4,5 billion years
Surface Temperature:	5.800 Kelvin
Mass:	1 989 000 000 000 000 000 000 000 million kg

The Sun burns 637 million tons of hydrogen and generates 632 million tons of helium and 385 billion billion megawatts of energy. This energy equates to 1,300 W per square metre here on earth, and is 10,000 times more than the total needed by mankind. There is more than enough energy for heating and electricity available. There is no need for us to burn other less environmentally-friendly resources and increase CO2 emission's.

The Most Beautifull Planet of the Galaxy

*100% energy taken from the sun -
and all for free !
- heat and energy -*



Premium Energy Roof with Quad40-Roof-Tiles *Architecturally and Aesthetically Pure!*

**The Best Roof in the World is the One that Looks Good on your Home, Combined with Modern Technology:
The New Energy-Roof with Stylish Roof Tiles!**

Why use a second roof layer of PV-modules, when you can use PV-modules as roof cladding directly and save double the cost! There's no need for separate roof tiles and PV-modules: use only attractive PV-roof-tiles!

Why is this the Roof of the Future?

- ▶ Stylish and functional - Aesthetically pleasing with the power of a hidden photovoltaic system
- ▶ Simple Construction - Can be built in the same timescales as a conventional roof
- ▶ 100% waterproof and storm proof
- ▶ Provides ecological and aesthetic added value to the house
- ▶ Can be used for east/west-roof orientations
- ▶ Suitable for new build and renovation projects
- ▶ Includes safety system SolteQ-BFA
- ▶ Energy storage options
- ▶ Utilisation of the thermal energy from the roof for heating and hot water
- ▶ The potential to make energy bills a thing of the past
- ▶ Long lifespan, low maintenance
- ▶ Cost effective solution for the provision of energy

This is the SolteQ-Quad-Energy-Roof !

SolteQ-Quad-Energy-Roof - The Power Package

Use PV-roof-tiles directly on to your building to keep your home warm and dry, produce energy, and look stylish and attractive. Each SolteQ-PV-Tile has a power of approx. 43.25 Wp, this gives your roof a huge power package. The efficiency of one m² is over 173 Wp per m².

Let Your Roof Pay for Itself !

The new SolteQ-Quad-PV-Roof-Tiles consist of anti reflective, prismatic, toughened safety glass with integrated high efficiency monocrystalline cells. They are stylish and produce a huge amount of energy (173 Wp/m²) which turn your home into a modern, energy producing house. Because the tiles reduce/eliminate your electricity bills, the roof essentially pays for itself and you will end up with a roof for free.

The fantastic "fish scale" look works in harmony with your house and makes it attractive with an electricity factor! Black and sleek look, with roof tiles comprising of high quality glass and modern solar cells with high efficiency.

Perfect for new builds and roof renovations.

Plenty of energy, completely for free from our Sun! - use this gift !

... always in harmony with your home



*A Roof like
a Diamond*



**100%
Made in
Germany** 

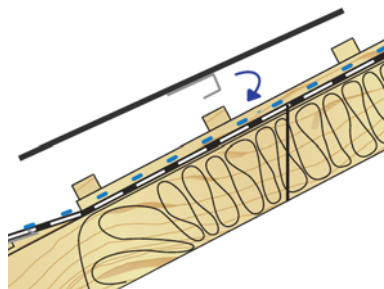
SolteQ

The Exclusive and Premium Roof of the future

The SolteQ-energy roof is the perfect solution for future energy and building integration of photovoltaics. Roof-mounted PV systems as a second roof layer look ugly, and even in-roof PV systems tend to be unattractive. The SolteQ-energy roof however is a completely new roof concept, offering a great look while offering maximum energy.

Easy installation

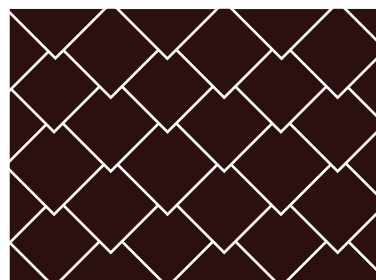
The PV-tiles hang directly onto the wooden laths and do not need any further aluminium under-construction. On the back of the tiles there are two hooks. Hang it, fix it in place - ready!



Maximum roof area utilization

Fantastic Look and Maximum Roof Utilization!

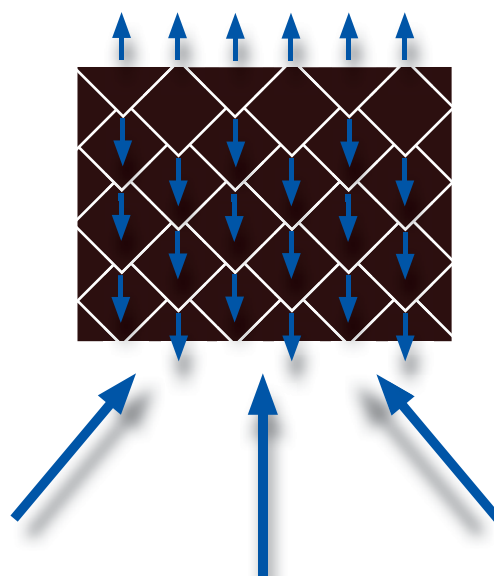
The new SolteQ-PV-Roof-Tile can have a "fish scale" design which makes your roof modern and energy-productive, yet still attractive. Your new roof is a high-class photovoltaic system, that keeps your home dry and earns money at the same time. With the overlapping layout, the cells sit side-by-side over the complete area. This will guarantee maximum efficiency and power.



Optimal cooling

PV-modules become warm in normal operation. Conventional tiles in the sun certainly become warm too. The "fish scale" design of the SolteQ-Quad-PV-Tiles makes your home not only look stylish, the design also has single-module-cooling by natural convection. Cool air flows underneath the tiles at the lower border of the roof, cools the tiles and comes out at the lower corners of each one and at the roof ridge. This cooling works much better than on-roof-PV-systems and other roof integrated PV-systems which come without cooling.

Perfect single-module-cooling and more efficiency!



Power generation directly from roof cladding integrated into the building - BIPV, but with style!



Sun is life,
Sun is energy,
Sun is SolteQ.



Patent pending

SolteQ-Quad-Roof-Tiles as Complete Roof Cladding: The Advantages

Frameless and Clean

The fantastic frameless design and the "fish scale" design of the SolteQ-Quad-Energy-Roof makes your roof look sleek. The frameless design looks aesthetically pleasing, but not only that, it also helps keep the roof completely clean for 30 to 40 or more years. The quality of the glass does not tarnish. The SolteQ-Quad-Energy-Roof has no frame, where water and dirt can be collected, it does not collect at the borders either and will completely drain away. Integrated self-cleaning effect!

Frameless and Overlapping Layout Means Complete Roof Utilization

With the frameless and overlapping design, the cells lie very close to each other over the whole roof area. No lost space with aluminium frames etc. The roof tiles will have coverage right up to the borders.

Modular Design

The SolteQ-Quad-PV-Tiles-System is a modular system, which is flexible and can be adapted to every roof.

Lightweight

Conventional tiles have a weight of 50-80 kg per square metre. A SolteQ-Quad40-PV-Tile has a weight of only 3.3 kg. This results in a weight of only approx. 14 kg per square metre. Perfect for new buildings and renovations.

Self-Cleaning Effect

The glass of the tiles has an anti-stick surface, which makes water and dirt drain away. Even after 40 or more years, the roof will still look like new.

Weatherproof

Perfectly weatherproof with robust material and over-lapping layout.

Thermal Insulation

The low heat transfer properties of the tiles provide the roof with good insulation properties against the cold.

Acoustic Insulation

The robust Quad-Roof-Tiles also gives an acoustic barrier for sound with a damping of approx. 38..42dB

Cost Effective

With only one roof layer, the PV-Roof-Tiles collect energy directly through the roof cladding. The result is building integrated photovoltaics with a great look for nearly the same cost as a conventional roof.

High Power Output

The power per square metre is approx 173 Wp, which is comparable to a 1m x 1.6m solar panel with an output of 280Wp. But by laying over the full area up to the borders, the SolteQ-Energy-Roof will produce more energy.

+20% more Power by using low light phases

However once the low light attributes of the tiles are taken into account, where the early morning and late evening sun is utilised, the output of the tiles is increased to approx. **208 Wp/m²**.

Up to 36% more efficiency

The SolteQ-Quad-PV-Tile-System provides full use of the roof area without any lost regions, like aluminium frames, distances to the border of the roof, distances between the module rows etc. By overlapping the tiles, the cells will lie very close together, so the efficiency is very high.



Hail and Stormproof with 3-Point Safety Mounting

The backs of the tiles hang on aluminium hooks which ensure the tiles cannot lift up. In addition to the hooks the tiles also have a rubber seal which ensures the tiles remain in place even in high wind conditions.

Energy Efficiency

- Conforms to the latest EnEV and EEG regulations.
- Full integration of photovoltaic, thermal-solar-systems and roof windows
- South roof systems are economically viable and are covered as part of the building costs
- Also suitable for east/west and north facing roofs
- Perfect weather protection
- Energy will be self-produced and costs will be saved month by month

... always in harmony with home and nature



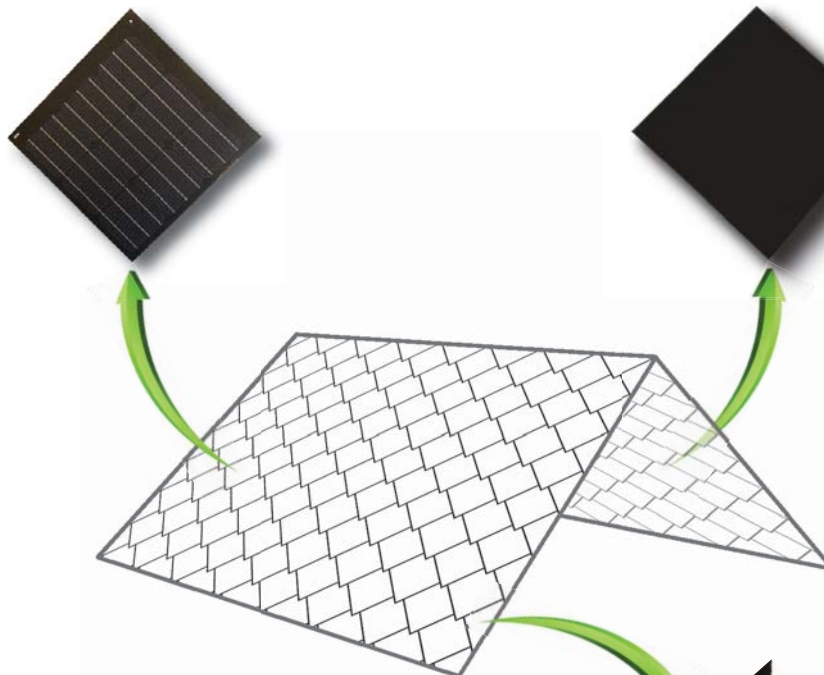
Holistic System

The product line SolteQ-Quad-Roof-Tiles is a holistic system for the whole roof, meaning south and north sides. The sunny-side will be laid out with active tiles, for the north side (Europe) the same tiles are available, but without cells. The borders and edges will be filled with half and quarter tiles. The SolteQ-Energy-Roof is primarily a roof, and not just a PV-system.



**Active Quad-Tiles
for the sunny side**

**Passive Quad-Tiles
for the opposite side**
(same material, same look, without cells)



Up to 36% more Efficiency, than conventional Systems!
The Solteq Quad-PV Tiles are placed so that the system maximises the energy from The Sun. The whole of the roof is used, the tiles are laid right up to borders without any need for aluminium framing etc. By overlapping the tiles, the cells lie very close together, so the efficiency is even higher.

Suitable also for East/West-Roofs

With help of the light-boost-effect of the prismatic surface and the brilliant low-light behaviours of the roof, the SolteQ-PV-Roof-Tiles are perfect to use for East/West direction. The tiles also work in twilight, much better than conventional PV-modules.

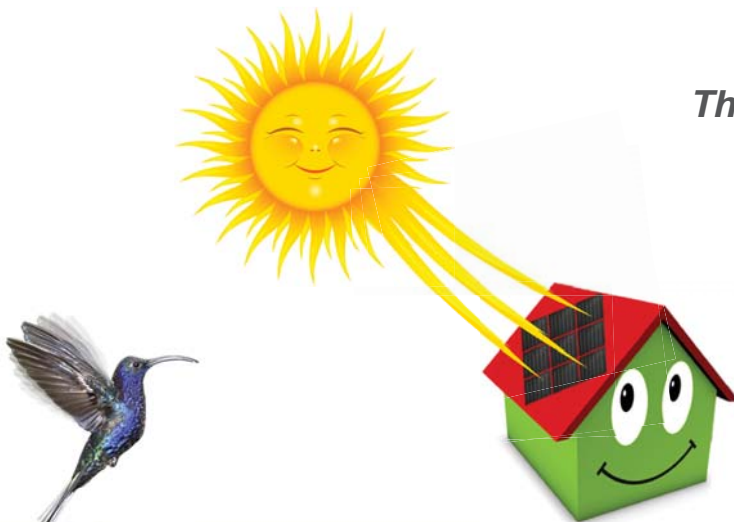
**Half and quarter elements
(passive) for the border zones and
to fit windows etc.**
(same glass and material, but without cells)

Need-Based Power Adaption

The sunny-side of the roof can be used for maximum power generation with active tiles on the total sunny-side area. If maximum power is not needed, the system can be adapted to suit the amount of power actually required, by using passive tiles on part of the area. In all scenario's the overall look still remains the same.

The formula of the future: $E = S \times PV^2$

Energy = Sun x PV^2



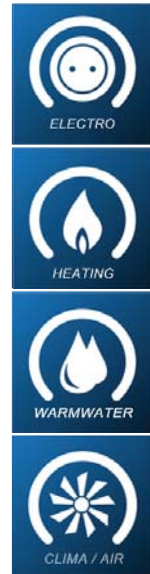
... Energy from The Sun - for free !

Clean energy, in harmony with the nature



- Electricity
- Heating
- Warm water

... all from the roof !



We will help you to cover your household energy requirements !

Photovoltaic and Solarthermics in One:

You Can Also Use the Thermal Heat from the Roof Area!

... the complete household energy demand can be met by the roof!

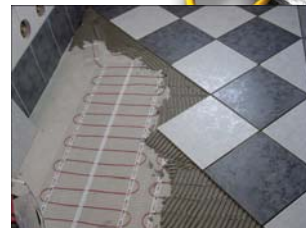
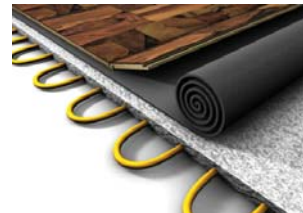
1. Electricity will be produced by the photovoltaics of the roof
2. Heat will be produced by using the thermal heat from the roof, by vacuuming off the heat underneath the tiles with a thermal air/water-heat pump, and filling the heating buffer with this free and additional energy. The large roof area is like one big solar collector and can supply even in winter time, a huge volume of energy.

a) Heating via Electric Energy

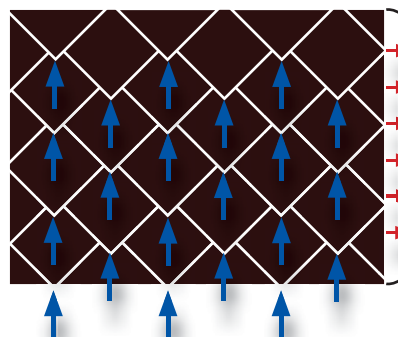
The SolteQ-Energy-Roof is usually able to produce more electrical energy than is needed. The buffer for the heating and also the buffer for warm water can be heated up with the electrical energy via heating elements in the buffer. The advantage is, there is no need for water hydraulics and additional pumps etc.

Electric Floor Heater / Infrared Heaters

In new builds, heating via electric heating cables in the floor is the simplest and cheapest way to create perfect heating. Advantages: high efficiency, low maintenance, no water pumps which need electric energy.



b) Heating via Thermal Energy from the Roof with Help of a Heat Pump (Air/Water)



Additional Use of the Heat from the Roof for

- Heating
- Hot water

The large roof area represents a huge energy source, which is comparable with solar panels. A typical home needs only around two of these panels. Now you can imagine the huge amount of energy the roof can deliver over the complete area, for free. This free energy comes with two main benefits :

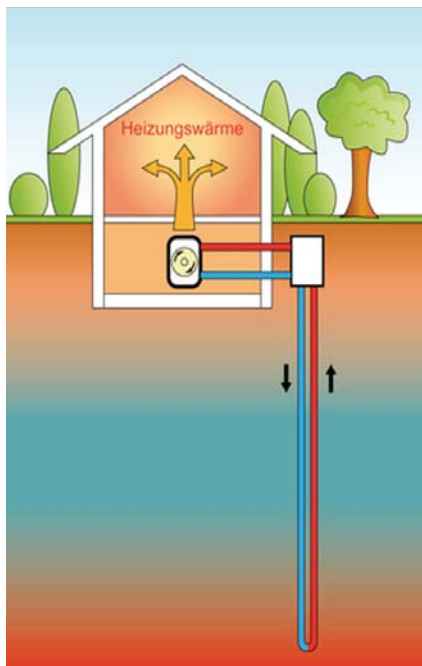
- a) Heat energy for heating and warm water => more free electricity is at your disposal
- b) Cooling of the PV-tiles => better efficiency



c) Heating via Geo-Thermal Heat Pump

The SolteQ-Energy-Roof produces enough energy to supply a Geo-Thermal Heat Pump. A Geo-Thermal Heat Pump gets the geo-thermal heat energy via a probe in approx. 100m depth of ground. This heat can be used for heating your home. The pump is powered by electric energy. A Geo-Thermal Heat Pump has a power factor of ratio 1:4, this means 100W power-in to get 400W of heat energy. This pump can operate for free by using the electricity being supplied by the SolteQ-Energy-Roof.

... heat for free...



Example: geo-thermal heat pump



Think about the future - now!



SolteQ-Energy Roof:
The Perfect Pension Plan!



SolteQ

Exclusive Diamond-Like Finish From Tempered Glass with Prismatic Surface

- Suitable for new and old buildings
- Maximum efficiency with monocrystalline cells
- Lightweight roof construction
- Available in several premium colours
- Slate-look tiles ideal for renovation projects

For safety:

- Integrated with the proven SolteQ-BFA-Safety-System (Optional)
- Fire prevention with lots of accessories
- Maximum protection against high voltages
- Maximum personal protection
- 100% waterproof

Low Iron Oxide Glass with Unique Design

By using glass with a very low amount of iron oxide, the absorption of the radiation energy in the glass is close to zero. The prismatic surface provides a special aesthetic aspect.

Anti-Glare and Satin-Like Surface

The satin-like surface of the Quad-PV-Tile makes sure that the roof prevents reflection and gives it a smooth look.

Light-Trap-Effect

The structures have a „trap-effect“ for incoming light beams. Once the light hits the glass, it remains there. The light will drop directly onto the cells. This is why the SolteQ-PV-Tiles also work in twilight, much better than conventional photovoltaic modules.

Raising Efficiency

Because of the light-trap-effect, the SolteQ-PV-Tiles have between 2% and 10% more efficiency compared to standard PV-tiles (depending on light angle and cell type, under standard test conditions IEC 61215).

Remains dirt and debris free

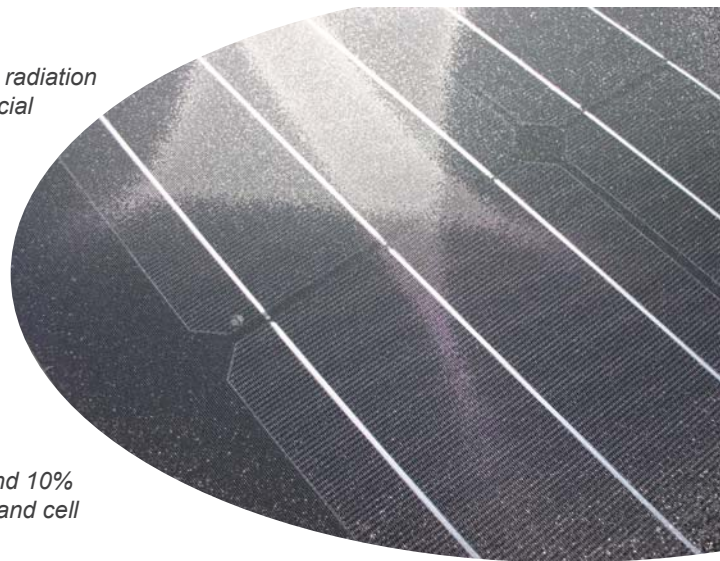
Because of the rounded structures of the surface, dust and pollution will be washed away by rainwater. The frameless design makes sure that the roof gets cleaned in the long term.

East / West-Roofs

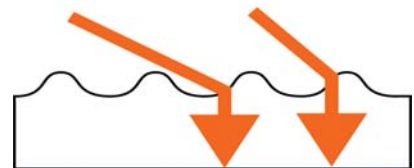
The sophisticated use of light in the prismatic glass makes it possible to raise the power and efficiency by up to 3.5% in normal light, and by up to 20% more in twilight times and with slanting incoming light. The effect will be amplified in unfavourable lighting conditions, for example in morning or evening hours, or on a roof facing an east or west direction. This makes it possible to use east and west roofs with effective and maximum power generation. The long term availability and safety is confirmed by the international standards IEC61215 and IEC61730.



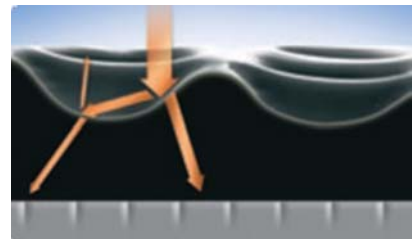
100% made in EU



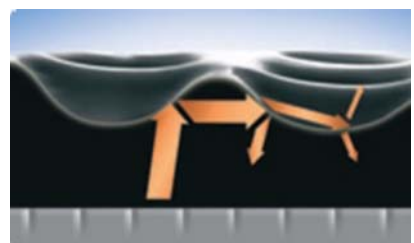
Standard-PV-Module - high reflexion



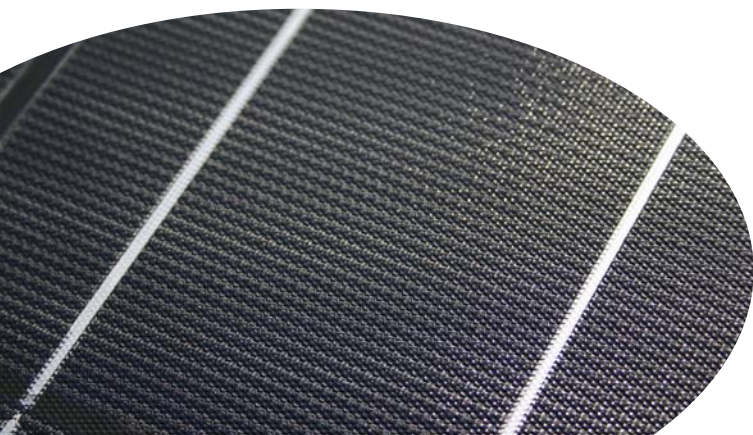
SolteQ-Surfaue - 100% use of the incoming light



Low reflexion at the air/glass barrier



Light-Trap-Effect



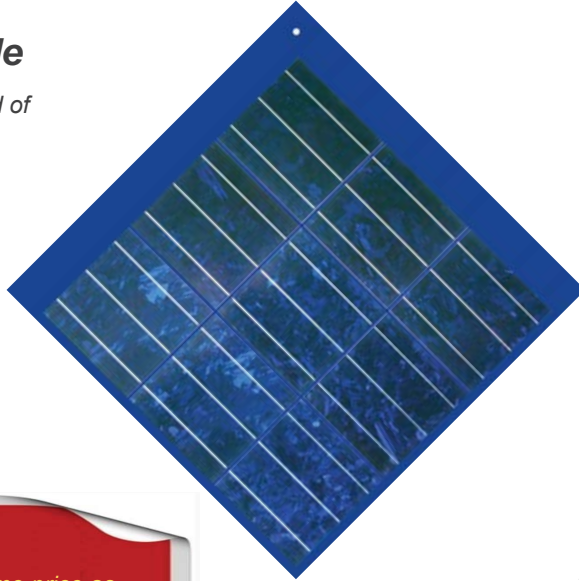
Quad-Economy

SolteQ

Quad Economy Class The entry level Roof Tile

*This is the low cost entry into the world of autarkic energy.
Best quality 100% made in Germany*

...the right roof for every home.



Polycrystalline photo-voltaic cells are made of natural raised crystal structures and are blue in colour. Please note that the colour of the tiles produced during the actual production process may differ very slightly from the colour shown in the Brochure.

Unbeatable price!

The SolteQ-energy roof for the same price as a conventional PV system, just the same as direct roofing!

The SolteQ Energy Roof provides both a roofing solution and a powerful PV system in one stylish product.

The best roof is the one, that looks great on your home.

Cells: Poly crystalline
Color: blue / blue crystalline
Efficiency : ca. 18%
Power: ca. 39,6Wp/Tile
or 158Wp/m²
Voc: 5,76 V
Isc: 8,8 A

Efficiency 25 years:
80% of Nominal Power

Pictures similar



The SolteQ Energy Roof with the Quad Economy Tiles.

Quad-Premium-Black

SolteQ

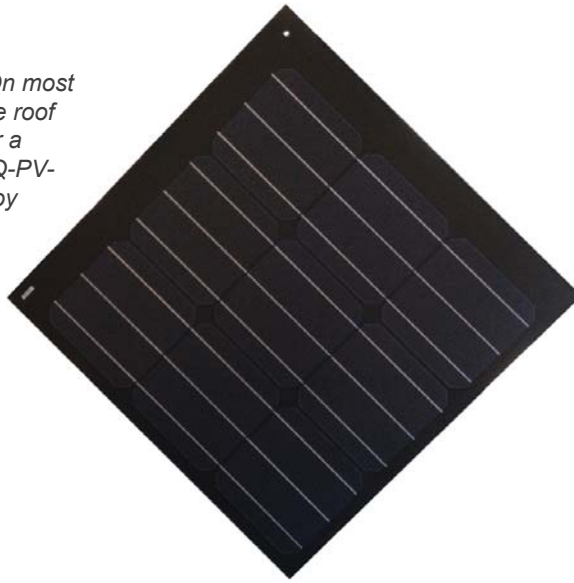
Quad-Premium-Black Class The Premium Model

"Anthracite" is the classic colour tone, which is universal and timeless. On most house types and designs, the Anthracite roof will look harmonic and brilliant. Even for a period or modern home, the new SolteQ-PV-Tile adapts to any building. You will enjoy the look of your building for years with the new Energy-Roof with SolteQ-PV-Tiles.

... the longlife roof.
... the right roof.

The prismatic structures are a feature of the glass, which have the prisms on the surface, the tiles are not additionally varnished or coated with any other materials.

The Energy Roof with a slate look



**Black Quad Premium
PV Roof Tile**
complete with fine
silver pinstripes.
Cells: Mono crystalline
special attribute:
Great Slate Effect

Cells: Mono crystalline
Color: anthracite black cells.
Depending on the production charge
the color can get a dark blue effect.
Efficiency: 19,2%
Power: ca. 43.25 Wp/Tile
and 173 Wp/m²
Voc: 5,76 V
Isc: 8,8 A

Efficiency 40 years:
80% of Nominal Power

Pictures similar



Picture.: Quad Premium Energy Roof with Quad Black Diamond PV Tiles

Quad-Premium-Black+

Solteq

Quad-Premium-Black-Plus-Class The Exclusive Class

*"Anthracite" in its perfect style.
Anthracite Tiles without the silver pinstripes.*

...the right roof for every home.

*Because Monocrystalline cells
have a homogenous colour
structure. This gives your roof
a very stylish look.
Monocrystalline cells are the
best cells with the maximum
efficiency.*



Cells: Mono crystalline
Color: anthracite, very dark
blue / black cells
Efficiency: 19,2%
Power: ca. 43.25 Wp/Tile
and 173 Wp/m²
Voc: 5,76 V
Isc: 8,8 A

Efficiency 40 years:
80% of Nominal Power

The "Black Diamond" for your home.



Picture.: Quad Premium Plus Energy Roof with Quad-Black-Diamond-PV-Tiles

Quad-Gold-Class

SolteQ

Quad-Gold-Class with real Gold Leaf 24 Carat

*Aesthetically pleasing and Exclusive.
The energy roof for the discerning customer.*

*The cells are connected with real gold leaf,
which gives your roof a unique appeal.*



Cells: Mono crystalline
Color: anthracite, very dark
blue / black cells
Efficiency: 19,2%
Power: ca. 43.25 Wp/Tile
and 173 Wp/m²
Voc: 5,76 V
Isc: 8,8 A

Efficiency 40 years:
80% of Nominal Power

Energy Efficiency? 100% self-sufficiency is possible!

SolteQ has the solutions for a clean planet.

The SolteQ Energy Roof is a high quality roofing system comprising of stylish PV Tiles that produce a huge amount of energy.

Our vision is:

*100% self use of electricity produced by the SolteQ Energy Roof, the roof of the future, available now in the UK.
For all households to be able to afford a SolteQ Energy Roof in order that our reliance on fossil fuels for energy
will become a thing of the past.*

*Finance your new energy roof with the savings made by no longer having to purchase electricity and heat energy
from external sources, sources that probably rely on fossil fuels to generate the energy they supply.
The SolteQ Energy Roof can meet all of a households energy needs with energy to spare.*

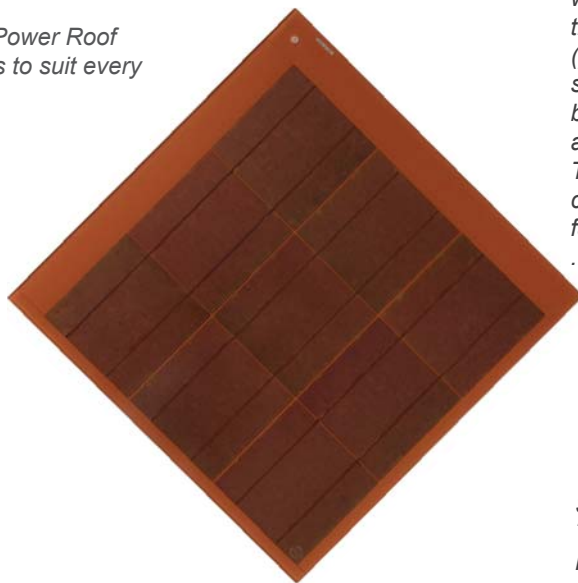


SolteQ-Energy-Roof "Terracotta"

... the Mediterranean Style

Terracotta is the ultimate look for Mediterranean regions, where conventional photovoltaic systems are unacceptable. The SolteQ Energy Roof range - The Power Roof available in a variety of elegant colours to suit every building location.

Polycrystalline photovoltaic cells consist of naturally grown silicon crystals which are coloured as part of the manufacturing process. It should be noted that the colours can vary very slightly from one production run to the next and also as a result of the lighting conditions and viewing angle.



SolteQ-Quad- Colour-Roof- Tiles Polycrystalline

Besides the classic colours with monocrystalline cells, the Quad-Poly product (polycrystalline cell product series), offers a variety of brilliant colours to match any building. The coloured polycrystalline cells give the roof a fantastic appearance. ... a roof to be proud of !

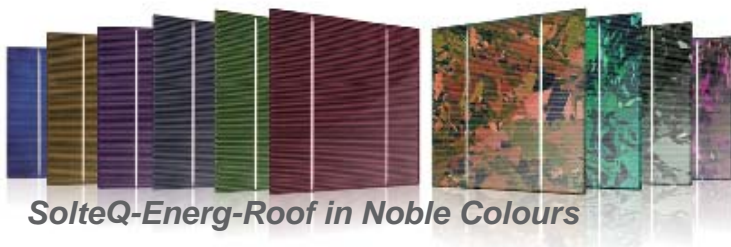
Standard colours:
Terracotta RAL 8004
Forest-Green RAL 6020
Silver-Grey RAL 7036
Lavender RAL 7016
Wine-Red: RAL 3005
(colours similar)

SolteQ-Energy-Roof Terracotta



SolteQ-Energy-Roof "Amber"

SolteQ



Amethyst

*Color: Lavender
... for ever summer fresh*



Ruby

*Color: Ruby / Wine-Red
Noble and gentle, the shade
of the gourmet*



Emerald

*Color: Emerald / Forest Green
In keeping with nature*



Sapphire

*Color: Dark Blue
Blue is the color of silence
and relaxing*



Bernstein

Color: bernstein



SolteQ brings sunlight into your life

SolteQ has the solutions for a clean planet.

Here at SolteQ our goal is to develop and contribute to the field of energy renewables by producing highly functional and visually appealing innovative products for the future, now. The Energy Roof is an example of our innovative approach to providing a clean energy solution to meet all household energy needs "The roof of the future: Stylish and full of energy". PV for electricity, supplemented by solar thermal for domestic hot water and heating.



Your house needs:

1. **Electricity** (Power-SolteQ Energy roofs and storage)
2. **Heating** (Thermal Energy - SolteQ Energy roofs)
3. **Water** (Drinking Water - SolteQ FreshWaterMill)

SolteQ's vision is to reduce reliance on fossil fuels as a source of energy in favour of renewable energy sources. The SolteQ Energy Roof is so powerful that all of a household's energy needs can be met by utilising the Photovoltaic and Solar Thermal properties of the Roof, making energy bills a thing of the past and reducing demand for fossil fuel generated energy. The cost savings made by self generation of energy can be significant and make good economic sense particularly in these days of rising energy costs.

Finance your new energy roof with the cost savings made by no longer paying for fuel derived fossil energy.

Why settle for an aesthetically challenged on roof PV system when you can have a stylish roofing solution that generates both electricity and solar thermal energy, enough energy to meet all of your energy needs. The roof that pays for itself via the savings it makes by reducing/eliminating energy bills.

100% made in Germany:

Every roof is individually specified and manufactured for our customers in our own purpose built factory in Oberlangen, north west Germany.

The future belongs to electric cars

The majority of car journeys involve driving a short distance. Today's electric cars can have a range of up to 400 km on a full charge. This is enough for commuting to work and general everyday usage. The SolteQ Energy Roof can provide you with the electricity required to charge your electric car for free, therefore no more car fuel bills courtesy of the roof on your house. No more fuel costs, go fill-up free thanks to your SolteQ Roof.

Invest in your roof, rather than stocks and benefit from no longer having to pay energy bills!

Invest in your roof and reap the benefits of clean, free energy. Save on electricity and heating bills as a minimum, and if you have an electric vehicle you will no longer pay for the fuel to power it. The long term cost savings from no longer having to fund your household electricity, gas and car fuel demands make sound economic sense for the modern environmentally conscious consumer.



Historic Buildings with Slate-Look Perfect for Historical Conservation

The SolteQ Energy Roof with its slate look is a perfect solution for the restoration of historic buildings, buildings that would not normally permit the utilisation of a conventional PV system on aesthetic grounds. With such features as rustic and slate-look, coupled with its light weight, the SolteQ Energy Roof is perfect for historic buildings. Dormer windows and other features can be addressed very easily with the range of tiles and accessories available from SolteQ.

Advantages:

a) The SolteQ-Energy-Roof offers the look of a real slate roof. You can not see a photovoltaic system, what you see is a beautiful, stylish roof. The dark blue cells give the roof a look very similar to that of a slate roof. Perfect for historic buildings.

b) Even historic buildings can enjoy being more energy efficient from The Sun: energy for free! Without losing the historic features.

c) Enhance the look and integrity of the building with 100% waterproofing that can last a lifetime.

d) Historic buildings constructed of stone have a huge requirement for heating energy. With help of a SolteQ-Energy-Roof the heating can be completely free!

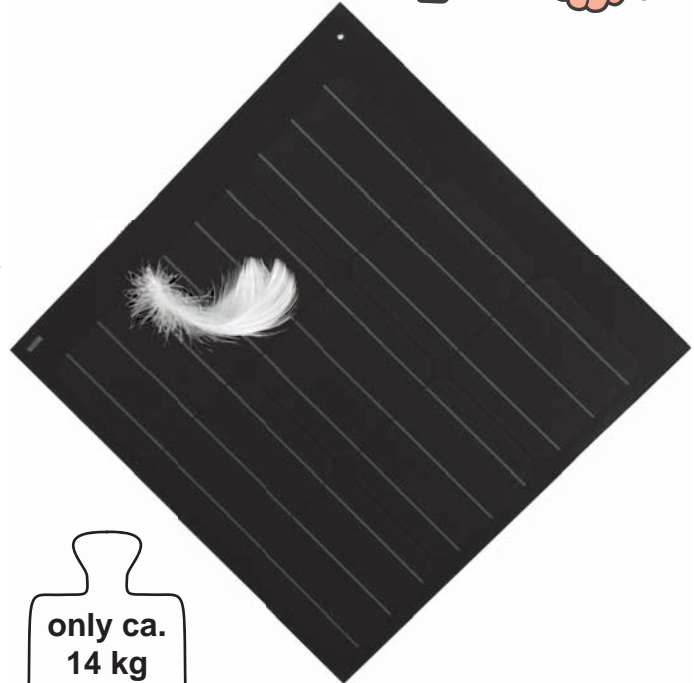
The thermal energy of the roof can be used to cover the complete requirement of heating the whole building!

-> Electricity + Heating Completely from the Roof !

With help of a heat pump, the heat energy under the roof tiles can be used to fill a heating buffer which supplies the energy to heat the building.

With the features of a SolteQ-Energy-Roof, this is the first time it has been possible to supply historic buildings with free energy from The Sun.

A SolteQ-Quad-Roof-Tile only weighs approx. 3.3kg with a total weight of only 14 kg per m² (approx).



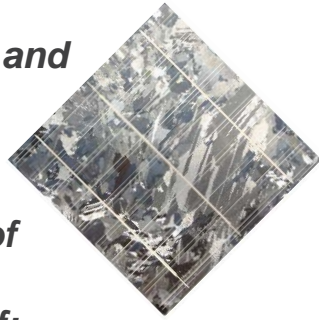
only ca.
14 kg
per m²

... like slate, but much lighter!



Smart Renovations!

Enhances the Look and value of Your Property.



Energy roof silver grey



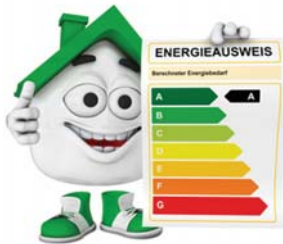
Advantages for Roof Renovation with a SolteQ-Energy-Roof:

a) With a weight of only approx. 14kg on to the wooden laths (like a normal roof), it can be built very quickly.

b) Enhances the look and value of the property.

c) Create an economical home with significant ecological benefits.

d) Affordable and makes your home self sufficient.



From a Family House to an Apartment Block

Solutions for every need.



Source: www.dieblockhausbauer.de

Air Conditioning Units

...use a huge amount of power. Let your air conditioning system work for free, all of the power can come straight from your roof!

Always in harmony with our Nature.



SolteQ-Energy-Storage

In order to have a continuous energy supply during non daylight hours energy storage is required. Having energy storage also can give you total independence from the power grid, which is of significant benefit in locations around the world where load shedding and power cuts occur.
Loaded in daylight, used in the dark hours.
Energy around the clock.



Store the Sun
... with SolteQ

Maximum Efficiency and 100% Automatic Energy Supply

Our Energy Design Team will create the right system design to meet your household energy needs. No more external costs like electricity, oil, gas etc.

-> Total Energy supply for free - we make it possible for you !

Perfectly Adapted to Your Requirements

The energy storage will be made optimal with optimised for your requirements. If needed, the system can be expanded in the future.
Long lifetime, reliable and high quality - this makes the SolteQ difference.

24h

Increasing Your Savings by Being Self-Sufficient

Using your own energy from the roof, releases you from energy bills and increases your disposable income.



Sun is life,
Sun is energy,
Sun is SolteQ.



Energy Storage by SolteQ ...the sunlight will be captured at night too!



Suitable for Roofs and Facades

The SolteQ-Quad-PV-Roof-Tiles are suitable for angles between 10° and 90°. Flat roofs with 10° and nonstandard roofs with 22° up to a front facade with 90° walls.



New Technology - Classic Look!

From a distance the Quad-PV-Tiles almost look like a classic slate roof. In addition, their lightweight of 14kg / m² makes them well suited for new roof installations on historic and protected buildings.



Hail and Stormproof

The SolteQ-Quad-PV-Tile is completely resistant against storms. The backs of the tiles hang on aluminium hooks ensuring that the tiles cannot lift up. With the help of the thick rubber seal the tiles remain in position even in strong winds.

Guaranteed up to 20 Years

The standard warranty is 5 years. It can be optionally extended by up to 20 Years.

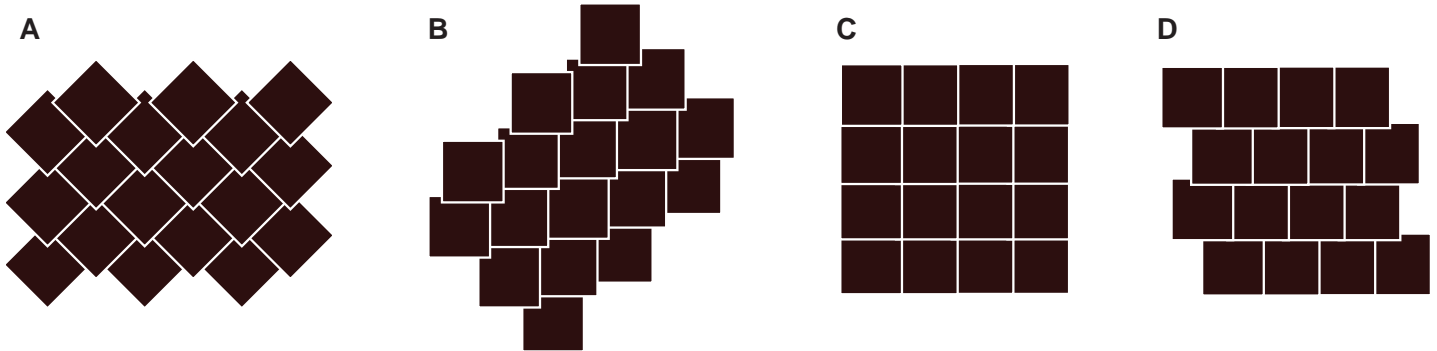
... that's SolteQ Quality.



Several patterns

Free your imagination ... architecture, aesthetics and high product quality for a fair price - these are the targets of the SolteQ-Quad-Product-Range.

All SolteQ-Products are produced within the SolteQ-Group. This makes it possible to fulfil your specific wishes and requirements. Not only for the colours of the tiles, but also for the variations of patterns available. The tiles can be layered to your preference: diamond look (A), skew angled (B), horizontal nested (C) or horizontal composite (D).



SolteQ Planning Support

The technicians of SolteQ are always here to help. To make it even easier, you can plan the roof design with free planning tools and our team of experts. As a Reseller you can generate within minutes an exact offer for your customers. With help of the graphical tools, you can simulate the roof and see how many tiles are needed for each customised design.

Easy Installation and Adaptable for Almost Any Roof Type

The handy size of the tiles makes them quick and easy to install. One square metre requires only 4 tiles, making the installation simple for any size roof.

SolteQ Installation Service

Installation training is available, but basic knowledge of PV-systems combined with typical roofing experience will usually be sufficient.

Customer Service

For home-builders we can help to find an authorised SolteQ-Installation-Partner in your area.

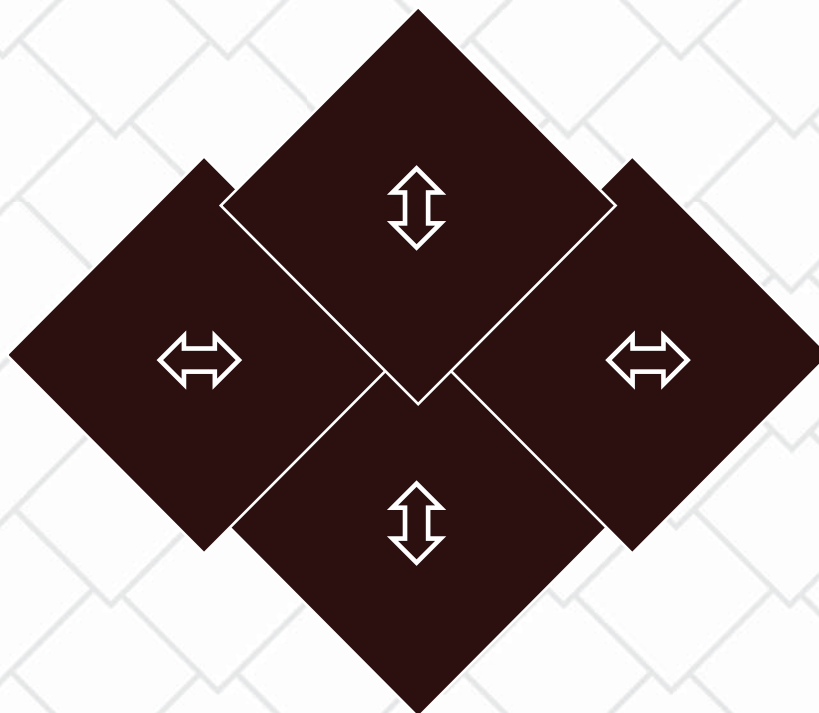


Nature and Technology in harmony - it works!

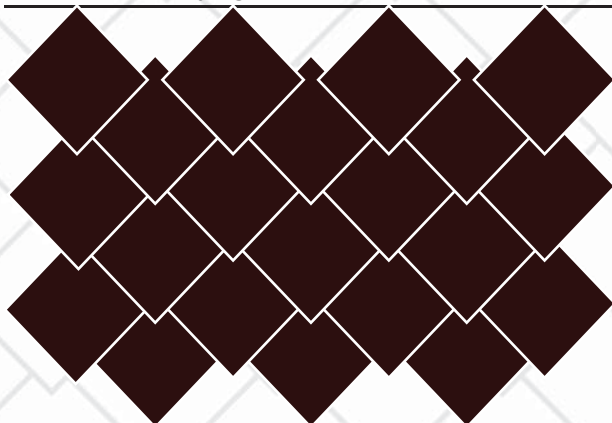


Easy and Flexible Installation with “Accordion” Effect

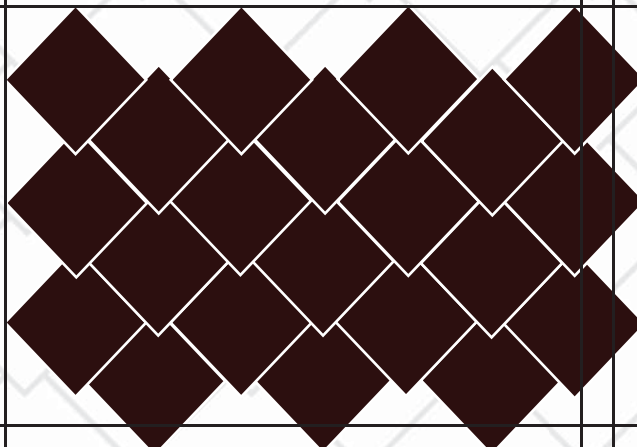
The SolteQ-Energy-Roof with Quad-PV-Roof-Tiles are adaptable. By overlapping, the tiles can be moved slightly to the left or right, so that the whole area of tiles can be stretched and cinched. The amount of overlap can be adjusted to suit the specific site requirements which makes for a very flexible and effective installation. The border can be created with half-elements and rounded metal sheets of the same colour, which complete the overall look of the roof.



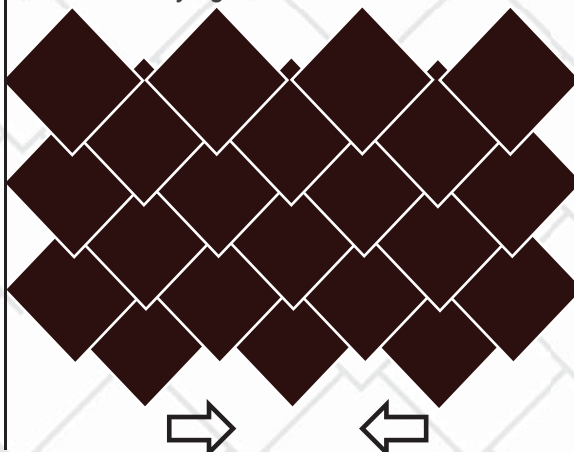
Standard Laying



Stretched Laying



Clinched Laying



Stretching / Clinching:
approx. 4 cm on each side and
approx. 8 cm per meter in every
direction

A 10 m tile area results a space to adapt of 80 cm.
This way the SolteQ-Energy-Roof fits on almost
any area.

Standard Laying

Easy Installation

Look how easy the installation is: ... as simple as laying standard roof tiles.



Base: conventional wooden laths



1. Plug the connectors ...



2. Simply hang the tiles onto the laths



3. Fix with a specialist screw ...



... this way laying from down to upside ...



... the new Energy-Quad-Roof is complete!



... easy like laying tiles.

The Energy-Roof with Integrated Safety and Fire Prevention

Integrated Safety System with Emergency Power Down for:

Emergency - Fire (Fire Switch)

- + Cleaning/Maintenance
- + Overheat Protection
- + Flood Protection
- + VSG Safety Glass
- + Fire Prevention



Emergency - Fire (Fire Switch)

In case of emergency the fire brigade can kill the fire without danger and fear of electrical shock. The **SolteQ-Quad40-PV-Tile-System** is equipped with the popular Safety System "SolteQ-BFA-Safety-Box".

For detailed informations please see the brochure "SolteQ-BFA".

Cleaning and Maximum Profit

With help from the integrated Safety System BFA, the tiles can be cleaned easily and periodically. The power can be switched off by pressing a button, from the module (tile) up to the inverter. This eliminates the danger of electrical shock, even when cleaning with water. The system is powered up again by turning the key. This keeps system downtime to a minimum and energy production to a maximum.

Overheat Protection: Automatic Switch-Off in Case of Overheating

The SolteQ-Quad40-PV-Tile-System is a roof integrated photovoltaic system. Our engineers believe in maximum safety. With the help of the temperature sensor (optional accessory) the temperature of the roof will be measured. If a critical temperature of 90°C is reached, the system will be switched off immediately. At the same time a malfunction message will be given out, you can also receive a text notification to your mobile phone.

Safety Glass

The surface of the tiles is made with safety glass. In case of damage, the glass will not shatter.

Accessories

To increase your safety you can add extra accessories, including a Smoke Sensor and much more. A Smoke Sensor makes sure that the PV-system will be switched off with the first detection of smoke.

Dangerous electrical arcs will be eliminated early on. Fire brigades are not able to kill an electric arc, but the SolteQ-Safety-System-BFA can do this. This way the PV-system will be switched off, long before the fire brigade arrive and can prevent a fire caused by the PVsystem. With an external relay the A/C-Side can be switched off and free the way for the fire brigade to do their work.

For more detailed information please order the brochure "SolteQ-BFA-Safety-Box".



Certified by



SolteQ-BFA

100% Waterproof with Under-Foil and Special Seals

a) The SolteQ-Energy-Roof is 100% Rainproof

Each tile has a backing on the two lower shanks, a patented special seal with multi-lips, which prevents the water entering in an upwards direction. The roof with the Quad-PV-Tiles is rainproof and offers mechanical safety. Only a small gap at the lower edge with approx. 2cm length is open for air circulation. This way, the protection against rainwater is 100% guaranteed and the whole area is 95% waterproof. Only in the case of exceptionally high winds or storms is there the small possibility of water entering underneath the tile, through the opening for cooling. This water is prevented from entering the roof space by the waterproof foil/roofing felt underneath the tiles.

b) The SolteQ-Energy-Roof is 100% Waterproof

With the recommended waterproof foil under the tiles, the roof will be 100% waterproof, but breathable (see system manual and specifications) with the guarantee of the manufacturer. As an alternative, tarred roofing felt can be used.

c) The SolteQ-Energy-Roof is 100% Safe Against UV

The overlapping installation of the tiles, the light proof seal on the borders coupled with the fact that UV light will not pass through the tiles ensures that the waterproof covering underneath the tiles is protected from sunlight.

d) The SolteQ-Energy-Roof is Mechanically Robust

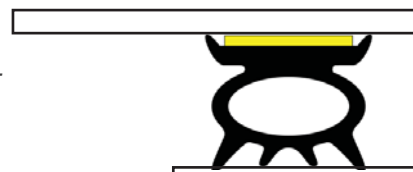
The patented seal besides being waterproof provides mechanical stability to the roof. The seal is constructed like a spring to accommodate the horizontal and vertical movements and forces on the tiles. This special seal ensures that the roof is protected from not only storm related movements but also from the long term natural movements of your home.

e) The SolteQ-Energy-Roof is Hail and Stormproof

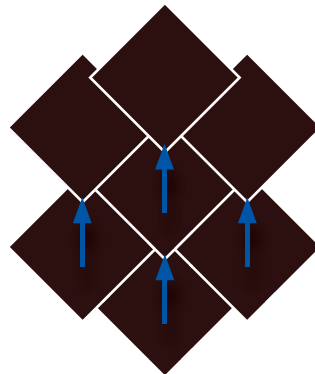
The backs of the tiles are fixed onto the laths in the centre of each tile, with robust hooks made out of aluminium. This makes sure that the tiles cannot lift up even in heavy storms.



Quad-Special seal



Patent pending



SolteQ recommend the following Roof Foils to be used in conjunction with our Energy Roof :

Delta-ALPINA

breathable, tearproof
universal roof foil



Highly tearproof,
PES special
fleece with top
and bottom PU
coating

Delta-EXXTREM

Highly UV and temperature proof,
breathable, universal roof foil



Highly tear-
proof,
PES special
fleece with
waterproof
dispersion
coating and
integrated
glueing zones
on both bor-
ders

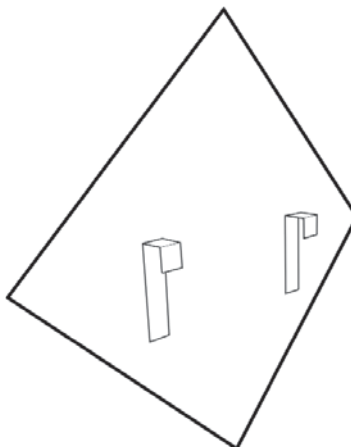
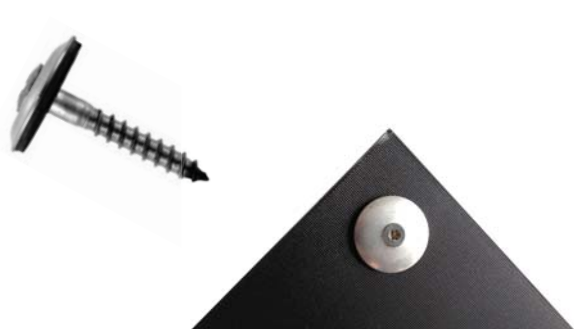


DÖRKEN

Easy installation

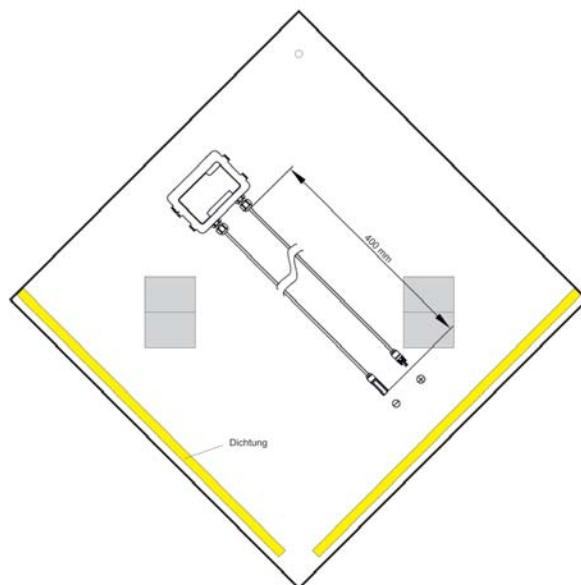
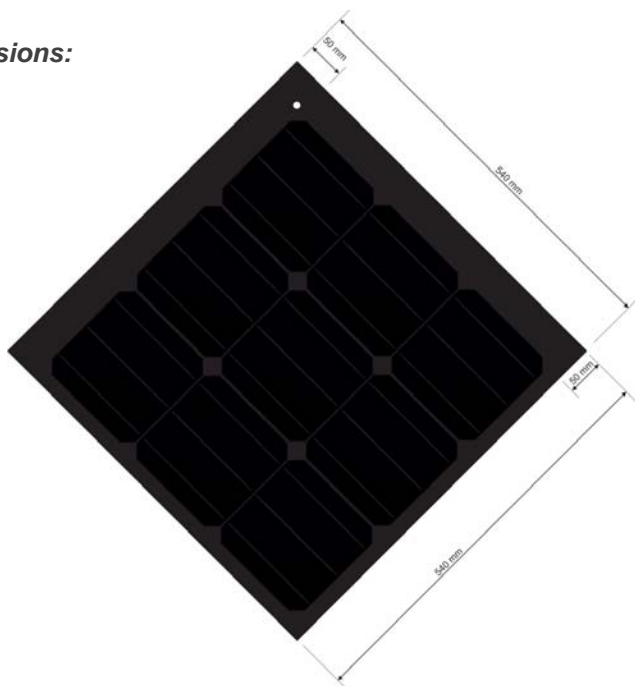
Hang up - fix with one screw - finished !

The installation is done easily by hanging the tiles onto the wooden battens. The tile is then further secured to the batten with a stainless steel screw.

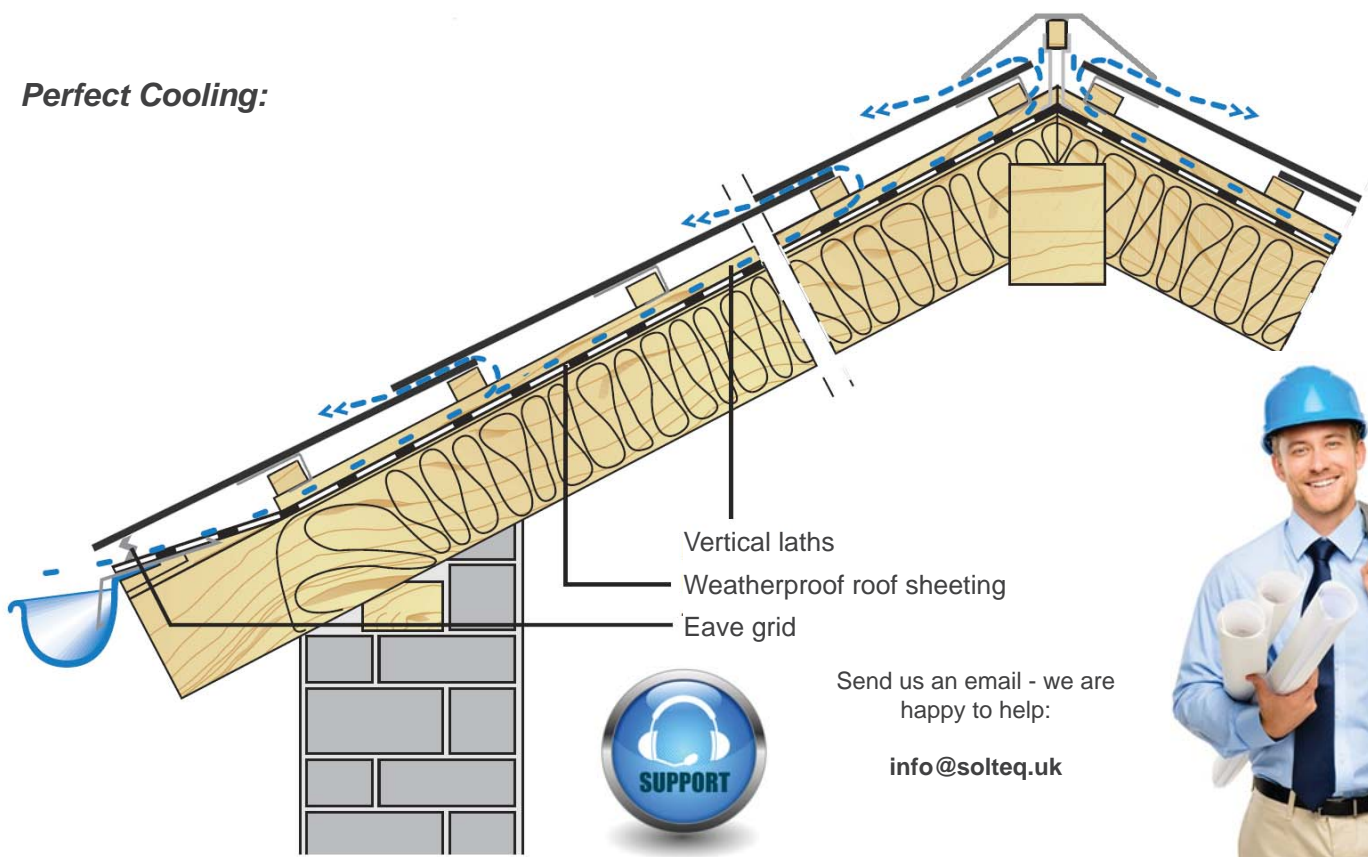


Hooks on the back
There are two aluminium hooks on the back that hook onto the battens.

Dimensions:



Perfect Cooling:



Send us an email - we are happy to help:

info@solteq.uk



Accessories

The New iPhone App

Control your Energy-Roof and up to 3 more devices with your smartphone as a remote control. In case of emergency the fire brigade can switch off the roof simply via text, even if you are not at home.

Lightning and Power Surge Protection

For protection against power surges, specific devices are available for each project..

Multi-Purpose Tiles

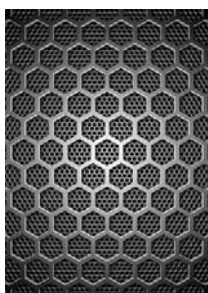
Tiles for cutting are available to create access to the roof for maintenance, for hooks for ladders or for initial installation purposes in order to address dormer windows etc.

- Steps
- Ventilation systems
- Antennas
- Snow catch grids



System Certificate

Each SolteQ-Energy-Roof comes with its own Certificate, which includes specifications, performances and system values and measurements.

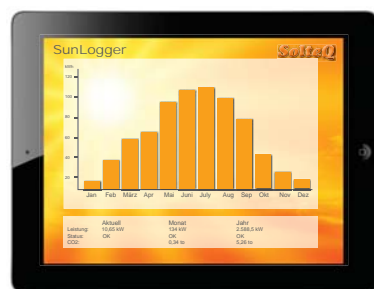


Shielding

PV-Roof-Tiles are available with a protective mesh laminated on the back which provides shielding against electromagnetic fields.

Monitoring

Monitoring is available with your mobile phone or PC .Anytime and anywhere, you can recall the data from your roof (or solar-panelsystem).



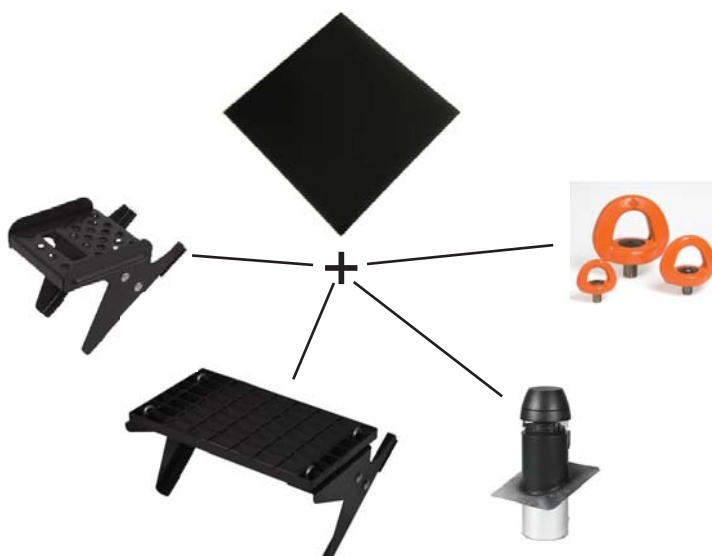
Switch with your smartphone easily:

- Garden watering
- Garten illumination
- Garagen gate
- Alarm system etc...

Use your smartphone as
Remote Control



Box SMS unité d'émission / de réception



Technical Specifications

BASIC DATA AND MECHANIC DESIGN

Module Type	Quad40
Cell Material	Monocrystalline Silicon
Cell Size	156 x 156 mm
Module Dimensions	540x540 mm
Weight	ca. 3,3 kg
Weight per m ²	ca. 14 kg
Cooling	Single Module Cooling
Connectors	MC 4 Compatible
Cables	2x ca. 50 cm, 4mm ²
Bypass Diode	1 Diode
Thickness of Glass	4 mm, Prismatic
Mechanical Resilience	8500 Pa (approx. 850kg)
Backing Laminate	UV- and Weatherproof
Roof angle:	10 - 90°

ELECTRICAL DATA

Nominal Power / Tile	ca. 40,5 to 43,25 Wp	With Shade light
Power per m ²	ca.161,6 - 173 Wp	208 Wp
Efficiency	18,8 - 19,8	
Tolerance/ STC	+5%	
Max. System voltage	1000 V DC	
Nominal Voltage	4,7 V	
Nominal Current	8,75 - 9,0 A	
Voltage Without Load	5,6 - 5,8 V	
Short Cut Currend (ISC)	9,0 - 9,1 A	
Operation temperature	-40 °C to +85 °C	
Min. Power 15 years	90% of nominal power	
Min. Power 25 years	85% of nominal power	
Min. Power 40 years	80% of nominal power	
Estimated lifetime	> 40 Years with > 90% of nominal power	

TEMPERATURE COEFFICIENTS

UOC	- 0,33 ± 0,02% / K
ISC	+ 0,04 ± 0,0015% / K
PMPP	- 0,41 ± 0,05% / K

STANDARD TESTING CONDITIONS (STC)

E=1000W/m ²	AM=1,5 T=25°C
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Fire classe - Module/Shingle -

Front:	Solarmodule Glass, Tempered, Prismatic
TPT-Foil (Rear):	PYE/PET (Polyethylene Terephthalate)
Specials:	Safety hang up
Certificate-TPT-Foil:	Testet reg. ANSI/UL94 (Tests for Flammability of Plastic Materials for Parts in Devices and Appliances) IEC60695-2-12/13 + IEC60695-10-2, IEC60112, ISO75-2, ISO527-2, ISO178, ISO179-2, ISO180

DATA SAFETY SYSTEM BFA

Max. Count of Modules	no limit
Certificates	TPS Intercert, RETI
Emergency Button Specification	EN54-11, Typ B
Conform to Standards	VDE0100-537, IEC60364-5-537_VDE0100-537 and E VDE-AR-E 2100-712:((2010-09)) - please order separate data sheet of the SolteQ-BFA-System -

CERTIFICATE / Warranty - Module -

Certificate	CE, TPS Intercert (Technische Prüfstelle für Solartechnik), RETI, IEC61215, Safety IEC EN 61730, Salt corrosion tested IEC EN 61701 DIN 1055-4
Windload	CEN/TR 15601
Rain proofness	IEC 61215, Extension Switzerland: Hail resistance class 3
Hail class	II, IP65
Protection class	5 Years (in Europe)
Product-Warranty	90%: 12 years + 85%: 20 years
Power Guarantee	30 Years
Spare parts delivery guarantee	conform to DiBt Bauaufsichtliche Regelungen and rules of roofers
German standards	konform nach den Regeln der Liste der Technischen Baubestimmungen
Safety	schwer entflammbar, Fire Class 1 gem. UNI 9177
Fire safety	VSG-Safety glass DIN EN 12150, higher beat and burst stability, high breaking
Breaking safety:	stability and strongness, small glas break parts (crumb formation) Certification of the mounting mechnism conform to CSTB Eu conditions

Safety included !
The Energy-Roof includes the emergency and fire switch SolteQ-BFA for main-tenance and emergency.



SolteQ

*These values are typical average measurements of historical production data. Future production data can be different.

Priced with the Environmental seal
"The Green Tree"
for Energy Safe and Environmental Innovations.



Renewable Energy Technical Institution
RETI



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