

Solar systems

Heating energy from the sun

Efficient heating technology for
comfortable heat generation



System technology made in Bavaria

High performance collectors

- *Vacuum tube collector CPC*
- *Flat-plate collector PremiumPlus*
- *Flat-plate collector PremiumPlus AL*
- *In-roof collector PremiumFlair*

Top class high performance collectors!



Solarbayer®

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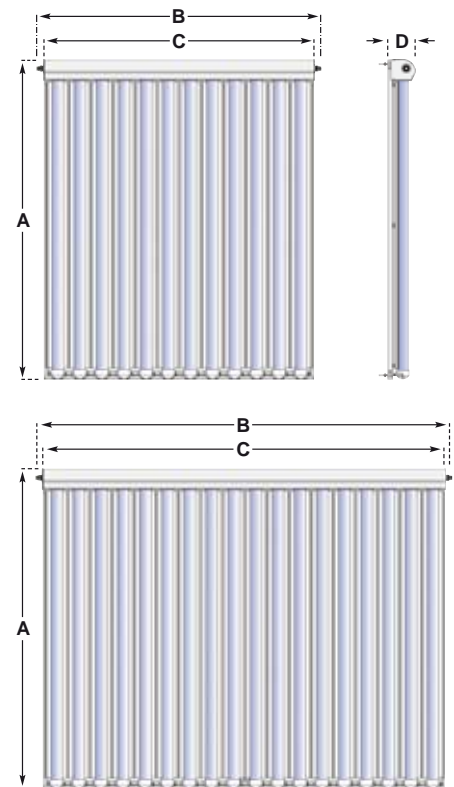


Registration number: 011-7S212 R

Meets all conditions of the Market Incentive Program (MAP) at the Federal Office of Economics and Export Control (BAFA).

Meets all conditions of the Renewable Energies Heat Act (EEWärmeG).

Vacuum tube collector CPC		CPC 12	CPC 18
type of mounting		on roof (pitched/flat roof)	
gross surface area m ²		2,16	3,21
aperture surface area m ²		1,89	2,84
number of collector tubes		12	18
height mm	A	1603	1603
width with connections mm	B	1423	2083
width mm	C	1358	2018
depth mm	D	140	140
weight collector unfilled kg		43	65
collector capacity liter		1,74	2,60
max. operating pressure bar		6	6
stationary temperature °C		249	249
peak output per module W_{peak} ($G^*=1000W/m^2$, η_0)		1357	2039
conversion factor η_0		0,718	
thermal conductivity a_1 W/(m ² K)		0,974	
thermal conductivity a_2 W/(m ² K ²)		0,005	
incident angle modifier IAM50		0,87	
collector glazing		safety glass	
connections		CU 18 x 1,0	
absorber with evacuation tube		U-shaped tube CU	
absorber coating		selective AL-N/AL	
CPC-reflector		highly polished	
casing		aluminum	
thermal insulation collector		compressed rock wool	
norm		DIN EN 12975	
hydraulic interconnection		max. 5 collectors in a row (recommended: 4 in a row)	
distance between collectors		approx. 50 mm	
permissible collector tilt		15°-65° (stand-kit available)	
recommended storage tank dimension		50 Liter pro m ² Kollektorfläche	



These high performance solar panels shall only be used with the the most powerful storage systems (stratification ability and heat exchanger capacity). Only in this combination you will achieve a perfect system efficiency.

Peak performance due to CPC technology Perfect use of solar thermal energy

Our evacuated tube collector CPC stands out from the crowd of standard tubes because of its excellent optical and technical properties. The 58 mm thick absorber tubes guarantee a high yield of solar thermal energy and the replacement of the individual tubes is really simple. The tube collector achieves maximum solar yield, especially in extreme conditions, as a result of the ingenious design. A special CPC reflector behind the tubes with an optimally located focus point directs solar radiation onto the absorber tubes in an ideal way. The vacuum of the tubes is integrated into a high-quality double jacket tubular glass, comparable to a thermos flask, to protect the vacuum in a special way.

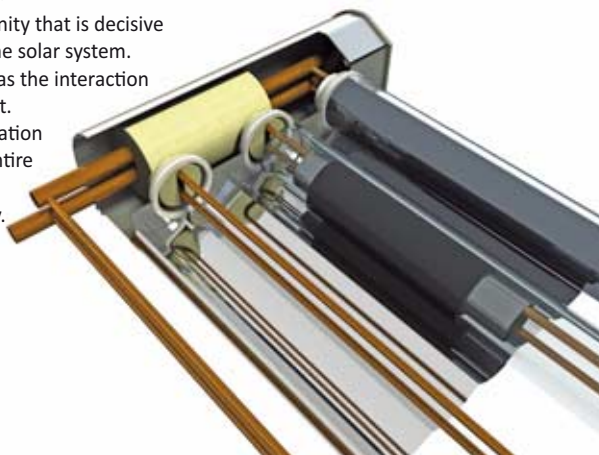
Only high quality material is used for the production of our CPC collector, e.g. proved and tested full copper double harp tubes and manifolds. Due to the smart connection of the single tubes to the flow and return line a steady heat dissipation of all single tubes is ensured. The special inductive annular gap hard soldering method guarantees an absolutely secure connection of the harp to the manifold. Therefore a durable construction is guaranteed. High quality and long service life, as known from Solarbayer products, are assured.

The decision about the installation of flat-plate or tube collectors is more or less a philosophical question. The tube collector's biggest advantage is that it can be applied in the area of process heat generation and thermal cooling.

In the end it is the system as unity that is decisive for the total effectiveness of the solar system.

A solar system is only as good as the interaction of all components installed in it.

Our solar, hygiene and stratification storage tanks, as well as the entire Solarbayer control technique, guarantee maximum efficiency.



*Our extended warranty conditions are available on request

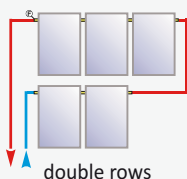
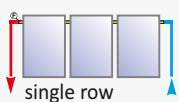
Brief description

- ✓ highest output due to vacuum tubes
- ✓ perfect if higher temperatures are required
- ✓ high output despite diffuse lighting conditions, perfect focal point due to CPC reflector
- ✓ vacuum tube (thermos flask system)
- ✓ high selective absorber coating
- ✓ easy to change glass tubes, without draining the system – replacement clip system
- ✓ each tube is individually passed through according to the Tichelmann system

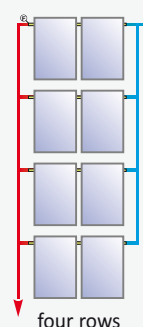
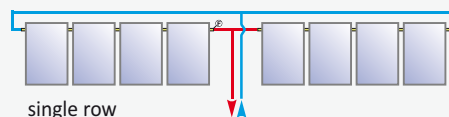
Top class high performance collectors!

Connection examples

Connection in a row
up to a maximum of 5 collectors
(recommendation: max. 4 collectors)



Connection according to Tichelmann
for larger collector arrays



This examples are only an installation proposal and do not replace technical planning!

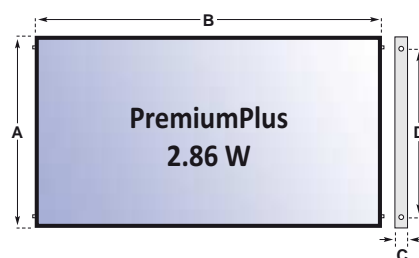
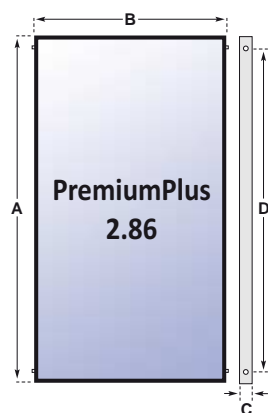
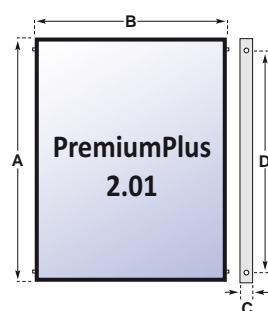


Registration number: 011-7S756 F

Meets all conditions of the Market Incentive Program (MAP) at the Federal Office of Economics and Export Control (BAFA).

Meets all conditions of the Renewable Energies Heat Act (EEWärmeG).

Flat plate collector PremiumPlus		PremiumPlus 2.01	PremiumPlus 2.86	PremiumPlus 2.86 W
type of mounting		on roof (pitched/flat roof)		
gross surface area m ²		2,01	2,86	2,86
absorber surface area m ²		1,863	2,684	2,684
aperture surface area m ²		1,859	2,692	2,692
height mm	A	1600	2270	1260
width mm	B	1260	1260	2270
depth mm	C	99	99	99
interval flow and return line mm	D	1452	2122	1112
weight unfilled kg		32	46	46
collector capacity Liter		1,97	2,52	2,52
max. operating pressure bar		6	6	6
stationary temperature °C		184,6	184,6	184,6
peak output per module W_{peak} ($G^*=1000W/m^2$, η_0)		1435	2080	2080
conversion factor η_0		0,773		
thermal conductivity a_1 W/(m ² K)		3,675		
thermal conductivity a_2 W/(m ² K ²)		0,007		
incident angle modifier IAM50		0,901		
connections		CU 22 x 0,8 mm		
absorber coating		TiNOx, high selective		
absorber design		copper, ultrasonic welding, meander form		
frame profile		aluminum, anodized black		
back wall		solid aluminum plate		
insulation		rock wool, 50 mm		
collector glazing		solar safety glass, 3,2 mm		
norm		DIN EN 12975		
hydraulic interconnection		max. 15 collectors in a row		
interval between collectors		approx. 76 mm		
permissible collector tilt		25°-65° (stand-kit available)		
recommended storage tank dimension		50 Liter pro m ² collector surface		



Absolutely top class high performance collector

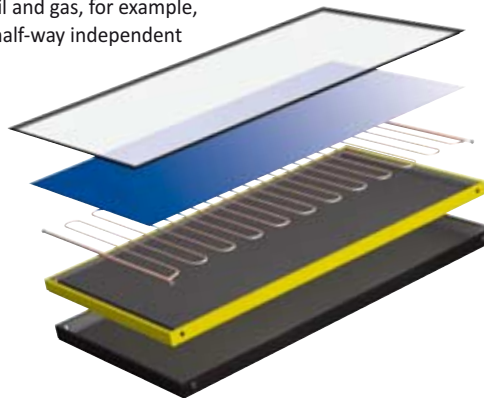
Peak performance for larger collector arrays

The Solarbayer high performance flat plate collector PremiumPlus is one of the most efficient collectors that is on the market at the moment. This collector type is characterized by its design and its powerful performance. Due to its special absorber properties you will gain a maximum of heat.

This collector type is available in three sizes. The PremiumPlus 2.01 is mainly installed in case of cramped structural conditions, e.g. on the dormer of a roof. The PremiumPlus 2.86 is first choice to realize larger collector arrays in an easy to install way. The PremiumPlus 2.86 W is perfectly suitable for flat roof installations due to its low height. Solar systems by Solarbayer, including high performance collectors and system components, cover up to 70% of the annual average of the energy consumption for heating up domestic hot water. There is even enough solar power to almost cover the complete need of energy to heat up drinking water during the summer months. Due to the low feed temperature of the drinking water coming out of the public network and due to the excellent collector attributes there is also a significant proportion of energy obtained during the winter half-year. The water is pre-heated and your heating system only has to heat up the rest in winter.

Our high performance collectors are particularly designed for the application in backup heating systems. Therefore, the expenses for oil and gas, for example, are distinctly reduced and you will be half-way independent of fossil fuels. The special installation technique even enables the installation in higher snow load zones when an appropriate substructure is provided.

The sectional drawing displays the Solarbayer meander form of the copper pipes. Special advantages of this absorber type are, besides the high performance, the easy installation of larger collector arrays in a row and the **self-draining of the collectors when stagnation occurs (idleness)**.



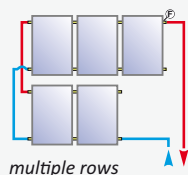
*Our extended warranty conditions are available on request

Brief description

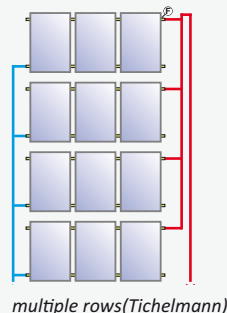
- ✓ diaphanous solar safety glass for even more light yield
- ✓ high selective copper absorber with environment-friendly TiNOx coating, ultrasonic welded
- ✓ copper pipes in special Solarbayer meander form
- ✓ high quality insulation, mineral rock wool 50mm
- ✓ solid aluminum double profile frame, anodized black
- ✓ weather-proof and UV resistant material
- ✓ flexible collector connectors to compensate the thermal expansion
- ✓ easy to install

Connection example

Connection in a row up to max. 15 collectors



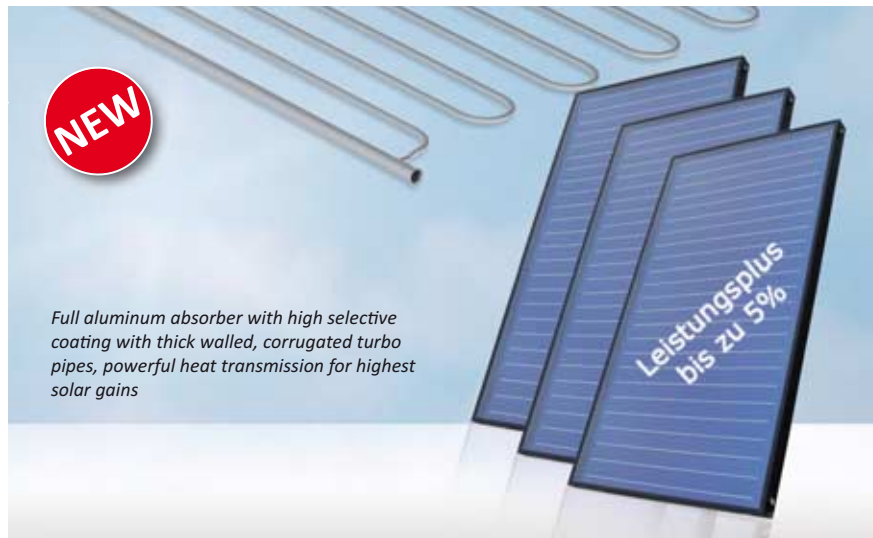
Connection according to Tichelmann for larger collector arrays



Torsion protected connection due to 4-pipe connection and stainless steel expansion joint. The system is self-draining, the medium will almost be completely emptied when stagnation occurs (idleness), therefore the system's operating reliability and long-term protection is guaranteed.

The correct sensor installation for this collector type is always at the collector outlet, upper right edge (hot flow-line)

This examples are only an installation proposal and do not replace technical planning!

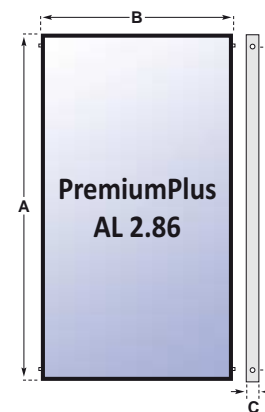


Registration number: 011-7S1636 F

Meets all conditions of the Market Incentive Program (MAP) at the Federal Office of Economics and Export Control (BAFA).

Meets all conditions of the Renewable Energies Heat Act (EEWärmeG).

Flat plate collector PremiumPlus AL		PremiumPlus AL 2.86
type of mounting		on roof (pitched/flat roof)
gross surface area m ²		2,86
absorber surface area m ²		2,684
aperture surface area m ²		2,692
height mm	A	2270
width mm	B	1260
depth mm	C	99
interval flow and return line mm	D	2122
weight unfilled kg		39,5
collector capacity Liter		2,1
max. operating pressure bar		6
stationary temperature °C		194
peak output per module $W_{peak} (G^*=1000W/m^2, \eta_0)$		2113
conversion factor η_0		0,792
thermal conductivity $a_1 W/(m^2K)$		3,159
thermal conductivity $a_2 W/(m^2K^2)$		0,014
incident angle modifier IAM50		0,943
connections		AL 22 x 0,8 mm
absorber coating		TiNOx Energy
absorber design		aluminum, ultrasonic welding, meander form
frame profile		aluminum, anodized black
back wall		aluminum sheet
insulation		rock wool, 50 mm
collector glazing		structured solar safety glass, 3,2 mm
norm		DIN EN 12975
hydraulic interconnection		max. 15 collectors in a row
interval between collectors		approx. 76 mm
permissible collector tilt		25°-65° (stand-kit available)
recommended storage tank dimension		50 Liter per m ² collector surface



High performance aluminum flat plate collector – trend-setting and economical

As a further development of the high quality collector PremiumPlus Solarbayer has launched the flat plate collector PremiumPlus AL to enlarge the product range. It is the „Full-Alu-Alu-Absorber“ that is the „new“ and special specification of this collector. An aluminum absorber plate with high selective coating that is connected to a thick-walled aluminum pipe by the aid of an especially developed welding method. The approved aluminum casing is the same as with the popular copper flat plate collector PremiumPlus, which is, of course, still going to be manufactured. Thus, no reorientation is necessary for the installer when mounting this collector.

Due to the characteristics of aluminum more material can be applied in an aluminum collector than in a collector with copper absorber, since the weight of the aluminum collector is way lighter.

Solarbayer applies **special turbo pipes** as absorber pipes with internally corrugated surface. The thus resulting enlargement of the heat exchanger surface clearly increases the heat transfer rate and the collector performance will be increased up to 5%!



*Our extended warranty conditions are available on request

This has to be paid attention to when installing the high performance aluminum collector PremiumPlus AL:

- ✓ All connector connections and couplings within the collector array, also in the roof penetration, imperatively have to be made out of aluminum or stainless steel
Only use our PremiumPlus AL connection accessories
- ✓ We recommend our solarpipe stainless steel corrugated hoses for the rising pipe as supply pipe for the collector array. Additional advantages of this solarpipe are the easy installation and the already integrated sensor cable, as well as the high temperature resistant insulation of the flow and return line.
- ✓ No risk of corrosion! No risk of corrosion exists within the solar circuit when the original Solarbayer long-life solar fluid is used. Hence, an extremely high heat transmission is achieved as well as an enormous system persistence.

Brief description

- ✓ high selectively coated aluminum absorber
- ✓ installation of up to 15 collectors in a row possible
- ✓ internally corrugates aluminum absorber pipes in special Solarbayer meander form (serpentine absorber)
- ✓ powerful heat transfer rate
- ✓ high corrosion-resistance
- ✓ little weight, easier to transport
- ✓ high surface quality
- ✓ manufactured ecologically and low in CO₂ emission
- ✓ highly diaphanous solar safety glass for even more energy yield
- ✓ high quality, gas emission free rock wool (50 mm)
- ✓ solid aluminum double profile frame, anodized black
- ✓ weather and UV-resistant materials
- ✓ flexible stainless steel collector connection for compensating the thermal expansion
- ✓ easy to install

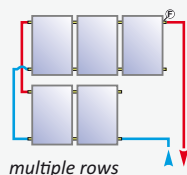
Top class high performance collectors!

Connection example

Connection in a row up to max. 15 collectors

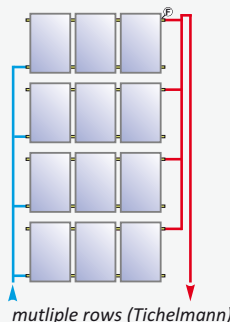


single row



multiple rows

Connection according to Tichelmann for larger collector arrays



multiple rows (Tichelmann)

Torsion protected connection due to 4-pipe connection and stainless steel expansion joint. The system is self-draining, the medium will almost be completely emptied when stagnation occurs (idleness), therefore the system's operating reliability and long-term protection is guaranteed.

The correct sensor installation for this collector type is always at the collector outlet, upper right edge (hot flow-line)

This examples are only an installation proposal and do not replace technical planning!

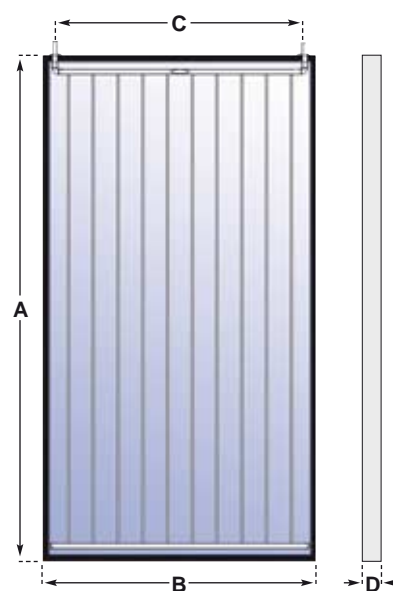


certificate number: 036BN/0

Meets all conditions of the Market Incentive Program (MAP) at the Federal Office of Economics and Export Control (BAFA).

Meets all conditions of the renewable Energies Heat Act (EEWärmeG).

In-roof collector PremiumFlair		In-roof collector PremiumFlair 2.54
type of mounting		in-roof
gross surface area m ²		2,54
absorber surface area m ²		2,20
aperture surface area m ²		2,30
height mm	A	2170
width mm	B	1170
interval between flow line / return line mm	C	1058
depth mm	D	100
weight unfilled kg		59
collector capacity liter		1,4
max. operating pressure bar		10
stationary temperature °C.		194
peak output per module $W_{peak} (G^*=1000W/m^2, \eta_0)$		1848
conversion factor η_0		0,803
thermal conductivity $a_1 W/(m^2K)$		3,84
thermal conductivity $a_2 W/(m^2K^2)$		0,0118
incident angle modifier IAM50		0,93
connections		CU 22 x 1,0 mm
absorber coating		TiNOx, high selective
absorber design		copper, harp absorber, ultrasonic welding
casing		spruce slats with finger-joint-connection, 27 mm
back wall		wood fiber plate 4 mm
insulation		rock wool, 50 mm
collector glazing		solar safety glass, 4 mm
norm		DIN EN 12975
hydraulic interconnection		max. 6 collectors in a row
permissible collector tilt		25°-90°
recommended storage tank dimension		50 Liter per m ² collector surface



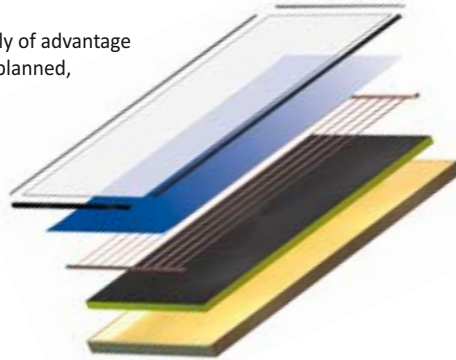
The optical alternative – Innovative design in combination with quality and performance

It is up to you if you prefer the installation of an in-roof collector due to visual aspects. We have modified and optimized the established in-roof technology in its characteristics and its operating reliability, so that they are corresponding to the quality standards of Solarbayer. The long service life, for which Solarbayer products are well-known, is guaranteed for this collector type as well.

Due to the long-lasting, environment friendly TiNOx coating in combination with the full copper double harp absorber with the proven small tube interval an above average gain of thermal energy is achieved with this collector, too. The flexible cover frames that are adaptable for most of the common roof tiles, guarantee, when installed professionally, a transition from the collector array to the existing roof according to the rules of the roofing trade. Sheet metal cover frames for almost every type of roof are available.

The mounting of the collectors is rather simple if as long as all necessary safeguarding methods for roof work and the installation instructions are considered. The hydraulic connection of the panels is done safely by the provided connection pieces. They can be mounted in almost every form and combination according to the free space on our roof. Please note your desired type of mounting (e.g. by a simple sketch) when ordering. We will make an arrangement with all necessary components.

The application of in-roof collectors is especially of advantage when new buildings and roof renovations are planned, because the costs for roof tiles will decrease enormously when choosing an in-roof system. In-roof collectors are, statically, a particularly advantageous type of mounting in areas with large amounts of snow. The protection of cables and sensors against UV radiation and damages by animal bites are further advantages of in-roof systems.



*Our extended warranty conditions are available on request

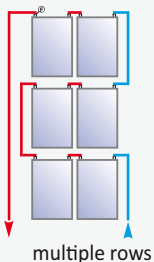
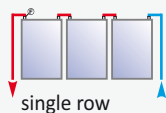
Brief description

- ✓ perfect integration to the roof area
- ✓ full copper absorber, high selective TiNOx coating
- ✓ small harp interval
- ✓ newly developed flat rolled tube technique
- ✓ solar safety glass
- ✓ weather-proof and UV resistant material
- ✓ collector frame with finger joint connection
- ✓ high quality insulation
- ✓ highest possible operating reliability due to high quality aluminum frame and EPDM rubber sealing
- ✓ easy to install

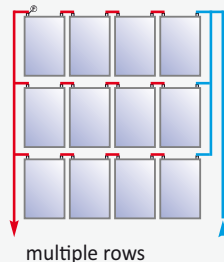
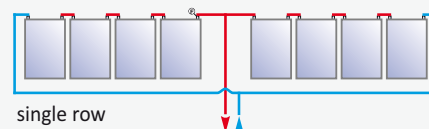
Top class high performance collectors!

Connection example

Connection in a row
up to max. 6 collectors



Connection according to Tichelmann
for larger collector arrays



This examples are only an installation proposal and do not replace technical planning!

Solar sets – the most important system components in a set

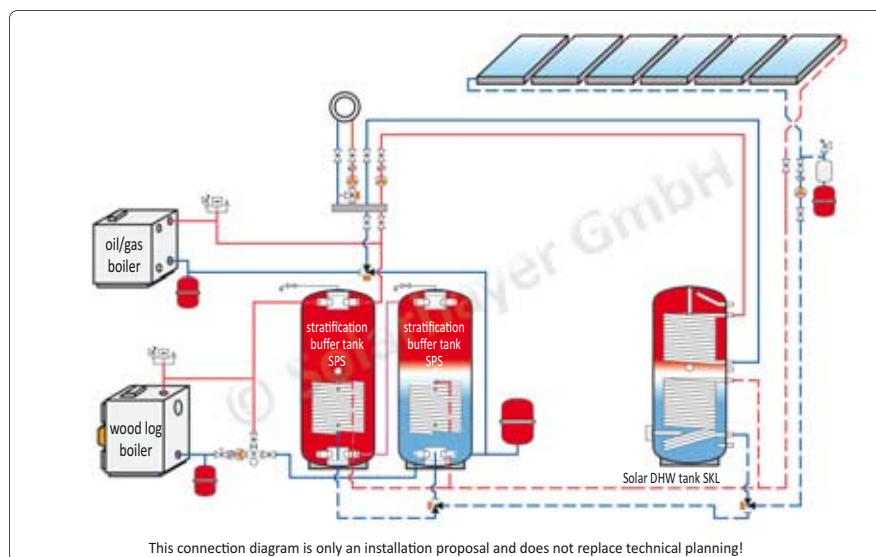


You will be able to realize almost every system with our unique solar sets, no matter which size the system shall have. They are suitable for the preparation of DHW or as heating support, for the application in single family houses or in hotel complexes.

Easy installation and therefore low assembly time characterize these elaborate systems

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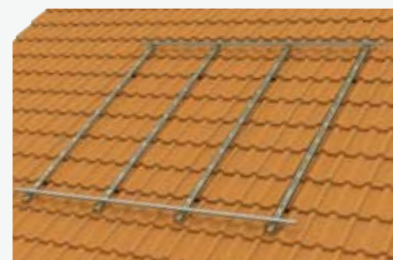
Connection example



Exemplary installation of two stratification buffer tanks in row.

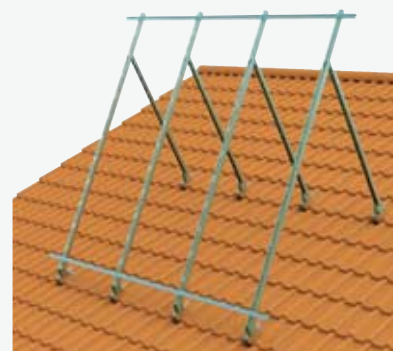
Mounting types

Standard installation on tiled roofs



Ready installed mounting set with height adjustable roof hooks. With the CPC vacuum tube collector the vertical collector bearing rails are not applied.

Special solution for stand-kits



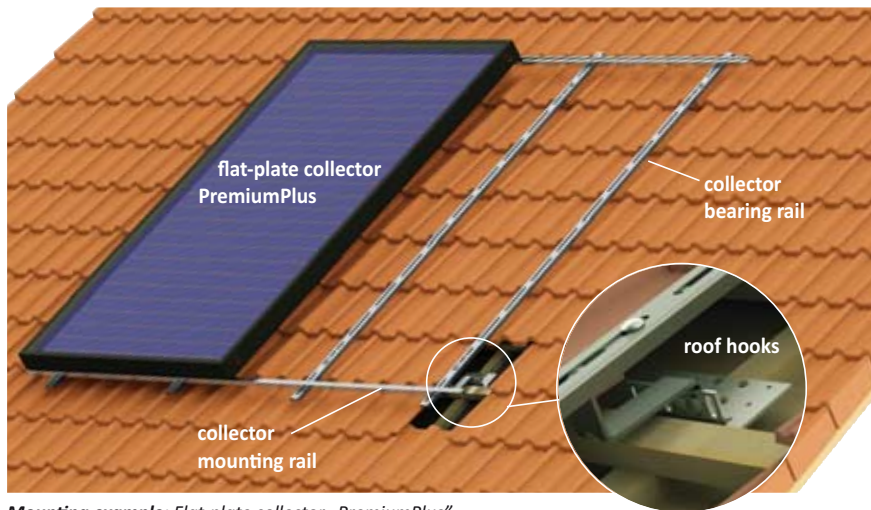
Stand-kit on quality roof hooks. The stand-kit can be adjusted to the roof pitch in several levels. This stand-kit is suitable for all kinds of Solarbayer on-roof collectors.

Special solution for flat-roof stand-kits

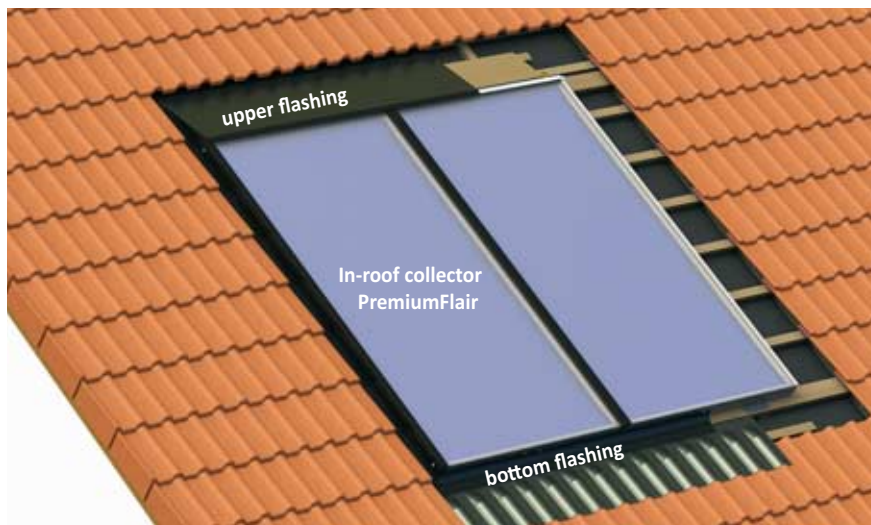


The mounting kit for the installation of Solarbayer collectors on flat roofs. This kit is suitable for all kinds of Solarbayer on-roof collectors.

Solarbayer mounting sets – easy installation and low assembly time



Mounting example: Flat-plate collector „PremiumPlus“



Mounting example: In-roof collector „PremiumFlair“

Die detaillierten Montageanleitungen finden Sie im Internet unter www.solarbayer.de

TÜV quality check



The collectors' bearing capacity of snow and wind load has been tested under extreme conditions including all supporting material.

For the first time solar thermal collectors together with the complete mounting material had been tested under extreme conditions. The test series took place at TÜV Rheinland.

The result confirms the high carrying capacity of the Solarbayer solar system technology. This has additionally been verified by an independent structural engineer.

Solarpipe Nano – flexible solar pipe separable fast piping system for solar systems



Solarpipe Nano

Separable fast piping system for solar systems, with tear-proof insulation, incl. sensor

High quality flexible corrugated stainless steel double pipe, insulated, with integrated sensor cable, especially designed for the perfect integration of a solar thermal system.

When used otherwise, especially with buried installation and when used outdoor, you have to take care of an additional cover. When used outdoors the insulation must be 200% and carried out in accordance with DIN.

Technical specifications:

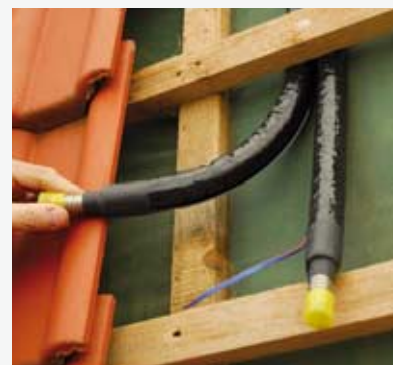
sizes:	DN 16, DN 20, DN 25 (sold by meter and as complete roll)
stainless steel hose:	material AISI 316L (material number 1.4404); fine corrugation; EN ISO 10380
insulation:	nano insulation, pressed approx. 5 mm, open approx. 7 mm, PVC coating, approx. 1 mm
sensor cable:	integrated bifilar sensor line
application area:	cooling and heating, solar, air conditioning, ventilation
temperature range:	-200°C to +200°C (short-time up to +600°C)
heat conductivity:	λ 0.020W/mK
characteristics:	water- and moisture proof, UV resistant, weatherproof, differentiation between flow and return line



A fast and professional connection is possible with the special solarpipe connection kit

Brief description

- ✓ reduced heat loss
- ✓ weatherproof and UV-resistant
- ✓ flexible high temperature insulation (heat conductivity λ 0.014W/mK)
- ✓ space-saving installation
- ✓ flexible corrugated stainless steel hose
- ✓ separable flow and return line
- ✓ integrate, bifilar sensor line
- ✓ sold as complete roll and by meter
- ✓ little assembly effort
- ✓ easiest handling, detail installation manual is included



Even in difficult installation situations below the roof construction it can be installed easily and without any problems. The connections can be cut as required. The special weatherproof, temperature- and UV resistant insulation guarantees a long operating life when used in solar systems.



The solarpipe can be directly installed at the solar station with additional available solarpipe connection kit.

The cost effectiveness of solar and wood log boiler systems – getting independent of oil and gas



Initial situation:

single family house (living area 150 m², YOM 1979)
oil/gas heating

annual fuel consumption

approx. 3000 m³ gas or 3000 liter oil
(no solar system)

investment cost

none

price per l/m ³	annual energy costs
0,90 €	2700 €
1,10 €	3300 €
1,30 €	3900 €*

*energy costs in 25 years

approx. 97.500 €



Example of savings:

single family house (living area 150 m², YOM 1979)
wood log heating system,
solar system (for back up heating)

annual fuel consumption

approx. 10 piled meter beech wood
(with a solar covering of approx. 30%)

investment cost

Solarbayer wood log heating system 25 kW:
approx. 6.300,- € (plus installation)
Solarbayer solar system with approx. 17 m²:
approx. 6.400,- € (plus installation)

price per piled meter beech wood	annual energy costs
70 €	700 €
90 €	900 €
110 €	1100 €*

*energy costs in 25 years

approx. 27.500 €

Energy costs in 25 years (oil heating):	97.500 €
Energy costs in 25 years (wood log/solar system)	– 27.500 €

your possible savings approx.: 70.000 €

This comparison is only an example and is neither future prospects nor an exact calculation. Not all factors have been regarded, such as f. e. the acquisition costs of the oil heating system (boiler, storage tank, etc.) or its maintenance costs.

You can figure out your individual savings with the Solarbayer heating cost calculator.

The calculator can be found on our website www.solarbayer.de

Planning aid

The following chart displays the simulated energy consumption of a single family home with a living area of 150 m², YOMr 1979, in comparison with the values after redevelopment measures. The left column displays the initial situation without redevelopment measures whereas the right column displays the energy costs, resp. the possible savings after a modernization.



Getting independent from the oil or gas price? Utopia?

Everybody has a choice: either providing money for unforeseeable increasing energy costs or using this money for technologies that keep the running costs on a manageable level and what is more important on an affordable level. Fuel costs will drastically be reduced by the use of solar and/or wood log boiler heating system.

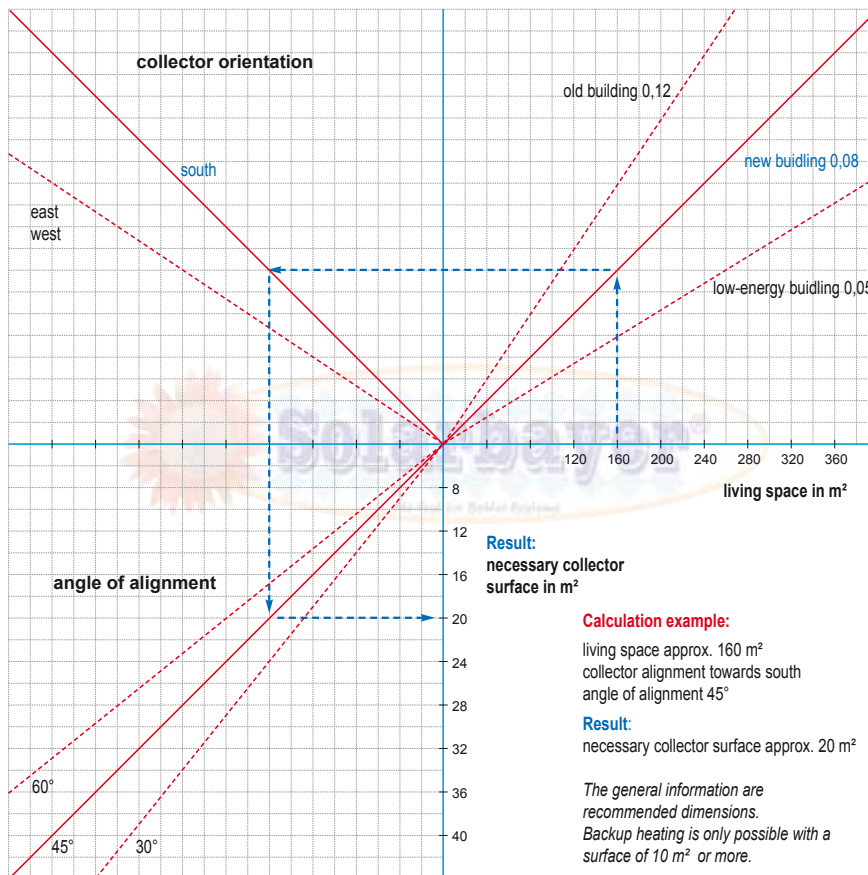
Federal grants keep the costs for a solar system often so low, that not the purchase of a solar system is a financial risk but the abdication of its operation.

You might save up to 30% of the energy costs of an existing building with an annual oil consumption of approx. 3000 liter by using a Solarbayer high performance solar system.

The additional use of a Solarbayer wood log boiler system, exemplary in its price-performance-ratio the oil consumption could be scaled down to zero.

Over the years the savings are enormous.

Planning aid: collector surface calculation (solar thermal system with back up heating)



This connection diagram is only an installation proposal and does not replace technical planning

Planning aid

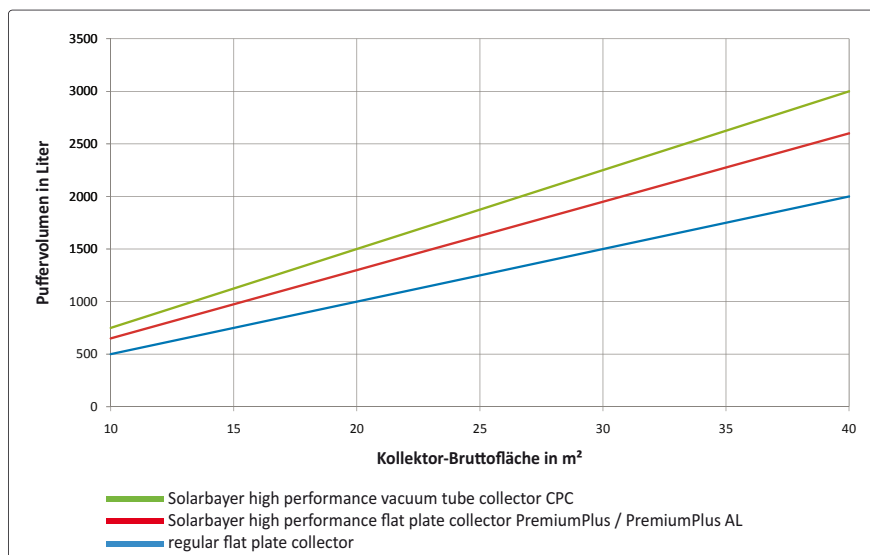
Wir möchten Ihnen hier eine Hilfestellung zur einfachen Planung Ihrer Solaranlage geben.

Die grobe Bestimmung der Anlagengröße ermitteln Sie anhand der nebenstehenden Grafik.

Die passende Speichertechnik ist mit ausschlaggebend für die Effektivität der Gesamtanlage. Nur mit einem richtig dimensionierten Speicher und den aufeinander abgestimmten Komponenten erreichen Sie die bestmögliche Ausnutzung der solaren Energie. Leistungsstarke Kollektoren benötigen auch leistungsstarke Wärmetauscher in den Speichern.

Grundsätzlich sollten Sie bei Ihrer Planung beachten, dass sich die Amortisation Ihrer Anlage bei einer heizungsunterstützten Solaranlage, im Vergleich zur reinen Erwärmung des Trinkwassers, in der Regel deutlich verkürzt.

Calculating the buffer tank size for solar systems










Storing the solar gain

With solar thermal systems the solar heat does not occur at the time as the heat requirements. Most heat is needed in the morning and in the evening - either for room heating or for the preparation of hot water. This always requires storage of the solar energy in a buffer or DHW tank.

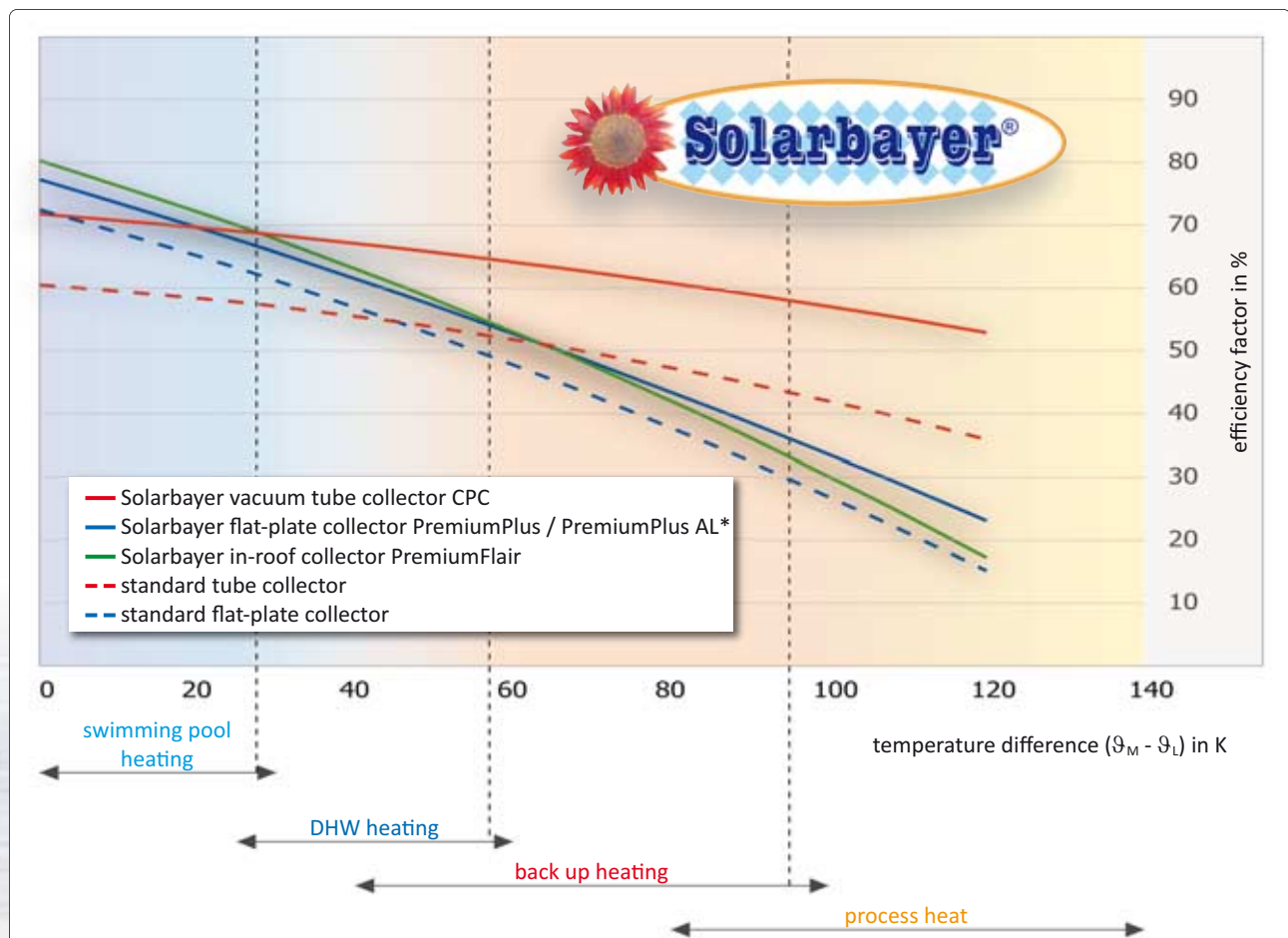
The size of the solar tank has to be aligned to the size of the collector area. If the tank's capacity is too big no useful temperatures will be achieved in the tank, if the tank is tank's capacity is too small the available solar energy is not used efficiently.

Our technicians will be glad to advise you.

Intended purpose and specific application areas of the different types of storage tanks

Type of storage tank	Heating buffer tank	Stratification system SLS®	Heat exchanger (1 HE, bottom)	Heat exchanger (2 HE, bottom + top)	DHW preparation	Intended purpose	Advantages
 <p>Stratification buffer tank SPS (without heat exchanger)</p>	●	●	○	○	○	<ul style="list-style-type: none"> 500 to 5.000 Liter, special sizes on request heating buffer tank for space heating 	<ul style="list-style-type: none"> perfect heat layering when loading and unloading (SLS® system) recommended for the integration of biomass boilers, heat pumps, etc.
 <p>Stratification buffer tank SPS-S (1 solar heat exchanger, bottom)</p>	●	●	●	○	○	<ul style="list-style-type: none"> 500 to 5.000 Liter, special sizes on request heating buffer tank for space heating one integrated heat exchanger 	<ul style="list-style-type: none"> perfect heat layering when loading and unloading (SLS® system) recommended for the integration of biomass boilers, heat pumps, etc. integration of a solar system is possible
 <p>Stratification buffer tank SPS-S 2 WT (2 solar heat exchanger, bottom and top)</p>	●	●	●	●	○	<ul style="list-style-type: none"> 500 to 5.000 Liter, special sizes on request heating buffer tank for space heating two integrated heat exchanger 	<ul style="list-style-type: none"> perfect heat layering when loading and unloading (SLS® system) recommended for the integration of biomass boilers, heat pumps, etc. perfect integration of a solar system is possible (2 zone arrangement) perfect for fresh water stations
 <p>Heat pump storage tank WP (enameled)</p>	○	○	●	●	●	<ul style="list-style-type: none"> 350 and 500 Liter Hot water tank for the preparation of DHW two integrated heat exchanger 	<ul style="list-style-type: none"> recommended for the integration of a heat pump or solar system especially suitable for high hot water output due to the huge double wound heat exchanger
 <p>Solar DHW storage tank SKL (enameled)</p>	○	○	●	●	●	<ul style="list-style-type: none"> 350 and 500 Liter Hot water tank for the preparation of DHW two integrated heat exchanger 	<ul style="list-style-type: none"> integration of a solar system is possible
 <p>Hygienic stratification storage tank HSK-ÖKO (stainless steel DHW exchanger)</p>	●	○	●	●	●	<ul style="list-style-type: none"> 700 and 1.000 Liter heating buffer tank for space heating as well as hygienic hot water preparation inside the integrated stainless steel heat exchanger two integrated heat exchanger 	<ul style="list-style-type: none"> perfect integration of a solar system is possible (2 zone arrangement) hot water preparation via integrated stainless steel heat exchanger (Ø 32 mm), hygienic DHW at all times cost-optimized alternative
 <p>Hygienic stratification buffer tank HSK-SLS (stainless steel DHW exchanger)</p>	●	●	●	●	●	<ul style="list-style-type: none"> 500 to 2.200 Liter, special sizes on request heating buffer tank for space heating as well as hygienic hot water preparation inside the integrated stainless steel heat exchanger two integrated heat exchanger 	<ul style="list-style-type: none"> perfect heat layering when loading and unloading (SLS® system) perfect integration of a solar system is possible (2 zone arrangement) hot water preparation via integrated stainless steel heat exchanger (Ø 48 mm), hygienic DHW at all times high hot water output

Efficiency factor curves in comparison (at 1000 W/m²)



Which collector to choose? In order to ease your decision you can determine the suitable collector for your application needs by the aid of this efficiency factor curves. Solarbayer collectors are top class collectors in terms of performance and are highly convincing in terms of operating life.

*The performance curves of the flat-plate collectors PremiumPlus and PremiumPlus AL are almost identical. As a matter of clearness only one curve is presented for both collectors.