

Innovative Heating & Cooling Systems

SOL and STS+



Forced draft solar collectors **SOL**

For flat and pitched roofs



Baxi has always been active in the development of solutions which ensure the maximum environmental respect and high efficiency, therefore it presents the forced draft solar collectors **SOL**, which are equipped with a protective film to grant a protection against overtemperature. All SOL panels are Solar Keymark certified.



SOL 250-V



SOL 200-V

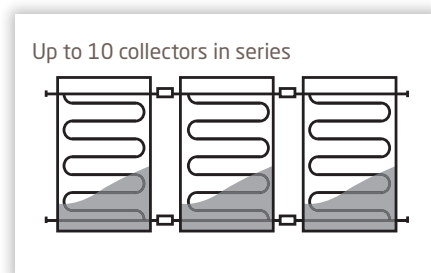
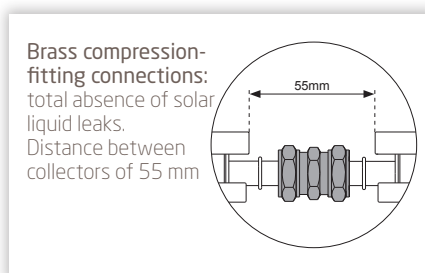
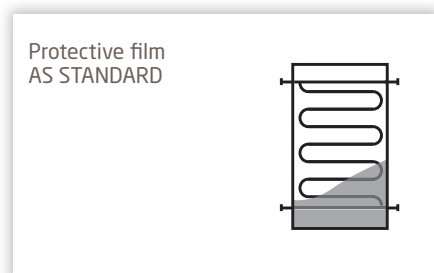


SOL 250-O

Features

Solar collector SOL

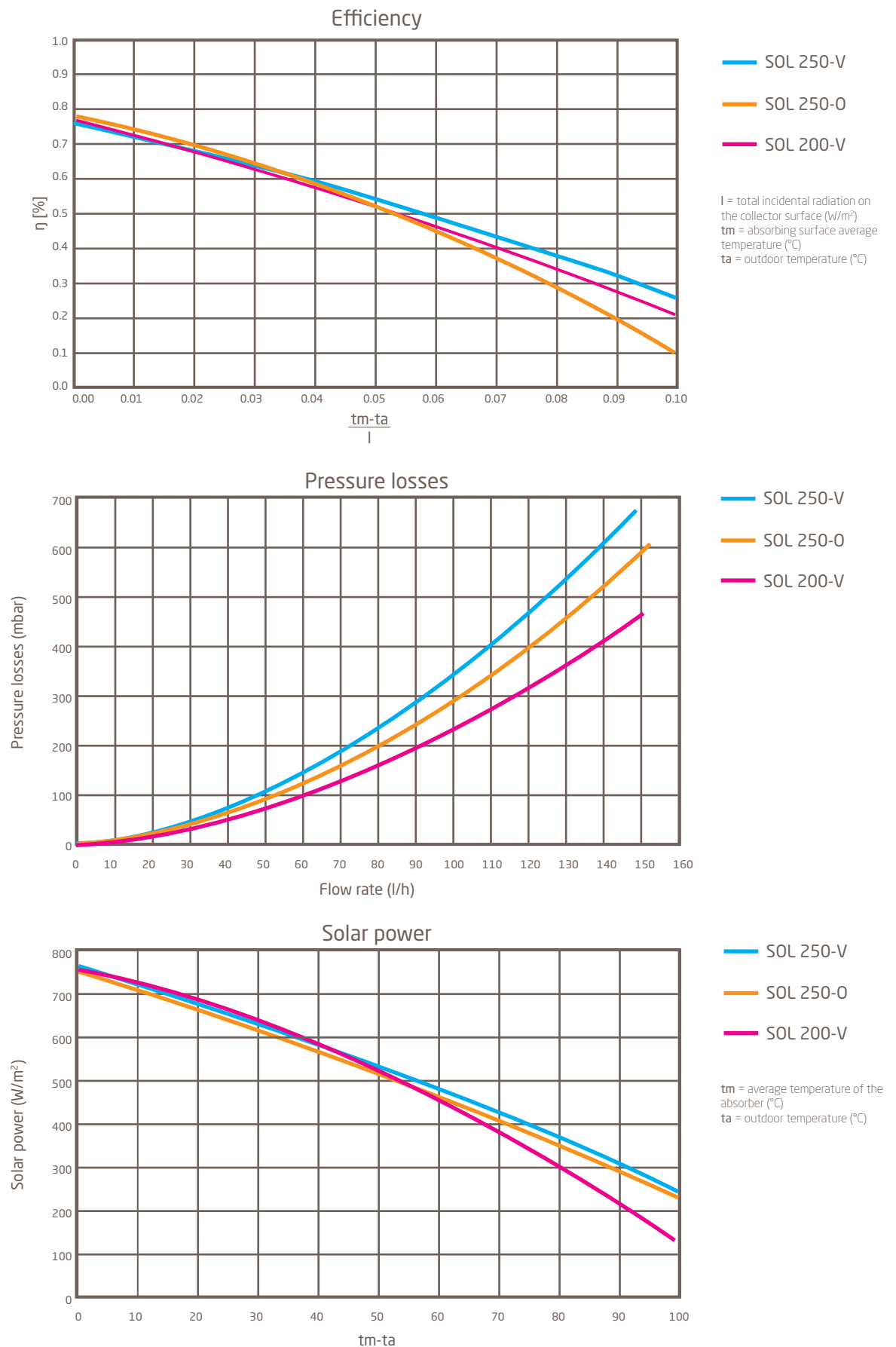
- **Protective film AS STANDARD:** it protects the solar system against overtemperature. The film contains all the main instructions for the installation, transportation and service of the solar collector.
- **For flat and pitched roofs.**
- **High performance:** enhanced absorption surface.
- **Elegant design:** profile and coatings are the same color as glass, ensuring the seamless integration of the panel on every roof type.
- **Brass compression-fitting connections:** they ensure a tight seal over time and total absence of solar liquid leaks. Distance between collectors of 55 mm.
- **Up to 10 collectors can be connected in series:** an Omega has to be connected after the fifth one.
- **Covering:** single solar glass ESG that is pre-stressed, non-ferrous, hail resistant and 3,2 mm thick
- **Absorber:** laser welded aluminium slab (0,4 mm thick) with copper meander pipe (8 mm diameter) and highly selective treatment



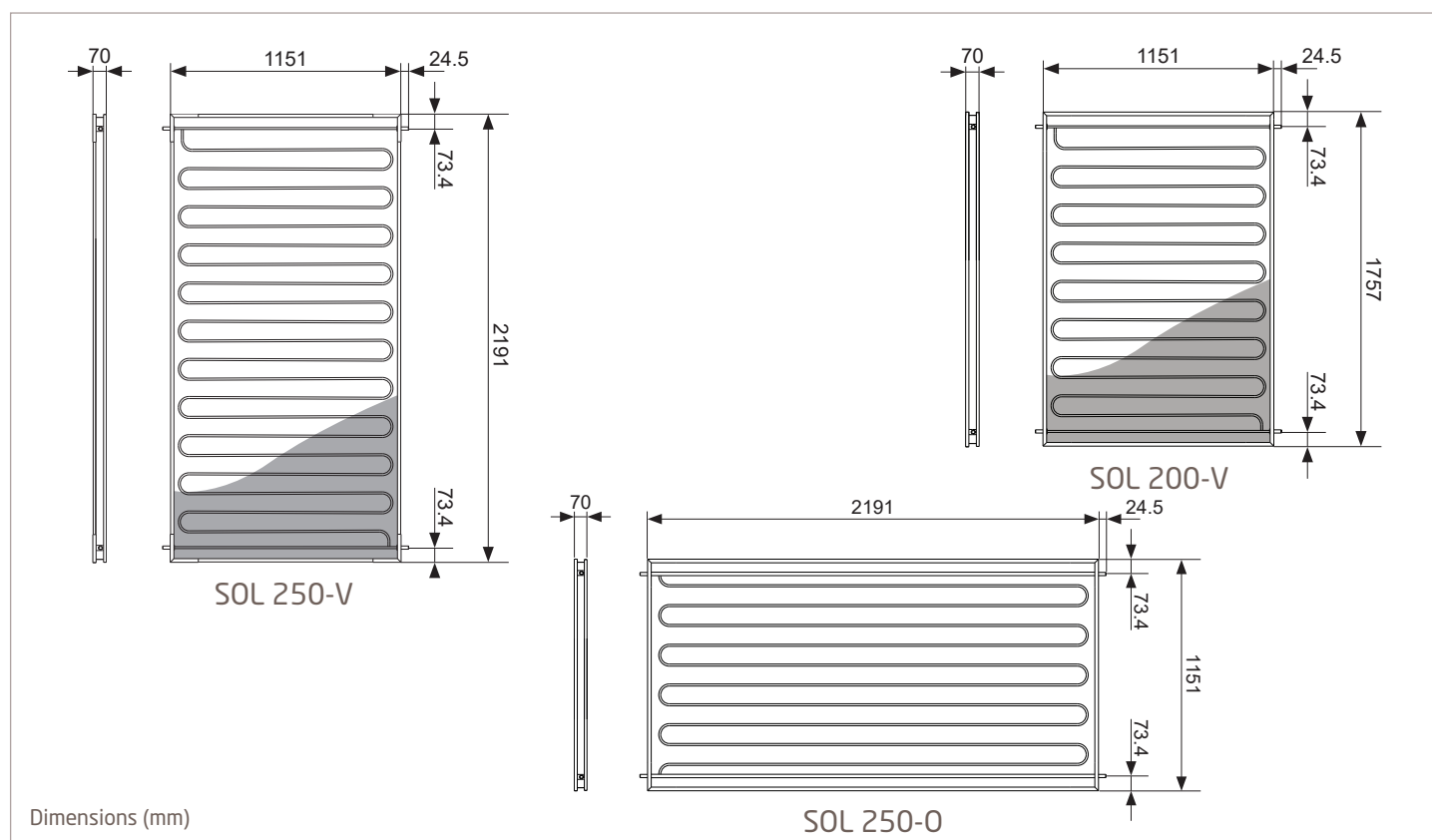
Technical data

		SOL 250-V	SOL 250-O	SOL 200-V
Gross surface	m ²	2,52	2,52	2,02
Absorber area	m ²	2,35	2,35	1,87
Aperture area	m ²	2,40	2,40	1,92
Collector capacity	l	1,40	1,80	1,20
η_0 Efficiency (with reference to the absorber surface)	%	80,0	82,0	80,0
α Heat losses	W/m ² K	3,897	3,226	3,914
Weight	kg	36	37	27
Maximum working pressure	bar	10	10	10
Test pressure	bar	15	15	15
Temperatura di stagnazione	°C	190	190	211
Dimensions (h x w x d)	mm	2191 x 1151 x 70	1151 x 2191 x 70	1757 x 1151 x 70
Hydraulic connections Ø	mm	18	18	18
Suggested inclination min-max	°degrees	15-55	15-55	15-55

Graph



Technical drawings



Solar connections

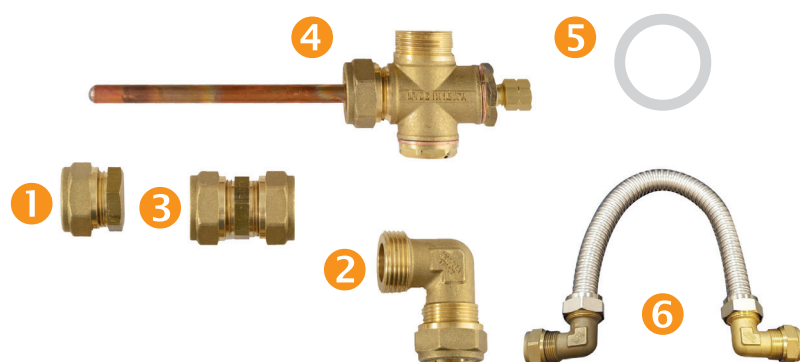
A-frame and on roof installation (under/through-tile)

COMPRESSION-FITTINGS: hydraulic connections for SOL panels

Compression brass connections (with ogive).

A manual drain air valve is INCLUDED in the 1 and 2 collectors hydraulic connection kits

- 1 collector compression-fittings hydraulic connection kit
- 2 collectors compression-fittings hydraulic connection kit
- Additional collector compression-fittings hydraulic connection kit
- Hydraulic connection kit with Omega for installations with $n^{\circ} \geq 6$ collectors



Legenda	
1	End cap
2	Elbow G3/4
3	Joining piece
4	Elbow with sensor G3/4 and drain air valve
5	Seal washer
6	Omega connection

	Hydraulic kit for 1 collector	Hydraulic kit for 2 collectors	Hydraulic kit add. collector	Hydraulic kit with Omega
1	2 pz	2 pz	-	-
2	1 pz	1 pz	-	4 pz
3	-	2 pz	2 pz	-
4	1 pz	1 pz	-	-
5	2 pz	2 pz	-	4 pz
6	-	-	-	2 pz

Installations with SOL 250-V

SOL 250-V vertical installation, 55-mm compression fitting connections

1 collector



Total dimensions (wxhxd) mm: 1151x2191x70

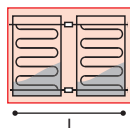
Frames installation sequence:

1xFrame for 1 collector

Hydraulic kits installation sequence:

1xHydraulic connection kit for 1 collector

2 collectors



Total dimensions (wxhxd) mm: 2357x2191x70

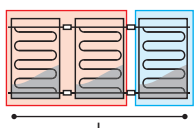
Frames installation sequence:

1xFrame for 2 collectors

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors

3 collectors



Total dimensions (wxhxd) mm: 3563x2191x70

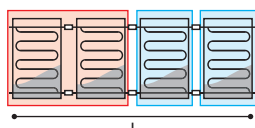
Frames installation sequence:

1xFrame for 2 collectors + 1xFrame for additional collector

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 1xHydraulic connection kit for additional collector

4 collectors



Total dimensions (wxhxd) mm: 4769x2191x70

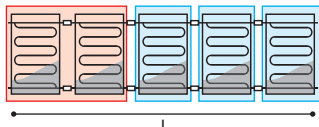
Frames installation sequence:

1xFrame for 2 collectors + 2xFrame for additional collector

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 2xHydraulic connection kit for additional collector

5 collectors



Total dimensions (wxhxd) mm: 5975x2191x70

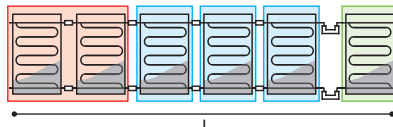
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector

6 collectors



Total dimensions (wxhxd) mm: 7292x2191x70

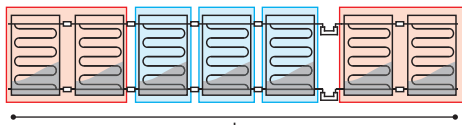
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 1 collector (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 1 collector

7 collectors



Total dimensions (wxhxd) mm: 8498x2191x70

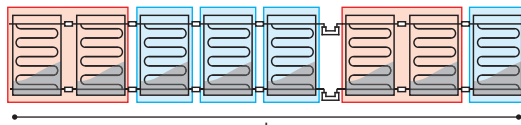
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors

8 collectors



Total dimensions (wxhxd) mm: 9704x2191x70

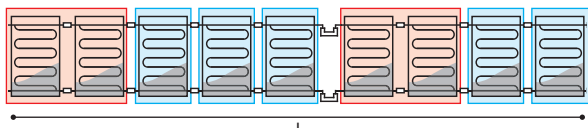
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) + 1xFrame for additional collector (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors + 1xHydraulic connection kit for additional collector

9 collectors



Total dimensions (wxhxd) mm: 10910x2191x70

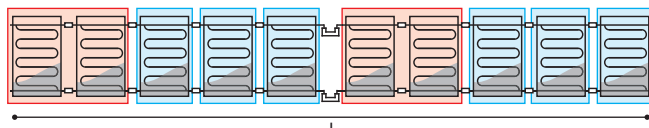
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) + 2xFrame for additional collector (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors + 2xHydraulic connection kit for additional collector

10 collectors



Total dimensions (wxhxd) mm: 12116x2191x70

Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) + 3xFrame for additional collector (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector

The length of the hydraulic connection kit with Omega is 166 mm.

Installations with SOL 250-0

SOL 250-0 horizontal installation, 55-mm compression fitting connections

<p>1 collector</p>  <p>Total dimensions (wxhxd) mm: 2191x1151x70 Frames installation sequence: 1xFrame for 1 collector Hydraulic kits installation sequence: 1xHydraulic connection kit for 1 collector</p>	<p>2 collectors</p>  <p>Total dimensions (wxhxd) mm: 4437x1151x70 Frames installation sequence: 1xFrame for 2 collectors Hydraulic kits installation sequence: 1xHydraulic connection kit for 2 collectors</p>
<p>3 collectors</p>  <p>Total dimensions (wxhxd) mm: 6683x1151x70 Frames installation sequence: 1xFrame for 2 collectors + 1xFrame for additional collector Hydraulic kits installation sequence: 1xHydraulic connection kit for 2 collectors + 1xHydraulic connection kit for additional collector</p>	<p>4 collectors</p>  <p>Total dimensions (wxhxd) mm: 8929x1151x70 Frames installation sequence: 1xFrame for 2 collectors + 2xFrame for additional collector Hydraulic kits installation sequence: 1xHydraulic connection kit for 2 collectors + 2xHydraulic connection kit for additional collector</p>
<p>5 collectors</p>  <p>Total dimensions (wxhxd) mm: 11175x1151x70 Frames installation sequence: 1xFrame for 2 collectors + 3xFrame for additional collector Hydraulic kits installation sequence: 1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector</p>	<p>6 collectors</p>  <p>Total dimensions (wxhxd) mm: 13532x1151x70 Frames installation sequence: 1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 1 collector (after the Omega) Hydraulic kits installation sequence: 1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 1 collector</p>
<p>7 collectors</p>  <p>Total dimensions (wxhxd) mm: 15778x1151x70 Frames installation sequence: 1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) Hydraulic kits installation sequence: 1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors</p>	<p>8 collectors</p>  <p>Total dimensions (wxhxd) mm: 18024x1151x70 Frames installation sequence: 1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) + 1xFrame for additional collector (after the Omega) Hydraulic kits installation sequence: 1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors + 1xHydraulic connection kit for additional collector</p>
<p>9 collectors</p>  <p>Total dimensions (wxhxd) mm: 20270x1151x70 Frames installation sequence: 1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) + 2xFrame for additional collector (after the Omega) Hydraulic kits installation sequence: 1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors + 2xHydraulic connection kit for additional collector</p>	<p>10 collectors</p>  <p>Total dimensions (wxhxd) mm: 22516x1151x70 Frames installation sequence: 1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) + 3xFrame for additional collector (after the Omega) Hydraulic kits installation sequence: 1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector</p>

The length of the hydraulic connection kit with Omega is 166 mm.
 To improve flow distribution and efficiency, it is recommended to connect the collectors with inlet/outlet on opposite sides.

Installations with SOL 200-V

SOL 200-V vertical installation, 55-mm compression fitting connections

1 collector



Total dimensions (wxhxd) mm: 1151x1757x70

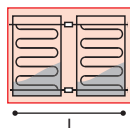
Frames installation sequence:

1xFrame for 1 collector

Hydraulic kits installation sequence:

1xHydraulic connection kit for 1 collector

2 collectors



Total dimensions (wxhxd) mm: 2357x1757x70

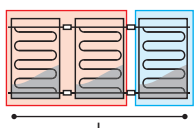
Frames installation sequence:

1xFrame for 2 collectors

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors

3 collectors



Total dimensions (wxhxd) mm: 3563x1757x70

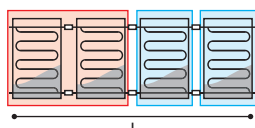
Frames installation sequence:

1xFrame for 2 collectors + 1xFrame for additional collector

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 1xHydraulic connection kit for additional collector

4 collectors



Total dimensions (wxhxd) mm: 4769x1757x70

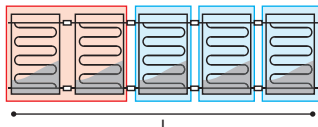
Frames installation sequence:

1xFrame for 2 collectors + 2xFrame for additional collector

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 2xHydraulic connection kit for additional collector

5 collectors



Total dimensions (wxhxd) mm: 5975x1757x70

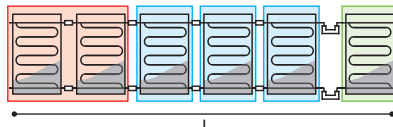
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector

6 collectors



Total dimensions (wxhxd) mm: 7792x1757x70

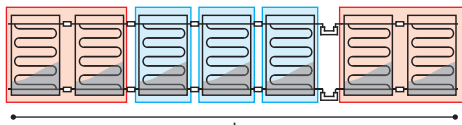
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 1 collector (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 1 collector

7 collectors



Total dimensions (wxhxd) mm: 8498x1757x70

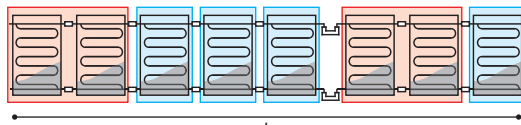
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors

8 collectors



Total dimensions (wxhxd) mm: 9704x1757x70

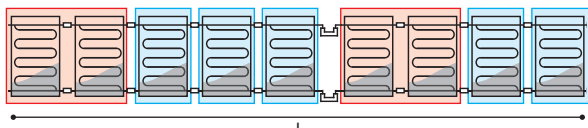
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) + 1xFrame for additional collector (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors + 1xHydraulic connection kit for additional collector

9 collectors



Total dimensions (wxhxd) mm: 10910x1757x70

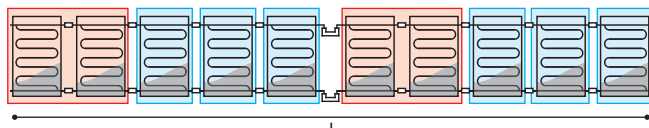
Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) + 2xFrame for additional collector (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors + 2xHydraulic connection kit for additional collector

10 collectors



Total dimensions (wxhxd) mm: 12116x1757x70

Frames installation sequence:

1xFrame for 2 collectors + 3xFrame for additional collector + 1xFrame for 2 collectors (after the Omega) + 3xFrame for additional collector (after the Omega)

Hydraulic kits installation sequence:

1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector + 1xHydraulic connection kit with Omega + 1xHydraulic connection kit for 2 collectors + 3xHydraulic connection kit for additional collector

The length of the hydraulic connection kit with Omega is 166 mm.

Mounting frames

The frames allow different types of installation, both for flat roofs and for pitched roofs (under-tile and through-tile).

Flat roof

For 1 collector



For 2 collectors



For additional collector



Pitched roof - on-roof under-tile

For 1 collector



For 2 collectors



For additional collector

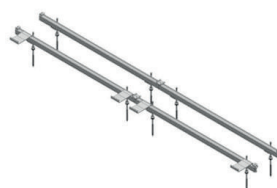


Pitched roof - on-roof through-tile

For 1 collector








For 2 collectors



For additional collector



Accessories for circulation and control

Model		Code	Solar controller	Included sensors	Control	Max pump head [m]	Pump rated electric power [W]	Flowmeter range [l/min]	Max operating temperature [°C]	Max operating pressure [bar]	Safety valve [mbar]
Solar circulating group with controller "Comfort+" 		A7677852	Yes (Comfort+)	3 tanks 1 collector	PWM Constant characteristic curve	7,5	23	2-15	120	6	20
Solar circulating group with controller "Eco+" 		A7221637	Yes (Eco+)	1 tank 1 collector	PWM Constant characteristic curve	7,5	23	2-15	120	6	20
Solar circulating group without electronics+ 		A7221636	No	-	PWM	7,5	23	2-15	120	6	20
High-head solar circulating group+ (max 9 m) 		A7221634	No	-	PWM	9	45	7-30	120	10	20
High-head solar circulating group+ (max 14 m) 		A7743341	No	-	PWM	14	140	8-38	110	6	20

Solar controller Comfort+



Cod. A7678817

Complete controller for 2 rows of collectors or 2 tanks;
4 turnkey schemes

Features:

- Up to 6 sensors to be connected
- 3 programmable outputs (230V / 1A)
- Up to 2 rows of collectors or 2 tanks
- Sensors included: 3 for tanks – 1 for collectors
- Over-heating protection

Solar controller Eco+



Cod. KA00009

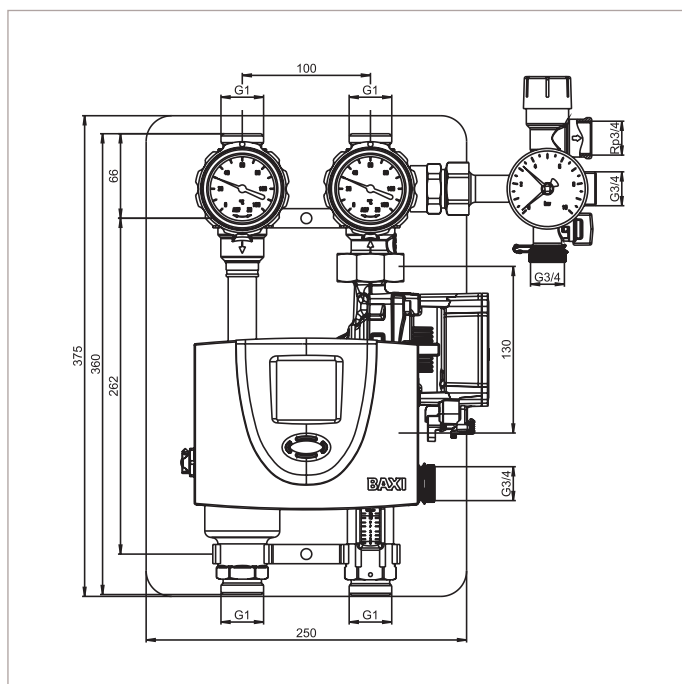
The easiest controller
For 1 row of collectors and 1 tank
For the most common installation scheme

Features:

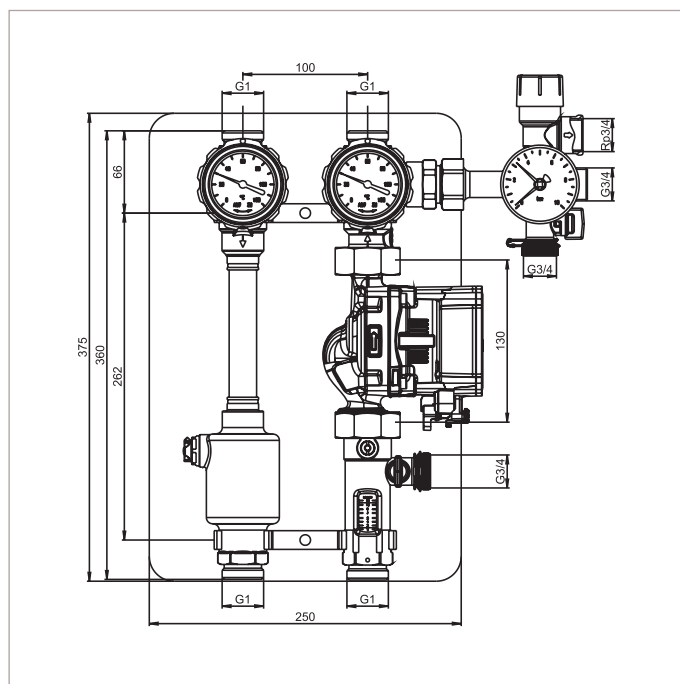
- 1 row of collectors and 1 tanks
- Sensors included: 1 for tank – 1 for collectors
- Over-heating protection

Circulation group

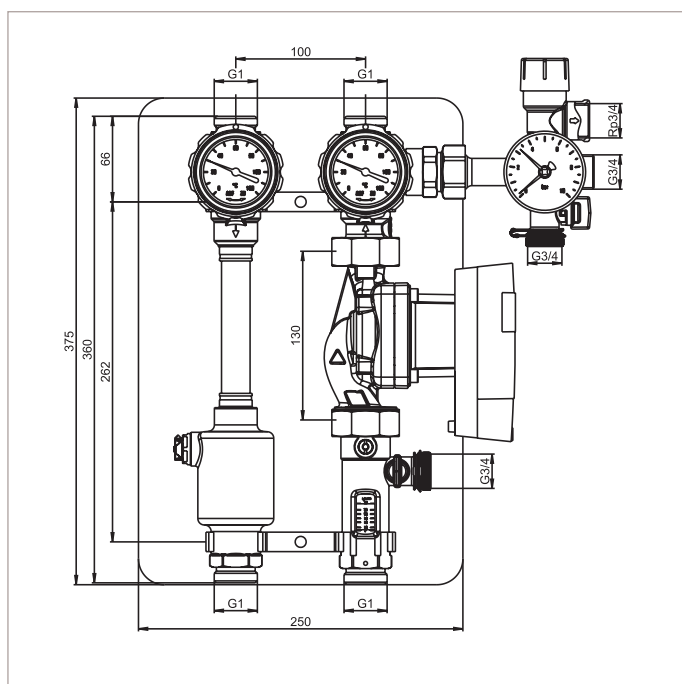
Comfort/Eco+



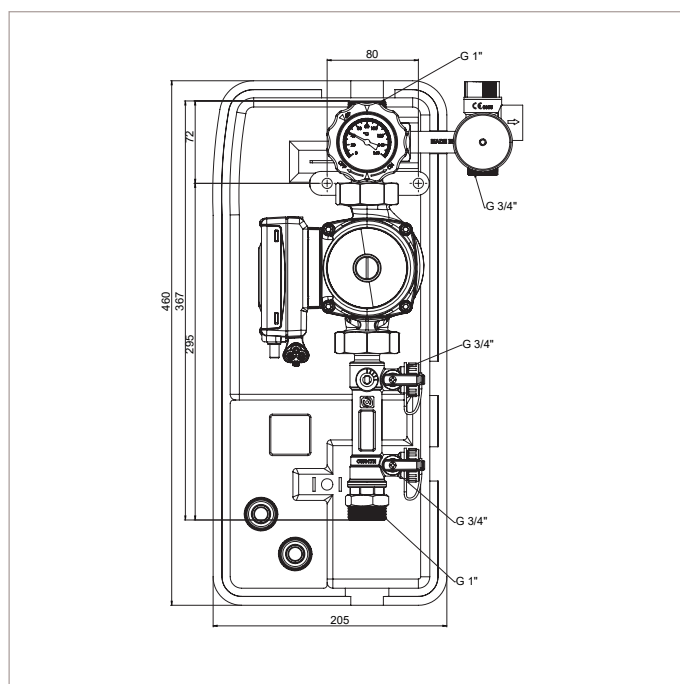
Without electronics+



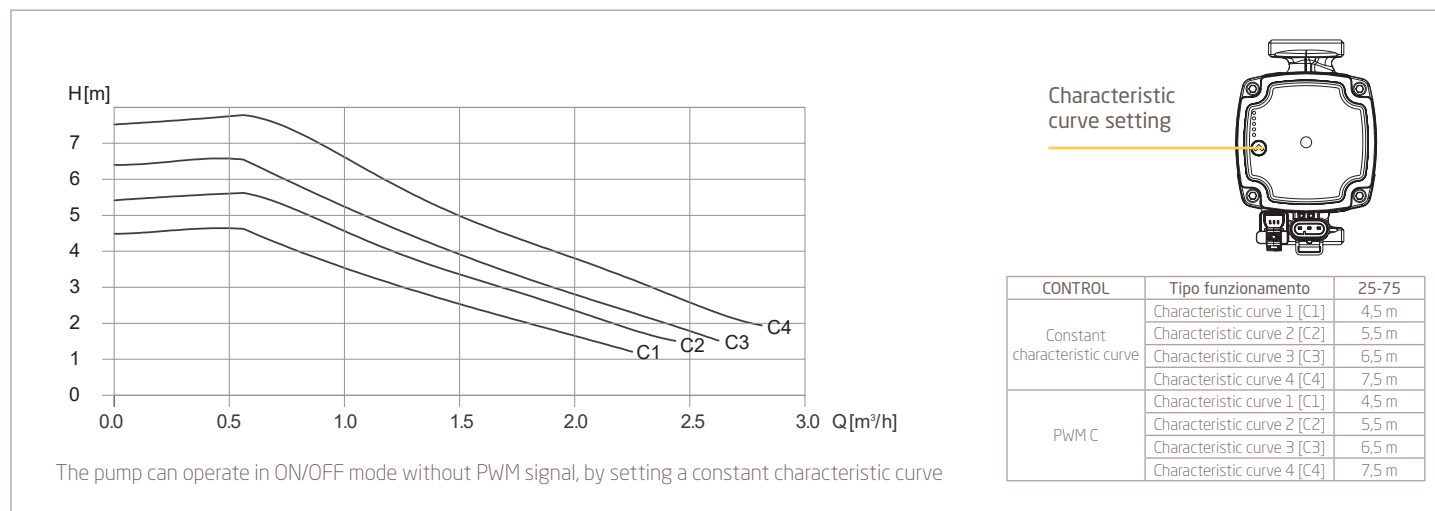
High head+ 9m



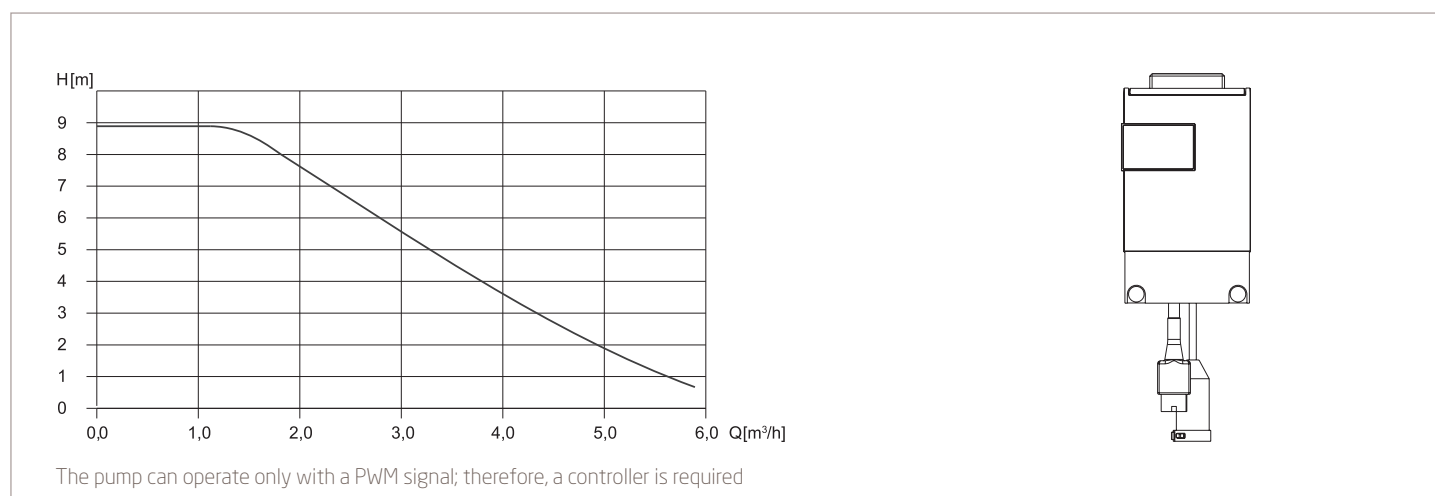
High head+ 14m



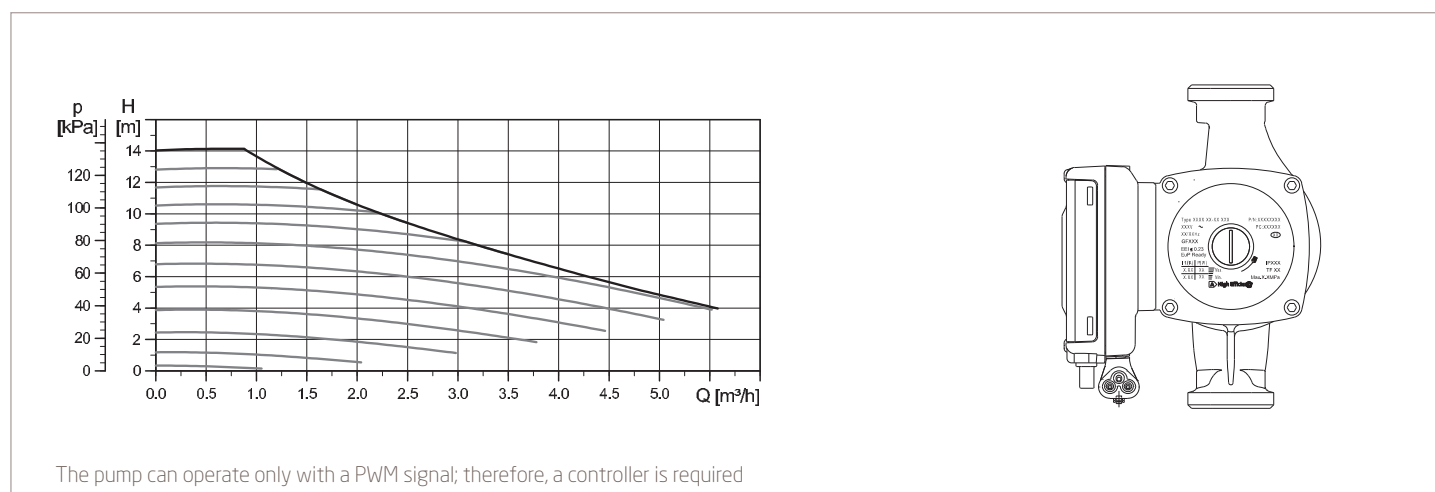
Flow/head groups without electronics+/Comfort+/Eco+



Flow/head high-head group+ 9 m



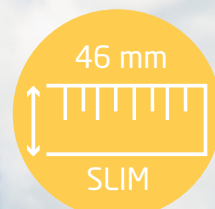
Flow/head high-head group+ 14 m



Natural draft systems **STS+**
with solar collector

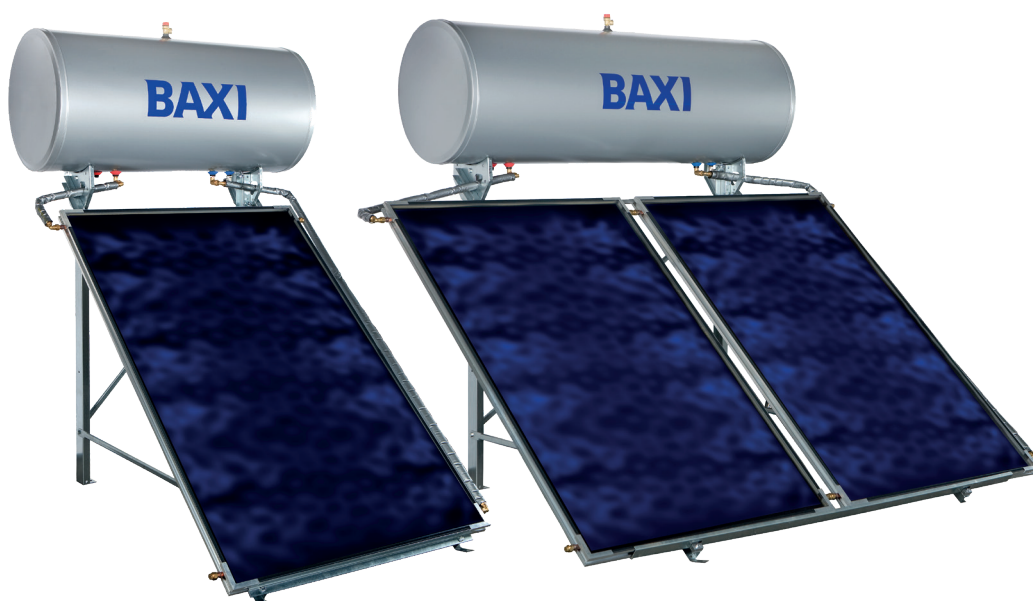
Mediterraneo Slim

For flat and pitched roofs



Baxi presents the natural draft solar collectors **STS+**, which are EN 12975 and Solar Keymark certified.

"Mediterraneo Slim" is the thinnest panel on the market (46 mm) and extremely light weight, easy to be installed.



STS+ 150 2.0
STS+ 150 2.5
STS+ 200 2.0
STS+ 200 2.5

STS+ 300 2.0
STS+ 300 2.5

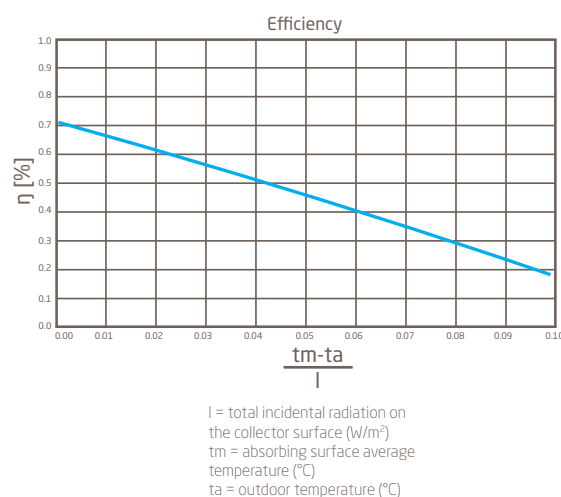


Mediterraneo Slim

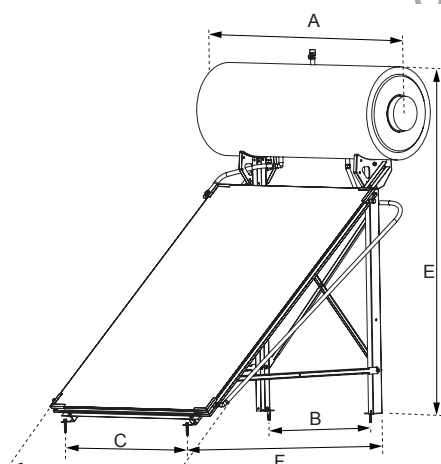
- **Light:** only **26 kg** for STS+ 200 and **32 kg** for STS+ 250, easy to transport and install (a sole person is enough for the installation).
- **Slim:** "Mediterraneo Slim" is the **thinnest panel** on the market (**46 mm**), **low aesthetic impact**.
- **Quick and easy to install:** new plug&play system for an easy installation.

Technical data and graph

		STS+ 150 2.0	STS+ 150 2.5	STS+ 200 2.0	STS+ 200 2.5	STS+ 300 2.0	STS+ 300 2.5
N. of collectors		1	1	1	1	2	2
Aperture area	m ²	1,92	2,4	1,92	2,4	3,84	4,8
Collector capacity	lt	1,4	1,6	1,4	1,6	2,8	3,2
Zero-loss efficiency		0,724	0,73	0,724	0,73	0,724	0,73
First order coefficient	W/m ² K	3,860	3,920	3,860	3,920	3,860	3,920
Second order coefficient	W/m ² K	0,017	0,013	0,017	0,013	0,017	0,013
Incidence Angle Modifier (IAM)		0,95	0,95	0,95	0,95	0,95	0,95
Total capacity - primary circuit	lt	9,6	9,8	10,6	10,8	22,8	23,2
Dimensions of the cylinder	mm	Ø 500 x 1309				Ø 580 x 2060	
Capacity of the cylinder	lt	157,9	157,9	196,8	196,8	325,5	325,5
Empty weight	kg	107	107	115	115	190	192
Tank material		Enamelled steel					

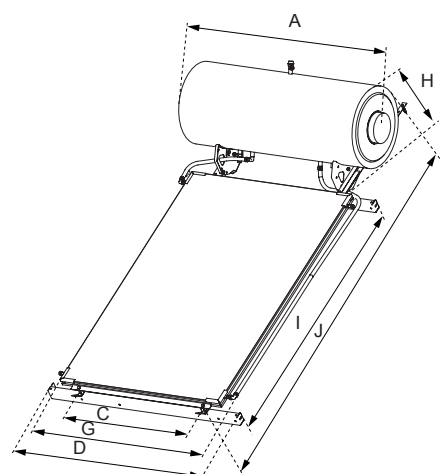


Technical drawings



Flat roof



	STS+ 150 2.0	STS+ 150 2.5	STS+ 200 2.0	STS+ 200 2.5	STS+ 300 2.0	STS+ 300 2.5
A (mm)	1310	1310	1310	1310	2060	2060
B (mm)	752	752	752	752	1294	1294
C (mm)	895	895	895	895	1439	1439
D (mm)	1260	1260	1260	1260	2505	2505
E (mm)	1870	1870	1907	1907	1907	1907
F (mm)	1551	2073	1551	2073	1551	2073





Pitched roof

	STS+ 150 2.0	STS+ 150 2.5	STS+ 200 2.0	STS+ 200 2.5	STS+ 300 2.0	STS+ 300 2.5
A (mm)	1310	1310	1310	1310	2060	2060
C (mm)	895	895	895	895	1436	1436
D (mm)	1464	1464	1464	1464	1464	1464
G (mm)	1265	1265	1265	1265	2500	2500
H (mm)	770	770	810	810	810	810
I (mm)	1790	2223	1790	2223	1790	2223
J (mm)	2520	2831	2560	2871	2560	2871

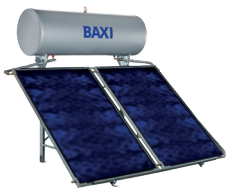
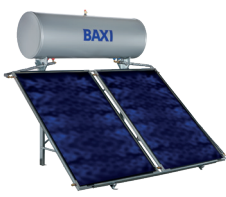
System with 1 collector Mediterraneo Slim + 150-liter tank

System		
	STS+ 150 2.0 flat/pitched roof	Consists of: - 1 x 2 sqm solar collector Mediterraneo Slim - 150-lt solar tank - Frame for 1 collector - Hydraulic connection kit
	STS+ 150 2.5 flat/pitched roof	Consists of: - 1 x 2,5 sqm solar collector Mediterraneo Slim - 150-lt solar tank - Frame for 1 collector - Hydraulic connection kit

System with 1 collector Mediterraneo Slim + 200-liter tank

System		
	STS+ 200 2.0 flat/pitched roof	Consists of: - 1 x 2 sqm solar collector Mediterraneo Slim - 200-lt solar tank - Frame for 1 collector - Hydraulic connection kit
	STS+ 200 2.5 flat/pitched roof	Consists of: - 1 x 2,5 sqm solar collector Mediterraneo Slim - 200-lt solar tank - Frame for 1 collector - Hydraulic connection kit

System with 2 collectors Mediterraneo Slim + 300-liter tank

System		
	STS+ 300 2.0 flat/pitched roof	Consists of: - 2 x 2 sqm solar collectors Mediterraneo Slim - 300-lt solar tank - Frame for 1 collector - Hydraulic connection kit
	STS+ 300 2.5 flat/pitched roof	Consists of: - 2 x 2,5 sqm solar collectors Mediterraneo Slim - 300-lt solar tank - Frame for 1 collector - Hydraulic connection kit



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