



**COSTRUZIONI
SOLARI**

i n d e x

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COSTRUZIONI
SOLARI



**COSTRUZIONI
SOLARI**

Company

Costruzioni Solari have been licensing, manufacturing and selling top quality solar thermal products since 1979.

characteristics

Great expertise, Science & Technology competencies, continuous Research and Experimentation.

results

Highly innovative products, increasingly efficient technical solutions to offer easy-to-use ecological tools for competitive prices.

applications

Housing units, apartment-blocks, swimming-pools, camping, resorts, hotels, factories etc.





Design, Manufacture, and Commissioning

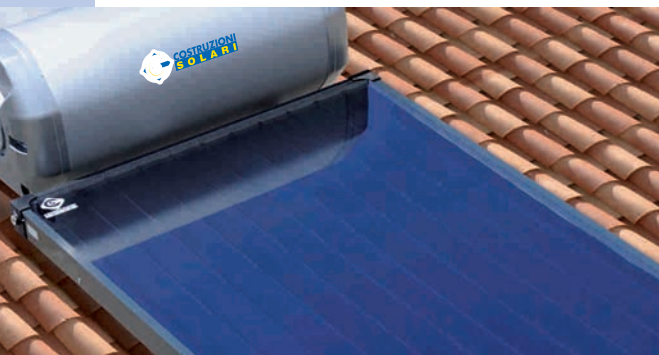
Costruzioni Solari offer **consultancy** to design Solar Plants providing hot water and space heating for domestic and industrial purposes.

CS produce:
some of the best **solar collectors** on the market today, EN Certificate No 12975, internationally **acknowledged prize winners**.

An example:
SuperSLIM ultrathin flat plate collector, a CS patented product, **can be installed everywhere**, even where landscape, law and style impose their constraints.

Exclusive CS **machines for energy management, integration and supply from multiple heat sources**, such as:
prize winners **Domino, Minisolar** and **Solar Systems**, all CS patented.

Costruzioni Solari assure and guarantee:
a **significant reduction** of traditional energy sources consumption even allowing, in case of new or energy efficient houses, **full autonomy** with consequent financial savings.





Research

Compound Parabolic Collectors

- Costruzioni Solari are experiencing **Parabolic Trough Collectors (PTC)** to produce steam up to 200 ° C.

We also joined some research project international team:

- **BioSolEsco** UE financed Program,
Aim: cogenerated solar-biomasse solar units
- **MIPER**, financed through Italian Ministero della Ricerca
Aim: innovative materials employment for solar collectors production
- **Solar**, financed by Italian Ministero della Ricerca
Aim: development of new technologies for producing power through Parabolic Trough Collectors (PTC).





Certificates of Conformity

- Iso 9001:2008
- Iso 14001:2004
- EMAS



Prizes and Acknowledgements

EUROSOLAR Prize 2002 for the entrepreneurial commitment.

Innovazione amica dell'ambiente 2005, the Environment-friendly Innovation prize promoted by Lega Ambiente and Lombardia Region for our project of space heating and industrial hot water production for a carpet factory.

The Environment-friendly Innovation nomination was also given to Hydronic Group **Domino**, in 2007;

to Solar Flat Plate Collector **SLIM**, in 2008.

The technical committee of **Expocomfort** 2010 Exhibition has chosen **MiniSolar** and **ClimaTotal** Solar systems among the most innovative products on show.

Shanghai 2010 Universal Exposition hosted a section devoted to Italian Excellence in Innovation: **ClimaTotal** Solar System and **SLIM** solar collector were selected as the most representative both from Italian Ministry of Innovation and from the Chinese technical Committee.





Large scale plants provided by Costruzioni Solari Srl in the last decade



SWIMMING POOL – MOLFETTA (BARI)

Provision: no. 96 “Panda 2,6” Cu solar collectors

Net surface area: 240 sq.m.

Purpose: swimming water heating

EXPRESS HOTEL – FASANO (BRINDISI)

Provision: no. 30 “Panda 2” Cu solar collectors

Net surface area: 59,70 sq.m.

Purpose: domestic hot water



SANT'ANGELO HOTEL – VIA RESICCO PIMONTE (NAPOLI)

Provision: no. 64 solar collectors of 1,9 sq.m.

Net surface area: 121,6 sq.m.

Purpose: domestic hot water



RESIDENTIAL ACCOMODATION COMPLEX – CUBA

Provision: no. 528 “Panda 2,6” Cu solar collectors

Net surface area: 1320 sq.m.

Purpose: domestic hot water

COSTA DEL SALENTO HOLIDAY VILLAGE

Lido Marini UGENTO (LECCE)

Provision: no. 76 “Panda 2 Cu”

Net surface area: 144 sq.m.

Purpose: domestic hot water for 102 housing units.

Net surface area: 57 sq.m.

Purpose: domestic hot water



Blocks of flats – PREGANZIOL (TREVISO)

Provision: no. 156 “Panda 2” Cu solar collectors

Net surface area: 296,40 sq.m.

Purpose: domestic hot water and space pre-heating



**MASSERIA BOSCO HOLIDAY FARM
AVETRANA (TARANTO)**

Provision: no. 60 "Panda 2" Cu solar collectors

Net surface area: 95 sq.m.

Purpose: domestic hot water, space heating,
swimming water heating



**SOAVEGEL Deep Frozen Food Industry
FRANCAVILLA FONTANA (BRINDISI)**

Provision: no. 60 "Panda 2" Cu solar collectors

Net surface area: 114 sq.m.

Purpose: hot water for the roasting phases and
for Farm machinery wash

**TENUTA MORENO VILLAGE & RESORT
MESAGNE (BRINDISI)**

Provision: 90 solar collectors "Panda 2" Cu

Net surface area: 171 sq.m.

Purpose: domestic hot water and space heating





MIDDLE SCHOOL – **Municipality of BONATE (BERGAMO)**

Provision: 25 “Panda 2,6” Cu solar collectors

Net surface area: 62,5 sq.m.

Purpose: domestic hot water and space heating integration

MUNICIPAL GYM/POOL COMPLEX MARTINENGO (BERGAMO)

Provision: 24 solar collectors “Panda 2,6” Cu

Net surface area: 60 sq.m.

Purpose: domestic hot water and space heating.



LA CASA ECOLOGICA BOVISA 90 CO-HOUSING BLOCKS OF 110 FLATS – MILANO

Provision: 54 “Panda 2,6” Cu solar collectors

Net surface area: 135 sq.m.

Purpose: domestic hot water



**VIA GULLI RESIDENTIAL COMPLEX
BLOCKS OF 140 FLATS – MILANO**
Provision: 80 “Panda 2,6” Cu solar collectors
Net surface area: 200 sq.m.
Purpose: domestic hot water.



**RIVER CAMPING – ARMEZZONE CAMPING
SITE AMEGLIA (LA SPEZIA)**
Provision: 28 “Panda 2,6” Cu solar collectors
Net surface area: 70 sq.m.
Purpose: hot water showers

**SCIROCCO HOTEL – FETOVAIA
ISLAND OF ELBA**
Provision: 12 solar collectors “Panda 2,6” Cu
Net surface area: 30 sq.m.
Purpose: Domestic hot water, space heating,
swimming-pool





**FARMACOLOGICAL AND BIOMEDICAL
RESEARCH CENTRE**

SANTA MARIA IMBARO (CHIETI)

Provision: 76 Solar collectors da 1,9 sq.m.

Net surface area: 144,40 sq.m.

Purpose: domestic hot water and
space heating



CHEESE FACTORY – MOLFETTA (BARI)

Provision: no. 30 solar collectors “Panda 2” Cu

Net surface area: 57 sq.m.

Purpose: domestic hot water and
Working fluid preheating

**RADICI TAPPETI SRL – Carpet Factory
AIROLA (BENEVENTO)**

Provision: no. 108 solar collectors of 2,6 sq.m.

Net surface area: 280,8 sq.m.

Purpose: domestic hot water and
space heating





ESPERIA HOTEL - Piombino (LIVORNO)

Provision: no. 12 solar collectors of 2,6 sq.m.

Net surface area: 31,20 sq.m.

Purpose: domestic hot water



SALUMIFICIO COSTA – prepared meat products plant Gambolò (PAVIA)

Provision: no. 16 solar collectors of 2,6 sq.m.

Net surface area: 41,60 sq.m.

Purpose: domestic hot water for industrial processes

Private Swimming-Pool – Saltocchio (LUCCA)

Provision: no. 24 solar collectors of 2,6 sq.m.

Net surface area: 62,40 sq.m.

Purpose: domestic hot water and swimming-pool heating





MUNICIPAL Swimming-Pool – Tramutola (POTENZA)

Provision: no. 100 solar collectors of 2,6 sq.m.

Net surface area: 260 sq.m.

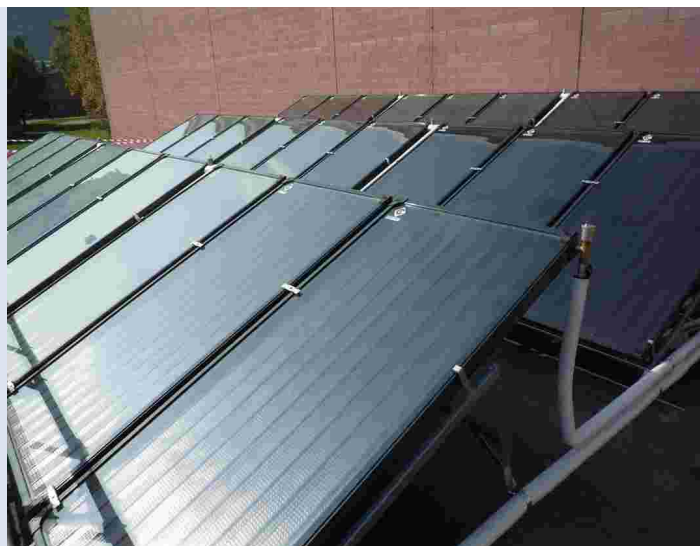
Purpose: swimming water heating

MUNICIPAL Swimming-Pool – OLGINATE (LECCO)

Provision: 27 solar collectors “panda 2,6 Cu

Net surface area: 67,5 sq.m.

Purpose: domestic hot water



MUNICIPAL SPORT CENTRE VIGNATE (MILANO)

Provision: 40 “panda2,6 Cu” solar collectors

Net surface area: 100 sq.m.

Purpose: domestic hot water





COSTRUZIONI
SOLARI

series
KOALA
Natural circulation systems



**COSTRUZIONI
SOLARI**



KOALA Series





KNS 150

▶▶ (technical data on page 17)

This natural circulation solar plant is able to fully satisfy the domestic hot water demand for a family of 3-4 members during the summer season, while offering a satisfactory saving in the remaining seasons, thanks to the 2 sq. m. panel which provides a pre-heating to the water entering the burner or the boiler.

A guide to KNS 150 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
3 users 						
4 users 						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					





KNS 300

▶▶ (technical data on page 18)

This kit represents a good solution for families of 4-5, willing to satisfy most of their energetic demand by solar energy. The system in fact, thanks to its 4 sq. m. of net aperture area, allows the independent domestic hot water production during the sunniest months, while giving high heat contributions during the rest of the year.

A guide to KNS 300 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
4 users 						
5 users 						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					





KNS 300 - 3

▶▶ (technical data on page 19)

This solar plant is well suited for large families or for high energy consumption due to DHV production. The plant is intended for big houses with recirculating loops or for those buildings where hot water is used to feed washing machines, dishwashers, Jacuzzi and so on.

A guide to KNS 300 - 3 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
6 users 						
7 users 						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					

Technical data KNS150

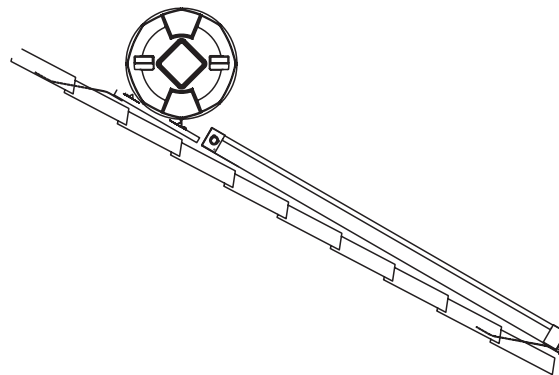
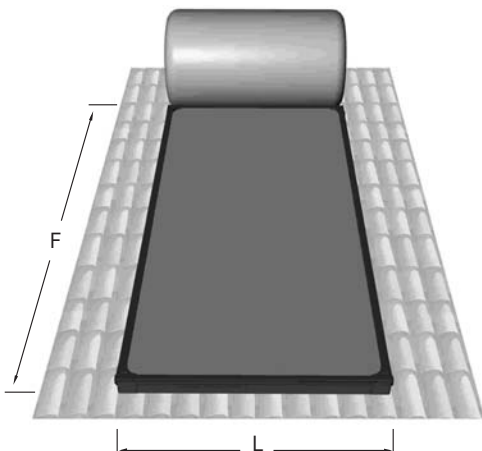
KOALA Series



Q.ty	Components	Code	Base
1	Solar Panel Koala 2.0 Cu Black	KOAMD2VNN	☐
1	Support structure for pitched roofs	STCN150NF	☐
1	Enameled solar boiler with cavity, 150 liters	BV0150ICG	☐
1	Solar safety valve, set point 1.5 bar	IDRVSIC15	☐
1	Drain valve with hose connection	IDRVSCGM1	☐
2	Monopropylene glycol - liters	IDRLQGLCL	☐
Connection kit to the solar boiler			
1	Copper pipe (2.5 meters rod)	IDRTR2522	☐
4	Bent connector 90° 3/4 - 22	IDRRAC0TC	☐

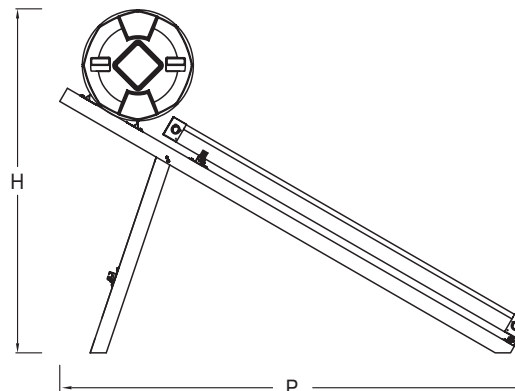
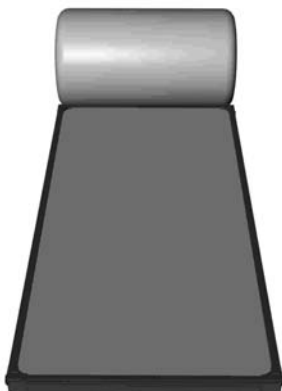
PITCHED ROOF

Mod.	Roof	Solar storage tank	Code
KNS150	Pitched	150	KNS150FBG



FLAT ROOF

Mod.	Roof	Solar storage tank	Code
KNS150	30°	150	KNS150EBG



Overall dimensions: **flat roof** LxPxH = 1200x2400x1800 mm empty weight 130 kg
pitched roof LxF = 1200x2800 mm empty weight 115 kg



Technical data KNS300

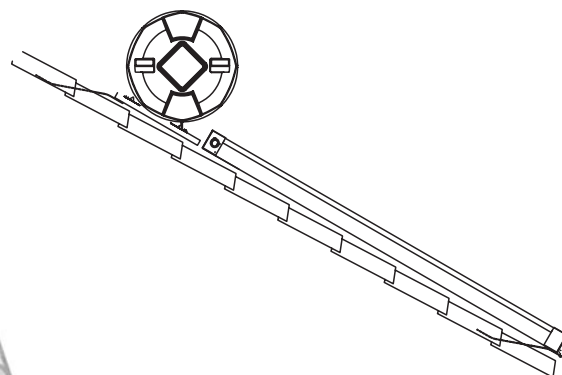
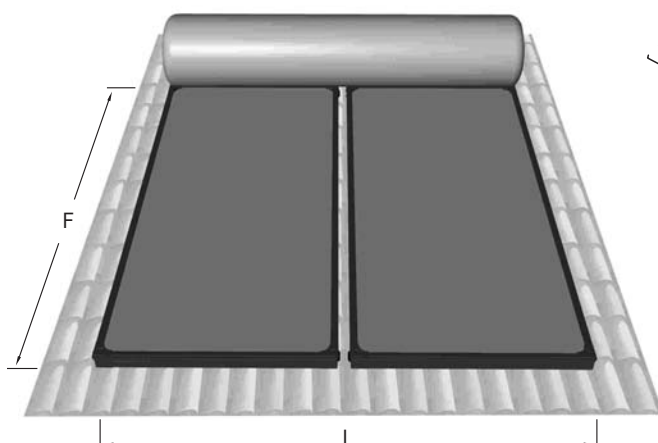
KOALA Series



Q.ty	Components	Code	Base
2	Solar Panel Koala 2.0 Cu Black	KOAMD2VNN	☐
1	Support structure for pitched roofs	STCN300NF	☐
1	Enameled solar boiler with cavity, 300 liters	BV0300ICG	☐
1	Solar safety valve, set point 1.5 bar	IDRV5IC15	☐
1	Drain valve with hose connection	IDRV5CGM1	☐
4	Monopropylene glycol - liters	IDRLQGLCL	☐
Connection kit to the solar boiler			
1	Copper pipe (2.5 meters rod)	IDRTR2522	☐
6	Bent connector 90° 3/4 - 22	IDRRACOTC	☐
6	Unions	IDRRACBPP	☐

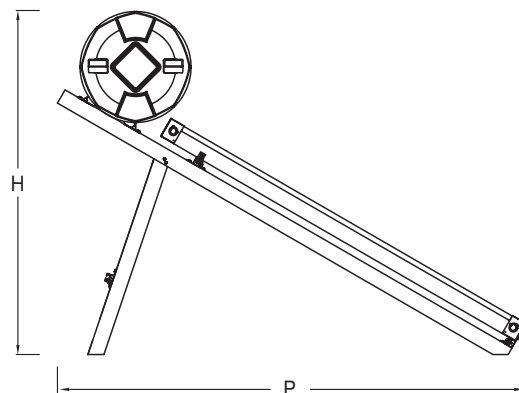
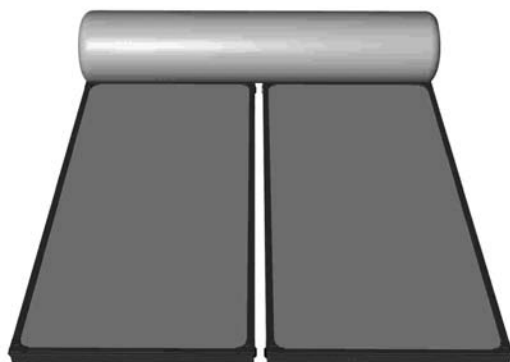
PITCHED ROOF

Mod.	Roof	Solar storage tank	Code
KNS300	Pitched	300	KNS300FBG



FLAT ROOF

Mod.	Roof	Solar storage tank	Code
KNS300	30°	300	KNS300EBG



Overall dimensions: **flat roof** LxPxH = 2200x2400x1800 mm empty weight 210 kg
pitched roof LxF = 2200x2800 mm empty weight 195 kg

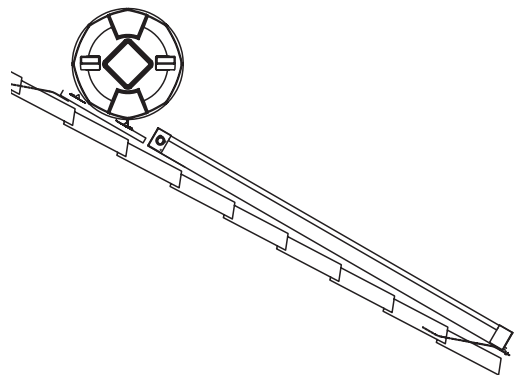
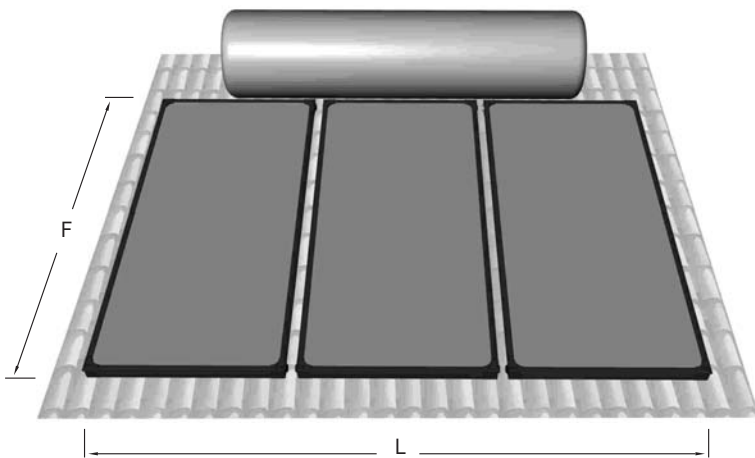
Technical data KNS300 - 3

KOALA Series

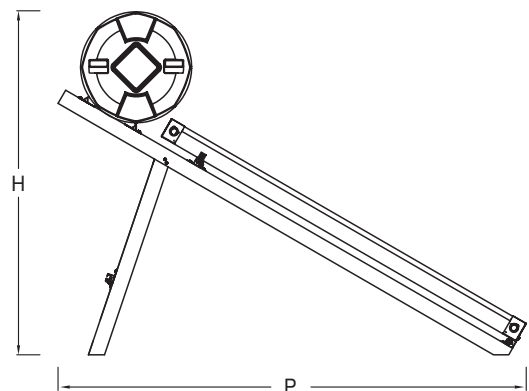
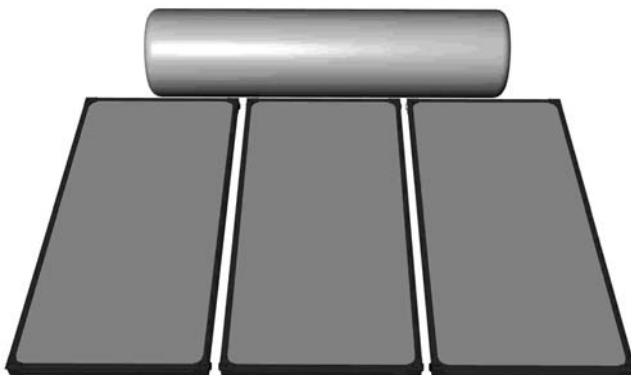


Q.ty	Components	Code	Base
3	Solar Panel Koala 2.0 Cu Black	KOAMD2VNN	☐
1	Support structure for pitched roofs	STCN303NF	☐
1	Enameled solar boiler with cavity, 300 liters	BV0300ICG	☐
1	Solar safety valve, set point 1.5 bar	IDRVSIC15	☐
1	Drain valve with hose connection	IDRVSCGM1	☐
5	Monopropylene glycol - liters	IDRLQGLCL	☐
Connection kit to the solar boiler			
1	Copper pipe (2.5 meters rod)	IDRTR2522	☐
6	Bent connector 90° 3/4 - 22 Unions	IDRRACOTD IDRRACBPP	☐

PITCHED ROOF		Mod.	Roof	Solar storage tank	Code
		KNS303	Pitched	300	KNS303FBG



FLAT ROOF		Mod.	Roof	Solar storage tank	Code
		KNS303	30°	300	KNS303EBG



Overall dimensions: **flat roof** LxPxH = 3400x2400x1800 mm empty weight 260 kg
pitched roof LxF = 3400x2800 mm empty weight 245 kg



COSTRUZIONI
S O L A R I

series
PANDA
Natural circulation system



**COSTRUZIONI
SOLARI**



PANDA Series





CNS 150



(technical data on page 23)

This extremely simple system, practical and compact, provides a big amount of hot water in all the sunny months and is always able to pre-heat the inlet water for electric heaters or burners. The use of a Panda panel, with its 2,5 sq.m. of aperture, provides high performances and a 10 years warranty. The system is prepared to host an electric resistance.

A guide to CNS 150 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
4 users 						
5 users 						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					





CNS 300



(technical data on page 24)

Designed to be practical and easy to install, thanks to its 5 sq.m. of aperture area this system is autonomous during sunny months, while in the remaining part of the year it covers the 50% to 80% of a large family energetic demand. The system is suitable for a supplementary electric source.

A guide to CNS 300 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
5 users 						
6 users 						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					

Technical data CNS 150

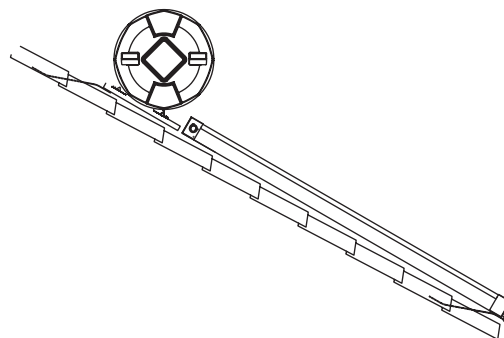
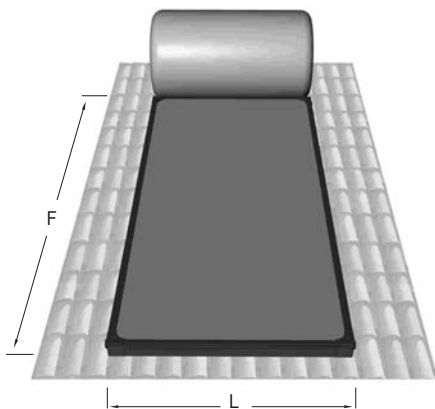
PANDA Series



Q.ty	Components	Code	Base	Full optional
1	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>
1	Support structure for flat roof	STCN150SP	<input type="checkbox"/>	<input type="checkbox"/>
1	Enameled solar boiler with cavity, 150 liters	BV0150IIG	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar safety valve, set point 1.5 bar	IDRV5IC15	<input type="checkbox"/>	<input type="checkbox"/>
1	Drain valve with hose connection	IDRVSCGM1	<input type="checkbox"/>	<input type="checkbox"/>
2	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>
Connection kit to the solar boiler				
1	Copper pipe (2.5 meters rod)	IDRTR2522	<input type="checkbox"/>	<input type="checkbox"/>
4	Bent connector 90° 3/4 - 22	IDRRACOTC	<input type="checkbox"/>	<input type="checkbox"/>
Solar circuit filling kit				
1	Hose, meters	IDRTP2000	<input type="checkbox"/>	<input type="checkbox"/>
1	Funnel	IDRSRIMB0	<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit				
1	Manual 3 ways valve	IDRV3VM20		<input type="checkbox"/>
1	Mixing valve	IDRVMX020		<input type="checkbox"/>
1	Cross joint	IDRRACCRC		<input type="checkbox"/>
1	Stop valve	IDRVRT020		<input type="checkbox"/>
1	Boiler safety valve, set point 6 bar	IDRV5IC60		<input type="checkbox"/>
1	Ball valve	IDRVINTSF		<input type="checkbox"/>
1	8 liters expansion vessel for solar circuit	IDRVE008L		<input type="checkbox"/>
10	Insulated DN20 piping for hot water distribution, meters	IDRTM2010		<input type="checkbox"/>
4	Straight connector 3/4 - 20 for multilayered piping	IDRRACMSD		<input type="checkbox"/>

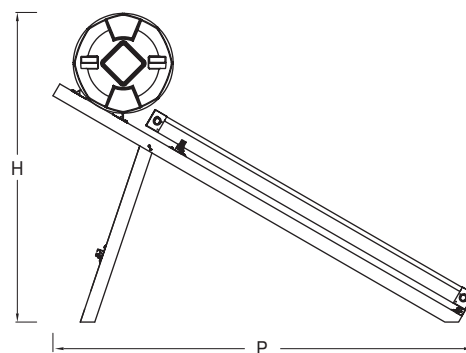
PITCHED ROOF

Mod.	Roof	Solar storage tank	Code
CNS150	Pitched	150	CNS150FBB



FLAT ROOF

Mod.	Roof	Solar storage tank	Code
CNS150	30°	150	CNS150FB0



Overall dimensions: **flat roof** LxPxH = 1200x2600x1850 mm empty weight 145 kg
pitched roof LxF = 1200x3000 mm empty weight 130 kg



Technical data CNS 300

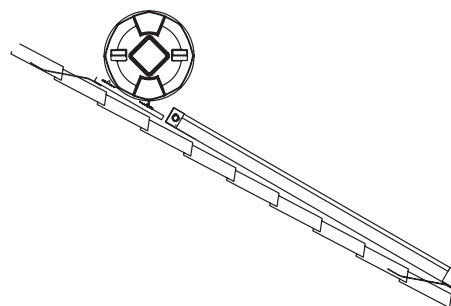
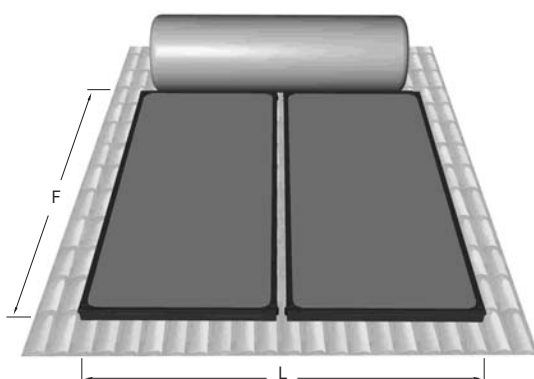
PANDA Series



Q.ty	Components	Code	Base	Full optional
2	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>
1	Support structure for flat roof	STCN300SP	<input type="checkbox"/>	<input type="checkbox"/>
1	Enameled solar boiler with cavity, 150 liters	BV0300IIG	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar safety valve, set point 1.5 bar	IDRVSIC15	<input type="checkbox"/>	<input type="checkbox"/>
1	Drain valve with hose connection	IDRVSCGM1	<input type="checkbox"/>	<input type="checkbox"/>
4	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>
Connection kit to the solar boiler				
1	Copper pipe (2.5 meters rod)	IDRTR2522	<input type="checkbox"/>	<input type="checkbox"/>
4	Bent connector 90° 3/4 - 22 Unions	IDRRACOTC IDRRACBPP	<input type="checkbox"/>	<input type="checkbox"/>
Solar circuit filling kit				
1	Hose, meters	IDRTP2000	<input type="checkbox"/>	<input type="checkbox"/>
1	Funnel	IDRSRIMB0	<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit				
1	Manual 3 ways valve	IDRV3VM20		<input type="checkbox"/>
1	Mixing valve	IDRVMX020		<input type="checkbox"/>
1	Cross joint	IDRRACCRC		<input type="checkbox"/>
1	Stop valve	IDRVRT020		<input type="checkbox"/>
1	Boiler safety valve, set point 6 bar	IDRVSIC60		<input type="checkbox"/>
1	Ball valve	IDRVINTSF		<input type="checkbox"/>
1	8 liters expansion vessel for solar circuit	IDRVE008L		<input type="checkbox"/>
10	Insulated DN20 piping for hot water distribution, meters	IDRTM2010		<input type="checkbox"/>
4	Straight connector 3/4 - 20 for multilayered piping	IDRRACMSD		<input type="checkbox"/>

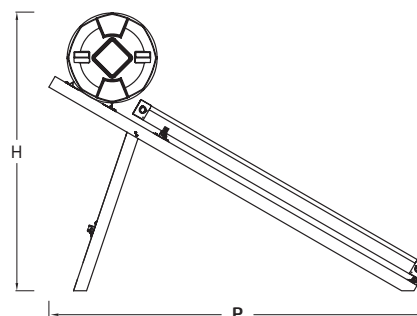
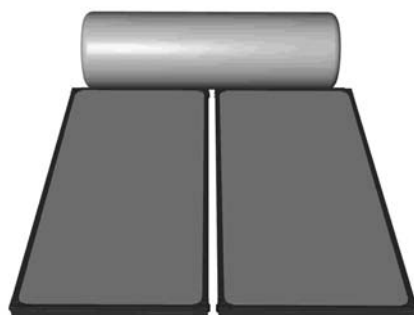
PITCHED ROOF

Mod.	Roof	Solar storage tank	Code
CNS300	Pitched	300	CNS300FBB



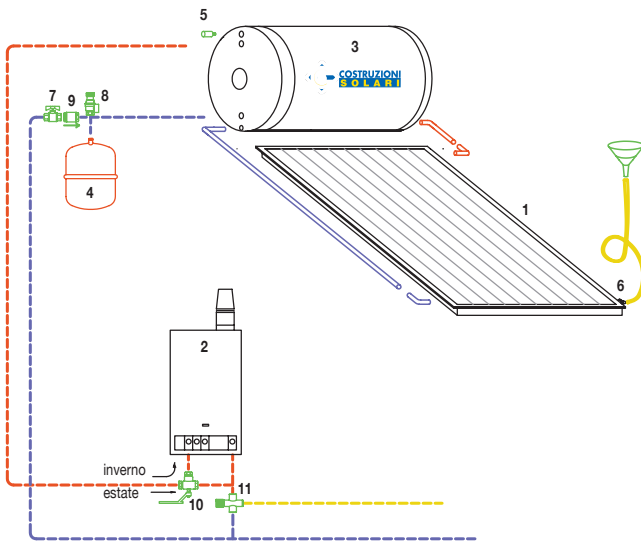
FLAT ROOF

Mod.	Roof	Solar storage tank	Code
CNS300	30°	300	CNS300FBB

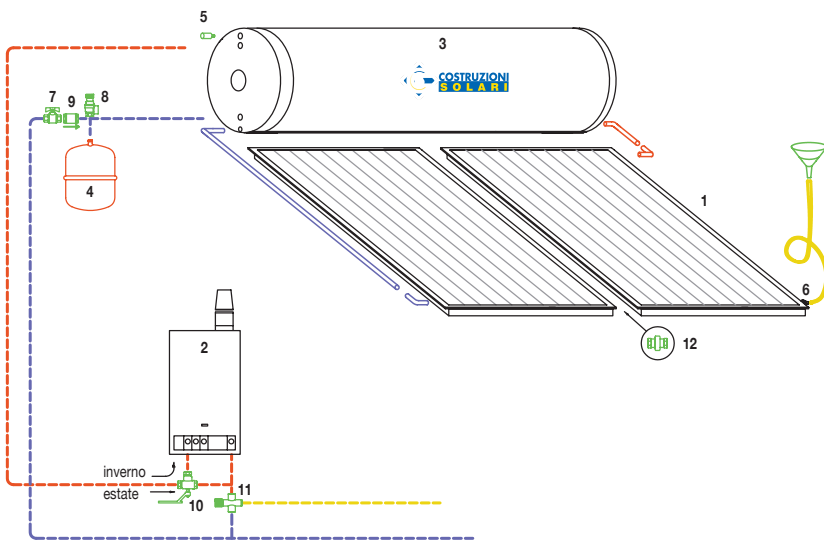


Overall dimensions: **flat roof** LxPxH = 2400x2600x1850 mm empty weight 245 kg
pitched roof LxF = 2400x3000 mm empty weight 230 kg

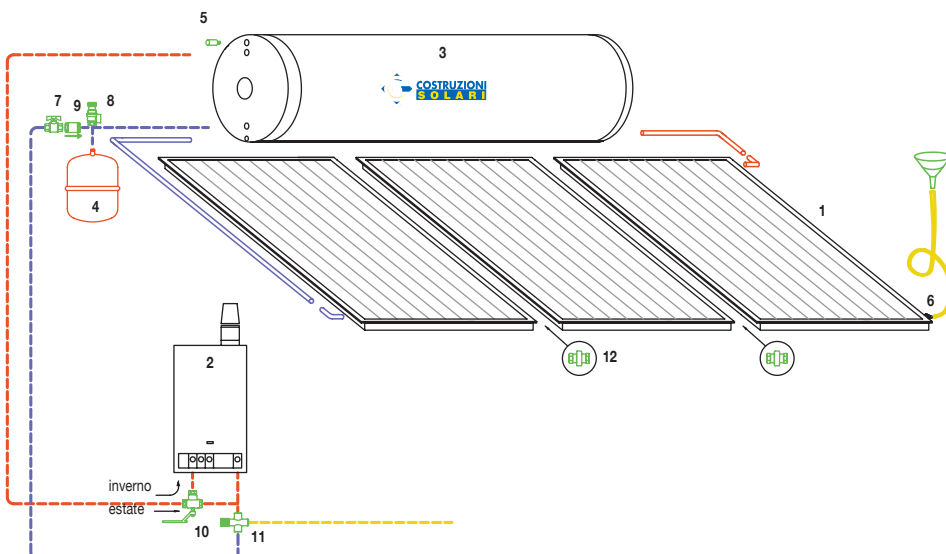
Hydraulic connections



CNS 150/KNS 150	
1.	Solar panel
2.	Burner
3.	Solar boiler
4.	Solar boiler expansion vessel
5.	Safety valve 1,5 bar
6.	Loading/unloading valve
7.	Cut-off valve
8.	Safety valve 3,5 bar
9.	Check valve
10.	Manual diverter valve
11.	Mixing valve



CNS 300/KNS 300	
1.	Solar panel
2.	Burner
3.	Solar boiler
4.	Solar boiler expansion vessel
5.	Safety valve 1,5 bar
6.	Loading/unloading valve
7.	Cut-off valve
8.	Safety valve 3,5 bar
9.	Check valve
10.	Manual diverter valve
11.	Mixing valve
12.	Unions



KNS 300 - 3	
1.	Solar panel
2.	Burner
3.	Solar boiler
4.	Solar boiler expansion vessel
5.	Safety valve 1,5 bar
6.	Loading/unloading valve
7.	Cut-off valve
8.	Safety valve 3,5 bar
9.	Check valve
10.	Manual diverter valve
11.	Mixing valve
12.	Unions



COSTRUZIONI
SOLARI

series

KOALA

Forced circulation system



**COSTRUZIONI
SOLARI**



KOALA series



KSS 150



(technical data on page 29)

This forced circulation solar plant is able to fully satisfy the domestic hot water demand for a family of 3-4 members during summer, while offering a satisfactory saving in the remaining seasons, thanks to the 2 sq.m. panel which pre-heats the water entering the burner or the boiler.

A guide to KSS 150 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
3 users						
4 users						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					



KSS 200



(technical data on page 30)

This forced circulation solar plant is able to fully satisfy the domestic hot water demand for a family of 3-4 members during summer, while offering a satisfactory saving in the remaining seasons, thanks to the 2 sq.m. panel which pre-heats the water entering the burner or the boiler. With its 200 liters boiler, it is dedicated to buildings with many bathrooms.

A guide to KSS 200 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
3 users						
4 users						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					



KSS 300



(technical data on page 31)

This kit represents a good solution for a family of 4-5 willing to cover most of its energetic demand by means of solar energy. In fact, the system allows energetic autonomy producing hot water during the sunny months while highly contributing during the rest of the year.

A guide to KSS 300 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
4 users						
5 users						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					

Technical data KSS150

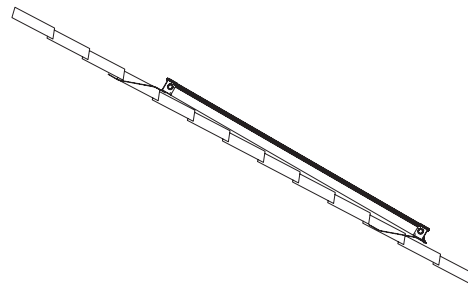
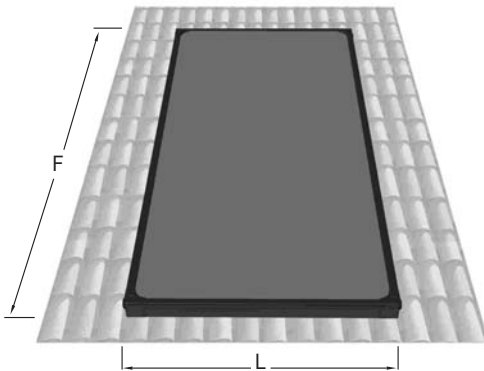
KOALA series



Q.ty	Components	Code	Base
1	Solar Panel Koala 2.0 Cu Black	KOAMD2VNN	☐
1	Support structure for pitched roof	STCFMD21F	☐
1	Enameled solar boiler with cavity, 150 liters	B1V0150F1	☐
1	Solar circuit 8 liters expansion vessel	IDRVE008L	☐
1	Preassembled solar station	GPMCRF1ST	☐
1	Digital control unit, with sensors	ELETNTD3	☐
5	Monopropylene glycol - liters	IDRLQGLCL	☐

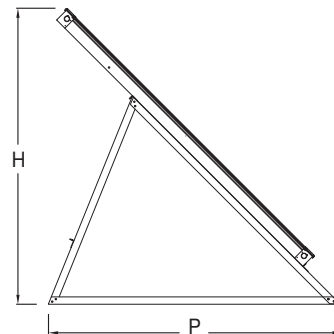
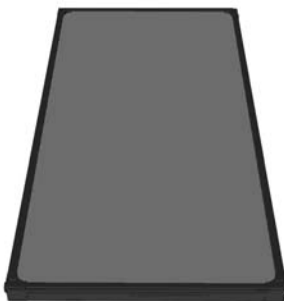
PITCHED ROOF

Mod.	Roof	Solar storage tank	Code
KSS150	Pitched	Single coil	KSS0150FB1



FLAT ROOF

Mod.	Roof	Solar storage tank	Code
KSS150	30°	Single coil	KSS0150EB1
	45°		KSS0150IB1



Overall dimensions: **flat roof** LxPxH = 1200x2000x1650 mm empty weight 80 kg
pitched roof LxF = 1200x2200 mm empty weight 60 kg



Technical data KSS200

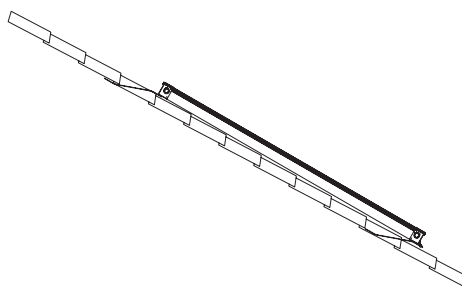
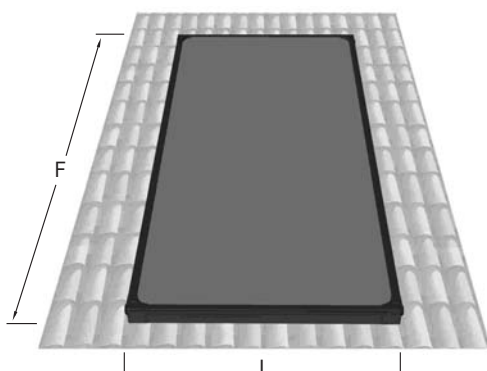
KOALA series



Q.ty	Components	Code	Base
1	Solar Panel Koala 2.0 Cu Black	KOAMD2VNN	☐
1	Support structure for pitched roof	STCFMD21F	☐
1	Enameled solar boiler with cavity, 200 liters	B1V0200F1	☐
1	Solar circuit 8 liters expansion vessel	IDRVE008L	☐
1	Preassembled solar station	GPMCRF1ST	☐
1	Digital control unit, with sensors	ELETCNTD3	☐
5	Monopropylene glycol - liters	IDRLQGLCL	☐

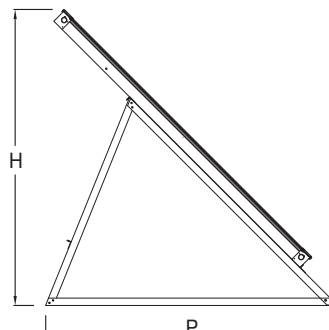
PITCHED ROOF

Mod.	Roof	Solar storage tank	Code
KSS200	Pitched	Single coil	KSS0200FB1
		Double coil	KSS0200FB2



FLAT ROOF

Mod.	Roof	Solar storage tank	Code
KSS200	30°	Single coil	KSS0200EB1
	45°		KSS0200IB1
	30°	Double coil	KSS0200EB2
	45°		KSS0200IB2



Overall dimensions: **flat roof** LxPxH = 1200x2000x1650 mm empty weight 80 kg
pitched roof LxF = 1200x2200 mm empty weight 60 kg



Technical data KSS300

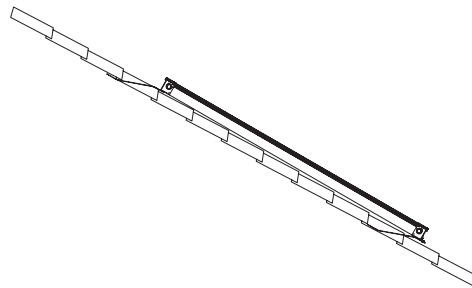
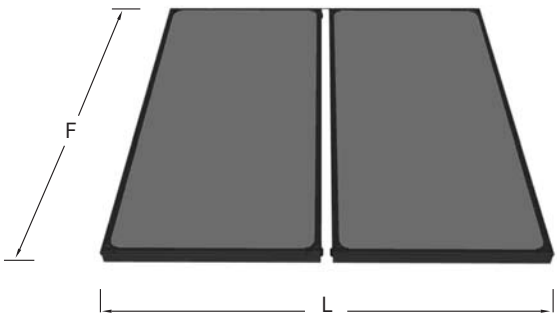
KOALA series



Q.ty	Components	Code	Base
2	Solar Panel Koala 2.0 Cu Black	KOAMD2VNN	☐
1	Support structure for pitched roof	STCFMD22F	☐
1	Enameled solar boiler with cavity, 300 liters	B1V0300F1	☐
1	Solar circuit 8 liters expansion vessel	IDRVE008L	☐
1	Preassembled solar station	GPMCRF1ST	☐
1	Digital control unit, with sensors	ELETCNTD3	☐
5	Monopropylene glycol - liters	IDRLQGLCL	☐

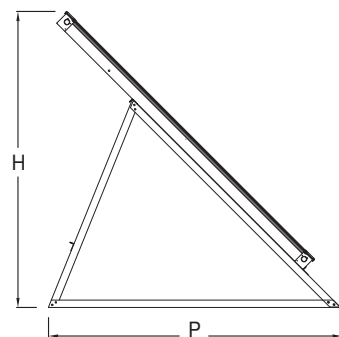
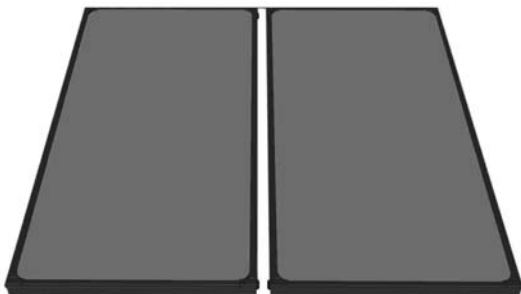
PITCHED ROOF

Mod.	Roof	Solar storage tank	Code
KSS300	FALDA	Single coil	KSS0300FB1
		Double coil	KSS0300FB2



FLAT ROOF

Mod.	Roof	Solar storage tank	Code
KSS300	30°	Single coil	KSS0300EB1
	45°		KSS0300IB1
	30°	Double coil	KSS0300EB2
	45°		KSS0300IB2



Overall dimensions: **flat roof** LxPxH = 2200x2000x1650 mm empty weight 150 kg
pitched roof LxF = 2200x2200 mm empty weight 110 kg



COSTRUZIONI
S O L A R I

series

PANDA

Forced circulation systems



**COSTRUZIONI
SOLARI**



PANDA series



SS 200



(technical data on page 36)

This forced circulation solar plant is able to fully satisfy the domestic hot water demand for a family of 3-4 members during the summer season, while offering a satisfactory saving in the remaining seasons, thanks to the 2.5 sq.m. panel which pre-heats the water entering the burner or the boiler.

A guide to SS 200 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
3 users						
4 users						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					



SS 300



(technical data on page 37)

This kit represents a good solution for a family of 4-5 willing to cover most of its energetic demand by means of solar energy. In fact, the system allows energetic autonomy producing hot water during the sunny months while highly contributing during the rest of the year.

A guide to SS 300 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
4 users						
5 users						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					



SS 500



(technical data on page 38)

This solar plant is well suited for large families or for high energy consumption due to DHV production. The plant is intended for big houses with recirculating loops or for those buildings where hot water is used to feed washing machines, dishwashers, Jacuzzi and so on.

A guide to SS 500 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
6 users						
7 users						
Coverage of the annual domestic hot water requirements	30% - 50%					
	50% - 70%					
	70% - 85%					

PANDA series



SS 800



(technical data on page 39)

This solar plant offers the ideal solution to B&Bs, small accommodations and apartment blocks as well as for all those commercial and productive activities with high hot water requirements, such as restaurants, guest houses and small resorts, gyms, small sport centers, etc.

A guide to SS 800 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
10 users (♀x10)	Green	Green	Blue	Green	Blue	Green
15 users (♀x15)	Light Blue	Light Blue	Green	Light Blue	Green	Green
Coverage of the annual domestic hot water requirements	30% - 50%				Light Blue	
	50% - 70%				Green	
	70% - 85%				Blue	



SS 1000-6



(technical data on page 40)

This solar plant is intended to meet the demand of all medium-high consumers: guest accommodations, sport centers, commercial and industrial activities consuming a big amount of hot water. This plant is the ideal solution for domestic hot water supply in apartment blocks and residences, too, allowing optimal energy performances and plant costs' reduction, by sharing a technical solution widely ahead of natural circulation systems.

A guide to SS 1000-6 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
15 users (♀x15)	Green	Green	Blue	Green	Blue	Blue
20 users (♀x20)	Light Blue	Light Blue	Green	Light Blue	Green	Green
Coverage of the annual domestic hot water requirements	30% - 50%				Light Blue	
	50% - 70%				Green	
	70% - 85%				Blue	



SS 1000-8



(technical data on page 41)

This solar plant is designed for users with huge hot water demand. The 8 panels kit, gives 30% more energy than the 6 panels one. That's a big advantage and a substantial energy saving, mostly in winter. Even with low solar irradiation, in fact, this plant can bring water temperature very close to the employment value.

A guide to SS 1000-8 solar system choice

e.g. ITALY	Northern		Central		Southern	
Exposure	S	E/W	S	E/W	S	E/W
20 users (♀x20)	Green	Light Blue	Green	Green	Blue	Green
25 users (♀x25)	Light Blue	Light Blue	Green	Light Blue	Green	Green
Coverage of the annual domestic hot water requirements	30% - 50%				Light Blue	
	50% - 70%				Green	
	70% - 85%				Blue	



Technical data SS200

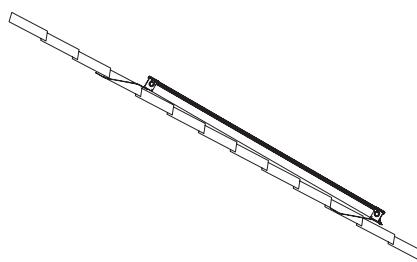
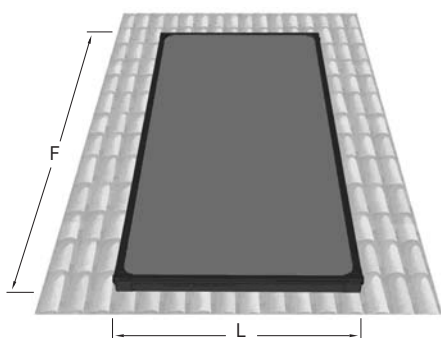
PANDA series



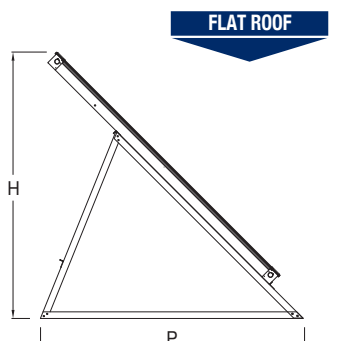
Q.ty	Components	Code	Base	Complete	Full optional
1	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Support structure for pitched roof	STCFMD31F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Enameled solar boiler, 200 liters	BVV0200F2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar circuit expansion vessel – 8 liters	IDRVE008L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled solar station	GPMCRF0ST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Digital control unit, with sensors	ELETCNTD3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Mixing valve	IDRVMX020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete kit					
2	Ball cut-off valve	IDRVINTSF		<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled probe-vent group	GPMGES000		<input type="checkbox"/>	<input type="checkbox"/>
10	Copper twinned insulated DN 15 piping with probe cable, meters	IDRTG1510		<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit					
1	Boiler – burner by-pass 3 ways valve	IDRV3VE20			<input type="checkbox"/>
1	Stop valve	IDRVRT020			<input type="checkbox"/>
1	Inlet safety valve, set point 6 bar	IDRVSIC60			<input type="checkbox"/>
1	Ball cut-off valve	IDRVINTSF			<input type="checkbox"/>
1	Solar circuit expansion vessel – 25 liters	IDRVE025P			<input type="checkbox"/>
5	Multilayered insulated DN20 piping, meters	IDRTM2005			<input type="checkbox"/>

PITCHED ROOF

Mod.	Roof	Panel	Optional	Code
SS200	Pitched	SLIM	BASE	SS0200FSB
			COMPLETE	SS0200FSC
			FULL OPT	SS0200FS0
		BLUE	BASE	SS0200FBB
			COMPLETE	SS0200FBC
			FULL OPT	SS0200FB0



FLAT ROOF



Mod.	Roof	Panel	Optional	Code	
SS200	30°	BLUE	BASE	SS0200FSB	
			COMPLETE	SS0200FSC	
			FULL OPT	SS0200FS0	
			45°	BASE	SS0200FBB
				COMPLETE	SS0200FBC
				FULL OPT	SS0200FB0

Overall dimensions: **flat roof** LxPxH = 1200x2000x1850 mm empty weight 90 kg
pitched roof LxF = 2400x2500 mm empty weight 70 kg

Technical data SS300

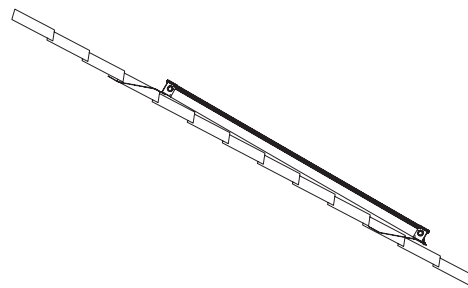
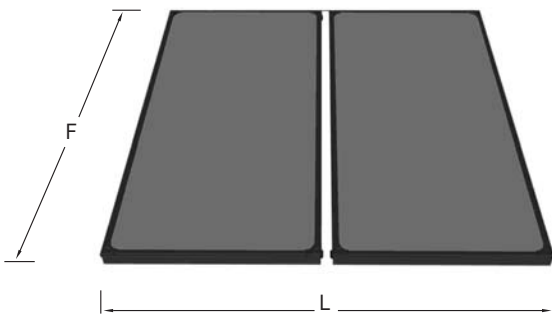
PANDA series



Q.ty	Components	Code	Base	Complete	Full optional
2	Solar Panel Panda 2.6 Cu BLUE	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Support structure for pitched roof	STCFMD32F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Enameled solar boiler, 300 liters	BVV0300F2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar circuit expansion vessel – 8 liters	IDRVE008L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled solar station	GPMCRF0ST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Digital control unit, with sensors	ELETNTD3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Mixing valve	IDRVMX020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete kit					
3	Ball cut-off valve	IDRVINTSF		<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled probe-vent group	GPMGES000		<input type="checkbox"/>	<input type="checkbox"/>
10	Copper twinned insulated DN 15 piping, with probe cable, meters	IDRTG1510		<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit					
1	Boiler – burner by-pass 3 ways valve	IDRV3VE20			<input type="checkbox"/>
1	Stop valve	IDRVRT020			<input type="checkbox"/>
1	Inlet safety valve, set point 6 bar	IDRVSIC60			<input type="checkbox"/>
1	Ball cut-off valve	IDRVINTSF			<input type="checkbox"/>
1	Solar circuit expansion vessel – 25 liters	IDRVE025P			<input type="checkbox"/>
5	Multilayered insulated DN20 piping, meters	IDRTM2005			<input type="checkbox"/>

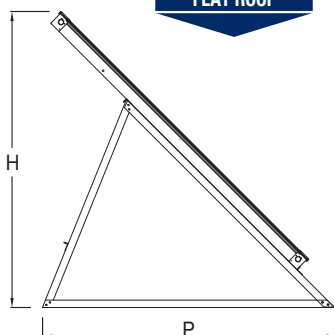
PITCHED ROOF

Mod.	Roof	Panel	Optional	Code
SS300	Pitched	SLIM	BASE	SS0300FSB
			COMPLETE	SS0300FSC
			FULL OPT	SS0300FS0
		BLUE	BASE	SS0300FBB
			COMPLETE	SS0300FBC
			FULL OPT	SS0300FBO



FLAT ROOF

Mod.	Roof	Panel	Optional	Code	
SS300	30°	BLUE	BASE	SS0300EBB	
			COMPLETE	SS0300EBC	
			FULL OPT	SS0300EBO	
			45°	BASE	SS0300IBB
				COMPLETE	SS0300IBC
				FULL OPT	SS0300IBO



Overall dimensions: **flat roof** LxPxH = 2400x2000x1850 mm empty weight 165 kg
pitched roof LxF = 2400x2500 mm empty weight 135 kg



Technical data SS500

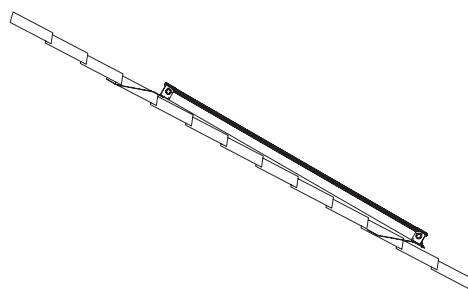
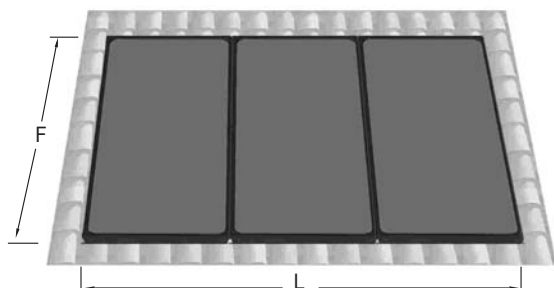
PANDA series



Q.ty	Components	Code	Base	Complete	Full optional
3	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Support structure for pitched roof	STCFMD33F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Enameled solar boiler, 500 liters	BVV0500F2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar circuit expansion vessel - 8 liters	IDRVE008L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled solar station	GPMCRF0ST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Digital control unit, with sensors	ELETNTD3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Mixing valve	IDRVMX020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete kit					
3	Ball cut-off valve	IDRVINTSF		<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled probe-vent group	GPMGES000		<input type="checkbox"/>	<input type="checkbox"/>
10	Copper twinned insulated DN 18 piping with probe cable, meters	IDRTG1810		<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit					
1	Boiler - burner by-pass 3 ways valve	IDRV3VE20			<input type="checkbox"/>
1	Stop valve	IDRVRT020			<input type="checkbox"/>
1	Inlet safety valve, set point 6 bar	IDRVSIC60			<input type="checkbox"/>
1	Ball cut-off valve	IDRVINTSF			<input type="checkbox"/>
1	Solar circuit expansion vessel - 25 liters	IDRVE025P			<input type="checkbox"/>
5	Multilayered insulated DN20 piping, meters	IDRTM2005			<input type="checkbox"/>

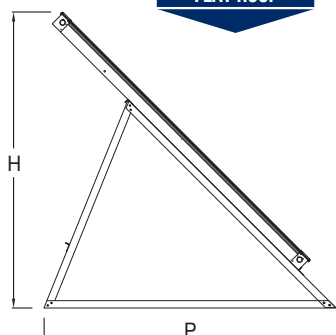
PITCHED ROOF

Mod.	Roof	Panel	Optional	Code
SS500	Pitched	SLIM	BASE	SS0500FSB
			COMPLETE	SS0500FSC
			FULL OPT	SS0500FS0
		BLUE	BASE	SS0500FBB
			COMPLETE	SS0500FBC
			FULL OPT	SS0500FB0



FLAT ROOF

Mod.	Roof	Panel	Optional	Code
SS500	30°	BLUE	BASE	SS0500EBB
			COMPLETE	SS0500EBC
			FULL OPT	SS0500EB0
		45°	BASE	SS0500IBB
			COMPLETE	SS0500IBC
			FULL OPT	SS0500IB0



Overall dimensions: **flat roof** LxPxH = 3600x2000x1850 mm empty weight 165 kg
pitched roof LxF = 3600x2500 mm empty weight 135 kg

Technical data SS800

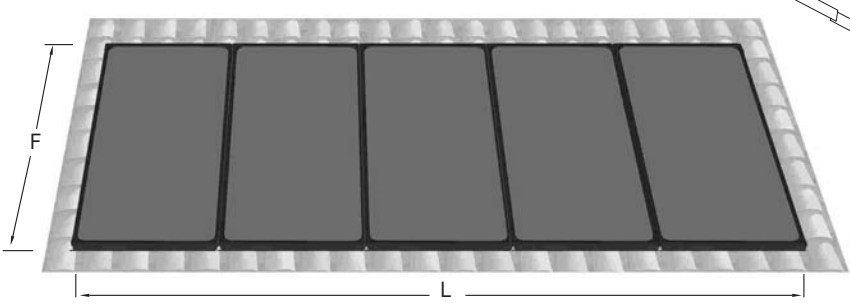
PANDA series



Q.ty	Components	Code	Base	Complete	Full optional
5	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Support structure for pitched roof	STCFMD33F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Support structure for pitched roof	STCFMD32F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Enameled solar boiler, 800 liters	BVV0800F2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar circuit expansion vessel – 25 liters	IDRVE025L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled solar station	GPMCRF0ST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Digital control unit, with sensors	ELETNTD3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Mixing valve	IDRVMX020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete kit					
3	Ball cut-off valve	IDRVINTSF		<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled probe-vent group	GPMGES000		<input type="checkbox"/>	<input type="checkbox"/>
1	Automatic vent valve	IDRVJ0180		<input type="checkbox"/>	<input type="checkbox"/>
15	Copper twinned insulated DN 18 piping, with probe cable, meters	IDRTG1815		<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit					
1	Boiler – burner by-pass 3 ways valve	IDRV2VE20			<input type="checkbox"/>
1	Stop valve	IDRVRT020			<input type="checkbox"/>
1	Inlet safety valve, set point 6 bar	IDRVSIC60			<input type="checkbox"/>
1	Ball cut-off valve	IDRVINTSF			<input type="checkbox"/>
1	Solar circuit expansion vessel – 50 liters	IDRVE050P			<input type="checkbox"/>
5	Multilayered insulated DN20 piping, meters	IDRTM2005			<input type="checkbox"/>
1	Automatic filling group	GPMRAS000			<input type="checkbox"/>

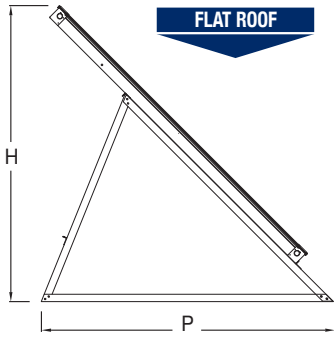
PITCHED ROOF

Mod.	Roof	Panel	Optional	Code
SS800	Pitched	SLIM	BASE	SS0800FSB
			COMPLETE	SS0800FSC
			FULL OPT	SS0800FS0
		BLUE	BASE	SS0800FBB
			COMPLETE	SS0800FBC
			FULL OPT	SS0800FB0



FLAT ROOF

Mod.	Roof	Panel	Optional	Code	
SS800	30°	BLUE	BASE	SS0800EBB	
			COMPLETE	SS0800EBC	
			FULL OPT	SS0800EBO	
			45°	BASE	SS0800IBB
				COMPLETE	SS0800IBC
				FULL OPT	SS0800IBO



Overall dimensions: **flat roof** LxPxH = 6000x2000x1850 mm empty weight 165 kg
pitched roof LxF = 6000x2500 mm empty weight 135 kg



Technical data SS1000-6

PANDA series



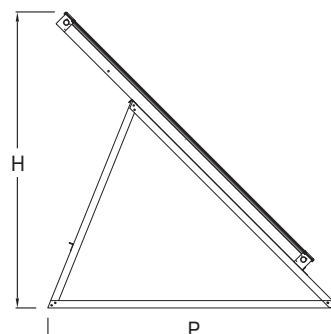
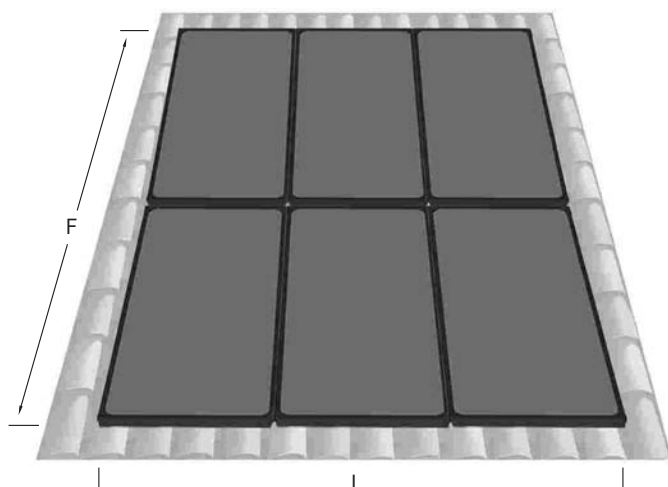
Q.ty	Components	Code	Base	Complete	Full optional
6	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Support structure for pitched roof	STCFMD33F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Enameled solar boiler, 1000 liters	BVV1000F2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar circuit expansion vessel – 25 liters	IDRVE025L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled solar station	GPMCRF0ST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Digital control unit, with sensors	ELETCNTD3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Mixing valve	IDRVMX020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete kit					
3	Ball cut-off valve	IDRVINTSF		<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled probe-vent group	GPMGES000		<input type="checkbox"/>	<input type="checkbox"/>
1	Automatic vent valve	IDRVJ0180		<input type="checkbox"/>	<input type="checkbox"/>
15	Copper twinned insulated DN 18 piping, with probe cable, meters	IDRTG1815		<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit					
1	Boiler – burner by-pass 3 ways valve	IDRV2VE20			<input type="checkbox"/>
1	Stop valve	IDRVRT020			<input type="checkbox"/>
1	Inlet safety valve, set point 6 bar	IDRVSIC60			<input type="checkbox"/>
1	Ball cut-off valve	IDRVINTSF			<input type="checkbox"/>
1	Solar circuit expansion vessel – 50 liters	IDRVE050P			<input type="checkbox"/>
5	Multilayered insulated DN20 piping, meters	IDRTM2005			<input type="checkbox"/>
1	Automatic filling group	GPMRAS000			<input type="checkbox"/>

PITCHED ROOF

Mod.	Roof	Panel	Optional	Code
SS1000 6 panels	Pitched	SLIM	BASE	SS1006FSB
			COMPLETE	SS1006FSC
			FULL OPT	SS1006FSO
		BLUE	BASE	SS1006FBB
			COMPLETE	SS1006FBC
			FULL OPT	SS1006FBO

FLAT ROOF

Mod.	Roof	Panel	Optional	Code
SS1000 6 panels	30°	BLUE	BASE	SS1006EBB
			COMPLETE	SS1006EBC
			FULL OPT	SS1006EBO
	45°	BLUE	BASE	SS1006IBB
			COMPLETE	SS1006IBC
			FULL OPT	SS1006IBO



Overall dimensions: **flat roof** LxPxH = 3600x2000x1850 mm empty weight 250 kg
pitched roof LxF = 3600x4900 mm empty weight 410 kg

Technical data SS1000-8

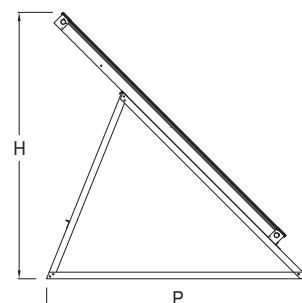
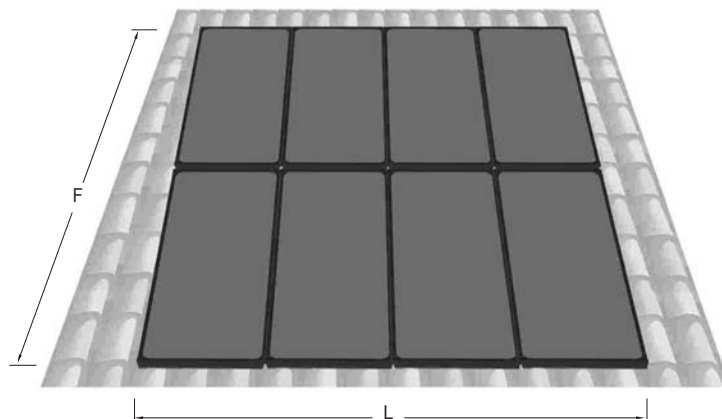
PANDA series



Q.ty	Components	Code	Base	Complete	Full optional
8	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Support structure for pitched roof	STCFMD32F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Enameled solar boiler, 1000 liters	BVV1000F2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar circuit expansion vessel – 25 liters	IDRVE025L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled solar station	GPMCRF0ST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Digital control unit, with sensors	ELETCNTD3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Mixing valve	IDRVMX020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete kit					
3	Ball cut-off valve	IDRVINTSF		<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled probe-vent group	GPMGES000		<input type="checkbox"/>	<input type="checkbox"/>
1	Automatic vent valve	IDRVJ0180		<input type="checkbox"/>	<input type="checkbox"/>
15	Copper twinned insulated DN 18 piping, with probe cable, meters	IDRTG1815		<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit					
1	Boiler – burner by-pass 3 ways valve	IDRV2VE20			<input type="checkbox"/>
1	Stop valve	IDRVRT020			<input type="checkbox"/>
1	Inlet safety valve, set point 6 bar	IDRVSIC60			<input type="checkbox"/>
1	Ball cut-off valve	IDRVINTSF			<input type="checkbox"/>
1	Solar circuit expansion vessel – 50 liters	IDRVE050P			<input type="checkbox"/>
5	Multilayered insulated DN20 piping, meters	IDRTM2005			<input type="checkbox"/>
1	Automatic filling group	GPMRAS000			<input type="checkbox"/>

PITCHED ROOF		Mod.	Roof	Panel	Optional	Code
SS1000 8 panels	Pitched	SLIM			BASE	SS1008FNB
					COMPLETE	SS1008FNC
					FULL OPT	SS1008FNO
		BLU		BASE	SS1008FBB	
				COMPLETE	SS1008FBC	
				FULL OPT	SS1008FB0	

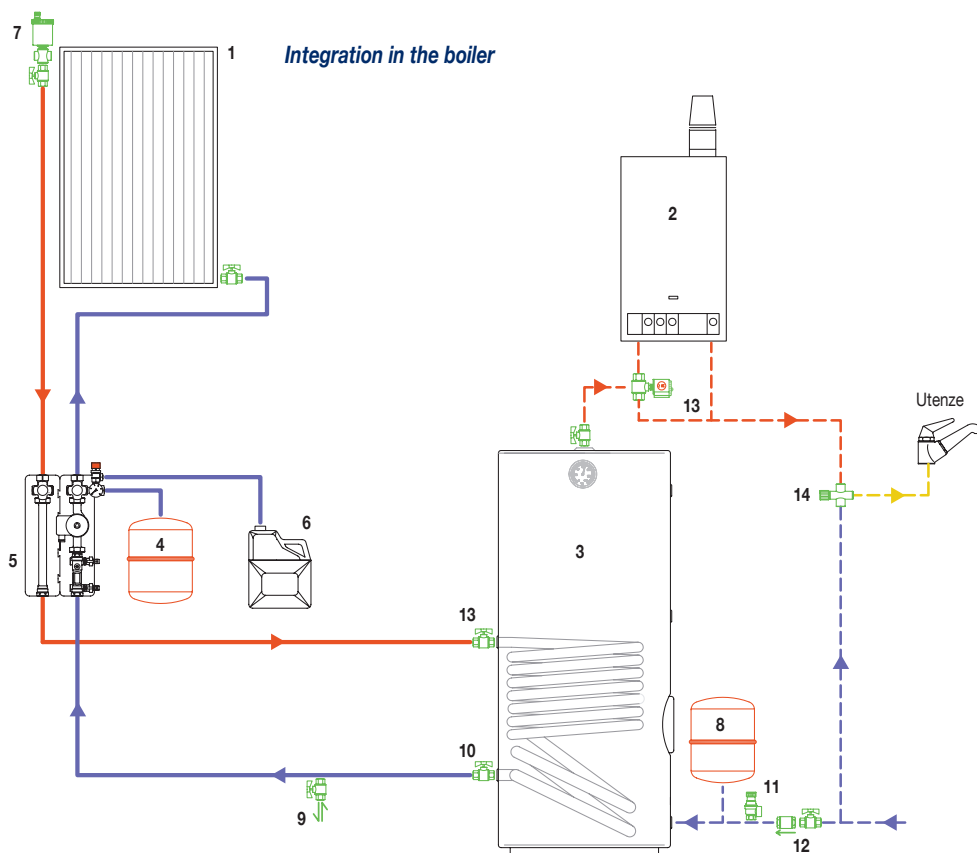
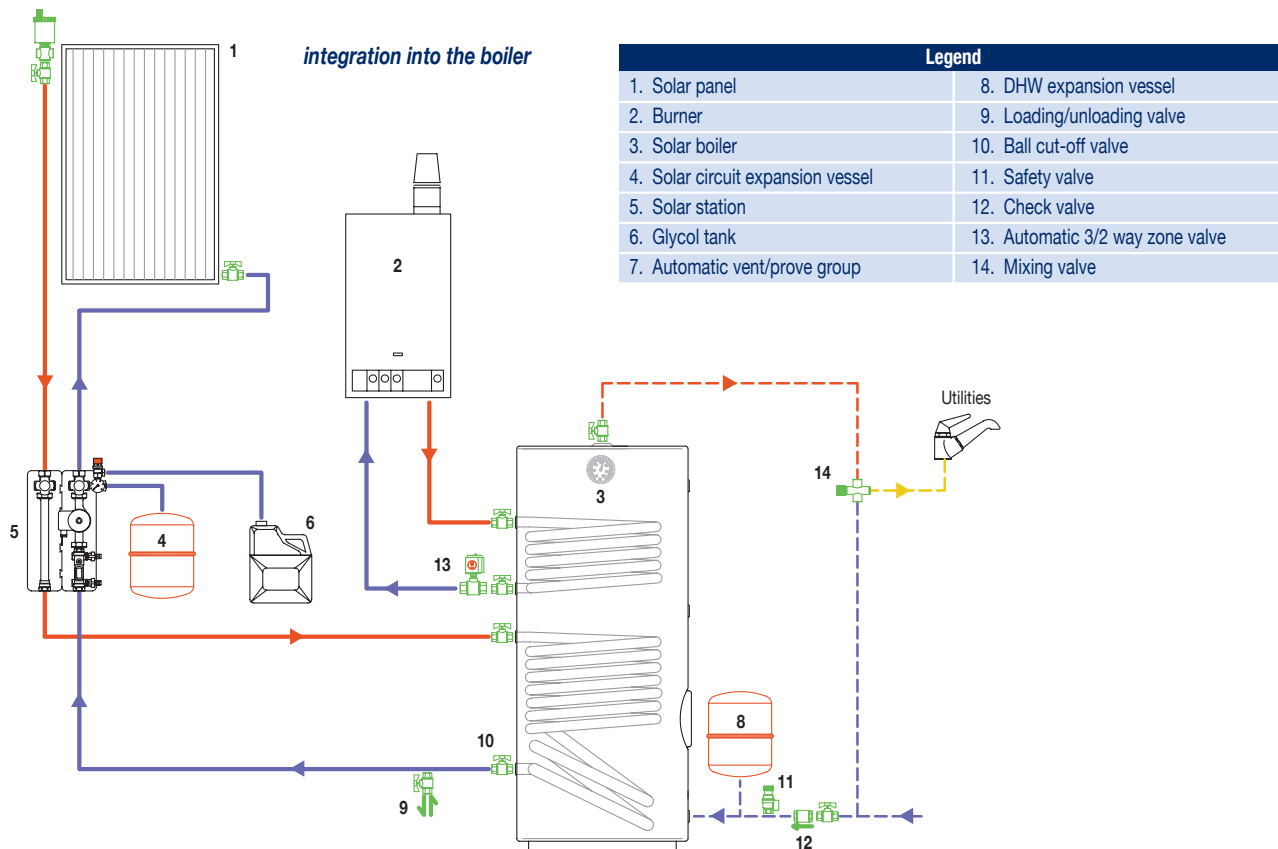
FLAT ROOF		Mod.	Roof	Panel	Optional	Code
SS1000 8 panels	30°	BLUE			BASE	SS1008EBB
					COMPLETE	SS1008EBC
					FULL OPT	SS1008EB0
	45°	BLUE		BASE	SS1008IBB	
				COMPLETE	SS1008IBC	
				FULL OPT	SS1008IB0	



Overall dimensions: **flat roof** LxPxH = 4800x2000x1850 mm empty weight 345 kg (each 3 panels array)
pitched roof LxF = 4800x4900 mm empty weight 565 kg



Hydraulic connections scheme





**Space heating
systems**



**COSTRUZIONI
SOLARI**



Space heating systems



SR 600



(technical data on page 45)

Solar kit meant to fulfill the energy demand for domestic hot water production and low temperature space heating, for a house extended up to 120 sq.m. in energy efficiency class B, or 180 sq.m. in energy class A.



SR 1000



(technical data on page 46)

Solar kit meant to fulfill the energy demand for domestic hot water production and low temperature space heating, for a house extended up to 200 sq.m. in energy efficiency class B, or 300 sq.m. in energy class A.



SR 1500



(technical data on page 47)

Solar kit meant to fulfill the energy demand for domestic hot water production and low temperature space heating, for a house extended up to 240 sq.m. in energy efficiency class B, or 350 sq.m. in energy class A.

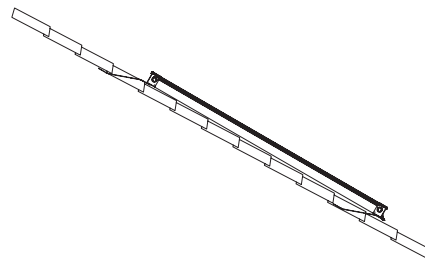
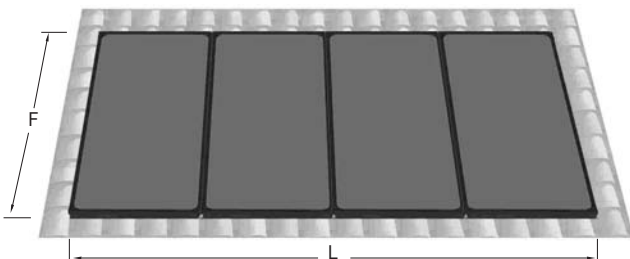
Technical data SR 600



Q.ty	Components	Code	Base	Complete	Full optional
4	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	☐	☐	☐
2	Support structure for pitched roof	STCFMD32F	☐	☐	☐
1	Tank in tank, enameled combi solar boiler, 600/150 liters with double coil	BVV0600C2	☐	☐	☐
1	Solar circuit expansion vessel - 25 liters	IDRVE025L	☐	☐	☐
1	Preassembled solar station	GPMCRF0ST	☐	☐	☐
1	Digital control unit, with sensors	ELETCNTD3	☐	☐	☐
10	Monopropylene glycol - liters	IDRLQGLCL	☐	☐	☐
1	Mixing valve	IDRVMX020	☐	☐	☐
Complete kit					
3	Ball cut-off valve	IDRVINTSF		☐	☐
1	Preassembled probe-vent group	GPMGE5000		☐	☐
1	Jolly 180°C valve	IDRVJ0180		☐	☐
15	Copper twinned insulated DN 18 piping, with probe cable, meters	IDRTG1815		☐	☐
Full optional kit					
1	Boiler – burner by-pass 3 way valve	IDRV2VE20			☐
2	Stop valve	IDRVRT020			☐
2	Inlet safety valve, set point 6 bar	IDRVSIC60			☐
2	Ball cut-off valve	IDRVINTSF			☐
2	Solar circuit expansion vessel - 25 liters	IDRVE025P			☐
5	Multilayered insulated DN20 piping, meters	IDRTM2005			☐
1	Automatic filling group	GPMRAS000			☐
1	Clock system for inverted cycle	ELETORLCI			☐

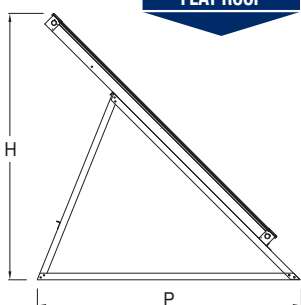
PITCHED ROOF

Mod.	Roof	Panel	Optional	Code
SR600	PITCHED	SLIM	BASE	SR0600FSB
			COMPLETE	SR0600FSC
			FULL OPT	SR0600FS0
		BLUE	BASE	SR0600FBB
			COMPLETE	SR0600FBC
			FULL OPT	SR0600FBO



FLAT ROOF

Mod.	Roof	Panel	Optional	Code	
SR600	30°	BLUE	BASE	SR0600EBB	
			COMPLETE	SR0600EBC	
			FULL OPT	SR0600EB0	
			45°	BASE	SR0600IBB
				COMPLETE	SR0600IBC
				FULL OPT	SR0600IB0



Overall dimensions: **flat roof** LxPxH = 4800x2000x1850 mm empty weight 340 kg
pitched roof LxF = 4800x2500 mm empty weight 280 kg



Technical data SR 1000



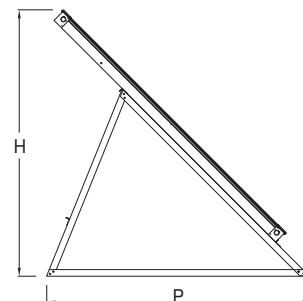
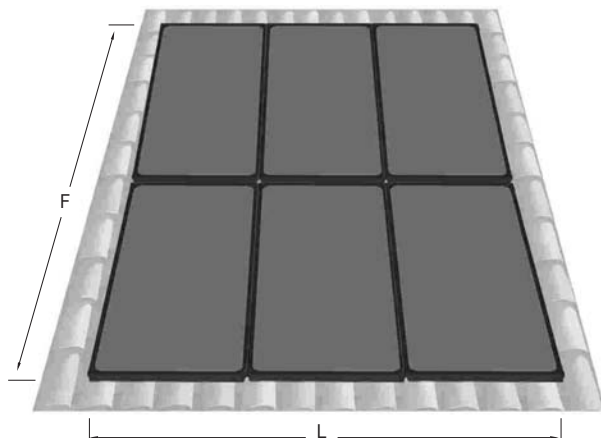
Q.ty	Components	Code	Base	Complete	Full optional
6	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Support structure for pitched roof	STCFMD33F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Tank in tank, enameled combi solar boiler, 1000/200 liters with double coil	BVV1000C2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar circuit expansion vessel - 25 liters	IDRVE025L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled solar station	GPMCRF0ST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Digital control unit, with sensors	ELETNTD3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Mixing valve	IDRVMX020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete kit					
3	Ball cut-off valve	IDRVINTSF		<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled probe-vent group	GPMGES000		<input type="checkbox"/>	<input type="checkbox"/>
1	Jolly 180°C valve	IDRVJ0180		<input type="checkbox"/>	<input type="checkbox"/>
20	Copper twinned insulated DN 18 piping, with probe cable, meters	IDRTG1815		<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit					
1	Boiler - burner by-pass 3 ways valve	IDRV2VE20			<input type="checkbox"/>
2	Stop valve	IDRVRT020			<input type="checkbox"/>
2	Inlet safety valve, set point 6 bar	IDRVSIC60			<input type="checkbox"/>
2	Ball cut-off valve	IDRVINTSF			<input type="checkbox"/>
2	Solar circuit expansion vessel - 50 liters	IDRVE050P			<input type="checkbox"/>
5	Multilayered insulated DN20 piping, meters	IDRTM2005			<input type="checkbox"/>
1	Automatic filling group	GPMRAS000			<input type="checkbox"/>
1	Clock system for inverted cycle	ELETORLCI			<input type="checkbox"/>

PITCHED ROOF

Mod.	Roof	Panel	Optional	Code
SR1000	Pitched	SLIM	BASE	SR1000FSB
			COMPLETE	SR1000FSC
			FULL OPT	SR1000FSO
		BLUE	BASE	SR1000FBB
			COMPLETE	SR1000FBC
			FULL OPT	SR1000FBO

FLAT ROOF

Mod.	Roof	Panel	Optional	Code
SR1000	30°	BLUE	BASE	SR1000EBB
			COMPLETE	SR1000EBC
			FULL OPT	SR1000EBO
	45°	BLUE	BASE	SR1000IBB
			COMPLETE	SR1000IBC
			FULL OPT	SR1000IBO



Overall dimensions: **flat roof** LxPxH = 3600x2000x1850 mm empty weight 250 kg
pitched roof LxF = 3600x4900 mm empty weight 415 kg

Technical data SR 1500



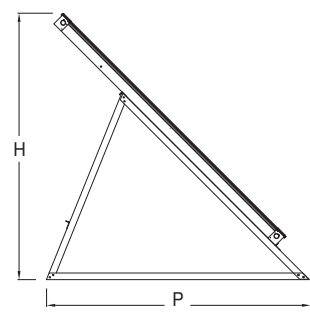
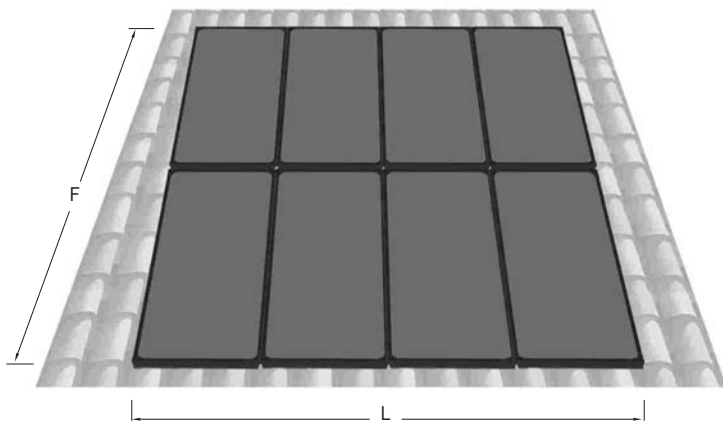
Q.ty	Components	Code	Base	Complete	Full optional
8	Solar Panel Panda 2.6 Cu Blue	PANMD3VBN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Support structure for pitched roof	STCFMD32F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Tank in tank, enameled combi solar boiler, 1500/300 liters with double coil	BVV1500C2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Solar circuit expansion vessel - 25 liters	IDRVE025L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled solar station	GPMCRF0ST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Digital control unit, with sensors	ELETCNTD3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Monopropylene glycol - liters	IDRLQGLCL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Mixing valve	IDRVMX020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete kit					
3	Ball cut-off valve	IDRVINTSF		<input type="checkbox"/>	<input type="checkbox"/>
1	Preassembled probe-vent group	GPMGES000		<input type="checkbox"/>	<input type="checkbox"/>
1	Jolly 180°C valve	IDRVJ0180		<input type="checkbox"/>	<input type="checkbox"/>
20	Copper twinned insulated DN 18 piping, with probe cable, meters	IDRTG1820		<input type="checkbox"/>	<input type="checkbox"/>
Full optional kit					
1	Boiler – burner by-pass 3 ways valve	IDRV2VE20			<input type="checkbox"/>
2	Stop valve	IDRVRT020			<input type="checkbox"/>
2	Inlet safety valve, set point 6 bar	IDRVSIC60			<input type="checkbox"/>
2	Ball cut-off valve	IDRVINTSF			<input type="checkbox"/>
2	Solar circuit expansion vessel - 50 liters	IDRVE050P			<input type="checkbox"/>
5	Multilayered insulated DN20 piping, meters	IDRTM2005			<input type="checkbox"/>
1	Automatic filling group	GPMRAS000			<input type="checkbox"/>
1	Clock system for inverted cycle	ELETORLCI			<input type="checkbox"/>

PITCHED ROOF

Mod.	Roof	Panel	Optional	Code
SR1500	FALDA	SLIM	BASE	SR1500FSB
			COMPLETE	SR1500FSC
			FULL OPT	SR1500FS0
		BLUE	BASE	SR1500FBB
			COMPLETE	SR1500FBC
			FULL OPT	SR1500FB0

FLAT ROOF

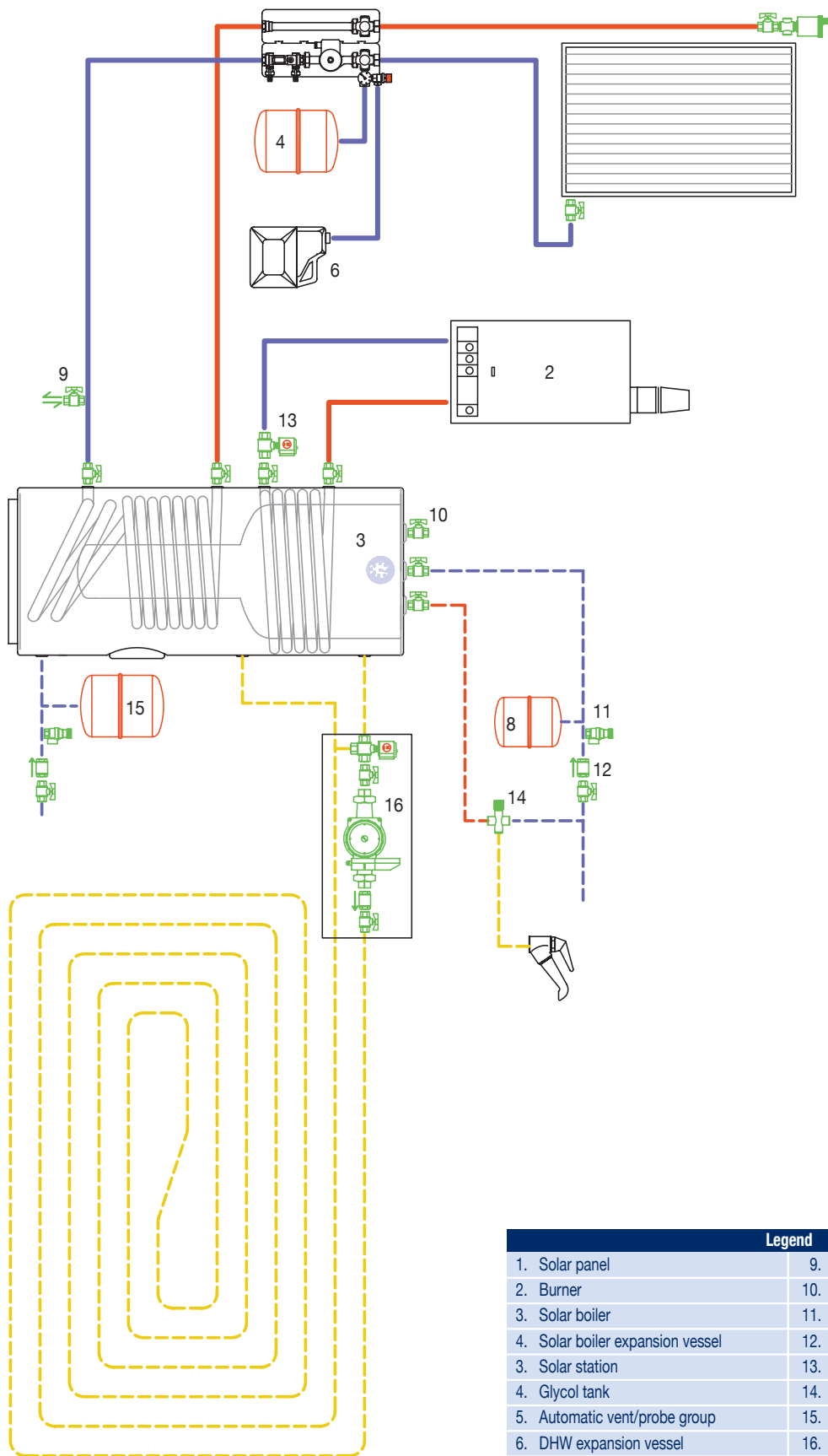
Mod.	Roof	Panel	Optional	Code	
SR1500	30°	BLUE	BASE	SR1500EBB	
			COMPLETE	SR1500EBC	
			FULL OPT	SR1500EB0	
			45°	BASE	SR1500IBB
				COMPLETE	SR1500IBC
				FULL OPT	SR1500IB0



Overall dimensions: **flat roof** LxPxH = 4800x2000x1850 mm empty weight 345 kg
pitched roof LxF = 4800x4900 mm empty weight 565 kg



Hydraulic connections



Legend

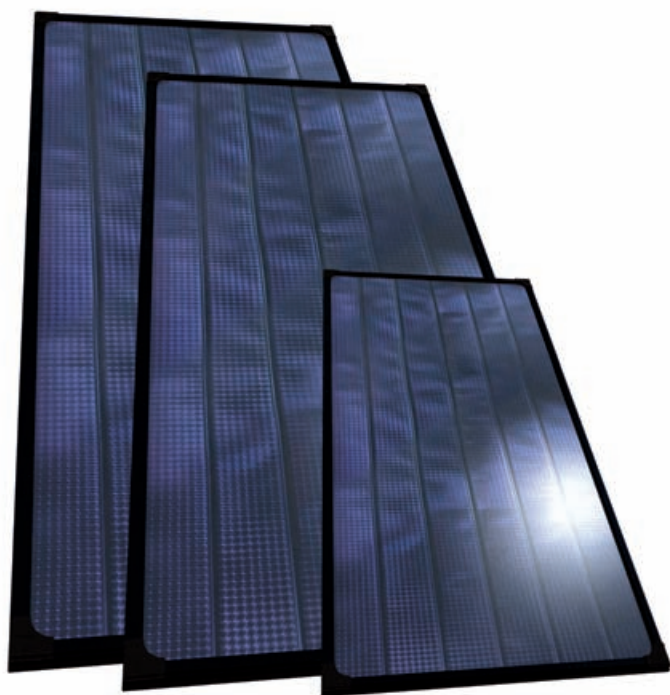
1. Solar panel	9. Loading/unloading valve
2. Burner	10. Ball cut-off valve
3. Solar boiler	11. Safety valve
4. Solar boiler expansion vessel	12. Check valve
5. Automatic vent/probe group	13. Automatic 2-way zone valve
6. DHW expansion vessel	14. Mixing valve
	15. Space heating expansion vessel
	16. Radiant floor control unit



Solar collectors



**COSTRUZIONI
SOLARI**



SLIM

We've applied innovative nanotechnologies, in order to improve the collector efficiency though minimizing its thickness: 50 mm is less than half the common panels currently available.

SLIM extraordinary thinness allows its installation among pitched roofs tiles, answering the customers' growing demand for quality and aesthetical refinement.

Free 10 years guarantee

TECHNICAL DATA			
	Slim "PANDA 1,2"	Slim "PANDA 2"	Slim "PANDA 2,6"
Plate size	1260x930 mm	2050x930 mm	2300x1100 mm
Collector diameter	22 mm	22 mm	22-28 mm
Tube bundle diameter	10 mm	10 mm	10 mm
Load loss	1.7 mbar *	3.4 mbar **	6 mbar ***
Net surface	1,17 m ²	1,9 m ²	2,5 m ²
Plate capacity	1,1 Litri	1,5 Litri	2,0 Litri
Case size	1330x1010x50 mm	2145x1010x50 mm	2380x1130x50 mm
Total weight	31,5 kg	50,8 kg	62,5 kg

* 52 l/hm² flow rate

** 82 l/hm² flow rate

*** 108 l/hm² flow rate

Cover	
Material	Tempered crystal glass
Thickness	4 mm
Absorber	
Material	Copper
Surface coating	Low emission selective coating
Absorption	95%
Emission	5%
Manufacturing process	Semi-automatic
Fluid Capacity (Heat transfer medium)	2 ltr
	10,7 kg
	2322x1074 mm
Channels	
Channels (pipes)	9
Diameter	10 mm
Thickness	1 mm
Thermal insulation	
Nanotechnology material (bottom)	9 mm
Glass wool (bottom)	20 mm
Closed cells expanded polyurethane (side)	20 mm

Solar panels of 2 sq. m and 1,2 sq. m are also available.



	Close - cell expanded polyurethane	Nanotechnological material
Heat Conductivity	0,035 W/m ² K	0,012 W/m ² K
Density	35 kg/m ³	170 kg/m ³
Thickness	20 mm	9 mm

Traditional solar thermal panel

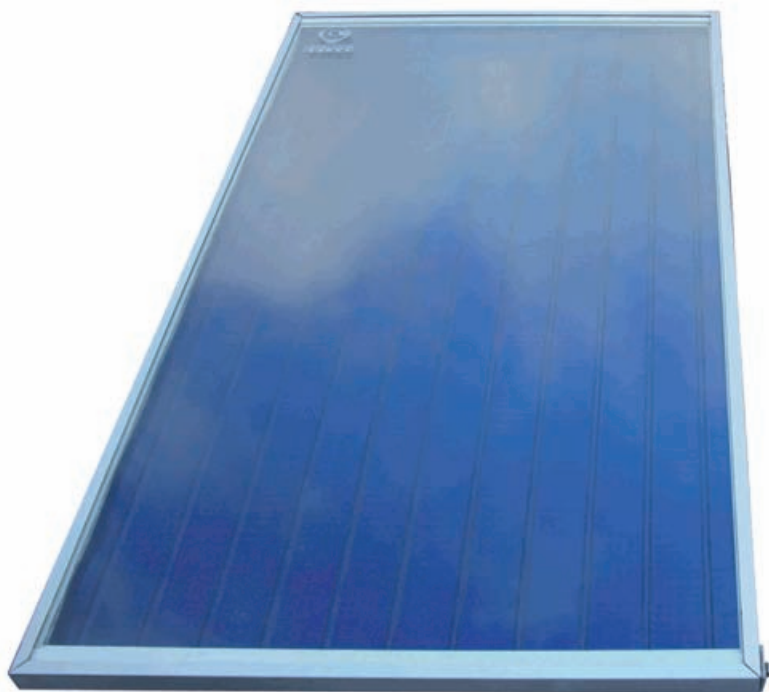


Solar flat plate collector SLIM





SuperSLIM



The solar thermal ultrathin panel Superslim by Costruzioni Solari is the outcome of thirty years of research into materials selection and building techniques and ensures high performance and long-lasting endurance.

Thanks to emerging nanotechnology, we have created a panel that is 43 mm thick, which is less than half of all other panels currently sold on market. We have made significant strides in aesthetics and architectural integration with no loss in performance.

Technical characteristics

Net surface	1.4 mq
Plate capacity	0.97 litri
Panel size	1645x948x43 mm
Total weight	41 kg
η_0	0.779
a_1	3.8
a_2	0.002

Trasparent covering

Material	Extra clear tempered glass
Thickness	3.2 mm

Absorber

Material	Copper
Surface Treatment	Magnetron sputtering coating
Absorbance	90%
Emissivity	5%
Tested to	10 bar
Operating pressure	6 bar

Thermal insulation

Nanotechnology material	
-------------------------	--

Inset plate and structural support

Lamiera zincata fosfata, verniciata a fuoco e resistente anche agli agenti atmosferici più aggressivi.	
--	--



*traditional
solar panel*



*SuperSLIM
solar panel*



pannello solare **PANDA**



COSTRUZIONI
SOLARI



Technical data sheet

PANDA 2,7

The Panda collector is the result of many years of research in selecting every single component. The aim is the distribution of an Italian high-quality economic collector resistant to the atmospheric actions.

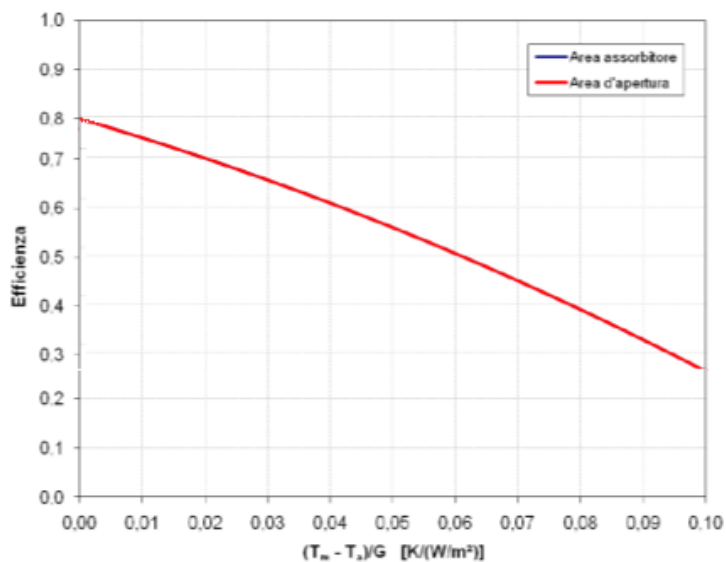
COPPER ABSORBER







Description of the collector	
Casing material	Galvanized steel sheet from a whole sheet
Weight	57,3 kg
Dimensions ± 5	2380x1130x100 mm
Total area	2,69 m ²
Aperture area	2,43 m ²
Absorber area	2,43 m ²
Parameters of the efficiency curve	
η_0	0,80
a1	3,69 W m ⁻² K ⁻¹
a2	0,009 W m ⁻² K ⁻²
IAM (Incident Angle Modifier) 50°	0,92 \pm 0,04
Pressure drop (with a flow rate of 185 l/h)	350 Pa
Connections	4 fittings $\frac{3}{4}$
Test pressure	10 bar
Absorber	
Solar Absorption	95%
Thermal emissivity	4%
Construction	Semi automatic
Capacity	2 l
Weight	8,6 kg
Dimensions ± 5	2270x1074 mm
Pipes	
Number of pipes	12
Diameter	8 mm
Thickness	0,5 mm
Thermal insulation	
Closed cell polyurethane foam (lateral sides)	20,5 mm
Rockwool of fiberglass (back side)	50 mm

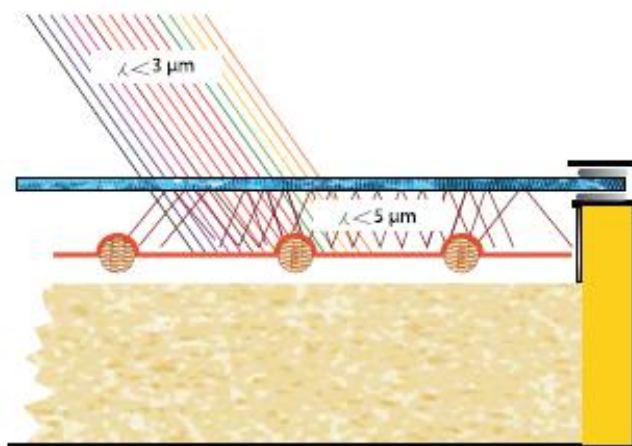
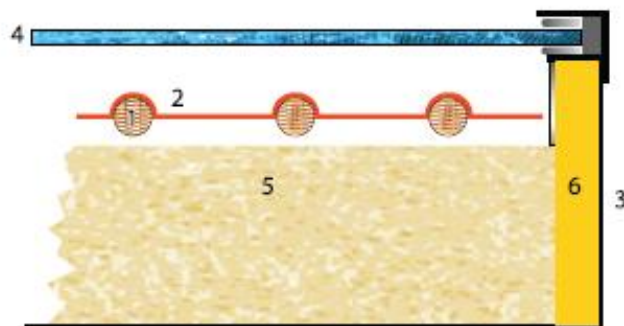


Technical data sheet

PANDA 2,7



-  1 - Copper pipes system;
-  2 - Selective absorber plate;
-  3 - Anodized steel or aluminium casing;
-  4 - Tempered glass cover 4 mm;
-  5 - Rockwool or fibreglass 50 mm;
-  6 - Closed cell polyurethane foam 20 mm.



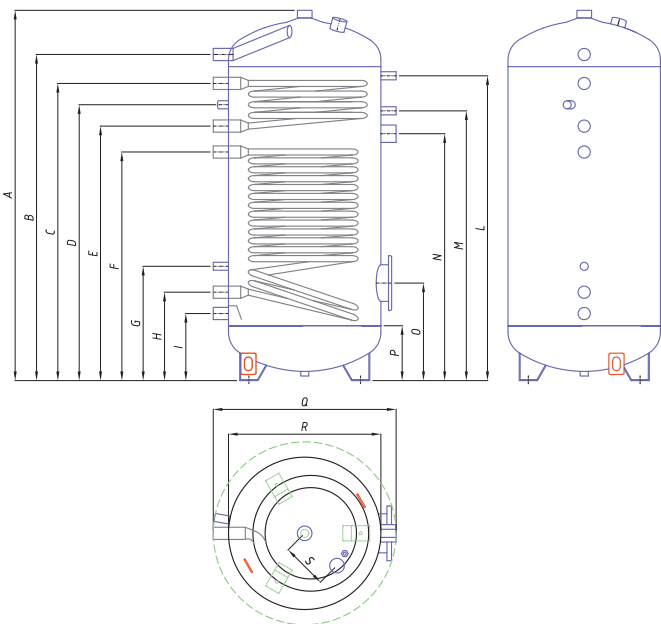
Heat storage tanks and boilers



**COSTRUZIONI
SOLARI**



Technical Data Single and double fixed coil boilers



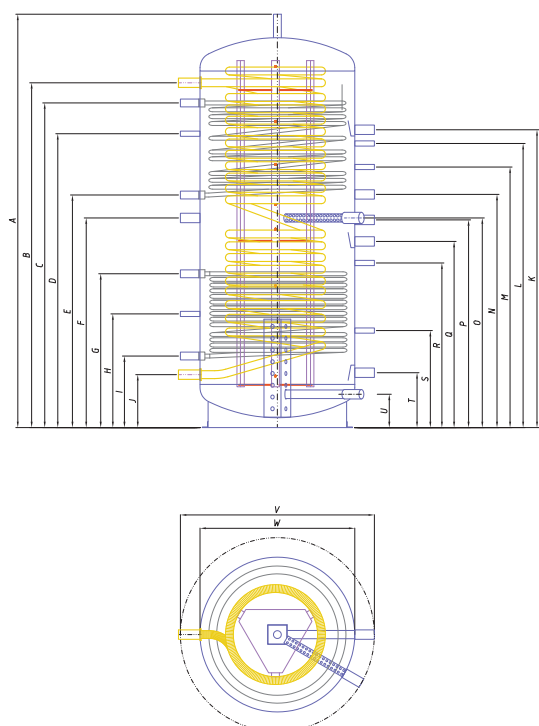
Model Nos.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)
200	1215	1070	975	905	835	750	375	290	220
300	1615	1390	1320	1165	1005	890	375	290	220
400	1460	1185	1085	960	875	795	440	345	265
500	1690	1415	1330	1170	1015	880	440	345	265
600	1960	1685	1565	1340	1145	985	440	345	265
800	1780	1455	1085	1180	1055	965	875	535	335
1000	2030	1700	1560	1395	1245	1120	985	510	350
1500	2120	1890	1730	1420	1325	1225	1125	535	415
2000	2405	1990	1870	1425	1415	1205	662	400	250

Model Nos.	L (mm)	M (mm)	N (mm)	O (mm)	P (mm)	Q (mm)	R (mm)	S (mm)
200	1000	885	810	320	180	600	500	150
300	1390	1045	955	320	180	600	500	150
400	1195	920	835	365	225	750	650	150
500	1425	1060	960	365	225	750	650	150
600	1695	1190	1065	365	225	750	650	150
800	210	1465	935	435	270	990	790	200
1000	210	1720	1085	440	270	990	790	200
1500	280	1775	1230	515	340	1200	1000	230
2000	250	2000	1340	550	310	1300	1100	230

Notes: Please, don't consider D, E and F columns for the single coil boiler.

Model Nos.	200	300	400	500	600	800	1000	1500	2000		
Total capacity (liters)	212	291	425	500	589	765	888	1449	2054		
Internal treatment	Vitreous enameling					PTFE (polytetrafluoroethylene) treatment					
Insulation	Type	Hard / soft polyurethane					Soft polyurethane				
	Thickness (mm)	50	50	50	50	50	100	100	100	100	
Upper exchanger	(m ²)	0,5	1,1	1	1,3	1,9	1,6	1,6	1,8	2,8	
Bottom solar exchanger	(m ²)	1,5	1,8	1,9	2,2	2,5	2,7	3	3,4	4,6	
Empty Weight	kg	95	150	150	170	215	220	265	365	480	

Technical Data Triple fixed coil boilers

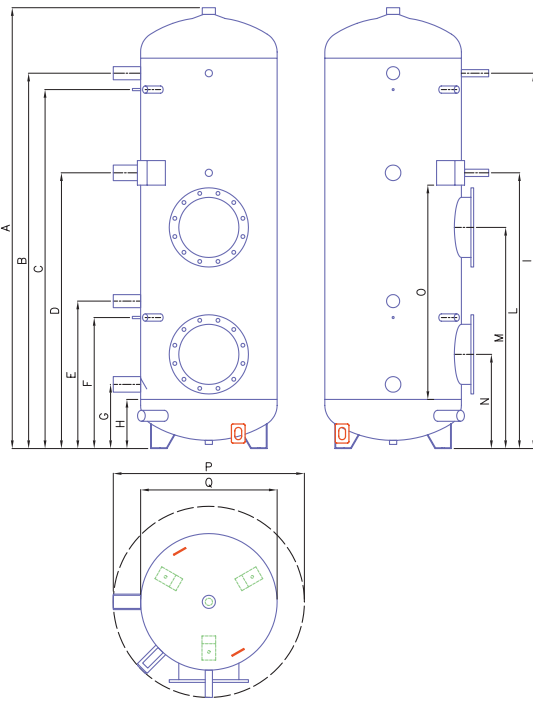


Model Nos.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)
600	1940	1640	1500	1280	1080	920	765	440	345	240	1635
800	1930	1580	1485	1290	1075	950	725	570	365	270	1500
1000	2110	1760	1657	1500	1187	1070	785	580	365	270	1520
2000	2380	1950	1830	1470	1260	1150	955	750	475	350	1760

Model Nos.	L (mm)	M (mm)	N (mm)	O (mm)	P (mm)	Q (mm)	R (mm)	S (mm)	T (mm)	U (mm)	V (mm)	W (mm)
600	-	1320	1000	920	-	1170	800	490	250	150	850	650
800	1290	1190	1090	950	980	870	770	465	280	170	990	790
1000	1450	1190	1070	1060	1060	950	840	495	280	170	990	790
2000	1640	1520	1410	1150	1190	1080	970	630	360	250	1300	1100

Model Nos.	600	800	1000	1500	2000	
Total capacity (liters)	575	815	905	1525	1970	
Insulation	Type	Soft polyurethane				
	Thickness (mm)	100				
Domestic hot water exchanger	(m ²)	5,1	6,4	7,6	8,9	8,9
Domestic hot water volume	(liters)	32	40	48	56	56
Upper exchanger	(m ²)	2	2	2	3	3
Bottom solar exchanger	(m ²)	2	2,5	3	3,5	4
Empty Weight	kg	20	270	315	390	450

Technical Data Flanged boilers

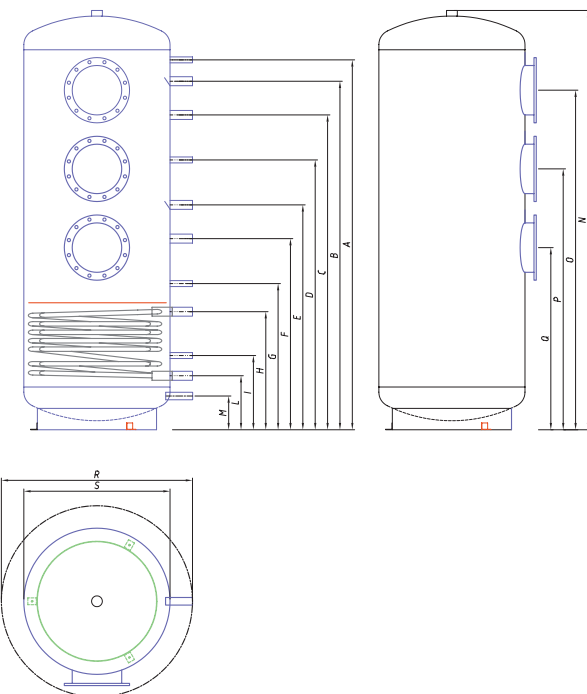


Model Nos.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	L (mm)	M (mm)	N (mm)	O (mm)	P (mm)	Q (mm)
300	1615	1375	1315	1010	540	480	235	180	1375	1010	810	345	785	700	500
500	1690	1395	1325	1065	595	525	285	225	1395	1065	865	395	395	850	650

Model Nos.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	L (mm)	M (mm)	N (mm)	O (mm)	P (mm)	Q (mm)
800	1790	1460	1390	1055	640	570	330	270	60	1100	1290	910	440	990	790
1000	2040	1720	1650	1280	720	650	320	270	60	1280	1500	1015	440	990	790
1500	2105	1750	1680	780	710	395	310	180	60	1295	1525	1000	530	1200	1000
2000	2425	1990	1920	1345	820	750	410	310	130	1345	1670	1085	555	1300	1100
2500	2200	1760	1690	1290	840	770	425	190	145	1290	1525	1055	580	1450	1250
3000	2700	2265	2195	1455	865	795	475	335	145	1455	1860	1165	580	1450	1250
4000	2600	2140	2070	1470	925	855	470	400	140	1470	1805	1195	650	1700	1500
5000	2690	2230	2160	1480	925	855	460	390	140	1480	1900	1200	645	1800	1600

Model Nos.	300	500	800	1000	1500	2000	2500	3000	4000	5000
Total capacity (liters)	291	500	765	888	1449	2054	2346	2959	4043	5055
Internal treatment	Vitreous enameling					PTFE (polytetrafluoroethylene) treatment				
Insulation	Type	Hard / soft polyurethane					Soft polyurethane			
	Thickness (mm)	100								
Flange (mm)	290/220									
Empty Weight (kg)	105	145	195	205	285	350	435	535	555	670

Technical Data Multi-cell boilers



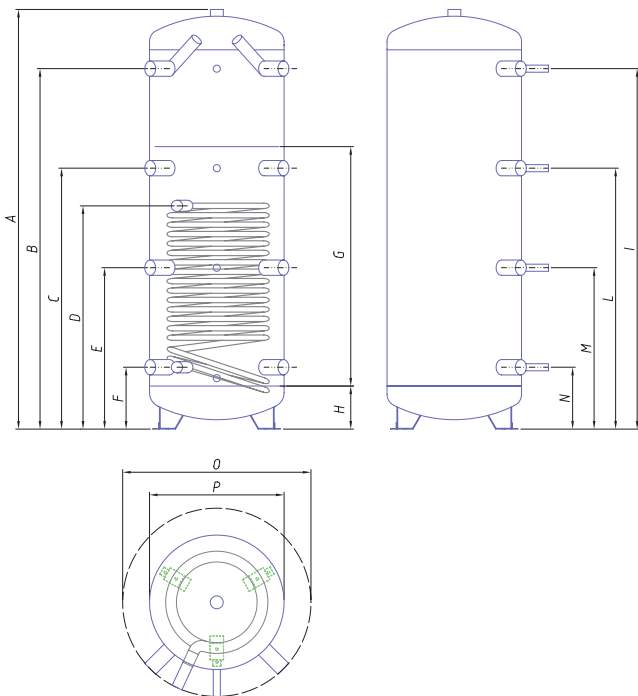
Model Nos.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)
600	1645	1550	1400	1200	1000	850	650	525	330
800	1495	11405	1315	1165	1015	925	750	650	480
1000	1730	1580	1430	1245	1025	875	760	650	480
1500	1770	1620	1470	1230	1065	915	800	700	530

Model Nos.	L (mm)	M (mm)	N (mm)	O (mm)	P (mm)	Q (mm)	R (mm)	S (mm)
600	240	150	1865	1510	1160	810	850	650
800	330	240	1725	1495	1155	815	990	790
1000	330	240	1975	1610	1265	880	990	790
1500	380	290	2090	1660	1315	930	1200	1000

Model Nos.	600	800	1000	1500
Total capacity (liters)	571	732	855	1449
Insulation	Type	Soft polyurethane		
	Thickness (mm)	100		
Bottom solar exchanger (sq. m.)	2,2	3	3	4
Flange (sq. m.)	290/220			
Empty Weight (kg.)	185	215	230	305



Technical Data Puffer boilers

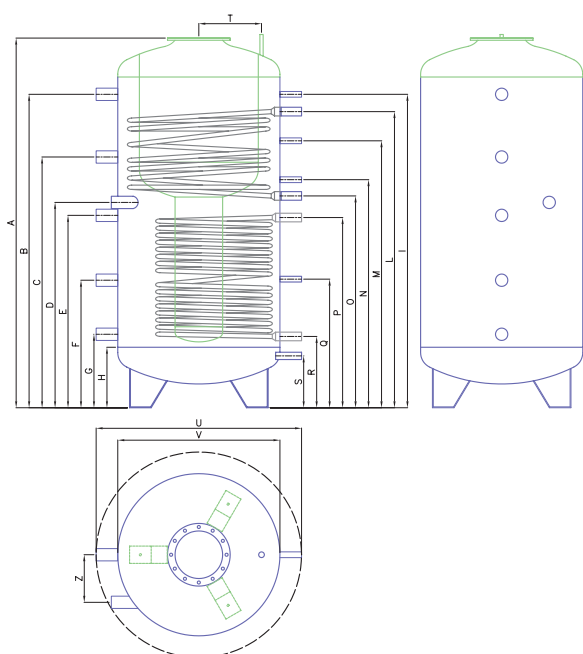


Model Nos.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
300	1560	1340	970	830	600	230	890
500	1700	1470	1090	930	710	330	895
800	1725	1470	1095	1050	720	340	895
1000	1975	1720	1260	1050	800	340	1057
1500	2090	1770	1310	1290	850	390	1060
2000	2405	2070	1510	1290	950	390	1260
2500	2145	1775	1315	1295	855	395	1060
3000	2645	2280	1650	1290	1020	390	1395
4000	2575	2150	1590	1370	1030	470	1260
5000	2795	2355	1730	1365	1100	465	1402

Model Nos.	H (mm)	I (mm)	L (mm)	M (mm)	N (mm)	O (mm)	P (mm)
300	160	1340	970	600	230	700	500
500	275	1470	1090	710	330	850	650
800	280	1470	1095	720	340	990	790
1000	280	1720	1260	800	340	990	790
1500	330	1770	1310	850	390	1200	1000
2000	330	2070	1510	950	390	1300	1100
2500	335	-	-	-	-	1450	1250
3000	335	-	-	-	-	1450	1250
4000	410	-	-	-	-	1700	1500
5000	410	-	-	-	-	1800	1600

Model Nos.	300	500	800	1000	1500	2000	2500	3000	4000	5000
Total capacity (liters)	283	489	732	855	1449	2054	2346	2959	4043	5055
Insulation	Softpolyurethane									
	Type	100								
Thickness (mm)	100									
Solar bottom exchanger (mm)	1,8	1,8	2,6	2,6	3,8	3,8	3,8	5,0	5,0	5,0
Empty Weight (kg)	115	140	200	215	385	375	395	460	529	620

Technical Data Combi boilers

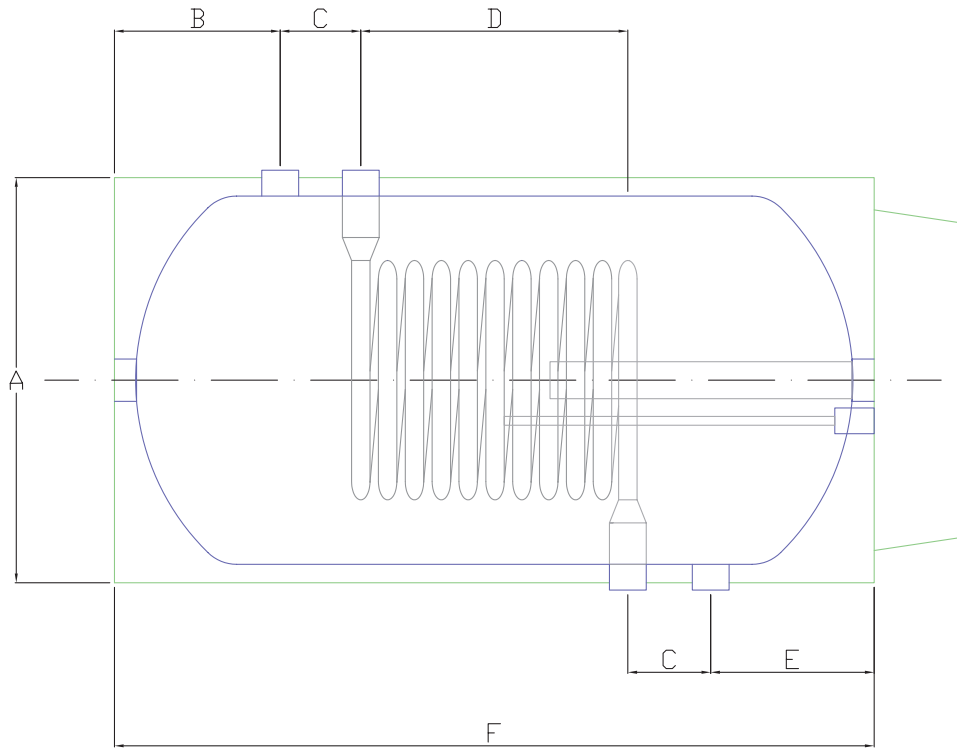


Model Nos.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	L (mm)	M (mm)
600	1710	1450	1160	950	890	590	340	280	1450	1370	1235
800	1980	1690	1160	1050	890	590	340	280	1690	1535	1380
1000	1985	1695	1190	1050	910	640	360	280	1745	1635	1440
1500	2085	1725	1360	1170	990	710	390	330	1750	1660	1390
2000	2430	2050	1640	1370	1230	820	410	330	2060	1980	1700

Model Nos.	N (mm)	O (mm)	P (mm)	Q (mm)	R (mm)	S (mm)	T (mm)	U (mm)	V (mm)	Z (mm)
600	1055	980	880	595	330	240	290	950	750	220
800	1240	1145	1040	800	330	240	290	950	750	220
1000	1290	1170	880	595	330	240	290	950	750	240
1500	1205	1115	950	750	400	290	415	1200	1000	240
2000	1540	1425	1290	1060	390	290	415	1300	1100	240

Model Nos.	600	800	1000	1500	2000
Total capacity (litri)	662	773	855	330	420
Domestic hot water capacity (litri)	170	205	220	1119	1634
DHW storage tank treatment (litri)	492	568	635		
Insulation	Vitreous enameling				
	Type	Soft polyurethane			
Thickness (mm)	100				
Upper exchanger (m ²)	1,5	1,5	2	2	3
Bottom solar exchanger (m ²)	2,5	2,7	3	3,3	3,8
Empty Weight (kg)	310	345	385	460	570

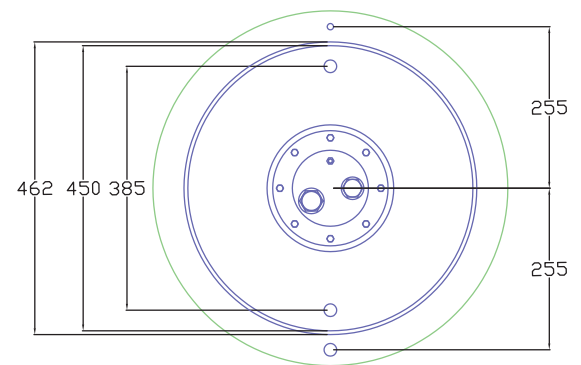
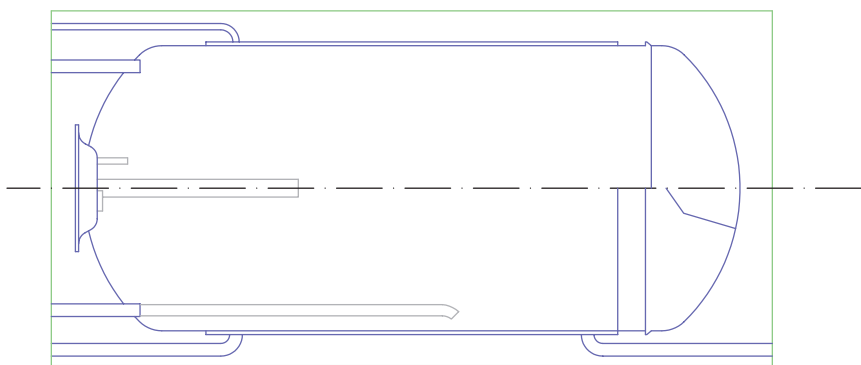
Technical Data Forced circulation horizontal boilers



Model Nos.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
80	440	180	90	290	175	825
100	440	190	100	330	180	900
150	440	205	90	540	200	1125
200	500	205	115	790	275	1500
300	500	205	90	740	220	1365

Model Nos.	(litri)	80	100	150	200	300
DHW storage tank treatment		Vitreous enameling				
Insulation	Type	Soft polyurethane				
	Thickness (mm)	20	20	20	20	20
Solar serpentine	(m ²)	1	1	1	1,2	1,5

Technical Data Forced circulation horizontal boilers



Model Nos.	(liters)	150	200	300
DHW storage tank treatment		Vitreous enameling		
Insulation	Type	Soft polyurethane		
	Thickness (mm)	50	50	50
Coating		Stoving paint / ABS and galvanized steel sheet		
Size	Lenght (mm)	1135	1387	1985
	Maximum diameter (mm)	560	560	560
Cavity capacity	(liters)	5	7	11



COSTRUZIONI
S O L A R I

Support Structures



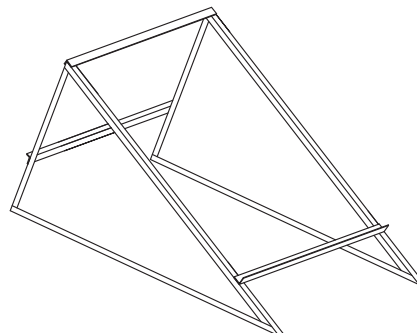
**COSTRUZIONI
SOLARI**



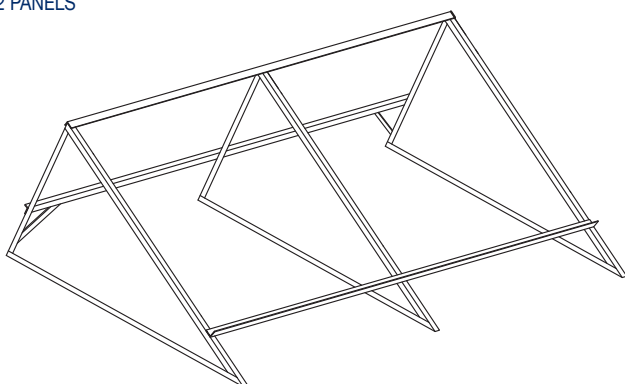
Technical Data Forced circulation support structure Kit for flat roofs

1 PANEL

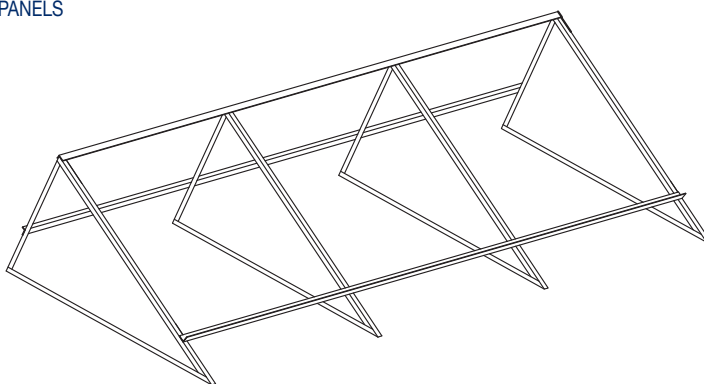
Component	Supporting 1 panel	Supporting 2 panels	Supporting 3 panels
Supporting elements			
a	2	3	4
b	2	3	4
c	2	3	4
d	1	1	1
e	1	1	1
f	1	1	1
g	2	2	2
Attachment elements			
z	4	4	4
v		2	4
Bolts M8x130		2	4
Bolts M8x20	20	40	52
Nuts M8	20	46	60



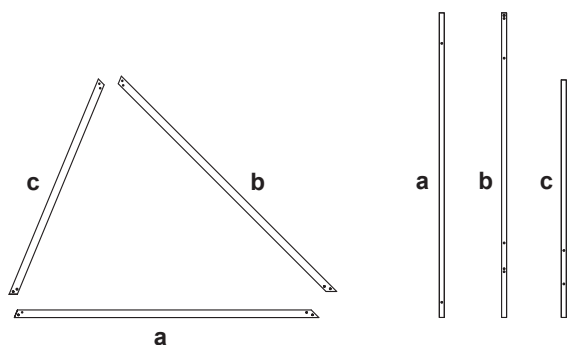
2 PANELS



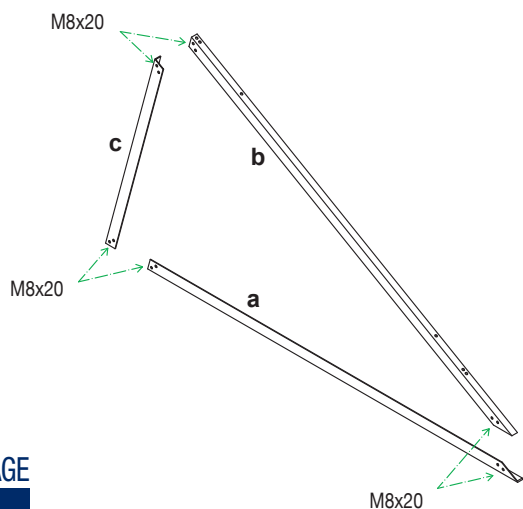
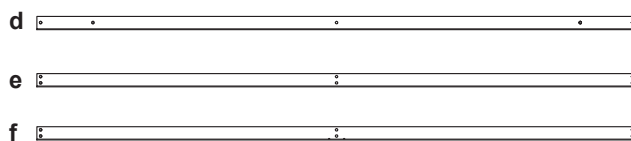
3 PANELS



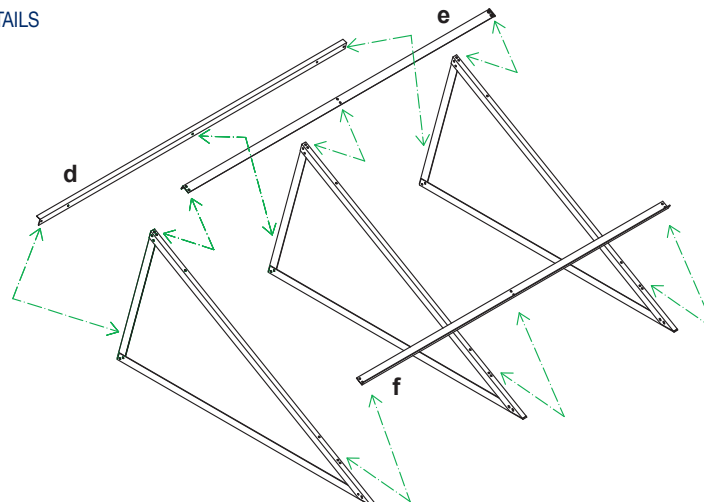
SUPPORTING TRIANGLES



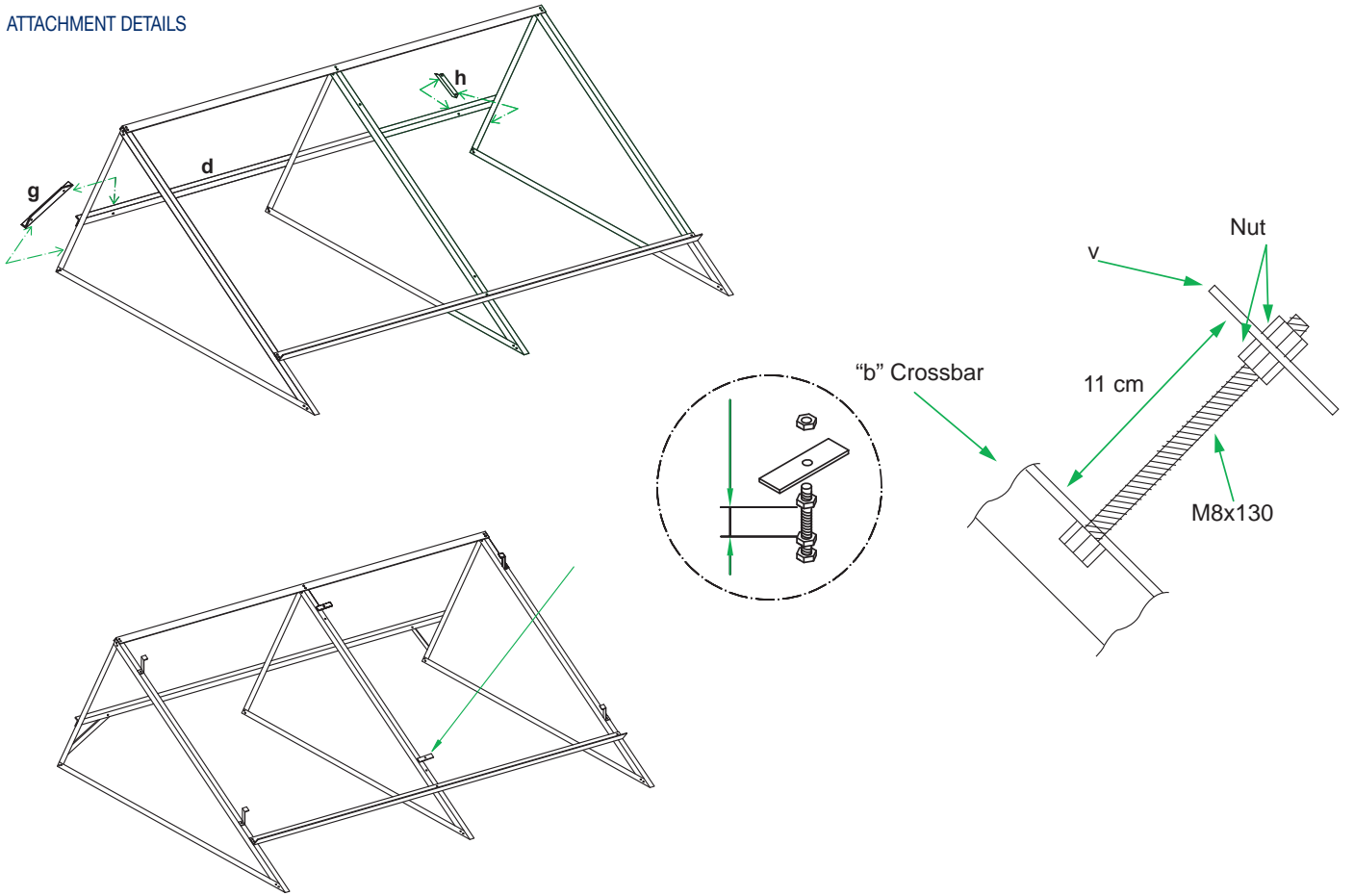
CROSSBARS



ATTACHMENT DETAILS



ATTACHMENT DETAILS

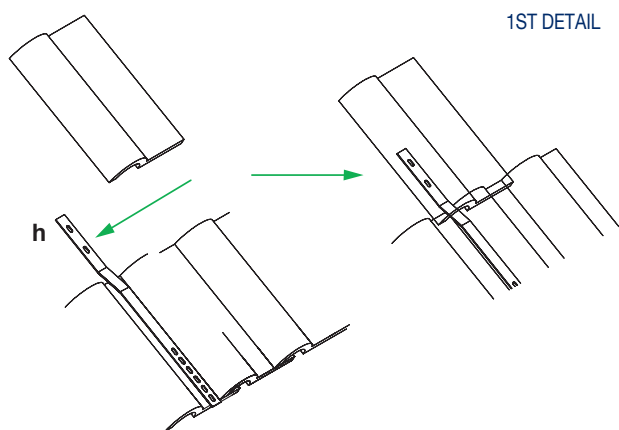




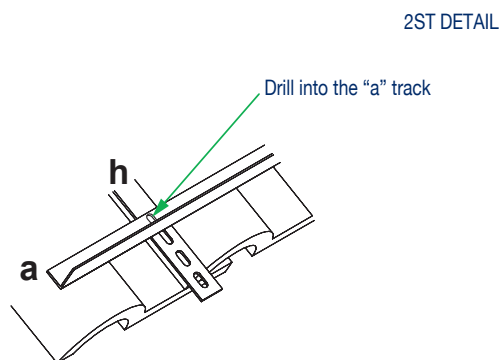
Technical Data Forced circulation support structure Kit for pitched roofs

Component	Simbolo	Kit per 1 pannello	Kit per 2 pannelli	Kit per 3 pannelli
Floor track				
Panda	a	1 da 1130 mm	1 da 2330 mm	1 da 3530 mm
Koala 2,0		1 da 1100 mm	1 da 2070 mm	1 da 3240 mm
Upper track				
Panda	b	1 da 1130 mm	1 da 2330 mm	1 da 3530 mm
Koala 2,0		1 da 1100 mm	1 da 2070 mm	1 da 3240 mm
Undertile	h	4	4	4
Track U-bolt	c	2	2	2

ATTACHMENT DETAILS

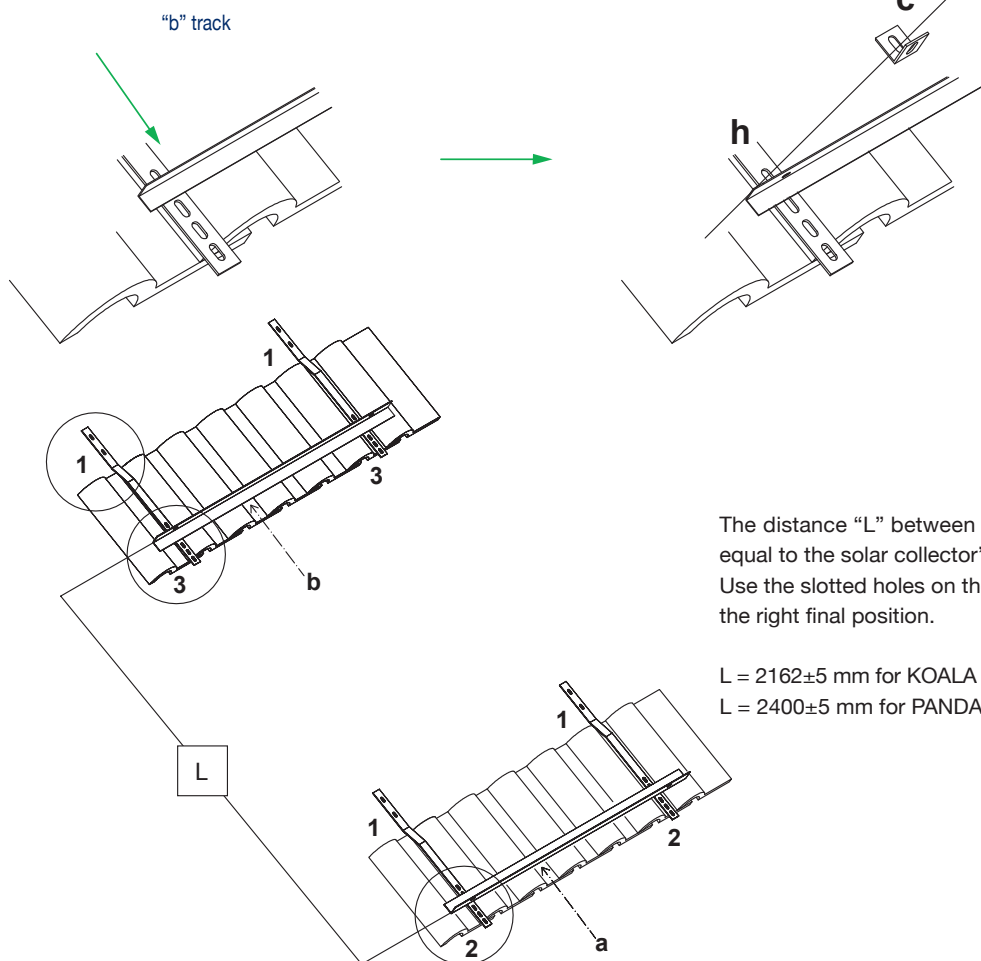


1ST DETAIL



2ST DETAIL

3ST DETAIL



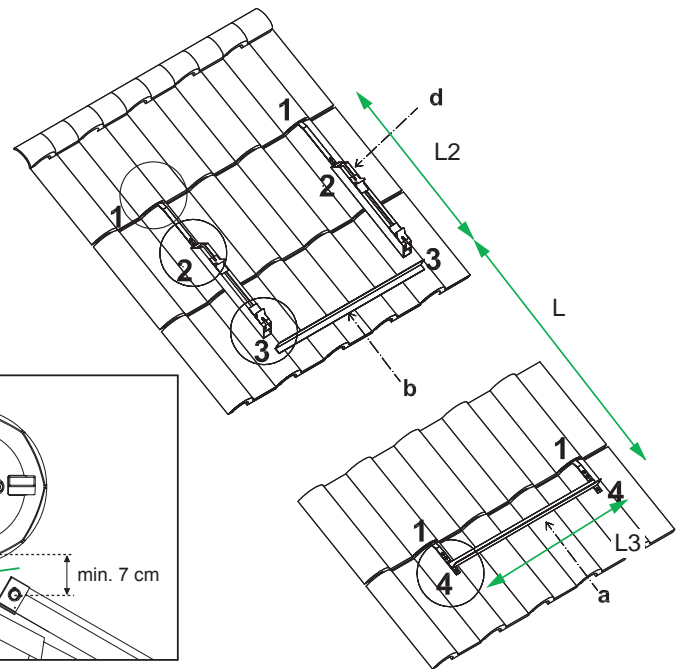
The distance "L" between the "a" and "b" tracks is equal to the solar collector's length.
Use the slotted holes on the "h" U-bolt to determine the right final position.

L = 2162±5 mm for KOALA 2,0 panels (solar KIT KSS)
L = 2400±5 mm for PANDA 2,6 panels (solar KIT SS)

Technical Data Natural circulation support structure

Kit for pitched roofs

Component	Symbol	Kit for 1 panel	Kit for 2 panels	Kit for 3 panels
Floor track				
Panda 2,6	a	1 of 1130 mm	1 of 2330 mm	1 of 3170 mm
Koala 2,0		1 of 1100 mm	1 of 2070 mm	
Upper track				
Panda 2,6	b	1 of 1130 mm	1 of 2330 mm	1 of 3170 mm
Koala 2,0		1 of 1100 mm	1 of 2070 mm	
Storage tank	d	2 of 600 mm	2 of 600 mm	2 of 600 mm
U-bolt	f	4	4	4
Undertile	h	6	6	6
Track U-bolt	c	2	2	2



The distance "L1" between the "a" and "b" tracks is equal to the solar collector's length.

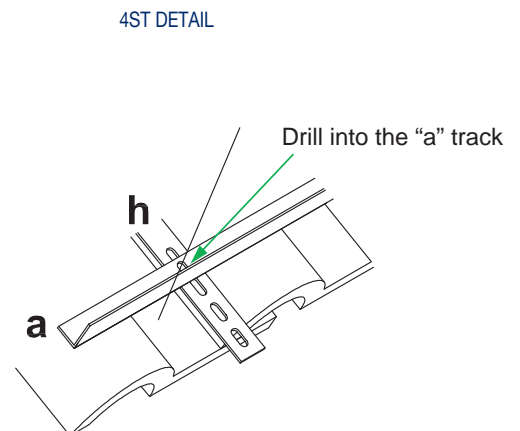
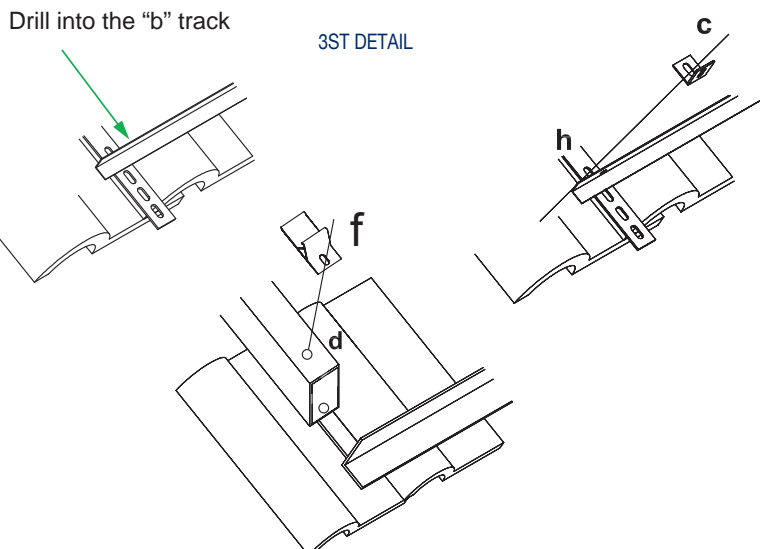
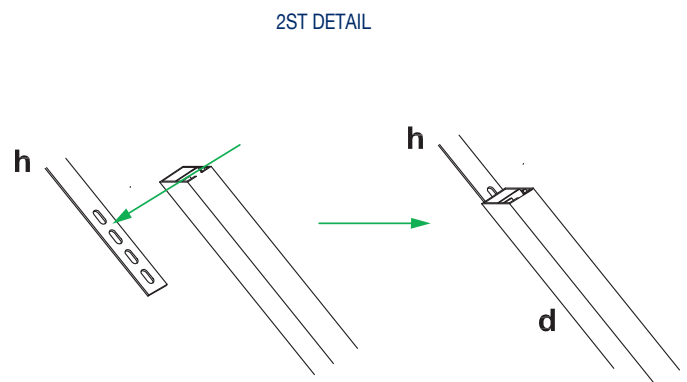
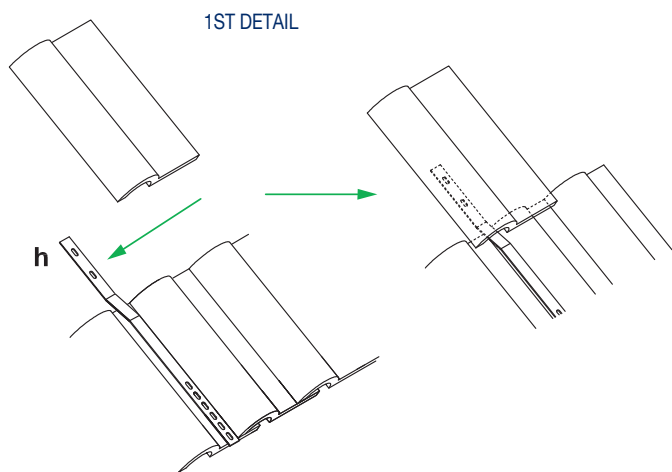
Use the slotted holes on the "h" U-bolt to determine the right final position.

L1 = 2162±5 mm for KOALA 2,0 panels (solar KIT KNS)
 L1 = 2400±5 mm for PANDA 2,6 panels (solar KIT CNS)

The distance L2 between the "b" track and the outlet point of the "h" element, underneath the tiles will be at least equal to 600mm

The distance L3 between the 2 undertile "h" U-bolts will be equal to 800mm maximum for 1 panel kits, and to 1500mm for 2 or 3 panels kits.

ATTACHMENT DETAILS

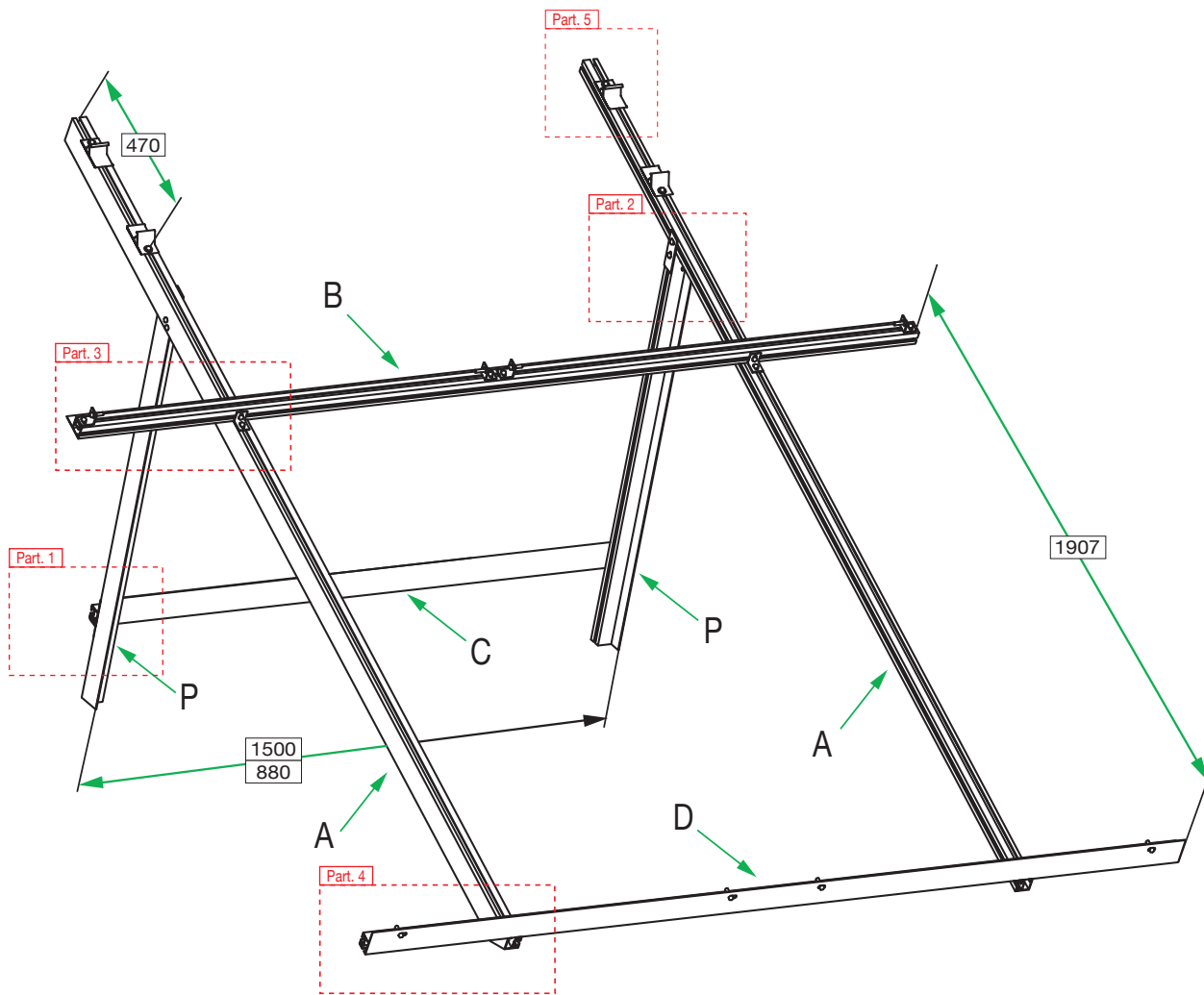




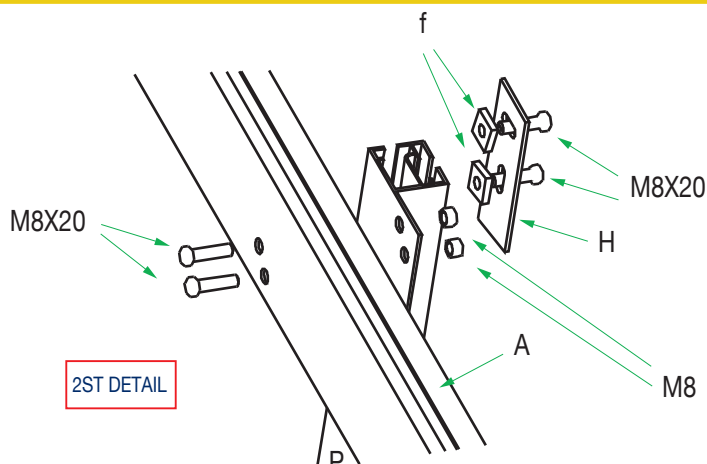
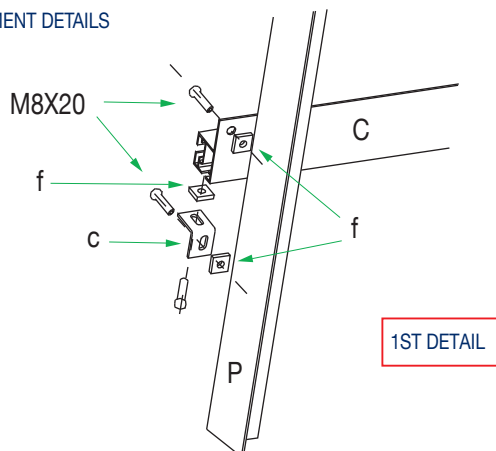
Technical Data Natural circulation support structure kit for flat roofs

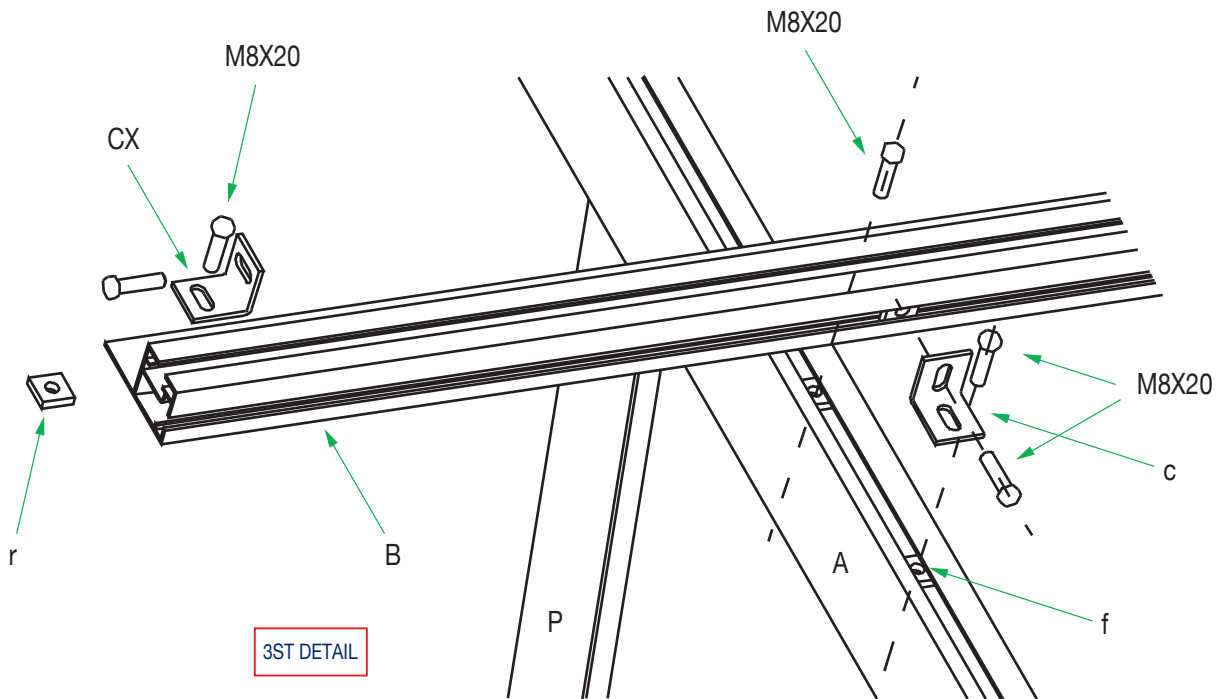
For installation, follow the steps here figured. The given example refers to a double-panel structure. Assembly process is the same for all types of structure.

Componenti	Symbol	CNS 150	CNS 300	KNS 150	KNS 300	KNS 300-3
Longitudinal aluminium track	A	2	2	2	2	2
Upper aluminium track	B	1	1	1	1	1
Back aluminium track	C	1	1	1	1	1
Lower aluminium track	D	1	1	1	1	1
Aluminium foot	P	2	2	2	2	2
Stainless U-bolts	c	8	10	8	10	12
Storage tank anchoring U-bolts	f	4	4	4	4	4

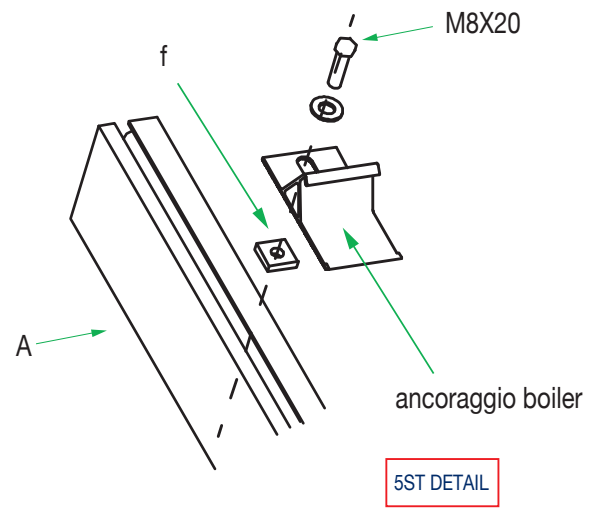
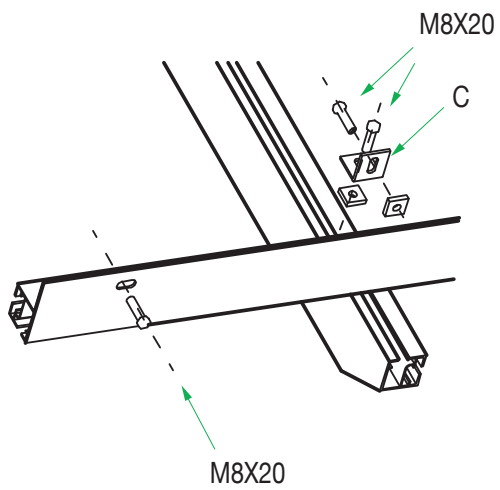


ATTACHMENT DETAILS





4ST DETAIL





COSTRUZIONI
SOLARI

Hydronic groups and Solar systems



**COSTRUZIONI
SOLARI**

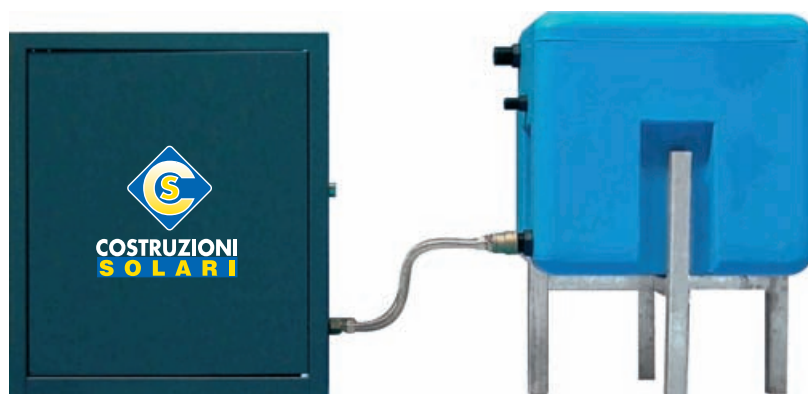


Automatic filling group

The automatic filling group is an essential element for the solar plants management because it greatly increases the **autonomy** of its functioning.

Purpose of this device is, in fact, to fill the solar circuit and to maintain the heat transfer fluid pressure at a constant preset level, in the whole system piping.

The automatic filling group comes with all its hydraulic and electrical components, already assembled and tested in our factory, to ensure maximum efficiency.

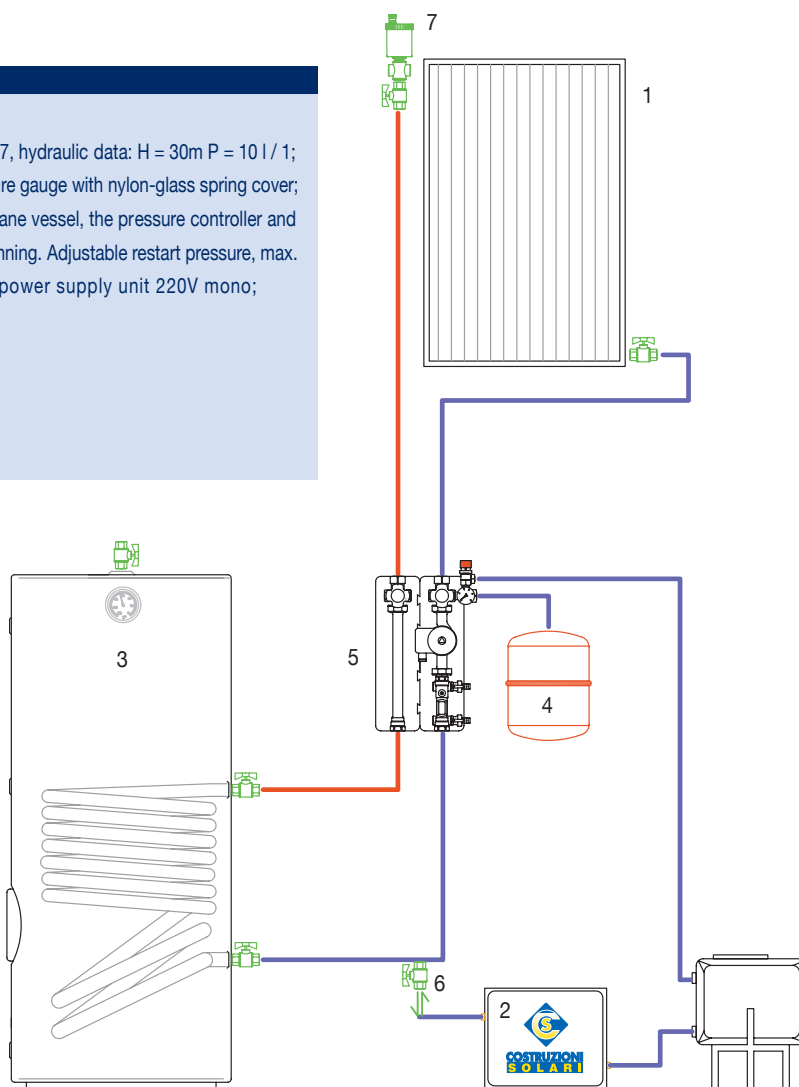


Components

- 1 door metal cabinet;
- Single phase PMF50 model Autoclave, P2 nom. kW 0.37, hydraulic data: H = 30m P = 10 l / 1;
- Automatic loading system endowed with a brass pressure gauge with nylon-glass spring cover;
- Automatic safety control device. It replaces the membrane vessel, the pressure controller and the pressure gauge, it protects the pump against dry running. Adjustable restart pressure, max. 10MC / h flow rate, 10bar max. press., IP54, power supply unit 220V mono;
- Master switch;
- Pressure gauge,
- Dimensions 595x500x235 m
- PVC housing for heat transfer fluid;
- Stand for PVC container.

Legend

- 1) Solar panel
- 2) Automatic filling group
- 3) Solar Boiler
- 4) Solar circuit Expansion vessel
- 5) Solar Station
- 6) Filling valve
- 7) Automatic vent\probe group



Technical data Domino 1

The **hydraulic group "DOMINO 1"** combines all the hydraulic and electronic devices for the solar plant **distribution, management and accounting.**

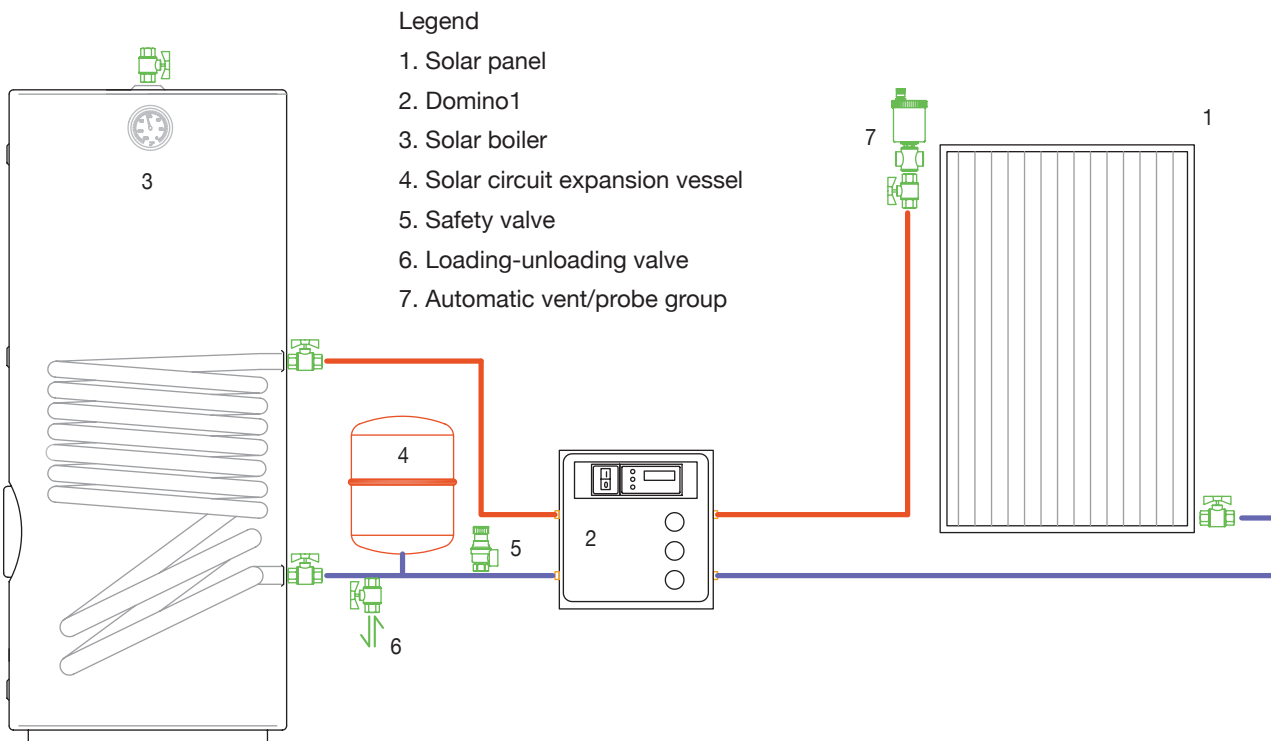
The whole machine is designed and manufactured to provide customers and installers with an all inclusive system, to be easily installed on the solar plant.

Complete joining and assembly of all electrical and hydraulic components, produced and tested in factory.



Components

- 1 door metal cabinet;
- Dial thermometers, scale 0÷160°C;
- Solar Circulator;
- Analog meter for the instantaneous Energy measurement;
- Master switch;
- ECU - Electronic control unit;
- Safety hydronic circuit;
- Dimensions 595x500x235 mm
- on demand: solar energy accounting system composed of no. 1 single jet turbine flow meter with pulse transmitter, high temperature resistant (substitute for the flow meter) and of no. 1 energy integrator endowed with no. 2 thermal probes (substitutes for the dial thermometers).





The **hydraulic group "DOMINO 2"** by *Costruzioni Solari* combines all the hydraulic and electronic devices for the solar **plant distribution, management and accounting.**

The whole machine is designed and manufactured to provide customers and installers with an all inclusive system, to be easily installed on the solar plant.

"DOMINO 2" contains an **automatic filling group**, which allows the recovery of the heat-transfer fluid that the safety valve lost, during the maximum expansion phase. What guarantees the best performance of the system and constant working pressure values in the circuit.

Complete joining and assembly of all electrical and hydraulic components, produced and tested in factory. All parts are tested and inspected to ensure the **full functionality of the system.**

Components

- 1 door metal cabinet;
- Automatic filling group composed of:
 - No. 1 single phase PMF50 model autoclave, P2 nom. kW 0.37, hydraulic data: H=30m P= 10 l/1';
- no. 1 PVC reservoir of 50 to 200 liters capacity;
- no. 1 automatic power supply unit with a brass pressure gauge with nylon-glass spring cover;
- no. 1 automatic safety control device, substituting membrane vessel, pressure controller and pressure gauge, it protects the pump against dry running. Adjustable restart pressure, max 10mc / h flow rate, 10bar max. press., IP54, power supply unit 220V mono;
- no. 1 circulator, sized for the plant's dimensions;
- no. 2 thermometers (0-120° C);
- no. 1 check valve;
- no. 1 pressure gauge (0-10 bar);
- no. 1 flowmeter;
- no. 1 safety valve 6 bar;
- no. 1 digital electronic control unit;
- no. 1 master switch;
- dimensions 945x500x235 mm
- on demand: solar energy accounting system composed of no. 1 single jet turbine flow meter with pulse transmitter, high temperature resistant substitute for the flowmeter) and of no. 1 energy integrator endowed with no. 2 thermal probes (substitutes for the dial thermometers).

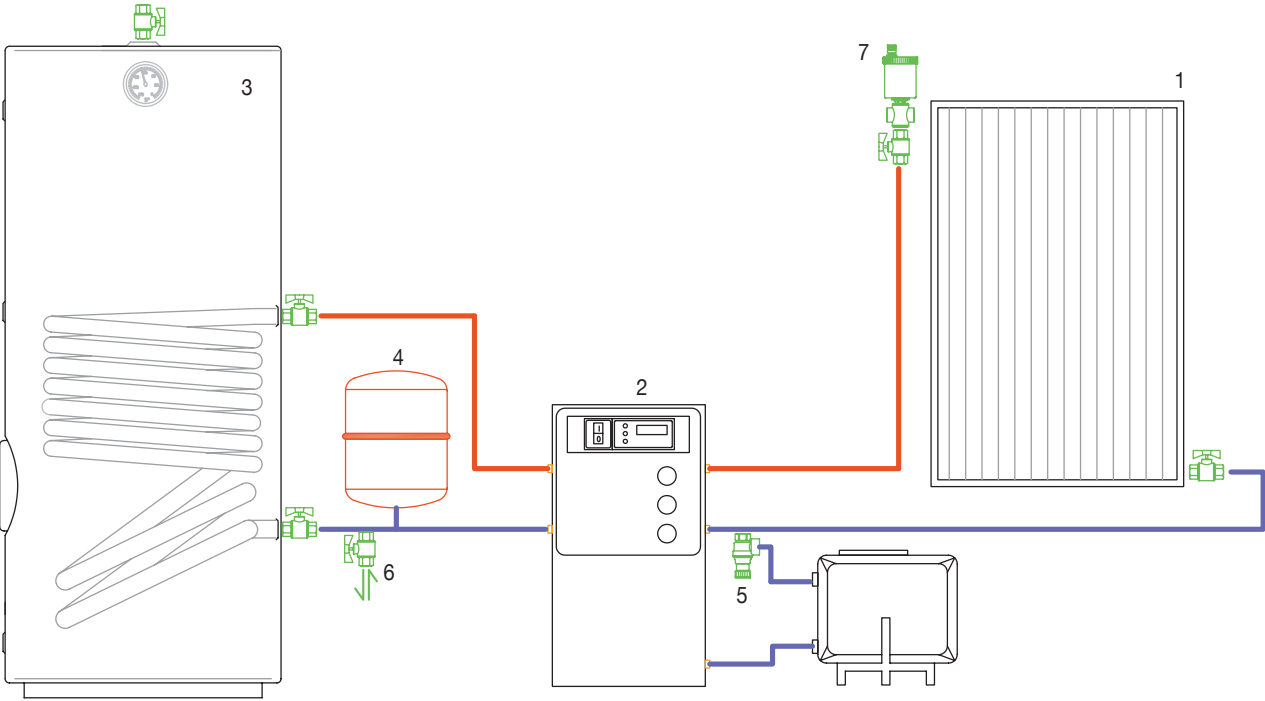


DOMINO 2.0 da 3/4	Suitable for plants whose net aperture area is up to 50 sq. m.
DOMINO 2.1 da 1"	Suitable for plants whose net aperture area is up to 100 sq. m.
DOMINO 2.0 da 1" 1/4	Suitable for plants whose net aperture area is up to 150 sq. m.

NOTES:

The data reported have to be specifically valued during the plant designing: it is necessary to consider the pipes length and choose then the most suitable *Domino 2*.

On demand, we can produce customized *Domino 2* solar systems, even for larger solar plants.



Legend

- 1. Solar panel
- 2. Domino 2
- 3. Solar boiler
- 4. Solar circuit expansion vessel
- 5. Safety valve
- 6. Loading-unloading valve
- 7. Automatic vent/probe group



Domino 3



The **hydronic group "DOMINO 3"** combines all the hydraulic and electronic devices to manage and distribute the thermal energy coming from several sources.

The whole machine is designed and manufactured by *Costruzioni Solari* to provide customers and installers with an all inclusive system, to be easily installed on the solar plant. "DOMINO 3" controls the energy supplied from solar panels, biomass burner, multi-burning stoves and fireplaces, methane or multi-fuel boiler. The system, fully managed by two digital electronic control units, allows the single intervention of any source, autonomously from each other, thus exploiting their own peculiar potentialities.

The solar station firstly employs the solar energy captured by solar panels and biomass and lately, if necessary, that energy coming from the gas boiler - whose intervention is therefore residual. The system can host an automatic energy meter with thermal probes to constantly record the solar panels energy. Complete joining, assembly and inspection of all electrical and hydraulic components, is carried in factory by qualified Company personnel. Any component is tested and inspected to ensure the full functionality of the system.

These Solar Stations are available in two standard versions: 3.1 for low temperature heating systems (i.e. radiant floor panels) and 3.2 for middle temperature heating systems (i.e. convectors, aluminum radiators or towel rail warmers).

Domino 3.1 (for low temperature heating systems)	Domino 3.2 (for middle temperature heating systems)
• 1 door metal cabinet, dimensions 1085x500x385 mm	• 1 door metal cabinet, dimensions 1085x500x385 mm
• no. 1 solar circulator	• no. 1 solar circulator
• no. 1 fireplace circulator	• no. 1 fireplace circulator
• no. 1 heating system circulator	• no. 1 heating system circulator
• no. 3 thermometers (0-120°C)	• no. 3 thermometers (0-120°C)
• no. 1 check valve	• no. 1 check valve
• no. 1 pressure gauge	• no. 1 pressure gauge
• no. 1 flowmeter	• no. 1 flowmeter
• no. 1 safety valve, 6 bar	• no. 1 safety valve, 6 bar
• no. 3 motorized diverter valves	• no. 3 motorized diverter valves
• no. 1 digital electronic control unit	• no. 1 brazed plate heat exchanger
• no. 1 master switch.	• no. 1 digital electronic control unit
	• no. 1 master switch.

on demand, you may have:

- keen customization of circuits, hydraulic electrical or control components
- solar energy metering system, composed of no. 1 single jet turbine flow meter with pulse transmitter, high temperature resistant (substitute for the flow meter) and of no. 1 energy integrator endowed with no. 2 thermal probes (substitutes for the dial thermometers).



Mini Solar System

In a single compact case, Mini Solar System integrates the solar boiler and all electronic and hydraulic management systems (Solar station, Expansion vessels, control unit, safety valve etc.) combining easy installation and efficiency/versatility, typical of natural circulation systems and forced circulation systems respectively. All components are already assembled and tested within MINI Solar System, which therefore requires only a few easy connections to work perfectly.

Advantages:

Small size, it can be installed everywhere, even under the boiler.

Easy installation: fully pre-assembled, it reduces costs and time of installation.

Immediate availability of domestic hot water: the solar boiler is set near the utilities or the traditional boiler.

Greater efficiency: covered boiler, sheltered from extreme weather.

Components

- Single coil, vitreous enameled solar boiler, ranging from 150 to 300 liters
- Solar plant brine (glycol water mix) circuit loading-unloading taps
- Flow meter
- Flow regulator
- Suitable circulator pump
- Thermometer
- Pressure gauge
- Safety valves
- Solar expansion vessel
- Mixing valve
- Electronic control unit
- Stoving paint and weather resistant case, made of a phosphate-treated galvanized steel sheet.



Mini 150



Mini 200



Mini 300



Model	Mini 150	Mini 200	Mini 300	
Dimensions (mm)	Height	1070	1310	1710
	Width	803	803	803
	Depth	603	603	603

Mini
Solar System





Solar System

In a single compact case, Solar System produces domestic hot water, integrating the solar boiler and all electronic and hydraulic management systems (Solar station, Expansion vessels, control unit, safety valve, automatic filling group etc.). All components are already assembled and tested within the Solar System, which therefore requires only a few easy hydraulic connections to work perfectly.

Advantages:

It can be installed everywhere, under the boiler or even outdoor, where there's enough room for a solar accumulator.

Easy installation: fully pre-assembled, it reduces costs and time of installation.

Immediate availability of domestic hot water: the solar boiler may be set near the utilities or the traditional boiler.

Greater efficiency: covered boiler, sheltered from extreme weather and frost.



Components

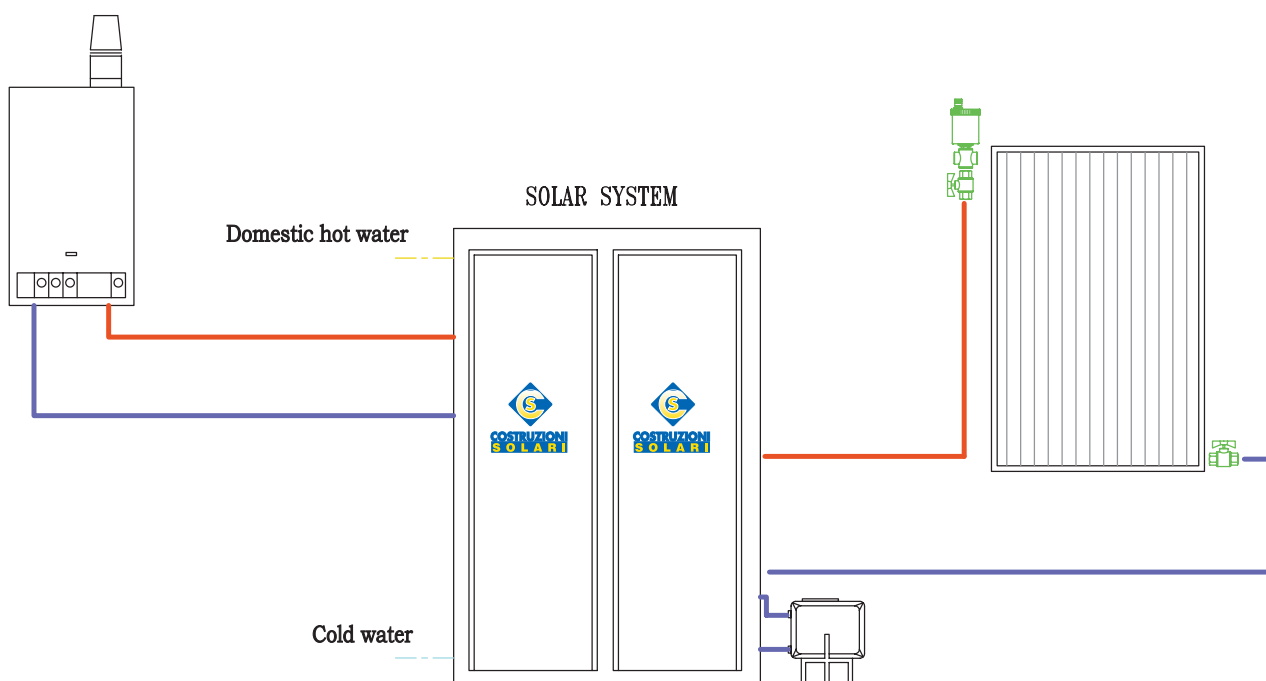
- Single/Double-coil solar boiler of 500 to 1500 liters
- Automatic filling and collecting group
- Solar circuit safety devices
- Solar Circulator
- Electronic control unit
- Domestic hot water intake and safety group
- Flow regulation system of the boiler integrating circuit
- Electrical loom
- Extreme weather resistant, stoving paint case, made of a zinc phosphate-treated galvanized steel sheet with anodized aluminium.

Model		500	800	1000	1500
Dimensions (cm)	Height	2100	2200	2500	2600
	Width	1000	1200	1200	1400
	Depth	1300	1500	1500	1750

Dimensions may vary, please verify before ordering.

Available on demand:

- keen customization of circuits, hydraulic electrical or control components
- solar energy metering system, composed of no. 1 single jet turbine flow meter with pulse transmitter, high temperature resistant (substitute for the flow meter) and of no. 1 energy integrator endowed with no. 2 thermal probes (substitutes for the dial thermometers).



Solar System CLIMA

Solar Systems family welcomes the arrival of a compact solar station, apt to manage many energy sources' supply and distribution to produce domestic hot water, space heating and cooling, in a completely new and efficient way. Our range includes several models for the management of solar thermal panels, gas-fired boiler, fireplace. The category of solar system Clima comes in a basic version for the production of DHW and space heating and in an advanced TOTAL version, which enables the integration of energy required for space heating in winter time. It also manages the production and distribution of chilled water for air conditioning in the summer months, as well as produces domestic hot water throughout the year.

SOLAR SYSTEM CLIMA TOTAL can finally make you independent from the gas.

Definitely, you just need a little photovoltaic plant and a few solar thermal panels beside, to provide energy independence for air-conditioning.

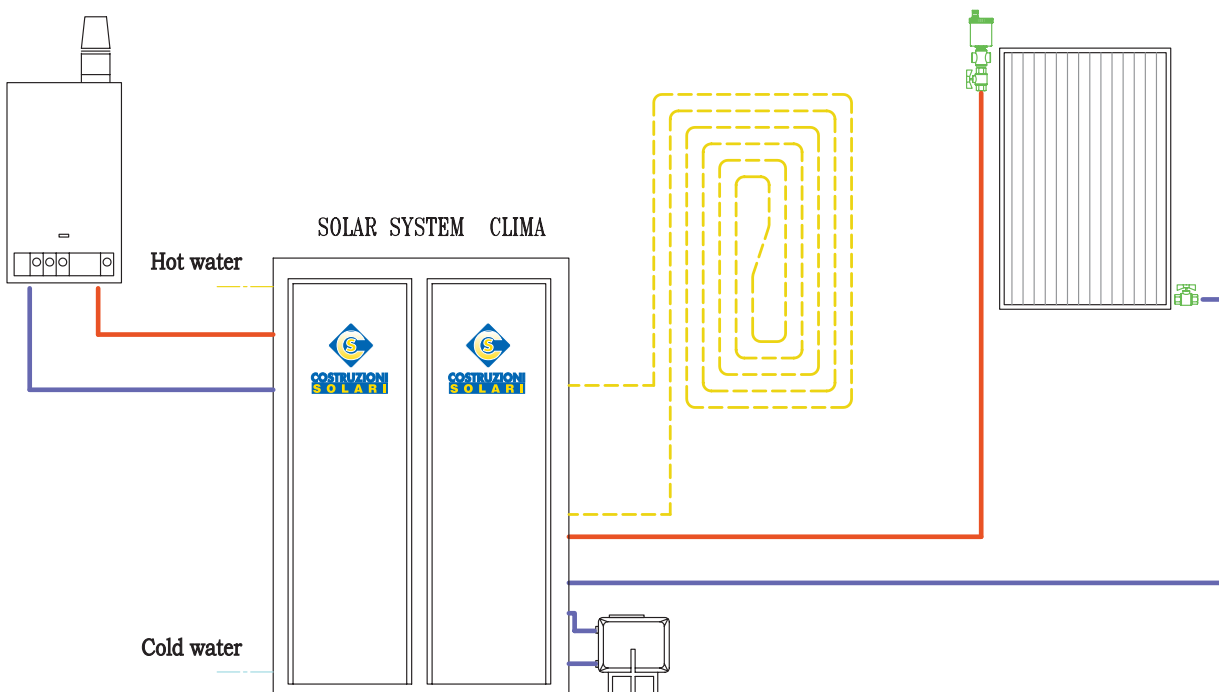


Components

- Solar Combi coil boiler; total capacity ranging from 600 to 1500 liters
- Automatic filling and collecting group
- Solar circuit safety devices
- Solar circulator
- Heating circulator
- Heat pump circulator
- Electronic control unit: solar circuit, air conditioning heat pump, 9 temperature and humidity probes
- Domestic hot water intake and safety group and accumulator charge group
- Flow regulation system of the boiler integrating circuit, through motorized mixing, diverting and zone valves
- Electrical loom
- Extreme weather resistant, stoving paint case, made of a phosphate-treated galvanized steel sheet with anodized aluminium.

Model	600	800	1000	1500	
DHW capacity (liters)	522	598	665	1145	
Heating capacity (liters)	140	175	190	300	
Dimensions (cm)	Height	2500	2750	2850	2950
	Width	1200	1300	1400	1600
	Depth	1500	1600	1600	1850

Dimensions may vary, please verify before ordering.





COSTRUZIONI
SOLARI

Application of a Clima TOTAL Solar System

Application of a Clima Total Solar System



A vibrant sunset scene with a bright sun partially obscured by a mountain range. The sky is a deep orange, and the clouds are illuminated from below, creating a dramatic silhouette effect.

Hydraulic and electronic components



**COSTRUZIONI
SOLARI**



Hydraulic components

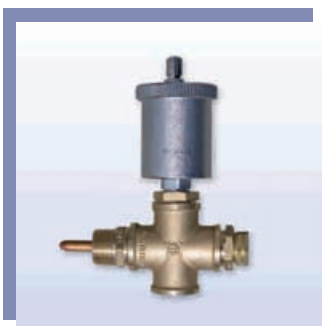


S/R solar station	
Working fluids	
Max percentage of glycol:	
Max working temperature:	
- hot side:	
- cold side:	
Max working pressure:	
Safety valve working temperature:	
Safety valve setting:	
Cut-off and check valve working temperature range:	
Flow-meter working temperature range:	
Flow rate government range:	
Flow-meter precision:	
Pressure gauge scale:	
Thermometer scale:	
Loading/unloading connections with hose	
Circulator	
Power supply:	
Max head:	
Max pressure:	
Max temperature:	
Protection grade:	



Solar station	
Working fluids	Water, glycol-water antifreeze mixture
Max percentage of glycol:	50%
Max working temperature:	
cold side:	110°C
Max working pressure:	10 bar
Safety valve working temperature:	30÷160°C
Safety valve setting:	6 bar
Cut-off and check valve working temperature range:	-30÷160°C
Flow-meter working temperature range:	-10÷110°C
Flow rate government range:	1÷13 l/min
Flow-meter precision:	± 10%
Pressure gauge scale:	0÷10 bar
Thermometer scale:	0÷160°C
Connections:	3/4"
Loading/unloading connections with hose	Ø 15 mm
Circulator	
Power supply:	230 V - 50 Hz
Max head:	6m
Max pressure:	10 bar
Max temperature:	110°C
Protection grade:	IP 42

Hydraulic components



Panel vent/probe group

Brass body
Copper probe pocket for panel temperature reading
Connections 3/4"
Max working pressure: 10 bar
Max discharge pressure: 5 bar
Temperature range: -30 ÷ 180°C
Max percentage of glycol: 50%



Automatic air vent valve

Brass body. Chromate
Max working pressure: 10 bar
Max discharge pressure: 5 bar
Temperature range: -30 ÷ 180°C
Max percentage of glycol: 50%



Motorized three way valve

Max working pressure: 10 bar
Fluids temperature from -20°C to + 110°C
Brass case
Chrome plated brass ball
PTFE Ball seats
Seats OR of EPDM
Supply 230V 50Hz
Input power 4W
Electrical grade of protection IP40
Engine torque 5Nm
Opening/closing time 60
Internal micro-switch
Available diameters 3/4", 1" e 1 1/4"



Motorized two way valve

Max working pressure: 10 bar
Fluids temperature from -20°C to + 110°C
Brass case
Chrome plated brass ball
PTFE Ball seats
Seats OR of EPDM
Supply 230V 50Hz
Input power 4W
Electrical grade of protection IP40
Engine torque 5Nm
Opening/closing time 60
Internal micro-switch
Available diameters 3/4", 1" e 1 1/4"



Hydraulic components

Mixing valve

Adjustable thermostatic mixer
Working fluid: drinking water
Setting range: 30 - 55°C
Precision: $\pm 2^\circ\text{C}$
Max working pressure: static pressure 10 bar, dynamic pressure 5 bar
Max input temperature: 85°C
3 bar pressure flow: $\approx 3.000 \text{ L/h}$ at 40°C
Max input pressures ratio:

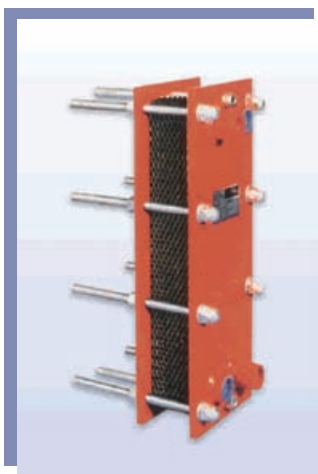
Safety valve

Adjustable thermostatic mixer
Working fluid: drinking water
Setting range: 30 - 55°C
Precision: $\pm 2^\circ\text{C}$
Max working pressure: static pressure 10 bar, dynamic pressure 5 bar
Max input temperature: 85°C
3 bar pressure flow: $\approx 3.000 \text{ L/h}$ at 40°C
Max input pressures ratio:

Pump for manual plant loading

Brass body UNI EN 12165 CW617N
Working fluid: water, glycol mixtures up to 50% concentration
Max working pressure: 4.5 bar
Flow rate: 2 l/min
Connections: - supply side: 1/2" M return side: hose connection $\text{\O}15 \text{ mm}$
Dimensions: 210 x 100 mm

Hydraulic components



Removable plates heat exchanger

Removable plates heat exchanger
 Plates: stainless steel AISI 316
 Seals: EPDM, nitrile
 Frame: painted steel
 Fittings: Stainless steel AISI 304
 Suitable for:
 heating in LOW TEMPERATURE CIRCUITS
 decoupling, thermal circuits in FIREPLACES
 SOLAR PLANTS
 SWIMMING POOLS HEATING

Model	kW*	no. of plates	Plates dimensions
IDRSCC213	20	13	180x475
IDRSCC223	35	23	180x475
IDRSCC239	50	39	180x475
IDRSCC313	70	13	350x750
IDRSCC323	120	23	350x750
IDRSCC339	185	39	350x750

(*) exchange power calculated with primary fluid temperature in the range 55-45 °C, secondary fluid: 25-30 °C.



Brazed plates heat exchanger

Building material: stainless steel AISI 316
 Brazing material: copper
 Max pressure: 10 bar
 Suitable for:
 heating in LOW TEMPERATURE CIRCUIT
 decoupling, thermal circuit in FIREPLACES
 SOLAR PLANTS
 SWIMMING POOLS HEATING

Model	kW*	no. of plates	Plates dimensions
IDRSCS120	24	20	207x77
IDRSCS128	35	28	207x77
IDRSCS140	50	40	207x77

(for instantaneous DHW production: exchange power calculated with primary fluid temperature in the range 60-50°C; secondary fluid: 12-50°C)



Spiral Heat Exchanger

General features:
 Finned copper spiral heat exchanger, tinned for sanitary uses;
 complete with mounting flange

Model	Exchange surface m ²	A	B	L (mm)	Weight kg
IDRSCE121	1,21	DN 100	3/4"	420	9,6
IDRSCE180	1,80	DN 200	3/4"	470	11,7
IDRSCE263	2,63	DN 200	3/4"	580	14,9
IDRSCE320	3,20	DN 200	3/4"	660	17,0
IDRSCE454	4,54	DN 200	1"	750	21,1
IDRSCE634	6,34	DN 200	1"	980	29,0



Electronic components

Termostato digitale	
Series	Electronic/digital temperature controller for the management of solar systems
Main	230 V/ 50 Hz
output	ON/OFF 10 A 250 V ac, free contacts
Dimensions	3 modules box, surface/flush type
Temperature probe	Electronic probe -50° + 125°C
Auxiliary input	Allowance ON/OFF

Digital mini unit	
Series	Electronic/digital temperature controller for the management of solar systems
Main	230 V/ 50 Hz
Probes for the collector temperature	Measurement range: 0 – 180°C
Probe for the storage temperature	Measurement range: 0 – 180°C
Outputs	ON/OFF 10 A 250 V ac, free contacts

Settings	Special features	
Differential Thermostat	Pump test	Timed anti-freezing management
Exercise thermostat	Plant Filling	Collectors and Boiler Safety thermostats
Integration thermostat	Pump anti-block	Buzzer /blinking alarms

Digital control unit	
Main	230 V/ 50 Hz
Probes for the collector temperature	Measurement range: 0 – 180° C
Probe for the storage temperature	Measurement range: 0 – 180° C
Outputs	ON/OFF 10 A 250 V ac, free contacts
Dimensions:	External box 145 x 90 x 45 mm

Settings	Special features
Six different configurations according to the plant type	Pump test
Differential Thermostat	Buzzer /blinking alarms
Exercise thermostat	Summer / winter configuration
Integration thermostat	Timed anti-freezing management
	Collectors and Boiler Safety thermostats

T3 - 5 Digital control unit	
Main	230 V/ 50 Hz
Temperature probe	Up to 5, range -30 + 300 °C
Outputs	Up to 5 ON/OFF 10 A 250 V ac, free contacts
Dimensions:	External box 142 x 68 x 45 mm

Settings	Special features
Six different configurations according to the plant type	Pump test
Differential Thermostat	Buzzer /blinking alarms
Exercise thermostat	Summer / winter configuration
Integration thermostat	Timed recirculation management
	Collectors and Boiler Safety thermostats

EleCtroniC Anode	
Feed	230 V 50 Hz
Output voltage max	16 Vdc
Appliance meeting the CE standards	
Max output current	0,13 A
Protection	IP 55
Working temperature	0 °C to 50 °C environment double insulation
Flat plug cable -	1900 mm length
Low tension cable -	1900 mm length
Anode holding cap	UNI ISO 7/1 R 1/2"
Anode diameter	3 mm, treated titanium
Anode length	proportional to the tank capacity
Max power consumption	3,2 W
Generator nominal dimensions:	60 x 52 x 35,5 mm
Weight:	0,26 kg