



INTEGRATED SOLAR THERMAL SYSTEMS

CATALOGUE

2018

Cordivari Company has a proven industrial tradition and is now one of the most important manufacturers in the heating and plumbing industry in Italy. Founded in 1972 by Ercole Cordivari, the company is producing calorifiers, thermal Storage and heating components, solar thermal systems, compressed air receivers, Design radiators, chimney flues and food containers.

Cordivari plants are situated on an area of 280.000 square meters and employ more than 450 employees.

Thanks to its development strategies, all addressed to the new technologies and to the training of new human resources, Cordivari is equipped with modern structures and advanced production processes. All the products are designed and produced in Italy and the technological, ergonomic and ecological choices allow to work respecting the human being and its environment. UNI EN ISO 14001 environment managing systems and UNI EN ISO 9001 Quality system are perfectly integrated to grant and ensure company's main goals and values. The highly qualified management, the constant research for innovative solutions and the extremely customer-oriented company policy stand for the leading market position and the exclusive know-how in the field of integrated heating systems that the Cordivari group has acquired. All this is the result of a continuous commitment to achieving Customer Satisfaction.



Cav. Ercole Cordivari





CORDIVARI



Technologies for Wellness

velopment, design and innovation studies are key points in Cordivari's production process. Each proposed solution conveys technical reliability, design, ergonomics, ease of use and installation. The continuous development of our product offer, wants to witness the company's attention to the market needs. Similarly, the research and development of new solutions follows the trends of an efficiency and energy savings oriented market.

he different phases of production are in perfect harmony with the best techniques for industrial automation, robotics and advanced

Every product undergoes several times during the production stages, a rigorous control, manual and visual.

ordivari products meet the most important certifications, such as the PED (Pressure Equipment Directive) and the Directive 2009/125/ CE (ErP – eco-friendly planning regulations) in compliance with the cylinders and other pressure vessels manufactured. All items for Domestic Hot Water storage are certified for drinkable water use in accordance with the strictest Italian and foreign regulations (SSICA, Attestation DHW, DVGW W270, UBA, WRAS).

n Cordivari quality care and attention to the environment has always been home. In fact we were the first company of the heating sector to obtain the certification according to UNI EN ISO 9001 integrated with environmental management certification UNI EN ISO 14001: 2015. This production philosophy, which is now a way of life for us, means reduction of emissions and energy inefficiencies, waste reduction and recycling over 60% and allows us to operate in a sustainable and environmentally friendly way, using clean energy from renewable sources, using only eco-friendly materials from raw materials to packaging.

CERTIFICATIONS



Quality systems

certified

UNI EN ISO 9001







TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by EArt. Nr.sign ErP Directive.





PRODUCT CERTIFICATES



FN 12975-2 e SOLAR KEYMARK

Solar collectors are certified according to EN 12975-2 and Solar Keymark



2014/68/UE 2014/29/CE



FrP Products in conformity to EUP Directive **Energy Using** Products-2009/125/UE



ICONS

ENERGY SOURCES



SOLAR SYSTEM

HEAT PUMP



TRADITIONAL BOILERS



BIOMASS



DOMESTIC HOT WATER (DHW)



HEATING SYSTEM

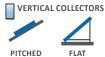
SYSTEM WITH HEAT PUMP WATER HEATER





ELECTRICITY

SOLAR SYSTEM FIXING KITS



ROOF

















$\begin{array}{c} \text{WELLNESS} \\ \text{and} \ \text{SAVING} \end{array}$

Solutions for your Home





CERTIFIED QUALITY

CHOOSE SERENITY



Today, more than ever, who chooses Cordivari products chooses to be peaceful!

By introducing the new ErP standards, we choose to offer you guaranteed performances and reliability.

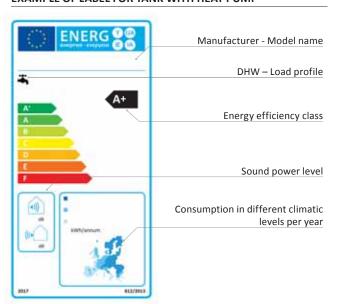
The construction of the new building Cordivari LAB is the result of this choice. As from 2015, the company is equipped with a laboratory and an advanced test room which allow to test any product or system, measuring and certifying its performances. Thanks to its strict procedures, conformed to European standards, and sophisticated tools, nowadays Cordivari is the only Italian manufacturer able to carry out accurate tests on every product in its own

laboratory. As a consequence, research and development on performance and energy efficiency are always running towards the best solutions, in order to guarantee you reliability, savings and high results. Cordivari LAB is the only qualified laboratory inside a manufacturing company, approved by the TÜV. Choose to be safe with certified quality!

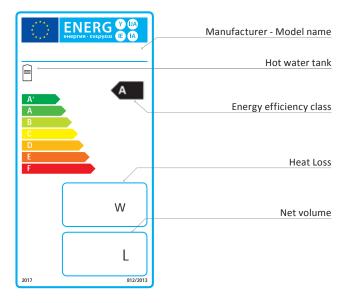
CORDIVARIO DE LA CONTROLLA DEL CONTROLLA



EXAMPLE OF LABEL FOR TANK WITH HEAT PUMP



EXAMPLE OF LABEL FOR TANK/MULTI-HEAT ENERGY BUFFERS







DHW - DOMESTIC HOT WATER

PAGE **10**

 $\overline{\text{DHW}}$ - Thermosiphon circulation system

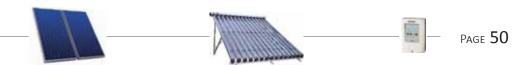
DHW - FORCED CIRCULATION SYSTEM



PAGE 30

DHW - DOMESTIC HOT WATER



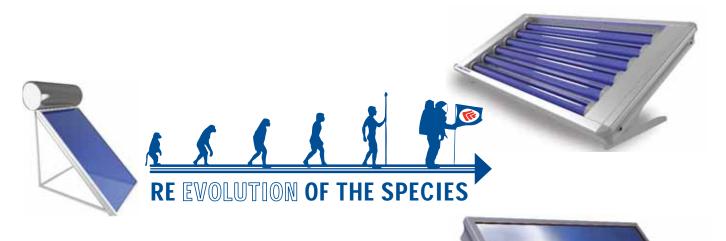


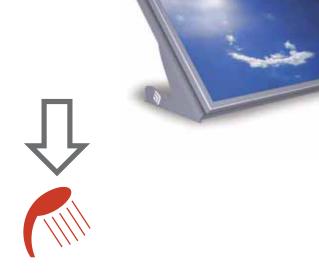






SOLAR THERMAL SYSTEMS STRATOS®













STRATOS 45

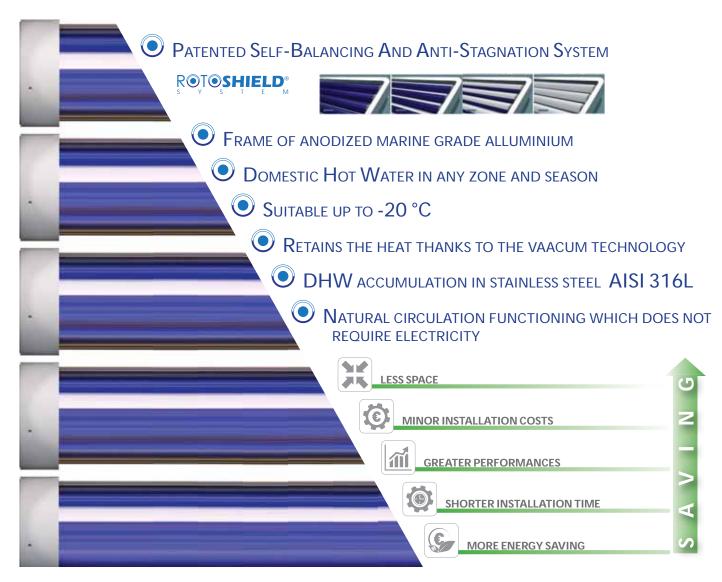


THE MOST EFFICIENT COMPACT SOLAR THERMAL SYSTEM



The system **STRATOS**® **4S** Rotoshield® is an innovative compact high-efficiency solar thermal system with integrated DHW storage. It is equipped with a patented self-balancing and anti-stagnation system. The Rotoshield patent protects the system and maximizes the performances.

It is indicated for the production of domestic hot water in all climatic zones thanks to its ability to retain the captured heat. The system can in fact be installed in areas with temperatures up to -20 $^{\circ}$ C.





SOLAR THERMAL SYSTEM STRATOS 4S

COMPACT AND HIGH-EFFICIENCY SOLAR THERMAL SYSTEM







APPLICATION

The system STRATOS® 4S Rotoshield® is an innovative compact highefficiency solar thermal system with integrated DHW storage. It is equipped with a patented self-balancing and anti-stagnation system. The Rotoshield®

patent protects the system and maximizes the performances. It is indicated for the production of domestic hot water in all climatic zones thanks to its ability to retain the captured heat. The system can in fact be installed in areas with temperatures up to -20 °C.

STRUCTURE AND MATERIALS

Frame structure in marine grade anodized aluminum. Support and fixing brackets in galvanized steel. Capturing system composed of tubes with vacuum technology of Sydney type with high selective coating and high grade of vacuum. Primary circuit realized in stainless steel AISI 304. DHW

exchanger in stainless steel AISI 316L suitable for drinking water (DM nr.174 del 06/04/2004).

ACCESSORIES INCLUDED

6 bar safety valve. Fixing kit for flat (angle of 30°) and pitched roof.

CONNECTIONS

2 connections 1/2" gas F.

WARRANTY

5 years - Refer to general sales conditions of our solar thermal systems catalogue in force.

MAX PRESSURE INLET	MAX PRESSURE ACCUMULATION	MAX TEMPERATURE	MIN. TEMPERATURE	PITCH INCLINATION
4 bar	7,5 bar	100°C	-20°C	10° - 70°







STRATOS® 4S WITH ROTOSHIELD® SYSTEM

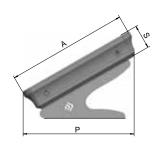
MODEL	Art. Nr.	ACCESSORIES INCLUDED	
120	2440246602202	Aluminum profile anodizing marine grade treatment	\checkmark
120 34103166	3410316603203	6 bar safety valve	✓
100	2440246602204	Fixing kit for flat and pitched roof	✓
180	3410316603204	Primary fluid	\checkmark

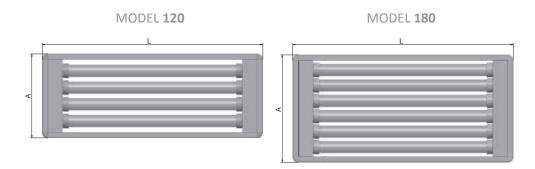


SOLAR THERMAL SYSTEM STRATOS® 4S

COMPACT AND HIGH-EFFICIENCY SOLAR THERMAL SYSTEM







SISTEMA STRATOS® 4S with rotoshield® system

MODEL	L	Р	Н	А	S	DHW CONNECTIONS	GROSS SURFACE AREA	TOTAL WEIGHT IN FUNCTION	WEIGHT PER m ² IN FUNCTION
		[m	im]			1-2	$[m^2]$	[kg]	[kg]
120	2160	752	589	822	163	1/2" F	1,77	122	69
180	2160	951	704	1052	163	1/2" F	2,27	178	78

TYPICAL INSTALLATION SCHEME



THE LIGHTEST SYSTEM

STRATOS* 4S is the lightest compact solar thermal system on the market. In order of performance, thanks to the reduced weight ratio per square meter, the STRATOS 4S system results to be the lightest and less burdensome for roofs and roofing's.

ALSO SUITABLE FOR PITCHED ROOF



UTILITIES



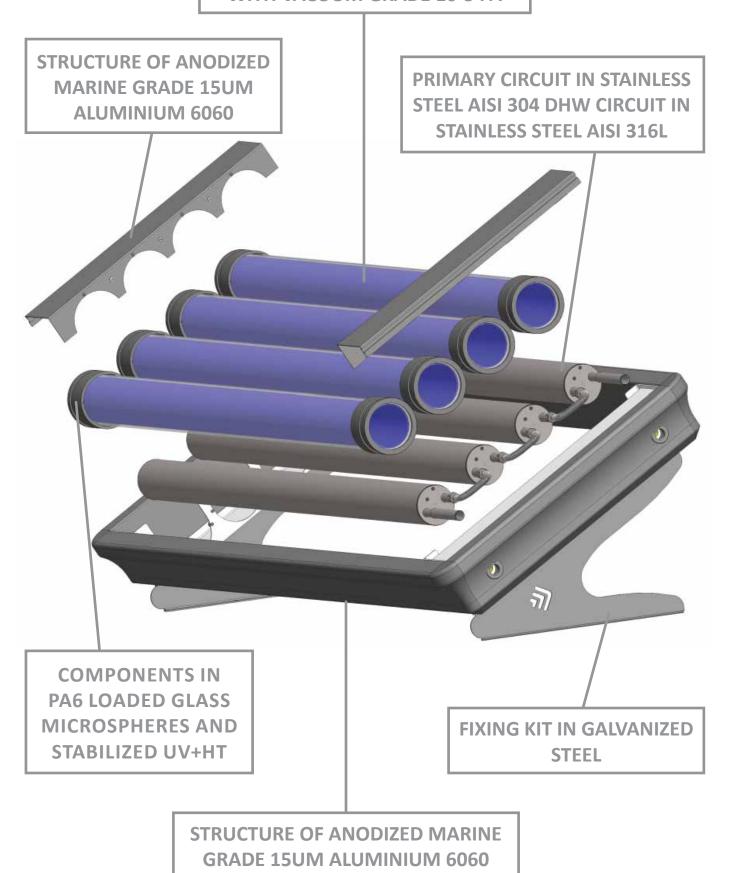


The patented **ROTOSHIELD® SYSTEM** has been expressly studied to avoid overheating of the system during the periods of major insolation and in absence of DHW levy. The rotation takes place in a natural way without the use of any electric device.

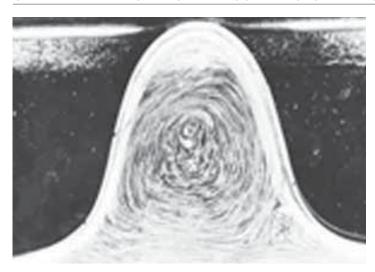


HOW IT'S MADE

VACUUM TUBE SYDNEY TYPE WITH VACUUM GRADE 10-5 PA



OPTIMAL HEAT EXCHANGE WITHOUT LIMESTONE DEPOSITS



In the corrugated heat exchanger, turbulences are formed which continuously move and exchange the water. On the base current flow a torsion component created by the constructive form itself is superimposed, thus producing further vortices. Therefore the maximum heat exchange is obtained avoiding the deposit of limestone.

TARGETED TURBULENCES AGAINST THE FORMATION OF DEPOSITS

The corrugated profile generates focused turbulences which uniformly mixes the circulating liquid.

In this way the formation of limestone deposits is avoided, guaranteeing constant performances for the entire life cycle. The corrugated form prevents calcification of the drinking water exchanger

The heat exchanger expands slightly when heating and cooling, so that the limestone deposits are largely avoided. During the levy the corrugated shape of the tube favors the formation of turbulences in the exchanger. These turbulences allow a rinsing of the limestone molecules with the hot water. The hot water is heated when needed in a fast, safe and clean way. In this way the hot water is always available fresh and excellent from a hygienic point of view without the need for a hot water tank.

OPERATING TESTS IN EXTREME CONDITIONS

- Operation stress test of the Rotoshield mechanism carried out under extreme temperature conditions detect the perfect functioning at temperatures above -20 °C for several consecutive days
- Freezing test of the heat-carrying fluid up to -30 °C





USABILITY CURVE*

STRATOS® 4S SYSTEM Percentage coverage of energy requirements

Jan Feb Mar Apr May Jun Jul Aug Set Oct Nov Dec

- ANNUAL DHW NEEDS COVERAGE EXCEEDING 80%
- HOT WATER EVEN IN THE MIDDLE SEASONS

-Monthly coverage 48% 59% 92% 100% 100% 100% 100% 100% 88% 58% 44% *150 It requirement of DHW collector orientation south.

EFFICIENCY TEST

40%

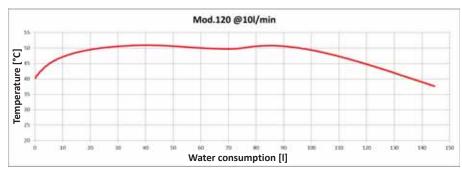
20%

0%

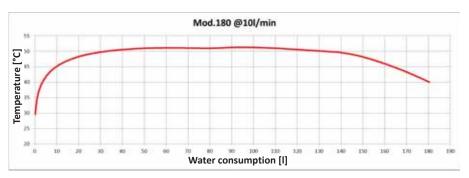
In collaboration with the Industrial engineering department and mathematical sciences – DIISM of the Polytechnic University of Marche







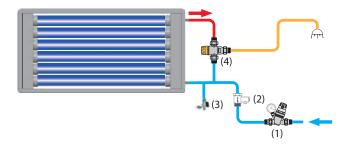




SINGLE LEVY TEST OF DHW AT 45 °C, WHICH CAN BE CARRIED OUT WITH PRIMARY STORAGE AT 85 °C AND DOMESTIC HOT WATER FLOW OF 10LT/MIN



TYPICAL INSTALLATION SCHEME



CONNECTIONS LEGEND

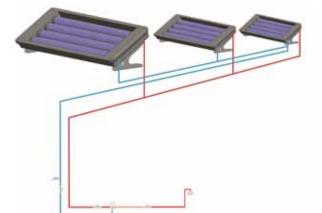
- 1 Eventual pressure reducer
- 2 Safety and non-return valve (included)
- 3 Drain tap for panel draining (to be provided by the installer)
- 4 Thermostatic mixing valve (optional-to be ordered separately)

MAXIMUM INSTALLATION FLEXIBILTY

SINGLE INSTALLATION (STAND-ALONE)



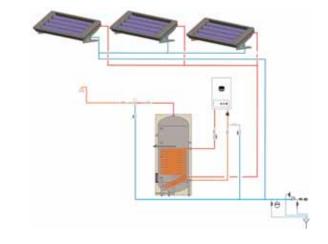
INSTALLATION IN PARALLEL



BOILERINTEGRATION



INSTALLATION **IN PARALLEL**WITH PRE-HEATING CYLINDER FUNCTION









STRATOS® DR SYSTEM

THE NEW ERA OF SOLAR SYSTEMS













DESIGN, PERFORMANCES AND SAVINGS

INTEGRATED DHW STORAGE - MAXIMUM SPACE SAVING - HIGH PERFORMANCES

ELEGANT AESTHETICS - ENERGY SAVINGS



SOLAR THERMAL SYSTEM WITH EXTERNAL DHW

NEW SOLAR THERMAL SYSTEM WITH INTEGRATED DHW





THE SOLAR THERMAL SYSTEM WITH INTEGRATED
STORAGE. EFFICIENT, ECOLOGICAL AND
AESTHETICAL DESIGN



THERMAL SOLAR SYSTEM STRATOS® DR

COMPACT SOLAR THERMAL SYSTEM WITH DIRECT HEATING









APPLICATION

The solar thermal system STRATOS® DR is a compact solar system suitable for the production of domestic hot water (DHW) through direct heating of the integrated DHW storage. Thanks to its elegant design and extremely reduced overall dimensions, the STRATOS® DR system is the ideal choice to combine quality, aesthetic and energy saving. STRATOS® DR is a system recommended for geographical areas with a high index of annual solar irradiation.

A truly "plug and play" system conceived to be installed in series to increase the available DHW storage volume while maintaining the efficiency of the whole solar system. The system must be installed in areas free from frost risk.

If the STRATOS $^{\circ}$ DR is exposed to temperatures below 0 $^{\circ}\text{C}$ (and in any case not less than -5 $^{\circ}\text{C})$

the installation and use of the antifreeze safety heater device is required (available on request).

STRUCTURE

Aluminum profile, anodizing treatment included. Tempered and anti-hail solar glass. Bottoms and walls with high insulation power (λ 0,023 W/mk), thickness 30 mm.

ABSORBING SYSTEM AND THERMAL EXCHANGE CIRCUIT

Direct heating of the integrated DHW accumulation treated with special high selective solar painting.

DHW ACCUMULATION

Sanitary accumulation made of stainless steel AISI 316L suitable and certified for drinking water

according to DM Nr. 174 dated 06/04/2004.

INCLUDED ACCESSORIES

Anti-vacuum valve 6 bar safety valve Fixing kit for flat and pitched roof Nr. 1 Tap of 1"1/4 gas M Nr. 2 Tap of 1/2" gas M

CONNECTIONS

4 connections 1/2" gas F 1 connection 1"1/4 gas F for heating element

WARRANTY

5 years - refer to general sales conditions

INCLUDED ACCESSORIES

Anodizing treatment of the aluminum structure	\checkmark		Q	
6 bar safety valve	\checkmark			EN
Vacuum break valve	\checkmark			12975-2
Nr. 1 tap of 1"1/4 gas M + Nr. 2 taps of 1/2" gas M	\checkmark	MAX PRESSURE	MAX PRESSURE	MAX
Probe holder	$\overline{\hspace{1cm}}$	INLET	ACCUMULATION	TEMPERATURE
Fixing kit for flat and pitched roof	\checkmark	4 bar	6 bar	100°C

PATENTED MODEL





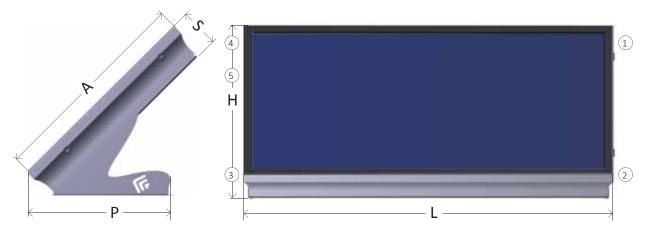
$\mathsf{STRATOS}^*\,\mathbf{DR}$ $\mathsf{COMPACT}\,\mathsf{SOLAR}\,\mathsf{THERMAL}\,\mathsf{SYSTEM}\,\mathsf{WITH}\,\mathsf{DIRECT}\,\mathsf{HEATING}$

MODEL	NET VOLUME DHW ACCUMULATION [LT.]	GROSS ABSORBING AREA [m²]	ART. NR.	ART. NR. SET OF 3 PIECES
100	99	1,32	3410316603200	3410316603200 03
150	149	1,87	3410316603201	3410316603201 03
200	197	2,41	3410316603202	3410316603202 03

THERMAL SOLAR SYSTEM STRATOS® DR

COMPACT SOLAR THERMAL SYSTEM WITH DIRECT HEATING

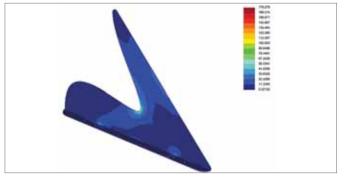




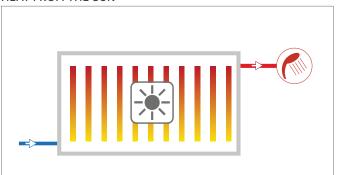
STRATOS® DR SYSTEM

MODEL	L	Р	н	А	S	DHW connections	Connection for heating element	Gross surface area	Empty weight	Weight per m ² when operative
[lt]			[mm]			1-2-3-4	5	$[m^2]$	[kg]	[kg]
100	1913	630	585	690	198	4 x 1/2" gas F	1"¼ gas F	1,32	45	109
150	1913	920	780	976	198	4 x 1/2" gas F	1"¼ gas F	1,87	60	110
200	2138	920	880	1120	198	4 x 1/2" gas F	1"¼ gas F	2,41	80	115

RESISTANT, RELIABLE DESIGN PRODUCT

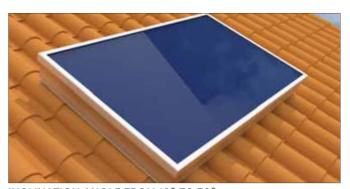


HEAT FROM THE SUN





AESTHETICAL SUPPORT WITH 42° INCLINATION (FLAT SURFACES)



INCLINATION ANGLE FROM 10° TO 70° (PITCHED ROOFS)

ACCESSORIES ON REQUEST (For more information see accessories section)

(*) Essential to protect the system if it is emptied during periods of non-use or in the post installation phase before initial start-up.



Fixing kit for pitched roof



30° inclination Stratos® support kit



Protective PVC cloth
(*)



Anti-freeze device



Electrical immersion



TECHNICAL SUPPORT

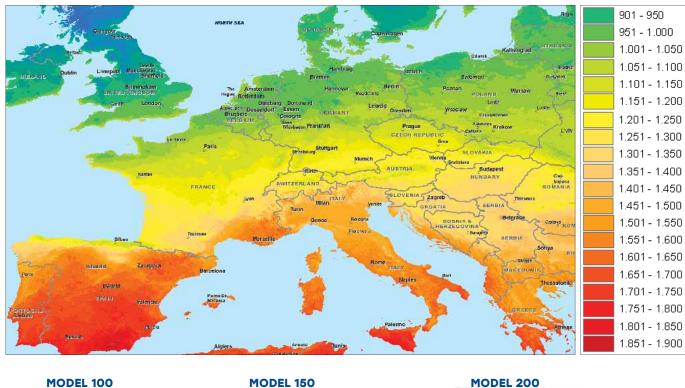






CHOICE OF THE SYSTEM

For a better overall efficiency of the system we recommend the installation of the STRATOS DR in areas with high annual solar irradiation (Min. 1600W/m² per year). In these areas it is estimated that the needs of 3 people is covered with the model of 150 lt instead for 4 people the model of 200 lt is indicated.





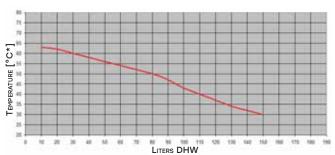
MAXIMUM CONNECTION FLEXIBILITY



Thanks to the 4 standard connections, the STRATOS® system can be installed ensuring maximum installation flexibility.

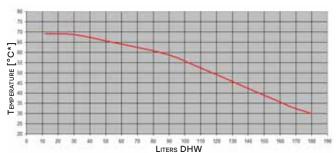
DHW LEVY TEST

TEST PERFORMED IN FEBRUARY



The graphic shows the result of the domestic hot water levy test performed on the 150 lt STRATOS model installed in central Italy (latitude 42° north). Average results achieved during a period in the month of February. On the axis of the ordinates the value drawn in liters is reported according to the outlet temperature.

TEST PERFORMED IN MAY



The graphic shows the result of the domestic hot water levy test performed on the 150 lt STRATOS model installed in central Italy (latitude 42° north). Average results achieved during a period in the month of May. On the axis of the ordinates the value drawn in liters is reported according to the outlet temperature.



TECHNICAL SUPPORT

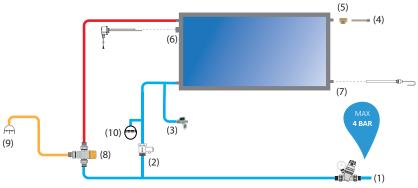




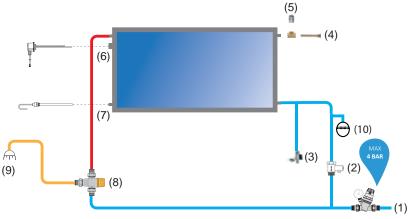




TYPICAL INSTALLATION SCHEME



INSTALLATION SCHEME FOR MODEL 100/150



CONNECTION LEGEND

Domestic cold water inlet. If the pressure exceeds 4 bar, insert a pressure reducer. The water must be

- I treated according to UNI 8065 standard and the adduction installation must be built according to UNI FN 806
- 2 6 bar safety and non-return valve (included)
- 3 Drain tap for panel emptying (to be provided by the installer)
- 4 Temperature probe socket (included)
- 5 Vacuum break valve (included)
- 6 1"1/4 gas F connection for integration of electrical immersion heater (to be ordered separately)
- 7 1/2" gas F connection for anti-freeze Electrical heating (to be ordered separately)
- Thermostatic mixing valve (to be ordered separately)
- 9 User
- 10 Expansion vessel

INSTALLATION SCHEME FOR MODEL 200

ANTI-FREEZE PROTECTION AND USE OF HEATING ELEMENT



HEATING ELEMENT

It is possible to integrate the STRATOS® DR with an electric heating element. The heater is equipped with a comfort temperature regulation thermostat as well as a manual safety reset thermostat.

The use of the heating element guarantees DHW available at a comfortable temperature able to meet the minimum requirements of the user.



ELEMENT

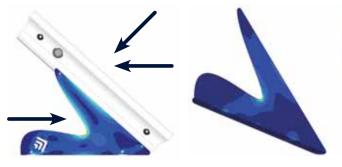
□ ANTI-FREEZE HEATING ELEMENT

The STRATOS® DR system must be installed in areas free from frost risk. If this does not happen and in any case when it is exposed to temperatures below 0 °C (and in any case not below than-5 °C) the installation and use of the anti-freeze safety heater element is necessary. If the temperature falls below -5°C the system must be emptied and suitably covered and protected. Always refer to the installation manual provided with the product.

ANCHORAGE AND INSTALLATION WITH WINDPROOF BALLAST

The STRATOS® fixing systems, thanks to their specific design are extremely efficient and safe in all circumstances. Design studies and simulations carried out with the aid of highly sophisticated computer simulations such as the FEM, do not show structural criticalities and provide excellent resistance results to wind and snow loads, even in the most unfavorable conditions. The STRATOS® system if installed on flat surfaces must be secured to the ground

to prevent any risk of overturning due to wind forces. Fixing kits for flat surfaces allow anchoring directly to the ground through bolting with screws and dowels. If it is not possible to drill the support surfaces it is necessary to anchor the system through the fixing on ballast in solid and compact material with adequate overall weight. Always refer to the installation manual provided with the product.



SIMULATION WITH REM ANALYSIS OF WIND AND SNOW LOAD



INSTALLATION WITH WINDPROOF BALLAST





SOLAR THERMAL SYSTEM FOR SANITARY WATER WITH FLAT PLATE COLLECTORS



THERMOSIPHON CIRCULATION SYSTEMS

FORCED CIRCULATION
SYSTEMS

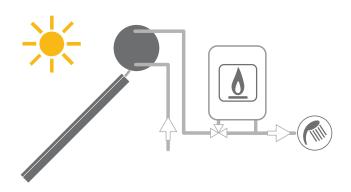
















THE ONLY ONE WITH UNIVERSAL **FIXING KIT INCLUDED**





APPLICATION

The Solar Thermal System PANAREA is the most practical and economic solution, due to its reliability and because of an easy and quick installation

SOLAR COLLECTOR

- Insulation in mineral wool
- Anodized aluminum structure
- Highly selective absorber
- Anti-hail tempered glass - In compliance with UNI EN 12975 and 12976 regulations
- DMC Certified

CALORIFIER

- INTERKA POLYWARM® with capacity from 150 to 300 lt
- Mild steel
- Internal coating Polywarm® suitable for drinking water according to the D.M. nr 174 of 06/04/2004 and DHW attestations ACS-SSICA-DVGW-W270-UBA-WRAS
- Connections for electrical heater integration
- Double walled heat exchanger
- High thermal insulation with ecological polyurethane hard foam and grey PVC external
- lining, upper top and flange cover in ABS.
 PATENTED UNIVERSAL fixing kit for flat

and pitched roof rapid mounting galvanized according to UNI EN 1179 (99,9 % PURE ZINC)

ACCESSORIES

See accessories section

WARRANTY

5 vears

See general sales and warranty conditions

ACCESSORIES ON REQUEST



For more information see accessories section.



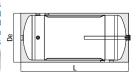
ON LINE Erp LABEL TOOL

SYSTEM COMPONENTS INCLUDED Highly selective solar collector INTERKA POLYWARM® Calorifier Magnesium Anode Security valve and check valve

Non-toxic heat transfer fluid Fittings Universal fixing kit for flat and pitched roofs ASK ALWAYS FOR CERTIFIED LABORATORIES DATA RESULTS

CORDIVARI © Lab

TÜV Rheinland Energie und Umwelt GmbH states und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by EArt. Nr.sign ErP Directive



ENERGY

INTERKA PO	EFFICIENCY CLASS		
MODEL	L	De	TESTED ErP
	[m	m]	
150	1040	550	С
200	1300	550	С
300	1839	550	С

For more information and technical data of the calorifiers and buffer tanks please refer to the Cordivari Calorifiers and buffer tanks catalogue.



SOLAR SYSTEM PANAREA

THERMOSIPHON SOLAR SYSTEM FOR DOMESTIC HOT WATER PRODUCTION



Calorifier	model	150	200	200	300	300	300
Nr. Of col	lectors	1 x 2 m ²	1 x 2 m ²	2 x 2 m ²	2 x 2 m ²	2 x 2,5 m ²	3 x 2 m ²
Total surf	Total surface area 2		2	4	4	5	6
Calorifier type INTERKA POLYWARM®							
Nr. Recorusers	nmended	1-3	3-4(*)	4-5	5-6(*)	5-6	6-7
	Model description	150/2	200/2	200/4	300/4	300/5	300/6
	ART. NR. 3410316603155 3410316603156		3410316603157	3410316603158	3410316603163	3410316603159	

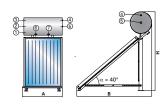


(*) Systems designed for use in areas with high annual sun irradiation more than 1600 kw/h m²

MEASURES OF COLLECTORS

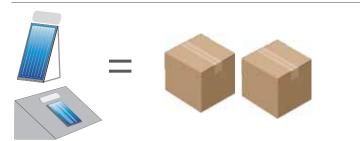
PITCH ROOF SYSTEMS

FLAT ROOF SYSTEMS



Solar collector surface [m²]	2	2	4	4	5	6
Solar calorifier capacity [lt]	150	200	200	300	300	300
Angle α	Fixed angle of 40°					
Width A [m]	1,1	1,1	2,2	2,2	2,6	3,2
Lenght B [m]	1,91	1,91	1,91	1,91	1,91	1,91
Height H [m]	2,03	2,03	2,03	2,03	2,03	2,03
Dimensions on the roof D [m]	2,75	2,75	2,75	2,75	2,75	2,75

ADVANTAGES OF UNIVERSAL FIXING KIT





Thanks to universal fixing kit of Panarea systems of Cordivari, you can optimize the logistic and the space in your warehouse and offer a better customer service.



SOLAR THERMAL SYSTEM B1

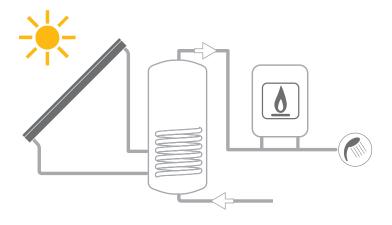
FORCED CIRCULATION SYSTEM WITH A SINGLE FIXED COIL CALORIFIER













EASY INTEGRATION WITH EVERY INSTALLATION





APPLICATION

The Solar thermal system B1 represents the typical and consolidated configuration for forced circulation installations together with the technological improvements result of long experience in the hydro thermical sector and represents the final result of our know how in the production of DHW.

SOLAR COLLECTOR

- Insulation in mineral wool
- Anodized aluminum structure
- Highly selective absorber

- Anti-hail tempered glass
- In compliance with UNI EN 12975 regulation

CALORIFIER

- BOLLY* 1 ST with capacity from 150 to 300 lt in compliance with EN 12897:2006 Regulation - Mild steel
- Internal coating Polywarm® suitable for drinking water according to the D.M. nr 174 of 06/04/2004 and DHW attestations ACS-SSICA-DVGW-W270-UBA-WRAS
- 1 Polywarm® coated fixed heat exchanger

- Connections for electrical heater integration
- High thermal insulation with ecological polyurethane hard foam and grey PVC external lining, upper top in PVC and flange cover in ABS.

ACCESSORIES

See accessories section

WARRANTY

5 years

See general sales and warranty conditions

ACCESSORIES ON REQUEST













ON LINE Erp LABEL TOOL

For more information see accessories section.

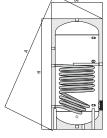
SYSTEM COMPONENTS	INCLUDED
Highly selective solar collector	\checkmark
BOLLY* 1 ST calorifier	\checkmark
Expansion vessel lt 24	\checkmark
Circulation unit BASIC complete of circulator electronic control, flow regulator, safety valve, thermometer, temperature probes	\checkmark
Non-toxic heat transfer fluid	\checkmark
Solar thermostatic mixing valve	√
Fixing kit and fittings	\checkmark

ASK ALWAYS FOR CERTIFIED LABORATORIES DATA RESULTS

CORDIVARI © Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by EArt. Nr.sign FrP Directive





BOLLY®	1 ST
--------	------

ENERGY FFFICIENCY

MODEL	De	Н	Α	TESTED
		[mm]		
150	500	1414	1500	В
200	550	1434	1536	В
300	650	1486	1622	С

For more information and technical data of the calorifiers and buffer tanks please refer to the Cordivari Calorifiers and buffer $tanks\ catalogue.$



SOLAR THERMAL SYSTEM **B1**

FORCED CIRCULATION SYSTEM WITH A SINGLE FIXED COIL CALORIFIER



Calorifier	model	150	200	200	300
Nr. Of co	llectors	1 x 2,5 m ²	1 x 2,5 m ²	2 x 2,5 m ²	2 x 2,5 m ²
Total sur	face area m²	2,5	2,5	5	5
Calorifier	type		BOLLY	* 1 ST	
Nr. Recor	nmended users	1-3	3-4(*)	4-5	5-6
	Model description	150B1 2,5MQ TF	200B1 2,5MQ TF	200B1 5MQ TF	300B1 5MQ TF
	ART. NR.	3410316614052	3410316614054	3410316614055	3410316614058
	Model description	150B1 2,5MQ TP	200B1 2,5MQ TP	200B1 5MQ TP	300B1 5MQ TP
	ART. NR.	3410316614152	3410316614154	3410316614155	3410316614158
	Model description	150B1 2,5MQ INCAS.	200B1 2,5MQ INCAS.	200B1 5MQ INCAS.	300B1 5MQ INCAS.
	ART. NR.	3410316614252	3410316614254	3410316614255	3410316614258
EXECUTI	ONS ON REQUEST				
	Model description	150B1 2,5MQ TF OR	200B1 2,5MQ TF OR	200B1 5MQ TF OR	300B1 5MQ TF OR
	ART. NR.	-	3410316614064	3410316614065	-
	Model description	150B1 2,5MQ TP OR	200B1 2,5MQ TP OR	200B1 5MQ TP OR	300B1 5MQ TP OR
	ART. NR.	-	3410316614164	3410316614165	-
	Model description	150B1 2,5MQ VT	200B1 2,5MQ VT	200B1 5MQ VT	300B1 5MQ VT
SYSTEM	S WITHOUT FIXING	KIT WITH VERTICA	L COLLECTORS		
Model description		150B1 2,5MQ SZ CARP.	200B1 2,5MQ SZ CARP.	200B1 5MQ SZ CARP.	300B1 5MQ SZ CARP.
ART. NR.		3410316614352	3410316614354	3410316614355	3410316614358
ing kit and oth	er components see accessories s	ection.	(*) Systems designed f	or use in areas with high annual su	ın irradiation more than 1600 k





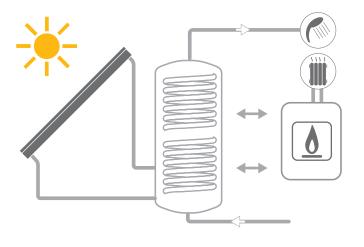




SOLAR THERMAL SYSTEM **B2**

FORCED CIRCULATION SYSTEM WITH A DOUBLE FIXED COIL CALORIFIER







RELIABILITY ALL THE YEAR





ENERGY

APPLICATION

The Solar thermal system **B2** represents the most widespreaded and consolidated configuration of installations. It best expresses the reliability and high performances in the production of DHW through solar source.

SOLAR COLLECTOR

- Insulation in mineral wool
- Anodized aluminum structure
- Highly selective absorber
- Anti-hail tempered glass- In compliance with UNI EN 12975 regulation

CALORIFIER

- BOLLY® 2 ST with capacity from 150 to 1500 It in compliance with EN 12897:2006 Regulation
- Mild steel
- Internal coating Polywarm® suitable for drinking water according to the D.M. nr 174 of 06/04/2004 and DHW attestations ACS-SSICA-DVGW-W270-UBA-WRAS
- 2 Polywarm® coated fixed heat exchangers
- Connections for electrical heater integration
- INSULATION: Ecological polyurethane HARD foam; SOFT NOFIRE polyester fleece 100% made of recyclable material with high thermal

insulation. Fire resistance class B-s 2d0 according to EN 13501. Grey PVC external lining, upper top and flange cover in ABS.

ACCESSORIES

ASK ALWAYS FOR CERTIFIED LABORATORIES DATA RESULTS **CORDIVARI** © Lab

TÜV Rheinland Energie

und Umwelt GmbH states
that test procedures and
Cordivari LAB are certified
conforming to European
standard EN 15332, as
indicated by

Nr.sign EArt. Nr.si ErP Directive

See accessories section

WARRANTY

5 years

See general sales and warranty conditions

ACCESSORIES ON REQUEST



heating





Balancing valve



Thermostatic mixing valve (for systems >

500lt)

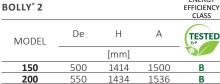


ON LINE Erp LABEL TOOL

For more information see accessories section.

pipe

SYSTEM COMPONENTS	INCLUDED
Highly selective solar collector	\checkmark
BOLLY* 2 ST calorifier	\checkmark
Expansion vessel lt 24 till lt 500; Expansion vessel lt 50 till lt 1500 l	✓
Circulation unit BASIC complete of circulator electronic control, flow regulator, safety valve, thermometer, temperature probes	√
Non-toxic heat transfer fluid	\checkmark
Solar thermostatic mixing valve (Included up to 500 lt model)	✓
Fixing kit and fittings	✓





For more information and technical data of the calorifiers and buffer tanks please refer to the Cordivari Calorifiers and buffer tanks catalogue.



SOLAR THERMAL SYSTEM **B2**

FORCED CIRCULATION SYSTEM WITH A DOUBLE FIXED COIL CALORIFIER









Calorifier	model	150	200	200	300	300	400
Nr. Of col	lectors	1 x 2,5 m ²	1 x 2,5 m ²	2 x 2,5 m ²	2 x 2,5 m ²	3 x 2,5 m ²	2 x 2,5 m ²
Total surf	ace area m²	2,5	2,5	5	5	7,5	5
Calorifier type				BOLLY	′® 2 ST		
Nr. Recor	nmended users	1-3	3-4(*)	4-5	5-6	5-7	6-7(*)
	Model description	150B2 2,5MQ TF	200B2 2,5MQ TF	200B2 5MQ TF	300B2 5MQ TF	300B2 7,5MQ TF	400B2 5MQ TF
	ART. NR.	3410316618532	3410316618533	3410316618534	3410316618535	3410316618244	3410316618536
	Model description	150B2 2,5MQ TP	200B2 2,5MQ TP	200B2 5MQ TP	300B2 5MQ TP	300B2 7,5MQ TP	400B2 5MQ TP
	ART. NR.	3410316618632	3410316618633	3410316618634	3410316618635	3410316618248	3410316618636
	Model description	150B2 2,5MQ INCAS.	200B2 2,5MQ INCAS.	200B2 5MQ INCAS.	300B2 5MQ INCAS.	300B2 7,5MQ INCAS.	400B2 5MQ INCAS.
	ART. NR.	3410316618232	3410316618233	3410316618234	3410316618235	3410316618245	3410316618236
EXECUTI	ONS ON REQUES	ST					
	Model description	150B2 2,5MQ TF OR	200B2 2,5MQ TF OR	200B2 5MQ TF OR	300B2 5MQ TF OR	300B2 7,5MQ TF OR	400B2 5MQ TF OR
	ART. NR.	-	3410316618563	3410316618564	3410316618565	3410316618246	3410316618566
	Model description	150B2 2,5MQ TP OR	200B2 2,5MQ TP OR	200B2 5MQ TP OR	300B2 5MQ TP OR	300B2 7,5MQ TP OR	400B2 5MQ TP OR
	ART. NR.	-	3410316618663	3410316618664	3410316618665	3410316618249	3410316618666
	Model description	150B2 2,5MQ VT	200B2 2,5MQ VT	200B2 5MQ VT	300B2 5MQ VT	300B2 7,5MQ VT	400B2 5MQ VT
SYSTEMS	WITHOUT FIXII	NG KIT WITH	VERTICAL CO	DLLECTORS			
Model description		150B2 2,5MQ SZ CARP.	200B2 2,5MQ SZ CARP.	200B2 5MQ SZ CARP.	300B2 5MQ SZ CARP.	300B2 7,5MQ SZ CARP.	400B2 5MQ SZ CARP.
ART. NR.		3410316618332	3410316618333	3410316618334	3410316618335	3410316618247	3410316618336



 ${\it Fixing \ kit \ and \ other \ components \ see \ accessories \ section.}$

(*) Systems designed for use in areas with high annual sun irradiation more than 1600 kw/h m²

SOLAR THERMAL SYSTEM B2

FORCED CIRCULATION SYSTEM WITH A DOUBLE FIXED COIL CALORIFIER



400	500	500	800	1000	1000	1500
3 x 2,5 m ²	3 x 2,5 m ²	4 x 2,5 m ²	5 x 2,5 m ²	6 x 2,5 m ²	8 x 2,5 m ²	10 x 2,5 m ²
7,5	7,5	10	12,5	15	20	25
			BOLLY	° 2 ST		
7-8	8-9	9-12	12-15	15-20	20-24	24-32
400B2 7,5MQ TF	500B2 7,5MQ TF	500B2 10MQ TF	800B2 12,5MQ TF	1000B2 15MQ TF	1000B2 20MQ TF	1500B2 25MC TF
3410316618537	3410316618538	3410316618539	3410316618540	3410316618541	3410316618542	3410316618543
400B2 7,5MQ TP	500B2 7,5MQ TP	500B2 10MQ TP	800B2 12,5MQ TP	1000B2 15MQ TP	1000B2 20MQ TP	1500B2 25MC TP
3410316618637	3410316618638	3410316618639	3410316618640	3410316618641	3410316618642	341031661864
400B2 7,5MQ INCAS.	500B2 7,5MQ INCAS.	500B2 10MQ INCAS.	800B2 12,5MQ INCAS.	1000B2 15MQ INCAS.	1000B2 20MQ INCAS.	1500B2 25MC INCAS.
3410316618237	3410316618238	3410316618239	3410316618240	3410316618241	3410316618242	341031661824
EXECUTIONS	ON REQUEST					
400B2 7,5MQ TF OR	500B2 7,5MQ TF OR	500B2 10MQ TF OR	800B2 12,5MQ TF OR	1000B2 15MQ TF OR	1000B2 20MQ TF OR	1500B2 25MC TF OR
-	3410316618568	-	-	3410316618571	-	-
400B2 7,5MQ TP OR	500B2 7,5MQ TP OR	500B2 10MQ TP OR	800B2 12,5MQ TP OR	1000B2 15MQ TP OR	1000B2 20MQ TP OR	1500B2 25MC TP OR
-	3410316618668	-	-	3410316618671	-	-
400B2 7,5MQ VT	500B2 7,5MQ VT	500B2 10MQ VT	800B2 12,5MQ VT	1000B2 15MQ VT	1000B2 20MQ VT	1500B2 25MC VT
SYSTEMS WITI	HOUT FIXING K	IT WITH VERT	ICAL COLLECT	ORS		
400B2 7,5MQ SZ CARP.	500B2 7,5MQ SZ CARP.	500B2 10MQ SZ CARP.	800B2 12,5MQ SZ CARP.	1000B2 15MQ SZ CARP.	1000B2 20MQ SZ CARP.	1500B2 25MC SZ CARP.
3410316618337	3410316618338	3410316618339	3410316618340	3410316618341	3410316618342	3410316618343

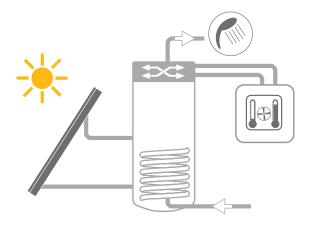
 ${\it Fixing kit and other components see accessories section.}$



SOLAR THERMAL SYSTEM **B2 PDC**

SOLAR THERMAL SYSTEMS WITH FORCED CIRCULATION FOR THE PRODUCTION OF DHW WITH INTEGRATION FOR HEAT PUMP









SOLAR INTEGRATION FOR HEAT PUMP





APPLICATION

The Solar Thermal System B2 PDC represents the most advanced evolution of thermal solar system suitable to produce DHW. Thanks to the new exchanger group for heat pumps, it provides the most efficient integration system.

SOLAR COLLECTOR

- Insulation in mineral wool
- Anodized aluminum structure
- Highly selective absorber
- Anti-hail tempered glass- In compliance with UNI EN 12975 regulation

CALORIFIER

- BOLLY® 2 PDC with capacity from 300 to 500 It in compliance with EN 12897:2006 Regulation
- Mild steel
- -Internal coating Polywarm® suitable drinking water according to the D.M. nr 174 of 06/04/2004, attestations of internal treatment Polywarm for potability: ACS-SSICA-DVGW-W270-UBA-WRAS
- Polywarm® coated Fixed heat exchanger
- High thermal insulation
- External lining, top covering and flange covering in PVC
- Exchange module system equipped with exchanger at heat charge from the top.

ACCESSORIES

See accessories section

WARRANTY

5 years

See general sales and warranty conditions

PATENTED EXCHANGE



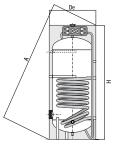
SYSTEM



ASK ALWAYS FOR CERTIFIED LABORATORIES DATA RESULTS

CORDIVARI © Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by FArt Nr.sign ErP Directive



BOLLY® 2 PDC

ENERGY

MODEL	De	Н	А	TESTED ErP
		[mm]		
300	650	1600	1727	С
500	750	1900	2043	С

For more information and technical data of the calorifiers and buffer tanks please refer to the Cordivari Calorifiers and buffer tanks catalogue.

ACCESSORIES ON REQUEST





pipe





www.cordivari.com/erp ON LINE Erp LABEL TOOL

For more information see accessories section.

SYSTEM COMPONENTS	INCLUDED
Highly selective solar collector	\checkmark
BOLLY* 2 PDC calorifier	\checkmark
Expansion vessel It 24	\checkmark
Circulation unit BASIC complete of circulator electronic control, flow regulator, safety valve, thermometer, temperature probes	\checkmark
Non-toxic heat transfer fluid	\checkmark
Solar thermostatic mixing valve	\checkmark
Fixing kit and fittings	\checkmark



SOLAR THERMAL SYSTEM **B2 PDC**



Solar thermal systems with forced circulation for the production of DHW with integration for heat pump

Calorifier	r model	300	500	500
Vr. Of co	llectors	2 x 2,5 m ²	3 x 2,5 m ²	4 x 2,5 m ²
otal surf	face area m²	5	7,5	10
Calorifier type			BOLLY® 2 PDC	
Vr. Recor	mmended users	1-6	6-9	9-12
	Model description	300B2P 5MQ TF	500B2P 7,5MQ TF	500B2P 10MQ TF
	ART. NR.	3410316618585	3410316618588	3410316618589
	Model description	300B2P 5MQ TP	500B2P 7,5MQ TP	500B2P 10MQ TP
	ART. NR.	3410316618685	3410316618688	3410316618689
	Model description	300B2P 5MQ INCAS.	500B2P 7,5MQ INCAS.	500B2P 10MQ INCAS.
	ART. NR.	3410316618285	3410316618288	3410316618289
EXECUTI	ONS ON REQUEST			
	Model description	300B2P 5MQ TF OR	500B2P 7,5MQ TF OR	500B2P 10MQ TF OR
	Model description	300B2P 5MQ TP OR	500B2P 7,5MQ TP OR	500B2P 10MQ TP OR
	Model description	300B2P 5MQ VT	500B2P 7,5MQ VT	500B2P 10MQ VT
SYSTEM	S WITHOUT FIXING R	(IT WITH VERTICAL COL	LECTORS	
Model description		300B2P 5MQ SZ CARP.	500B2P 7,5M SZ CARP.	500B2P 10MQ SZ CARP.
ART. NR.		3410316618385	3410316618388	3410316618389





SOLAR THERMAL SYSTEM **BOLLYTERM®** HP

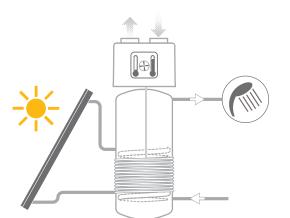
FORCED CIRCULATION SYSTEM WITH CALORIFIER FOR HEAT PUMP













SOLAR THERMAL SYSTEM WITH CALORIFIER FOR HEAT PUMP





APPLICATION

The solar thermal system BOLLYTERM® HP guarantees the total coverage of the DHW requirements with renewable energy source through the integrated heat pump and solar collectors.

The elevated C.O.P of the thermodynamic water heater ensures maximum energy savings in support of the solar collectors by configuring a system with energy efficiency class A+++.

SOLAR COLLECTOR

- Insulation in mineral wool
- Anodized aluminum structure
- Highly selective absorber

- Anti-hail tempered glass

- In compliance with UNI EN 12975 regulation

CALORIFIER

- **BOLLYTERM® HP** with 200 or 300 lt capacity
- Mild steel
- Integrated heat pump
- Internal Polywarm® coating, suitable for drinking water (D.M. n.174 of the 06.04.04)
- Polywarm® coated fixed heat exchange
- High thermal insulation with ecological polyurethane hard foam and grey PVC external lining, upper top and flange cover in ABS.

CERTIFICATIONS

Internal POLYWARM® coating, DHW attestations SSICA, DVGW, W270, UBA, WRAS

ACCESSORIES

See accessories section

WARRANTY

5 years

See general sales and warranty conditions

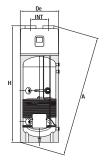
ASK ALWAYS FOR CERTIFIED LABORATORIES DATA RESULTS

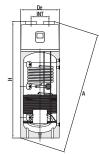
CORDIVARI Lab

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BOLLYTFRM® HP 1

300

EFFICIENCY CLASS

ENERGY

					CLASS	
MODEL	INT	De	Н	А	TESTED ErP	
		[mm]				
200	340	640	1585	1684	A+	
300	340	640	1960	2040	A+	
BOLLYTERN	1° HP 2					

For more information and technical data of the calorifiers and buffer tanks please refer to the Cordivari Calorifiers and buffer tanks catalogue.

340

640 1960 2040

INTEGRATED HEAT PUMP

The Cordivari calorifier with integrated heat pump BOLLYTERM® HP produced domestic hot water using the heat naturally present in the air, allowing significant energy and economic savings.

The principle of the heat pump is based on the exploitation of a particular ecological gas (R134a), thanks to compression and expansions, allows high and advantageous energy efficiency. The heat taken from the air is transferred to the water by means of a condenser coil that is wrapped around the outside of the tank. In this way any contact between the heat transfer fluid and the domestic hot water is avoided as a guarantee of maximum safety and hygiene. The efficiency is indicated by the coefficient of performance (C.O.P) that indicates the ratio between the energy used and the one obtained to heat the water contained in the tank.



ON LINE Erp LABEL TOOL

SYSTEM COMPONENTS	INCLUDED
Highly selective solar collector	\checkmark
BOLLYTERM® HP calorifier (HP1 or HP2)	\checkmark
Expansion vessel It 24	\checkmark
Circulation unit BASIC complete of circulator electronic control, flow regulator, safety valve, thermometer, temperature probes	√
Non-toxic heat transfer fluid	\checkmark
Solar thermostatic mixing valve	\checkmark
Fixing kit and fittings	\checkmark



SOLAR THERMAL SYSTEM BOLLYTERM® HP

FORCED CIRCULATION SYSTEM WITH CALORIFIER FOR HEAT PUMP



Calorifier model		200	300	300
Nr. Of co	llectors	2 x 2,5 m ²	2 x 2,5 m ²	2 x 2,5 m ²
Total sur	face area m²	5	5	5
Calorifie	type	BOLLYTEI	RM® HP 1	BOLLYTERM® HP 2
Nr. Recommended users		4-5	5-6	5-6
	Model description	200HPI 5MQ TF	300HPI 5MQ TF	300HP2 5MQ TF
	ART. NR.	3410316617405	3410316617407	3410316617438
	Model description	200HPI 5MQ TP	300HPI 5MQ TP	300HP2 5MQ TP
	ART. NR.	3410316617415	3410316617417	3410316617439
	Model description	200HPI 5MQ INCAS.	300HPI 5MQ INCAS.	300HP2 5MQ INCAS.
	ART. NR.	3410316617425	3410316617427	3410316617440
EXECUT	IONS ON REQUEST			
	Model description	200HPI 5MQ TF OR	300HPI 5MQ TF OR	300HP2 5MQ TF OR
	Model description	200HPI 5MQ TP OR	300HPI 5MQ TP OR	300HP2 5MQ TP OR
	Model description	200HPI 5MQ VT	300HPI 5MQ VT	300HP2 5MQ VT
SYSTEM	S WITHOUT FIXING K	IT WITH VERTICAL COL	LECTORS	
Model description		200HPI 5MQ SZ CARP.	300HPI 5MQ SZ CARP.	300HP2 5MQ SZ CARP.
ART. NR.		3410316617435	3410316617437	3410316617441







DHW

SOLAR THERMAL SYSTEMS WITH VACUUM TUBE COLLECTORS





SOLAR THERMAL SYSTEM **B2 CVT**

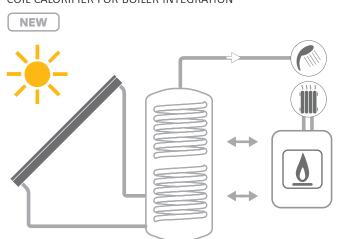
FORCED CIRCULATION SYSTEM FOR DHW WITH VACUUM TUBE COLLECTORS AND DOUBLE COIL CALORIFIER FOR BOILER INTEGRATION













POWERFUL AND RELIABLE





APPLICATION

The **B2 CVT** solar thermal system employs the Cordivari CVT vacuum tube collectors in combination with the configuration with the calorifier with 2 fixed heat exchangers. This maximizes the performance in the production of DHW from solar heat source even at higher latitudes or in very cold climates thanks to the high selective collectors with vacuum technology.

SOLAR COLLECTOR CVT

High selective solar vacuum tube collector PVD, of the type Sydney with heat pipe technology.

- Anodized aluminum structure.

- Parabolic concentrator mirror CPC
- Anti-hail tubes
- In compliance with UNI EN 12975 regulation

CALORIFIER

- BOLLY* 2 ST with capacity from 150 to 1500 It In compliance with EN 12897:2006 Regulation - Mild steel
- Mild steel
- Internal coating Polywarm® suitable for drinking water according to the D.M. nr 174 of 06/04/2004 and DHW attestations ACS-SSICA-DVGW-W270-UBA-WRAS
- 2 Polywarm® coated fixed heat exchangers
- Connection for electrical heater integration

- High thermal insulation with ecological polyurethane hard foam and grey PVC external lining, upper top and flange cover in ABS.

ACCESSORIES

See accessories section

WARRANTY

5 years

See general sales and warranty conditions

ACCESSORIES ON REQUEST





pipe



valve







ON LINE Erp LABEL TOOL

For more information see accessories section.

SYSTEM COMPONENTS High selective solar vacuum tube collector PVD, of the type Sydney with heat pipe technology

BOLLY* 2 ST calorifier

Expansion vessel It 24

Circulation unit BASIC complete of circulator electronic control, flow

regulator, safety valve, thermometer, temperature probes

Non-toxic heat transfer fluid

Solar thermostatic mixing valve (Included up to 500 lt model)

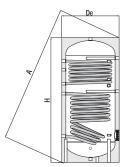
✓

Fixing kit and fittings

A S K A L W A Y S F O R CERTIFIED LABORATORIES D A T A R E S U L T S

CORDIVARI © Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by EArt. Nr.sign ErP Directive.



BOLLY° 2

ENERGY EFFICIENCY CLASS

	MODEL	De	Н	Α	TESTED
			[mm]		
	150	500	1414	1500	В
	200	550	1434	1536	В
	300	650	1486	1622	С
	400	700	1766	1900	С
_	500	750	1786	1937	C
	800	950	2189	2367	С
Δ – _	1000	1050	2223	2438	С
Δ __	1500	1150	2471	2705	С

For more information and technical data of the calorifiers and buffer tanks please refer to the Cordivari Calorifiers and buffer tanks catalogue.



SOLAR THERMAL SYSTEM B2 CVT











FORCED CIRCULATION SYSTEM FOR DHW WITH VACUUM TUBE COLLECTORS AND DOUBLE
COIL CALORIFIER FOR BOILER INTEGRATION

MODEL CALORIF	FIER	150	200	200	300	300	400	500
Nr. Of co	ollectors (*)	1x10	1x10	1x15	2x10	2x15	2x15	2x15
Total sur m ²	face area	2,17	2,17	3,22	4,34	6,44	6,44	6,44
Calorifie	er type			Е	BOLLY® 2 S	Т		
Nr. Reco	mmended	1-3	3-4	4-5	5-6	5-7	6-7	7-8
	Model description	150B2 CVT10 TF	200B2 CVT10 TF	200B2 CVT15 TF	300B2 2CVT10 TF	300B2 2CVT15 TF	400B2 2CVT15 TF	500B2 2CVT15 TF
	ART. NR.	3410316618901	3410316618902	3410316618903	3410316618904	3410316618905	3410316618906	3410316618907
	Model description	150B2 CVT10 TP	200B2 CVT10 TP	200B2 CVT15 TP	300B2 2CVT10 TP	300B2 2CVT15 TP	400B2 2CVT15 TP	500B2 2CVT15 TP

3410316618914 3410316618915 3410316618916 3410316618917 3410316618918 3410316618919 3410316618920

/IODEL	IER	500	800	800	1000	1500	1500
Nr. Of co	ollectors (*)	4x10	4x15	5x15	5x15	6x15	8x15
Total sur m²	face area	8,68	12,88	16,1	16,1	19,32	25,76
Calorifie	r type			BOLLY	′® 2 ST		
Nr. Reco users	mmended	8-9	9-12	12-15	15-20	20-24	24-32
	Model description	500B2 4CVT10 TF	800B2 4CVT15 TF	800B2 5CVT15 TF	1000B2 5CVT15 TF	1500B2 6CVT15 TF	1500B2 8CVT15
	ART. NR.	3410316618908	3410316618909	3410316618910	3410316618911	3410316618912	341031661891
	Model description	500B2 4CVT10 TP	800B2 4CVT15 TP	800B2 5CVT15 TP	1000B2 5CVT15 TP	1500B2 6CVT15 TP	1500B2 8CVT1. TP
	■ ART. NR.	3410316618921	3410316618922	3410316618923	3410316618924	3410316618925	341031661892

^(*) Cordivari vacuum tube collectors CVT10 and CVT15 (with heat pipe technology).

Fixing kit and other components see accessories section.



SOLAR THERMAL SYSTEM BOLLYTERM® HP CVT

FORCED CIRCULATION SYSTEM FOR DHW WITH VACUUM TUBE COLLECTORS AND CALORIFIER FOR HEAT PUMP

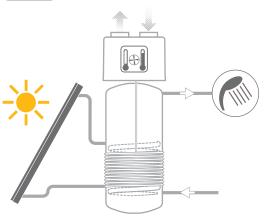












SYSTEM WITH ENERGY EFFICIENCY CLASS



ENERGY SAVINGS THROUGHOUT THE WHOLE YEAR





ENERGY

FFFICIENCY

APPLICATION

The solar thermal system **BOLLYTERM® HP CVT** guarantees total coverage of DHW demand even in the most difficult climatic conditions with renewable energy sources through the integrated heat pump and the solar collectors with Cordivari vacuum technology CVT.

vacuum technology CVT.

The high C.O.P guarantees maximum energy savings in support of the CVT collectors and the specific calorifier for solar systems that maximizes the performances of both energy sources by configuring a system with energy efficiency class A+++.

SOLAR COLLECTOR CVT

High selective solar vacuum tube collector PVD, of the type Sydney with heat pipe technology.

- Anodized aluminum structure.
- Parabolic concentrator mirror CPC
- Anti-hail tubes
- In compliance with **UNI EN 12975** regulation

CALORIFIER

- BOLLYTERM® HP from 200 and 300 lt capacity
- Mild steel
- Integrated heat pump
- Internal Polywarm coating, suitable for drinking water (D.M. n.174 of the 06.04.04)
- 1 or 2 Polywarm® coated fixed heat exchanger

- High thermal insulation with ecological polyurethane hard foam and grey PVC external lining, upper top and flange cover in ABS.

CERTIFICATIONS

Internal POLYWARM® coating, DHW attestations SSICA, DVGW, W270, UBA, WRAS

ACCESSORIES

See accessories section

WARRANTY

BOLLYTERM® HP 1

5 years

See general sales and warranty conditions

INTEGRATED HEAT PUMP

The Cordivari calorifier with integrated heat pump BOLLYTERM HP produced domestic hot water using the heat naturally present in the air, allowing significant energy and economic savings.

The principle of the heat pump is based on the exploitation of a particular ecological gas (R134a), thanks to compression and expansions, allows high and advantageous energy efficiency. The heat taken from the air is transferred to the water by means of a condenser coil that is wrapped around the outside of the tank. In this way any contact between the heat transfer fluid and the domestic hot water is avoided as a guarantee of maximum safety and hygiene. The efficiency is indicated by the coefficient of performance (C.O.P) that indicates the ratio between the energy used and the one obtained to heat the water contained in the tank.

SYSTEM COMPONENTS

Solar thermostatic mixing valve



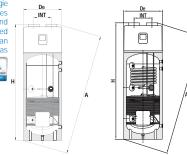
www.cordivari.com/erp
ON LINE Erp LABEL TOOL

INCLUDED

ASK ALWAYS FOR CERTIFIED LABORATORIES DATA RESULTS

CORDIVARI © Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by EArt. Nr.sign ErP Directive.



High selective solar vacuum tube collector PVD, of the type Sydney with heat pipe technology BOLLYTERM* HP1 or HP2 Expansion vessel It 24 Circulation unit BASIC complete of circulator electronic control, flow regulator, safety valve, thermometer, temperature probes Non-toxic heat transfer fluid

CLASS INT De Н Α TESTED MODFI [mm] 200 340 640 1585 1684 Α+ 300 340 640 1960 Α+ **BOLLYTERM® HP 2** 300 340 640 1960 2040

For more information and technical data of the calorifiers and buffer tanks please refer to the Cordivari Calorifiers and buffer tanks catalogue.



Fixing kit and fittings

SOLAR THERMAL SYSTEM BOLLYTERM® HP CVT









FORCED CIRCULATION SYSTEM FOR DHW WITH VACUUM TUBE COLLECTORS AND CALORIFIER FOR HEAT PUMP

Calorifier model		200	200	300	300					
Nr. Of col	lectors (*)	1x10	1x15	2x10	2x15					
Total surf	ace area m²	2,17	3,22	4,34	6,44					
Calorifier	type		BOLLYTERM® HP 1							
Nr. Recon	nmended users	4-5	5-6	5-6	6-7					
	Model description	200HPI CVT10 TF	200HPI CVT15 TF	300HPI 2CVT10 TF	300HPI 2CVT15 TF					
	ART. NR.	3410316618939	3410316618940	3410316618941	3410316618942					
	Model description	200HPI CVT10 TP	200HPI CVT15 TP	300HPI 2CVT10 TP	300HPI 2CVT15 TP					
	ART. NR.	3410316618943	3410316618944	3410316618945	3410316618946					

Calorif	ier model	300	300		
Nr. Of	collectors (*)	2x10	2x15		
Total surface area m ²		4,34	6,44		
Calorif	ier type	BOLLYTE	RM® HP 2		
Nr. Rec	commended users	5-6	6-7		
	Model description	300HP2 2CVT 10 TF	300HP2 2CVT 15 TF		
	ART. NR.	3410316618947	3410316618948		
	Model description	300HP2 2CVT 10 TP	300HP2 2CVT 15 TP		
_	ART. NR.	3410316618949	3410316618950		

^(*) Cordivari vacuum tube collectors CVT10 and CVT15 (with heat pipe technology).

Fixing kit and other components see accessories section.





COLLECTORS AND ACCESSORIES



FLAT PLATE SOLAR COLLECTORS







Applications:

Forced circulation thermal systems.

Characteristics:

Lateral connections, universal collector for forced circulation systems.

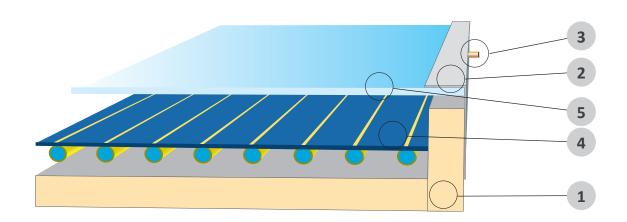
Solar Keymark

Technical data

Max P.	10 bar
Max T.	199° C
Gaskets	EPDM - Silicone

Cordivari flat plate solar collectors are manufactured with aluminum frame, insulation of mineral wool, highly selective absorber covered in titanium oxides and tempered anti-hail solar glass cover, in order to offer the most performant solution in the solar thermal field. Cordivari flat plate solar

collectors are the best solution for efficient and high-performing solar thermal systems thanks to the quality of the materials, the reliability of the functioning and to the multiple opportunities of integration.

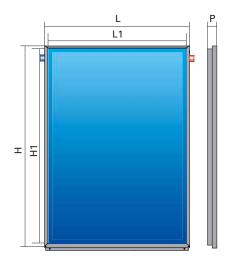


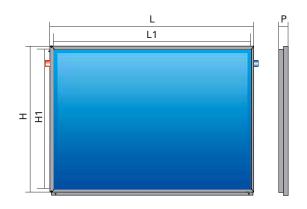
DESCRIPTION

1	Insulation in mineral wool
2	Aluminium frame
3	Connections Ø 22 mm
4	Full plate absorber with high selective coating
5	Anti-hail tempered glass



FLAT PLATE SOLAR COLLECTORS

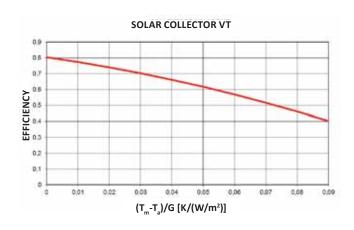


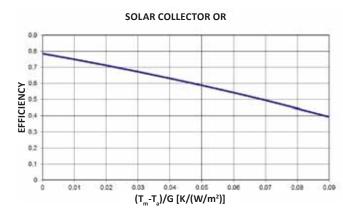


			GROSS DIN	IENSIONS		OPENING			CONNECTIONS	
ART. NR.	VERSION	L	Н	Р	Surface	SURFACE	Weight	Capacity		
			[mm]		[m²]	$[m^2]$	[kg]	[lt]	N°	[mm]
3400306501310	VT	1250	2000	85	2,5*	2,32	34	1,9	2	ø 22
3400306501311	OR	2000	1250	85	2,5*	2,32	34	1,9	2	ø 22

^{*} For the detailed calculation please always refer to the product certification and to test reports.

EFFICIENCY CURVES (Solar radiation values G dir = 850 W/m² G dif = 150 W/m²)





SOLAR COLLECTORS EFFICIENCY CURVE

The immediate efficiency curve of a solar collector represents its performances "ID", that allows to quantify the solar collector capacity to turn the energy into thermal energy.

Efficiency is defined as the relationship between the thermal power filtered by the heat transfer fluid and the sun's rays affecting the solar collector. For convenience, one refers always to a square meter (1 $\mbox{m}^2)$ surface.

So on the vertical axis, the efficiency η (eta) is the relationship between

the power absorbed by the heat transfer fluid circulating in one square meter of the solar collector (W/m^2) .

It is clear that the efficiency so defined is an actual value depending on test conditions as well as on the collector type.

On the horizontal axis we find the relationship between the temperature Δt and the power of the solar radiation affecting on the collector.

 Δt is the difference between the average temperature of the heat transfer fluid inside the solar collector and the environment temperature.



VACUUM TUBE COLLECTORS CVT







Technical data

Max P.	10 bar		
Max T.	280° C		
Gaskets	EPDM - Silicone		

Applications:

Forced circulation thermal systems.

Characteristics:

Lateral connections, universal collector for forced circulation systems.

Solar Keymark

Cordivari CVT solar collectors are composed of a series of vacuum tubes Sydney type, that captures the incidence of solar energy. Thanks to the gap from which air is evacuated to obtain the vacuum, this kind of collector can

reach high performances even in colder seasons.

The collectors CVT are designed with heat pipe technology that allows a better maintenance and protection against stagnation.

HEAT PIPE TECHNOLOGY

In this technology the pipe heats up with the heat coming from the absorber and vaporizes the small quantity of fluid that naturally raises to the top, then it condenses and transfers heat to the heat-transfer fluid of the primary circuit and comes back to liquid state.

Heat pipes are placed inside the double concentric tubes made in borosilicate glass (mod. Sydney). Thanks to its insulating properties (thermos effect), the vacuum between the glass pipes drastically reduces the heat loss, increasing the available energy produced by the sun.

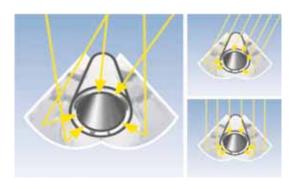


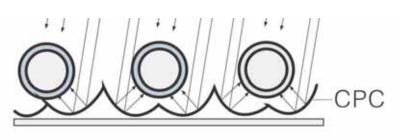
DESCRIPTION

1	Insulation in mineral wool
2	Anodized aluminum structure
3	Connection Ø 22 mm
4	Heat pipe
5	Vacuum glass tube Sydney type

COMPOUND PARABOLIC CONCENTRATOR (CPC)

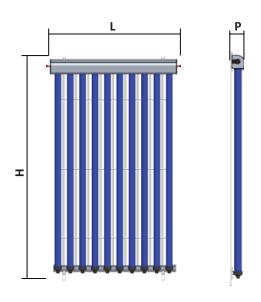
A special CPC behind the tubes leads the sunlight, even from different angles, exactly to the absorber. This system allows Cordivari vacuum tube collectors CVT to reach high performances with small dimensions and maximum direct and widespread energy absorption.

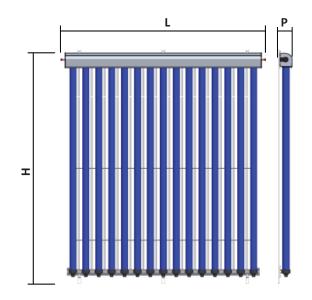






VACUUM TUBE COLLECTORS CVT



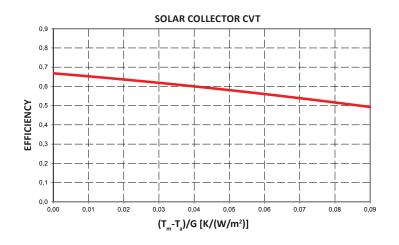


			GROSS DIN	/ENSIONS		OPENING	\\/-:- -+	at Canasity		IECTIONS
ART. NR.	VERSION	L	Н	Р	Surface	SURFACE	Weight	Capacity	CONNECTIONS	
			[mm]		$[m^2]$	[m²]	[kg]	kg] [lt] N° [mm]	[mm]	
3400306500201	10 TUBES	1130	1917	133	2,17*	1,78	28,5	0,94	2	ø 22
3400306500202	15 TUBES	1680	1917	133	3,22*	2,72	39	1,41	2	ø 22

^{*} For the detailed calculation please always refer to the product certification and to test reports.

Fixing kit for pitched roofs is included with vacuum tube collectors CVT.

EFFICIENCY CURVES (Solar radiation values G dir = 850 W/m² G dif = 150 W/m²)



VACUUM TUBE COLLECTORS EFFICIENCY CURVES

The immediate efficiency curve of a solar collector represents its performances "ID" , that allows to quantify the solar collector capacity to turn the energy into thermal energy.

Efficiency is defined as the relationship between the thermal power filtered by the heat transfer fluid and the sun's rays affecting the solar collector. For convenience, one refers always to a square meter (1 m^2) surface.

So on the vertical axis, the efficiency $\boldsymbol{\eta}$ (eta) is the relationship between

the power absorbed by the heat transfer fluid circulating in one square meter of the solar collector (W/m^2) .

It is clear that the efficiency so defined is an actual value depending on test conditions as well as on the collector type.

On the horizontal axis we find the relationship between the temperature Δt and the power of the solar radiation affecting on the collector.

 Δt is the difference between the average temperature of the heat transfer fluid inside the solar collector and the environment temperature.



FIXING KIT FOR FORCED CIRCULATION SYSTEMS



PITCHED ROOFS











Art. Nr.	5770001100231	5770001100232	5770001100234	
Description	Kit for 2,5 m² collector	Kit for 2 x 2,5 m ² collectors	Kit for 3 x 2,5 m ² collectors	
MATERIAL		Galvanized carbon steel		

FLAT ROOFS











Art. Nr.	5770001100322	5770001100324	5770001100326
€	222,00	239,00	348,00
Description	Kit for 2,5 m² collector	Kit for 2 x 2,5 m² collectors	Kit for 3 x 2,5 m² collectors
MATERIAL		Galvanized carbon steel	

BUILT-IN SYSTEMS











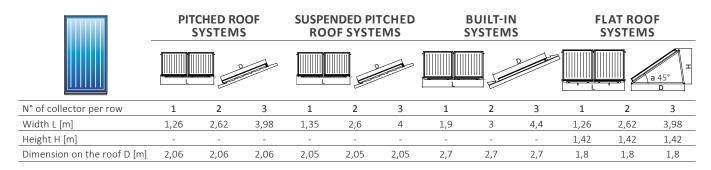




_	Art. Nr.	5770001100723	5770001100722	5770001100726	5770001100724	5770001100725
_	Description	Kit for 2,5 m² collector	Kit for 2 x 2,5 m ² collectors	Kit for 3 x 2,5 m ² collectors	Kit for 4 x 2,5 m ² collectors	Kit for 6 x 2,5 m ² collectors
	MATERIAL		Galvanized car	bon steel and bitumino	us wavy panels	

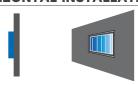
SIZES OF FLAT COLLECTOR ARRAYS

FORCED CIRCULATION



FIXING KIT ON VERTICAL WALLS

HORIZONTAL INSTALLATION



	Art. Nr.	5770001100406
-	DESCRIPTION	1 x 2,5 m² horizontal collector
	MATERIAL	Galvanized steel

VERTICAL INSTALLATION





Art. Nr.	5770001100407
DESCRIPTION	1 x 2,5 m² vertical collector
MATERIAL	Galvanized steel



FIXING KIT FOR FORCED CIRCULATION SYSTEMS



BUILT-IN PROCEDURE

CORDIVARI PATENTED

- RELIABLE AND SAFE
- QUICK TO INSTALL
- IT CAN BE USED WITH STANDARD **COLLECTORS**

Cordivari patented built-in solar panels represents the best solution for built-in installations of flat plate solar collectors. It guarantees the maximum safety sealing against water infiltrations under the cover, it allows a quick and easy installation without specialized metal process interventions. It ensures maximum flexibility and represents a quick solution according to the installation type. In fact, this built-in system adapt to standard Cordivari collectors, does not need a special or customized collector. The aesthetic result is great and it fits with all the most common roof types.



1) Carpentry removal and flashings placement.



2) Flashings and collectors fixing carpentry installation.



3) Collectors placing and fixing on the framework and fittings installation.



4) Replacement of the exceeding cover removed and final finishing.

HORIZONTAL SYSTEMS FOR FLAT ROOFS







Art. Nr.	5770001100327
DESCRIPTION	1 x 2,5 m² horizontal collector
MATERIAL	Galvanized steel

HORIZONTAL SYSTEMS FOR PITCHED ROOFS

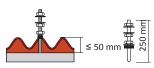


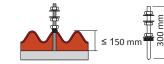


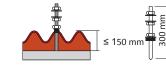


Art. Nr.	5770001100235
DESCRIPTION	1 x 2,5 m² horizontal collector
MATERIAL	Galvanized steel

FIXING KITS FOR INSULATED PITCHED ROOFS









= 2 INSULATED PITCHED ROOF FIXING KITS





= 3 INSULATED PITCHED ROOF FIXING KITS







Carpentry to be used in addition to standard fixing kit in case of pitched roofs with insulation between the slab and roofing tiles. The kit includes:

- 2 Galvanized steel brackets
- 2 steel screws, 250-300 mm length
- 2 rubber dowels
- Fittings

	With 250 mm screws	With 300 mm screws
ART. NR.	5770001100602	5770001100604

Insulated roof fixing kits quantity to order = n° of panels + 1



FIXING KIT FOR VACUUM TUBE COLLECTORS CVT



FLAT ROOFS



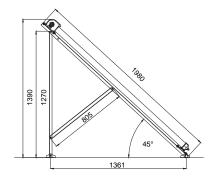


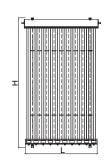
Art. Nr.	5770001100911	5770001100912
Description	FIXING KIT FOR CVT 10	FIXING KIT FOR CVT 15
MATERIAL	Anodized	d aluminium

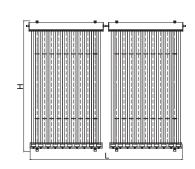
SIZE OF THE COLLECTOR STRINGS CVT

FLAT ROOFS

CVT10 MODEL

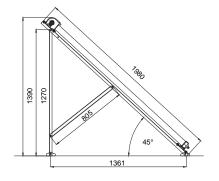


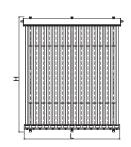


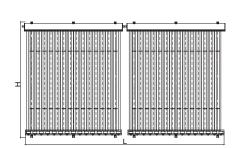


N° of collector per row	1	2
Width L [m]	1,13	2,3
Height H [m]	1,98	1,98

CVT15 MODEL







N° of collector per row	1	2
Width L [m]	1,68	3,4
Height H [m]	1,98	1,98

FIXING KIT FOR VACUUM TUBE COLLECTORS CVT



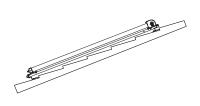
PITCHED ROOFS

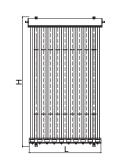
Cordivari vacuum tubes collectors CVT fixing kits for pitched roofs are included with solar panel.

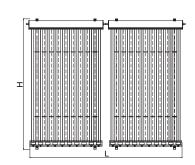
SIZE OF THE COLLECTOR STRINGS CVT

PITCHED ROOFS

CVT10 MODEL

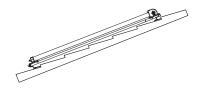


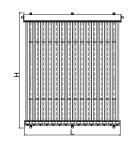


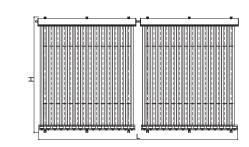


N° of collector per row	1	2
Width L [m]	1,13	2,3
Height H [m]	1,98	1,98

CVT15 MODEL







N° of collector per row	1	2
Width L [m]	1,68	3,4
Height H [m]	1,98	1,98

CIRCULATION GROUP WITH BASIC CONTROL UNIT



COMPONENTS:

- Circulator - BASIC (*) control unit - Flow regulator - Safety valve - Thermometers

- Temperature probes

ART. NR.	DESCRIPTION	CONNECTIONS
576000000018	CIRCULATION GROUP WITH BASIC CONTROL UNIT FLOW RATE: 2-12 LT/MIN	3/4" GAS M
5760000000020	CIRCULATION GROUP WITH BASIC CONTROL UNIT FLOW RATE: 8-28 lt/min	1" GAS M
5760000000022	CIRCULATION GROUP WITH BASIC CONTROL UNIT FLOW RATE: 8-38 lt/min	1" GAS M
5760000000024	CIRCULATION GROUP WITH BASIC CONTROL UNIT FLOW RATE: 20-70 lt/min	1" 1/2 GAS M

CIRCULATION GROUP WITH PROFESSIONAL CONTROL UNIT

COMPONENTS:

- Circulator

- Safety valve

- **PROFESSIONAL** (*) control unit

- Thermometers

- Flow regulator - Temperature probes

ART. NR.	DESCRIPTION	CONNECTIONS
576000000019	CIRCULATION GROUP WITH PROFESSIONAL CONTROL UNIT FLOW RATE: 2-12 lt/min	1" GAS M
5760000000021	CIRCULATION GROUP WITH PROFESSIONAL CONTROL UNIT FLOW RATE: 8-28 lt/min	1" GAS M
5760000000023	CIRCULATION GROUP WITH PROFESSIONAL CONTROL UNIT FLOW RATE: 8-38 lt/min	1" GAS M
5760000000025	CIRCULATION GROUP WITH PROFESSIONAL CONTROL UNIT FLOW RATE: 20-70 lt/min	1 1/2" GAS M

(*) For control unit features, see pages 62-63.



PRIMARY SOLAR EXCHANGE STATION WITH STRATIFICATION MODULE FOR BUFFER TANK



STRATIFICATION EXTERNAL EXCHANGE MODULE V15

ART. NR.

57600000000026

TECHNICAL DESCRIPTION:

SOLAR PRIMARY CIRCUIT:

- High efficiency solar circulator.
- 3-way return ball valve with non-return valve.
- 6 bar safety group.
- Inlet ball valve with non-return valve 10 mbar equipped with thermometer holder clip.
- Brass deaerator with automatic release valve and interception faucet.
- AISI 316 stainless steel brazed plate exchanger.

SECONDARY CIRCUIT:

- Switch valve.
- Safety valve.
- High efficiency circulator.

FULL PACKAGE SOLAR STATION, INCLUDING PRIMARY SOLAR EXCHANGE MODULE TO BE CONNECTED TO PUFFER TANK AND STRATIFICATION SYSTEM SO TO ALLOW THE THERMAL STRATIFICATION OF THE TANK FROM THE TOP TO THE BOTTOM.

LOW-FLOW TILL 70 M² COLLECTOR LIGHT RECEIVING SURFACE.

PRIMARY SOLAR EXCHANGE STATION FOR BUFFER TANK



EXTERNAL EXCHANGE MODULE

V15

ART. NR. 5760000000027

TECHNICAL DESCRIPTION:

SOLAR PRIMARY CIRCUIT:

- Solar circulator.
- Flow rate regulator with system looding and drain valve.
- 3-way return ball valve with non-return valve.
- 6 bar safety group with pressure gauge.
- Inlet ball valve with non-return valve 10 mbar equipped with thermometer holder clip.
- Brass deaerator with automatic release valve and interception faucet.
- AISI 316 stainless steel brazed plate exchanger.

SECONDARY CIRCUIT:

- Safety valve.
- High efficiency circulator.

FULL PACKAGE SOLAR STATION, INCLUDING PRIMARY SOLAR EXCHANGE MODULE TO BE CONNECTED TO PUFFER TANK.

THE MODULE DRAWS THE HEAT THROUGH THE PRIMARY CIRCUIT CONVEYING IT INTO THE EXCHANGER. THE THERMAL ENERGY IS TRANSFERRED TO THE SECONDARY CIRCUIT.

LOW-FLOW TILL 70 M² COLLECTOR LIGHT RECEIVING SURFACE.

SOLAR EXCHANGE STATION FOR DHW PRODUCTION



EXTERNAL EXCHANGE MODULE DHW

V15ART. NR.

5760000000028

TECHNICAL DESCRIPTION:

SOLAR PRIMARY CIRCUIT:

- High efficiency solar circulator.
- Flow rate regulator with system looding and drain valve.
- 3-way return ball valve with non-return valve.
- 6 bar safety group with pressure gauge.
- Inlet ball valve with non-return valve 10 mbar equipped with thermometer holder clip.
- Brass deaerator with automatic release valve and interception faucet.
- AISI 316 stainless steel brazed plate exchanger.

DHW CIRCUIT WITH AISI 316 STAINLESS STEEL PIPES:

- 6 bar safety valve.
- DHW circulator.
- DHW flow rate till 37 L/min

FULL PACKAGE SOLAR STATION, INCLUDING PRIMARY SOLAR EXCHANGE MODULE TO BE CONNECTED TO DHW ACCUMULATION TANK.

THE MODULE DRAWS THE HEAT THROUGH THE PRIMARY CIRCUIT CONVEYING IT INTO THE EXCHANGER. THE THERMAL ENERGY IS TRANSFERRED TO THE SECONDARY CIRCUIT.

DHW LOW-FLOW TILL 70 M² COLLECTOR LIGHT RECEIVING SURFACE.



BASIC CONTROL UNIT

New **BASIC** control unit for solar thermal installations is equipped with 2 Outlets and 3 Inlets (probes). It can set and manage till 6 different solar installations. Selecting one of the 6 installation diagram, the control unit will automatically deal with outlets and inlets for the selected system. On the backlit LCD screen you can see the configuration of the hydraulic installation diagram, outlets status, probes status and many other useful data and information.

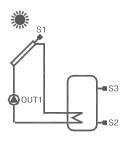


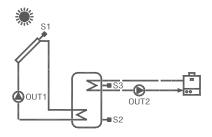
BASIC CONTROL UNIT WITH TEMPERATURE PROBES INCLUDED

ART. NR.

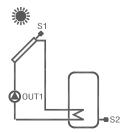
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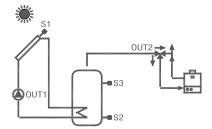
MAIN EXEMPLE OF SETTINGS MANAGED BY BASIC CONTROL UNIT

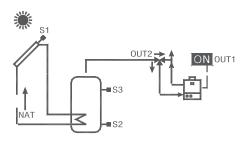














PROFESSIONAL CONTROL UNIT

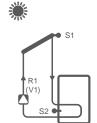
New **PROFESSIONAL** solar control unit combines a practical design and a clear graphical user interface. This control unit is particularly easy to use also thanks to its feature to assist the user step by step during the settings to easily and quickly start the unit. PROFESSIONAL V15 control unit can be used to run different complex installations till 42 system types. It is equipped with a backlit LCD display which easily allows to set all the functions, such as to see current values, system analysis and monitoring using statistics, customized settings for special features, extensible menus including instructions, safety lock, etc.

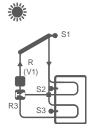


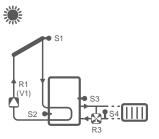
PROFESSIONAL CONTROL UNIT WITH TEMPERATURE PROBES INCLUDED

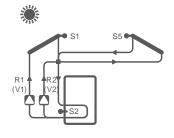
ART. NR.
5755280000021

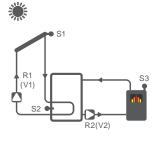
MAIN EXEMPLE OF SETTINGS MANAGED BY **PROFESSIONAL CONTROL UNIT**

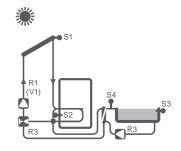


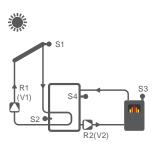


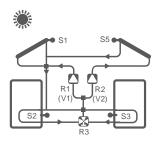


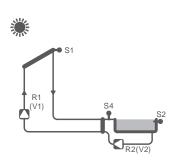














SPARE PARTS AND ACCESSORIES FOR COMPACT SOLAR THERMAL SYSTEMS

ACCESSORIES FOR STRATOS® 4S

STRATOS® 4S COVERING

Cover for Stratos® 4S protection. Essential to protect the system in case it would be drained, during periods it is not working or after the installation before starting to work.



MODEL	ART. NR.
120	5775000000017
180	5775000000018

HEATING CABLE

The heating cable guarantees a great protection against freezing and avoids possible damages at the pipes or fittings caused by low temperatures in installations in those environments subject to risks of ice.

This accessory is made of a heating cable with constant power of 10W/m (220 V), including the thermostat and cable with Schuko plug.



	LENGTH	WATT	ART. NR.
	3	30	5240000005003
_	6	60	5240000005004

3/4" PRESSURE ADAPTOR

The pressure reduction is an essential device to reduce and stabilise the incoming pressure from the water supply network for a correct use of the domestic installation as well as of the related devices.



ART. NR.
5046000000042

3/4" SAFETY GROUP

The safety group has to be used for DHW storage protection. The product is made of several components which have the following functions:

- safety against overpressure
- anti-pollution, so to avoid the hot water to return back to the public network
- interception, allowing to seal the supply network for control and maintenance of other devices.

The installation of such devise is mandatory as per the existing law. Cordivari safety group is certified according to the European law EN 1487 requirements.



ART. NR. 576000001002

KIT FOR SOLAR TANK AND BOILER CONNECTION

The kit enables to automatically manage the thermal energy of the solar storage tank in order to spread hot water at a controlled and optimal temperature to the users. So the water always arrives at the set temperature, activating the boiler only when necessary, that is in case of water low temperature coming from solar storage.

Thanks to its structure, it is easy to install on both new and existing systems.



ART. NR. 5765000000514



SPARE PARTS AND ACCESSORIES FOR COMPACT SOLAR THERMAL SYSTEMS

ACCESSORIES FOR STRATOS® DR

ELECTRICAL IMMERSION KIT IP65

Monophase Electrical heating as 1500W integration, set-point at 50°C, protection class IP65, safety thermostat manual reset.



ADT ND	Tension	Output	Set-point temperature	Connection R
ART. NR.	Volt	[W]	[°C]	Gas M
5240000000061	220 V MONO PHASE	1500	50	1"1/4

ANTI-FREEZE ELECTRICAL IMMERSION KIT IP65

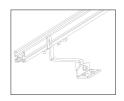
Anti-Freeze Electrical heating of 200W, set-point at 4°C, protection class IP65, it allows Stratos® DR system protection against freezing. It starts working when the temperature inside the storage falls below 4°C. If the environment temperature drops below -5°C, the system has to be drained and accurately protected following the user manual.



ART. NR.	Tension	Output	Set-point temperature	Connection R
AKI. NK.	Volt	[W]	[°C]	Gas M
5240000000060	220 V MONO PHASE	200	4	1/2"

POLE MOUNT FIXING KIT FOR PITCHED ROOFS

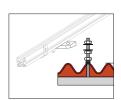
Suspended fixing kit for pitched roofs. It allows to direct the weight of the system to the roof framework instead to the roof.



ART. NR. 5770001100885

INSULATED ROOF FIXING KIT

Fixing kit for insulated pitched roofs. It allows to mount the system on the roof, crossing the insulation without causing burden or damages.



ART. NR.
5770001100886

30° SUPPORT KIT FOR STRATOS® DR

Support system for flat surfaces with 30° fixed inclination. Suitable to maximize the solar radiation as well as the output with low temperatures, especially during summer.



ART. NR. 5770001100902

PVC PROTECTION COVER

Cover for Stratos® 4S protection. Essential to protect the system in case it would be drained, during periods it is not working or after the installation before starting to work.



MODEL	ART. NR.
100	5775000000019
150	5775000000015
200	5775000000016



ACCESSORIES AND SPARE PARTS FOR THERMOSIPHON SYSTEMS

SPARE PARTS AND ACCESSORIES FOR PANAREA SOLAR SYSTEM

MAGNESIUM ANODE 3/4"

Sacrificial magnesium anode with 3/4" connection suitable for cathodic protection of the solar Interka tank. Essential to protect the tank also from possible corrosions and stray currents.



For the complete range and prices of calorofiers please refer to our calorifier and buffer tanks catalogue.

ART. NR.	INTERKA POLYWARM® [liters]	[mm]
5200000041008	150	32x200
5200000041009	200-300	32x350

For INTERKA POLYWARM®. Kit of 3 pcs.

PRIMARY SAFETY VALVE

Safety valve for the primary circuit of the solar systems with thermosiphon circulation. Connections of 1/2" F and calibration at 2,5 bar. This safety device is indispensable to avoid the overpressure of the primary circuit of the solar systems with thermosiphon circulation.



ART. NR.
5775000000010

1/2"M x 1/2"F (calibrated at 2,5 bar) Package of 5 pc.

SAFETY VALVE TP 1/2" M

The safety valve TP combines the temperature and pressure control of the DHW storage tank. The safety device protects the solar systems with thermosiphon circulation from the excessive raising of one or the two factors in case of non-levy for long periods in situations of strong sun irradiation.

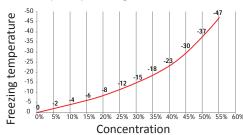


ART. NR.
5302000000020

HEAT TRANSFER MEDIUM CONCENTRATED

Non-toxic biodegradable heat transfer fluid, propylene glycol-based. It is indicated for thermosiphon systems, it is safe thanks to its composition suitable for food applications, it also protects the primary circuit against corrosion as well as deposits and foams development. Concentrated fluid to be diluted.





ART. NR.	PACKAGE KG
5000500000004	10
5000500000006	5

HEATING ELEMENT

More phase electric heater of 1500 watt with IP65 protection level, complete with protection cover against dirt, dust and UV rays. Useful as integration in systems with thermosiphon circulation. Connection of 1"1/4, manual reset, indicated for Interka solar tank.



ART. NR. 5240000000062

IP65 1,5 kw 220v 1"1/4M with protection cover



PROBES FOR BASIC CONTROL UNIT

Probes kit for BASIC control unit. The kit includes 2 temperature probes for the tank + 1 temperature probe for solar panel.



ART. NR.

5755280000022

PROBES FOR PROFESSIONAL CONTROL UNIT

Probes kit for PROFESSIONAL control unit. The kit includes 3 temperature probes for the tank + 2 temperature probe for solar panel.



ART. NR.

5755280000023

SHIELDED CABLE

Electrical cable to extend the temperature probe length. This cable allows to extend the length of the different probes to the control unit, avoiding the signal loss. Cable 2x1mm.



ART. NR.

5220000000021

LENGTH 20 mt.

JUNCTION BOX

In-wall junction box to easily and quickly connect the temperature probes cables thanks to the terminal block and the cables seal included.



ART. NR.

5775000000003

5 pcs box

OVERVOLTAGE PROTECTION

The junction box includes a power surge protection device. This accessory is essential to guarantee the solar control unit protection and safety against power surge or electrical discharges caused by lightning.



ART. NR.

5775000000004

5 pcs box



ELECTRICAL IMMERSIONS KIT

Electrical heating can be used as integration on calorifiers and tanks, stainless steel heaters, protection class min IP44, supplied with thermostat, safety thermostat reset user and 2 mt of electrical cable wired and without plug.



	ART. NR.	Tension	Output	LENGTH L	Connection R R
ARI. NR.	Volt	[Kw]	[mm]	Gas M	
	5240000000051	220 V	1,5	320	
	5240000000052	MONO	2	320	1"1/2
	5240000000053	PHASE	3	320	

24L EXPANSION VESSEL KIT

The kit includes

- expansion vessel - flexible pipe, fixing bracket and fittings



LITERS	ART. NR.
24	5765000000101

EXPANSION VESSEL KIT

The kit includes:

- expansion vessel - flexible pipe and fittings



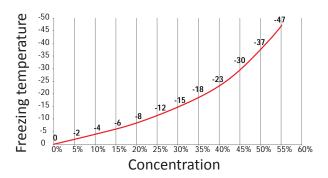
LITERS	ART. NR.
50	5765000000104
80	5765000000105
100	5765000000106
200	5765000000107



HEAT TRANSFER MEDIUM CONCENTRATED

Non-toxic biodegradable heat transfer fluid, propylene glycol-based. It is indicated for thermosiphon systems, it is safe thanks to its composition suitable for food applications, it also protects the primary circuit against corrosion as well as deposits and foams development. Concentrated fluid to be diluted.





ART. NR.	PACKAGE KG
5000500000004	10
5000500000006	5

CASE WITH MEASUREMENT AND PARAMETERS CHECK TOOLS FOR THERMAL SOLAR SYSTEM

Components: pressure gaunge, test jar, refractometer, pH test strips, digital multimeter, monitoring and warning labels, compass, distilled water and tools.



ART. NR. 5765000000401

SOLAR COLLECTORS REFILLING SYSTEM

The kit is made of:

- cart with 30 L can
- self-priming pump (230V Pmax 5,9 bar)
- Heat resistant pipe (from -40°C to +60°C)

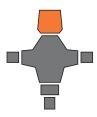


ART. NR. 5765000001001



THERMOSTATIC MIXING VALVE

Thermostatic mixing valve for solar systems.



CONNECTIONS	ART. NR.
3/4"	5750000000001
1"	5750000000003

THERMOSTATIC SWITCH VALVE

Auto-operated thermostatic switch valve, calibrated at 45°C. It can easily integrate solar thermal systems for DHW production with a boiler.



ART. NR.	Connections
5046000000007	3/4"
5046000000008	1"

BALANCING VALVE WITH FLOWMETER

The balancing valve for hydraulic primary circuit can settle the flow rate on single collectors rows in order to get the correct flow on every branch of solar field with the purpose of an optimal thermal exchange. This accessory made in brass allows the flow regulation and direct control thanks to the graduated flow meter and the magnetic flow indicator.



ART. NR. 5046000000023



PRE-INSULATED PIPE EXTENSION KIT



ART. NR.	Connection R	Diameter Ø [mm]	
5775000000005	3/4"	16	
5775000000006	1"	20	

5 pcs box

FLOW REGULATOR

Flow regulator for circulation groups.



FLOW RATE It/min	ART. NR.
2 ÷ 12	5046000000035
20 ÷ 70 /V15	5046000000036
8 ÷ 28	5046000000037
8 ÷ 38	5046000000038

STRAIGHT TRANSITION CONNECTION

Copper pipe/corrugated steel pipe.

Connection to be welded, essential to link copper piping with the stainless steel corrugated pipe for primary circuit. It has a male thread with flat-face.



ART. NR.	TYPE
5775000000012	Ø 22 - 3/4"

5 pcs box



SOCKETS FOR TEMPERATURE PROBE ON SOLAR COLLECTORS

Stainless steel probe socket with male 1/2" thread to add temperature probes in solar collectors, sealing cable clamp included.



ART. NR.

5775000000001

3 pcs box

COPPER SOCKET FOR PROBE

Copper probe socket with male 1/2" thread to add temperature probes in tanks.



ART. NR.

5775000000011

5 pcs box

MANUAL AIR VENT

Manual air vent for solar systems (1/2" M connection)



ART. NR.

5775000000002

5 pcs box

PRE-INSULATED PIPE

Flexible AISI 316L stainless steel corrugated pipe, with 13mm EPDM insulation at high efficiency, with protection against UV finishing. The pre-insulated pipe integrates the silicone sensor cable for temperature probe. This accessory is useful to easily and quickly create the connections of solar primary circuit.



ART. NR.	LENGTH [mt]	Diameter Ø [mm]
5768000010001	10	16
5768000010002	15	16
5768000010003	10	20
5768000010004	15	20



FITTINGS KIT

- 1 x 1/2" brass cross fitting F/F/F/F
- 2 x compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread
- 1 x 1/2 M manual air vent
- 1 x 1/2" well probe H 150 with cable clamp and silicone gasket



















FITTINGS KIT SUITABLE FOR SYSTEM WITH:	Art. Nr.	COMPONENTS		
1 x 1 COLLECTOR	5765000000202	 4 Brass reinforcing ring for copper pipe 22x1,0 1 Compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread 2 X bulb in sheath stop spring 2 X socket probe 1/2" gas connection 10x11 l.85 		
1 x 2 COLLECTORS	5765000000203	 6 Brass reinforcing ring for copper pipe 22x1,0 2 Compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread 2 X bulb in sheath stop spring 2 X socket probe 1/2" gas connection 10x11 l.85 		
1 x 3 COLLECTORS	5765000000211	 8 Brass reinforcing ring for copper pipe 22x1,0 3 Compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread 2 X bulb in sheath stop spring 2 X socket probe 1/2" gas connection 10x11 l.85 		
2 x 2 COLLECTORS	5765000000216	 12 Brass reinforcing ring for copper pipe 22x1,0 5 Compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread 2 X bulb in sheath stop spring 2 X socket probe 1/2" gas connection 10x11 l.85 		
1 x 4 COLLECTORS	5765000000221	 10 Brass reinforcing ring for copper pipe 22x1,0 4 Compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread 3 X bulb in sheath stop spring 3 X socket probe 1/2" gas connection 10x11 l.85 		
1 x 5 COLLECTORS	5765000000306	 12 Brass reinforcing ring for copper pipe 22x1,0 5 Compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread 2 X bulb in sheath stop spring 2 X socket probe 1/2" gas connection 10x11 l.85 		
2 x 3 COLLECTORS	5765000000311	 16 Brass reinforcing ring for copper pipe 22x1,0 7 Compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread 2 X bulb in sheath stop spring 2 X socket probe 1/2" gas connection 10x11 l.85 		
2 x 4 COLLECTORS	5765000000231	 20 Brass reinforcing ring for copper pipe 22x1,0 9 Compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread 3 X bulb in sheath stop spring 3 X socket probe 1/2" gas connection 10x11 l.85 		
2 x 5 COLLECTORS	5765000000321	 24 Brass reinforcing ring for copper pipe 22x1,0 11 Compression fitting with metallic sleeve Ø 22 Dir.F/1/2" Male thread 2 X bulb in sheath stop spring 2 X socket probe 1/2" gas connection 10x11 l.85 		





COMPANY CERTIFICATES



QUALITY CERTIFICATE UNI EN ISO 9001



ENVIRONMENTAL MANAGING SYSTEM CERTIFICATE UNI EN ISO 14001

Cordivari has always placed as main objectives:

- The continuous improvement of the manufactured products
- The commitment to use low environmental impact materials that can be almost 100% recycled
- The achievement of the best quality

According to this, Cordivari has worked to obtain the most significant certifications which attest the commitment inside and outside of the company.

PRINCIPLE STANARDS WHICH REGULATES THE CONSTRUCTION OF SOLAR COLLECTORS

- Uni EN 7855 Glass tests, determination of the transmission factors of the sun energy
- Uni EN 8477-1 Sun energy, performance calculation for the application on buildings. Evaluation of the received energy of the sunshine.
- Uni EN 8477-2 Sun energy, performance calculation for the application on buildings. Evaluation of the reachable performances through active or passive systems.
- **Uni EN 12795-1** Solar thermal systems and components Solar captors Part 1: General requirements
- Uni EN 12975-2 Solar thermal systems and components Solar collectors Part 2: Test methods
- Uni EN 12976-1 Solar thermal systems and components Factory made systems Part 1: General requirements
- Uni EN 12976-2 Solar thermal systems and components Factory made systems Part 2: Test methods
- Uni EN 12977-1-2-3 installations of solar thermal systems and components Systems assembled according specifications - general requirements, test methods, characterization of tank performance
- Uni EN 9711 Thermal systems using solar energy. Data for offer, orders and testing.
- Uni EN 9488 Solar energy Vocabulary

LEGISLATION

Directive 2002/91/CE of the European parliament and the council of 16 December 2002 about the energy performances of buildings

Directive 2006/32/CE of the European parliament and the council of 5 April 2006 about energy end-use efficiency and energy services and repealing Council directive 93/76/CEE.

Law decree of 4 June 2013 n.63 urgent provisions for the transposition of directive 2010/31/EU of the European parliament and the Council of 19 May 2010, about the energy performance of buildings and for the definition of infringement procedures initiated by the European Commission, as well as other provisions on social cohesion.

Legislative decree 3 March 2011 n.28 implementation of Directive 2009/28/CE on the promotion of the use of energy from renewable sources, amending and subsequently repealing directives 2001/77/CE and 2003/30/CE.



CERTIFICATES



SOLAR KEYMARK



SOLAR KEYMARK



SOLAR KEYMARK



SOLAR KEYMARK - STRATOS® DR 200 LT



CERTIFICATES



SOLAR KEYMARK - STRATOS® DR 100 LT

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TEST-REPORT EXTRACT



SOLAR KEYMARK - STRATOS® DR 150 LT



DCLD CERTIFICATE



GENERAL SALES CONDITIONS AND WARRANTY

Sales of Cordivari's products are made according to conditions listed below. Exceptions should be agreed in writing by

1.SHIPMENT

Goods are shipped at buyer's (purchaser) risk and peril, even if transport is organized by Cordivari. Goods have to be checked at the delivery about unaltered packaging, missing or confused items in the presence of the forwarder. Any claim has to be immediately communicated to the forwarder with a note on the shipment's document and by registered mail within 3 days from delivery (otherwise the forwarder and Cordivari srl are cleared of their responsibilities).

from delivery (otherwise the forwarder and Cordivari sri are cleared of their responsibilities).

2. DELIVERY TERMS

Delivery terms are indicative. Failure to comply with the agreed delivery terms for any reasons will not entitle the buyer (purchaser) to any compensation, cancellation or modification of the order without our prior consent. In case exceptional events like natural disasters, strikes or unpredictable market shortage of raw materials, Cordivari reserves the right of choosing and adopting the most appropriate measures. If the ordered goods will not be collected within the agreed terms, the material will be invoiced and stored at buyer's costs and risks.

3. WEIGHT, MEASURES, SURFACES

Weights, measures, surfaces, shapes, sizes and other figures related to the products are merely indicative and Cordivari Sri

Weights, measures, surfaces, shapes, sizes and other figures related to the products are merely indicative and Cordivari Srl may modify them at any time without any notice.

4. ORDER CANCELLATION ON MODIFICATION

No orders shall be cancelled or modified, even partially, without the consent of Cordivari Srl. It will not be possible to modify the order when the production has already started. Eventual costs due to modifications or cancellations will be charged to the buyer (purchaser).

5. WARRANTY

A) Complete solar tharmal costs.

S. WARRANTY
A) Complete solar thermal systems
Warranty for COMPACT SOLAR THERMAL SYSTEMS STRATOS' is:
- 5 years for Solar Thermal System.
- 2 years on all other technical components and accessories.
- 1 year for electrical and electronic components and accessories.
- 1 year for electrical and electronic components and accessories.
For systems designed and dimensioned directly from the customer, Cordivari warranty applies only on the products ordered.
Products and systems presented in our catalogue are conceived and manufactured in compliance with European legislations EC-EN-UNI and PED. Warranty and conformity declarations are therefore valid only in those countries where sub-estated norms are not acknowledged, Cordivari does not assume any responsibility concerning warranty and conformity.

The warranty shall be invalidated with failure to comply with attachment I part C of the decree law n°31 of 02/02/2001 and subsequent amendments, implementation of the Council [...] Directive 98/83/EC concerning the quality of water intended for human consumption:

- pH (-7 e-9)

- pH (>7 e <9) Chloride < 250 mg/ll

- Chanter C.200 mg/l
- Sulphate < 200 mg/l
- Iron < 200 μg/l
- Disinfectant residue < 0,2 mg/l
- Concerning water hardness, reference is made to the UNI CTI 8065 Norm that disciplines the values within sanitary water

s. Total water hardness ~ 15-25 °f

Systems:

Total water hardness ~ 15-25 °f
8) SOLAR COLLECTORS
The user of non-original defects on solar collectors is 5 years
The warranty period for original defects on solar collectors is 5 years
The use of non-original fixing structures or improper assembly of the same makes the warranty coverage of the collector void. Changes in staining as well as stain formation do not affect the performances of the solar collector so they are not to be considered as production defects.

(CALORIFIER
For all calorifiers with internal anticorrosive treatment as Polywarm or stainless steel the warranty is 5 years.
For all other pressurized tanks the warranty is 2 years
The warranty covers product defects and is void if all points of current article 5 are not respected.
The warranty is valid only if the products are set with the cathode protection in an efficient and permanent way. The installation of the products has to comply with the criteria of the over pressure protection, corrosion and legionella. The installation must comply with installation and use rules and regulations as well as those described in the instructions and any eventual regulations concerning plant engineering. (Refer to our calorifier and Buffer tanks catalogue in force). In domestic hot water production systems as well as heating systems, the warranty is valid only if the standard UNI CTI 8065 is respected, standard which provides for various types of water treatment according to its characteristics. The warranty does not cover damages deriving from non-compliance with the standard UNI CTI 8065.

The warranty shall also be invalidated with failure to comply with the instructions [...] for installation and use provided by Cordivari and in case of non-compliance with below prescriptions.

Cordivari and in case of non compliance with below prescriptions. NORMS AND PRESCRIPTIONS

Cordivari and in case of non compliance with below prescriptions.

NORMS AND PRESCRIPTIONS

The use of non-original fixing kit will invalid the warranty. Any change in colour, as well as possible formation of stains, do not influence the performances of the solar collector therefore are not considered as manufacture defects. Warranty will be applicable if the installation of the products respects the criteria of protections against overpressure, corrosion, Legionellosis, all instructions contained in the installation manual provided by Cordivari and all additional norms concerning installation and plant design. For sanitary hot water systems as well as heating systems, for warranty purposes, comply with UNI CTI 8065

Norm that consider different types of water treatments according to its own characteristics.

Warranty does not cover any damage caused by transportation, misuse or improper use and/or maintenance, faulty installation and connections, unauthorized tampering, alteration and/or improper adjustments. Faulty anti-freeze protection. Warranty shall be considered applicable at the following additional conditions:

The product has been stored in suitable, good conditions and sheltered from harsh weather conditions

The product has not suffered damage during transport, handling, installation

Repairs, tampering or other operations have not been made inappropriately by unauthorized personnel,

The installation has been carried out by qualified personnel and in compliance with all instructions contained in the installation manual provided by Cordivari, with all specific technical regulations and all EC norms.

Accessories used are the original ones provided by Cordivari srl

The buser (purchaser) has settled payments within the agreed terms.

Water does not present any trace of aggressive chimical substances

Max working pressure and temperature stated in our catalogue are respected.

Replacement or repairs to the product or components during the warranty period shall not extend the duration of the warranty a

- replacement.

 Cordivari srl shall not be liable for any direct or indirect damage caused to property, or personal injury or harm to animals

that may be caused by incorrect handling, [...] improper use or malfunction of the product.

The product product purchased. The installer is responsible for installation and must respect a all instructions contained in the installation manual provided by Cordivari, with all specific technical regulations and all EC norms.

Cordivari srl Cordivari reserves the right to make improvements or modifications at his sole discretion, at any time, without

notice or obligation and without interfering with above-stated general conditions. For accessories and remaining articles of present catalogue, warranty is 2 years.

6. PAYMENTS

All invoices have to be paid according to the agreed deadline. Any delay, even partially, gives rise to interest on arrears and cause the immediate suspension of any scheduled delivery.

7. GOODS' PROPERTY

Cordivari SrI remains owner of the delivered goods until they are not completely paid by the buyer (purchaser). In the event of total or partial default by the Buyer (purchaser), Cordivari Srl can request the immediate return of the delivered goods, retaining the partial payments received as indemnity, or even reserve the right to claim further damages.

8. PRICES
Prices are not binding and can be modified without notice at anytime. Prices are revisable and in case of changed market conditions, Cordivari srl reserves the right to modify them for undelivered goods. Stated prices have to be intended ex-works Cordivari Plant in Morro D'oro (TE – Italy), except in case of a different written agreement. For some voluminous delivery Cordivari may charge some extra-costs for packaging.
Prices on this Pricelist are V.A.T. excluded

Prices on this Pricelist are V.A.T. excluded 9. ORDERS
The minimum order is Euro 2.000,00. Given orders are binding to the buyer, who acknowledges of all our sales conditions. For orders sent in the name of and/or on behalf of third parties, written signature stands for joint obligation and fulfilment of the agreed commitments. In case transport is organized by Cordivari, the delivery is to be intended only at Customer's premises (headquarter and/or warehouse). For different requirements kindly contact Cordivari sales office.
Cordivari reserves also the right to request additional costs in case of special requests upon delivery term (express delivery,

For the present Catalogue and conditions only the provisions of Italian law will be used. For controversy, the Court of Teramo (Italy) shall have exclusive competence. Essential and trial law shall be exclusively Italian.

11. ORIGINAL VERSION

Translation of Cordivari General Sales Conditions and Warranty Terms, reported in this page, derives from the Italian version In case of possible controversy, the official Cordivari General Sales Conditions and Warranty Terms are the one reported in the Italian language, stated at the back of the Italian catalogues.

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CONDIZIONI GENERALI DI **VENDITA E GARANZIA**

Le vendite dei prodotti della Cordivari Srl sono effettuate conformemente alle sotto elencate Condizioni Generali di nzia. Ogni deroga a queste condizioni è subordinata all'accettazione scritta da parte della Cordivari S

1. SPEDIZIONE

1. SPEDIZIONE
La merce viaggia a rischio e pericolo del Cliente, anche se viene spedita franco destino. La merce deve essere verificata all'atto della consegna, controllando l'integrità dell'imballo, articoli mancanti o sostituzioni in presenza del trasportatore. Ogni contestazione dovrà essere segnalata immediatamente al trasportatore/corriere firmando con riserva il DDT e confermando tale riserva a mezzo lettera raccomandata entro tre giorni dal ricevimento merce. (In caso di mancata osservanza di questa clausola l'impresa di trasporto e la Cordivari sri sono svincolate da ogni responsabilità).
2. TERMINIO IL CONSEGNA.

2. TERMINI DI CONSEGNA

2. TERMINI DI CONSEGNA

I termini di consegna si intendono approssimativi e comunque se il termine di consegna proposto non potesse essere rispettato per qualsiasi motivo, il Cliente non avvà diritto a esigere alcun indennizzo, pagamenti di penali, annullamento o modifica all'ordine conferito. In caso di eventi straordinari quali calamità naturali, scioperi, mancanza di materie prime e cause di forza maggiore, la Cordivari ari si riserva la scelta delle misure da adottare. Se la merce ordinata non viene ritirata entro i termini concordati, questa verrà fatturata e immagazzinata con cost, rischio e pericolo a carico del committente.

3. PESI, MISURE, SUPERFICI

PESI, MISURE, SUPERFICI

PESI, misure, superfici, forme e dimensioni, illustrazioni o immagini e altri dati presenti in questo catalogo o sui prodotti hanno puro scopo illustrativo e non impegnativi e possono subire delle modifiche o variazioni che la Cordivari Srl si riserva di apportare ai suoi prodotti senza preavviso. Fare sempre riferimento alla documentazione tecnica allegata al prodotto e ai certificati ufficiali.

e ai certificatu ufficiali.

4. ANNULLAMENTO O MODIFICA ORDINE

Senza il consenso scritto della Cordivari Srl, le ordinazioni conferite non possono essere né parzialmente né totalmente
annullate o modificate. Non si accordano variazioni o modifiche quando è già stata intrapresa la lavorazione. Eventuali
spese derivanti dall'annullamento o modifica dell'ordine saranno fatturate al cliente.

La durata della garanza per vizi originari si sistemi compien e:
- Sanni per i Collectors Solari e per i Bollitori.
- 2 anni per tutti i restanti accessori, componenti tecnici, elettrici ed elettronici.
- 1 anno per componenti elettrici ed elettronici come anche per gli accessori.
In caso di sistemi dimensionati dall'acquirente, la Cordivari garantisce esclusivamente la qualità dei componenti ordinati.
I prodotti e sistemi presentati nel nostro catalogo sono concepiti e realizzati in conformità con la legislazione europea
EC-EN-UNI e PED. Le dichiarazioni di garanzia e di conformità sono quindi valide solo nei paesi in cui tali normative sono

valide e in vigore. Per paesi extra europei e per tutti i paesi in cui le norme sopra indicate non sono riconosciute, la Cordivari non si assume alcuna responsabilità in merito a garanzia e conformità. La garanzia decade qualora non vengano rispettati i valori limite indicati nell'allegato I Parte C del D.Lgs. n°31 del 02/02/2010 e successive modifiche, attuazione della direttiva europea 98/83/CE, relativa alla qualità dell'acqua destinata

0.2 (0.2/2001 e successive modifiche, attuazione della direttiva europea 98/83/CE, relativa alla qualità dell'acqua destinata al consumo umano:

pi () 7 e < 9)

Cloruro < 2.50 mg/l

Ferro < 200 μg/l

Solfato < 200 mg/l

Disinfettante residuo < 0,2 mg/l

Per quanto riguarda la durezza dell'acqua si fa riferimento alla Norma UNI CTI 8065 che ne disciplina i valori negli impianti ad acqua calda sanitaria:

Durezza totale 15-25 °f

Ogni garanzia decade in caso di non rispetto delle prescrizioni indicate sulle istruzioni d'uso e di montaggio fornite a corredo del prodotto e se non sono rispettate le norme descritte a seguire.

B) Collectors SOLAB.

L'utilizzo di strutture di fissaggio non originali, o il montaggio improprio delle stesse fanno decadere la garanzia sul collectore.

Collecture:

Modifiche della colorazione, come anche la formazione di macchie, non influiscono sulle performance del collettore solare, pertanto non sono difetti di produzione.

C) BOLLITORI

Per tutti i bollitori con trattamento anticorrosivo interno in Polywarm", o acciaio inox 316L la garanzia è di 5 anni.

Per tutti gli altri recipienti in pressione la garanzia è di 2 anni.

La garanzia copre i difetti di fabbricazione e decade se non viene rispettato quanto indicato nel presente articolo. La garanzia sussiste a condizioni che il prodotto sia sempre dotato in maniera permanente ed efficiente della protezione catodica prevista a corredo, che l'installazione dei prodotti abbia rispettato i criteri della protezione dalla sovrappressione, corrosione, legionella e norme e prescrizioni di installazione e utilizzo, oltre che quanto prescritto nelle istruzioni d'uso e in tutte le eventuali norme in materia impiantistica (vedi. Catalogo listino BOLLITORI in vigore).

- corrosione, legionella e norme e prescrizioni di installazione e utilizzo, oltre che quanto prescritto nelle istruzioni d'uso e in tutte le eventuali norme in materia impinatistica (vedi. Catalogo listino BOLLITORI in vigore).

 Negli impianti di produzione di acqua calda sanitaria, così come in quelli di riscaldamento, attenersi, ai fini della garanzia, a quanto disposto dalla norma UNI CTI 2065 che prevede vant itpi di trattamenti dell'acqua in funzione delle sue caratteristiche. La garanzia non copre danni derivanti da inadempienze alle prescrizioni della norma UNI CTI 8065.

 L'Impegno di prestare la garanzia nei punti A, B, C, D, del presente articolo, sussiste a condizione che:

 Il prodotto si satato immagazzinato in buone condizioni e al riparo dalle intemperie prima dell'installazione;

 Non siano state effettuate manomissioni o riparazioni da persone non autorizzate;

 L'Installazione sia stata realizzata da personale autorizzato e in conformità alle istruzioni e alle norme indicate sulla documentazione tecnica formita e rispettate eventuali disposizioni di leggio norme tecniche specifiche;

 Gli accessori utilizzati siano quelli regolarmente forniti dalla Cordivari SrI;

 Il compratore abbia effettuato il saldo dei pagamenti nei termini prestabiliti;

 Non siano state effettuato il saldo dei pagamenti nei termini prestabiliti;

 Non siano state effettuato il saldo dei pagamenti nei termini prestabiliti;

 La pressione e la temperatura di esercizio indicate sul catalogo corrispondano alla pressione e alla temperatura limite di utilizzo.

 Eventuali riparazioni o sostituzioni in garanzia di parti o prodotti possono avvenire solo ed esclusivamente a giudizio insindacabile della Cordivari SrI e se effettuati durante il periodo di garanzia, non spostano la decorrenza e la durata della garanzia stessa.

 La garanzia non copre costi dovuti a demolizioni lavori per il passaggio dei prodotti sia in ingresso che in uscita e la manodopera per eventuali sostituzioni di prodotto. Cordivari srI si impegna durante il periodo d

- come per errato o improprio uso dello stesso. en come per errato o improprio uso dello stesso. Il personale incaricato della Cordivari interviene sempre e solo a titolo di assistenza per il prodotto in quanto il responsabile dell'installazione rimane a tutti gli effetti l'installaziore che dovrà rispettare le prescrizioni tecniche riportate nel presente certificato nonché le normative ANCC, UNI- CIG, VVFF e CEI.

La Cordivati Srl si riserva il diritto di apportare in qualsiasi momento ed a suo insindacabile giudizio, tutte le modifiche che riterrà utili e necessarie a dati e caratteristiche tecniche dei propri prodotti senza che ciò interferisca nelle condizioni generali sopra descritte. Per gli accessori e per tutti gli articoli residuali del presente catalogo non contemplati nelle condizioni generali di vendita,

anzia è di 2 anni.

6. PAGAMENTI

b. PAGAMIENI I I pagamenti delle fatture relative alle forniture dovranno essere effettuati entro i termini di scadenza stabiliti. Il ritardo nel pagamento delle fatture, anche se parziale, dà luogo alla decorrenza degli interessi di mora nella misura del tasso corrente, oltre alla sospensione immediata delle spedizioni in corso.

7. RISERVA DI PROPRIETÀ

7. RISENVA DI PROPRIETA
Fino a quando il cliente non ha pagato l'ultima rata di prezzo di merce consegnata, i prodotti restano di proprietà
della Cordivari srl. In caso di inadempimento anche parziale del compratore la Cordivari Srl potrà chiedere l'immediata
restituzione della merce trattenendo comunque le rate pagate a titolo di indennità salvo il maggior danno.

8. PREZZI prezzi no sono impegnativi e possono essere modificati senza preavviso. I prezzi sono revisionabili in funzione delle variazioni che dovessero intervenire fino al momento della consegna. prezzi si intendono resa franco stabilimento di Morro D'Oro (TE), salvo diversi accordi. prezzi sono semper riportati nel listino al netto di IVA. Per modelli ingombranti la Cordivari Srl si riserva di chiedere una partecipazione alle spese di imballaggio.

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9. ORDINI/CONSEGNA

Il valore minimo per ordine è di Euro 2000. Gli ordini impartiti sono vincolanti per l'acquirente che dichiara di conoscere
ed accettare tutte le nostre condizioni di vendita. Nel caso in cui il cliente rediga l'ordine a nome e per conto di terzi, con
la firma dell'ordine si impegna in solido all'adempimento degli impegni concordati.
Nel caso in cui il trasporto sia organizzato dalla Cordivari, la consegna è da intendersi esclusivamente presso la sede o
magazzino cliente. Per esigenze diverse contattare l'Ufficio vendite Cordivari.
Cordivari si riserva inoltre il diritto di addebitare costi aggiuntivi in caso di richieste particolari ai termini di resa concordati
(corriere espresso, ecc.).

Foro Competente. Per qualsiasi controversia derivante dal presente contratto o collegata allo stesso è competente il Foro di Teramo.

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Il presente catalogo sostituisce ed annulla tutte le edizioni precedenti.

La società si riserva la facoltà di modificare in qualsiasi momento i prodotti e i dati riportati a catalogo e non risponde degli eventuali errori tipografici.

CORDIVARI









