Forced circulation solar thermal system with SKY selective flat plate collectors









CERTIFICATION

#### **Technical and construction characteristics**

SKY flatbed solar collector certified EN ISO 9806: 2014-03, CE, Solar Keymark with the following characteristics:

- Case in gray painted aluminum profile with thermal insulation in 40 mm high density rock wool;
- Collecting solar plate with 22 mm diameter copper tube grid;
- Highly treated aluminum plate absorber selective titanium laser welded;
- Prismatic glass, tempered with high transparency, anti-reflection. The SKY model solar collectors are designed to work with forced circulation through special inverter circulation groups to be chosen from the accessories.

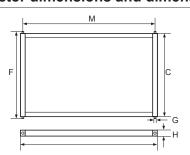
The internal circuits of the SKY collector are made of copper and are suitable for working with a mixture of water and glycol. The SKY solar panel stands out for its ease of installation thanks to the aluminum case which allows it to not exceed the net weight

Among the accessories it is also possible to select the most suitable anchoring kit based on the construction type of the floor

to which the collector will be fixed. €

Wodel	Code	6
SKY 20 flat plate collector 2.0 m² vertical	55101000	708,00
SKY 25 flat plate collector 2.5 m² vertical	55101010	842,00
SKY 27 flat plate collector 2.7 m² vertical	55101040	960,00
SKY 20-O flat plate collector 2.0 m² horizontal	55101050	752,00
SKY 25-O flat plate collector 2.5 m² horizontal	55101060	880,00

#### Solar collector dimensions and dimensions SKY



	SKY 20/20-O	SKY 25/25-0	SKY 27
L	1980	1930	2160
С	1010	1230	1260
Н	86	86	86
М	1900	1850	2080
G	22	22	22
F	1080	1302	2080
			1/-1 '

Values in mm

#### Flatbed solar collector technical data table SKY

DESCRIPTION	U.M.	SKY 20 / SKY 20-O	SKY 25 / SKY 25-O	SKY 27	
Weight	kg	36,2	43,0	48,0	
Case color			Grey		
Case material			Aluminum		
Insulation thickness	mm		40		
Glass type			91.5% transparent, 3.2 mm hardened		
Net absorbent surface	m <sup>2</sup>	1,86	2,23	2,57	
Loss coefficient	W/m <sup>2</sup> k		3,60		
Total collector surface	m <sup>2</sup>	2,00	2,37	2,72	
Absorbent plate material		Alluminio			
Surface treatment			Selective TITAN (titanium oxide)		
Efficiency (openness) η <sub>0</sub>		0,761			
Glass transparency	%		91,5		
Glass thickness	mm		3,2		
Recommended flow rate/panel	I/h	100 130 140			
Collector water capacity	I	1,42	1,70	1,85	
Maximum operating pressure	bar	10			
Stagnation temperature	°C		231		



Forced circulation solar thermal system with high efficiency BLUH+ / BLUHX+ selective flat plate collectors





Madal







#### **Technical and construction characteristics**

The BLUH+ / BLUHX+ flat plate solar collectors certified EN 12975, CE, Solar Keymark, KWA having the following characteristics: - Casing in gray painted aluminum profile with thermal insulation in 45 mm high density rock wool;

- Collecting solar plate with 22 mm diameter copper tube grid;
- Highly treated aluminum plate absorber selective titanium laser welded;
- Prismatic glass, extra clear tempered, anti-reflective. The BLUH+ / BLUHX+ collectors are suitable exclusively for vertical installations on flat roofs or pitched roofs.

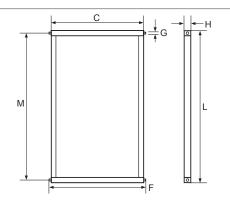
The BLUH+ / BLUHX+ solar collectors are designed to work with forced circulation through special inverter circulation groups to be chosen from the accessories.

The internal circuits of the BLUH+ / BLUHX+ collectors are made of copper and are suitable for working with a mixture of water and glycol. The BLUH+ solar panel stands out for its ease of installation thanks to the aluminum case which allows it to not exceed the net weight of 43 kg.

Among the accessories combined with the BLUH+ / BLUHX+ solar collectors, it is also possible to select the most suitable anchoring kit based on the construction type of the attic to which the collector must be fixed in order to carry out a workmanlike job. All BLUH+/BLUHX+ collectors are supplied with recyclable packaging.

woder	Code	E
BLUH+ flat plate collector 2.0 m <sup>2</sup>	55201000	870,00
BLUHX+ flat plate collector 2.5 m <sup>2</sup>	55201010	1.020,00

#### Solar collector dimensions and dimensions BLUH+ / BLUHX+



	BLUH+	BLUHX+
L	1987	1987
С	984	1270
Н	100	100
М	1876	1876
G	22	22
F	1050	1340

Values in mm

#### Technical data table for flat plate solar collectors BLUH+ / BLUHX

DESCRIPTION	U.M.	BLUH+	BLUHX+	
Weight	kg	32,0	42,0	
Case color		Gre	еу	
Case material		Alun	ninium	
Insulation thickness	mm	<del>-</del>	5	
Glass type		Extra Clear, AR, Tempe	ered 3.2 mm anti-reflective	
Net absorbent surface	m <sup>2</sup>	1,82	2,40	
Loss coefficient	W/m <sup>2</sup> k	3,53	3,18	
Total collector surface	m <sup>2</sup>	1,95	2,52	
Absorbent plate material		Aluminium		
Surface treatment		Selective TITAN	(titanium oxide)	
Efficiency (openness) η <sub>0</sub>		0,759	0,797	
Glass transparency	%		3,8	
Glass thickness	mm	3	,2	
Recommended flow rate/panel	l/h	100	130	
Collector water capacity	I	1,42	1,70	
Maximum operating pressure	bar	6		
Stagnation temperature	°C	204		



Forced circulation solar thermal system with evacuated tube collectors HV12



#### **Technical and construction characteristics**

The solar collector is made up of 12 double-cavity borosilicate glass tubes, welded at the ends, inside which a vacuum is created.

The internal cavity is made selective for the absorption of solar electromagnetic radiation by means of a special multi-layer metallic paint, created using completely recyclable products, based on aluminum and nitrogen.

The absorption unit is made up of a copper circuit curved in the shape of a "U" (CPC reflector), positioned in contact with special aluminum heat absorbers, which increase the exchange surface. This type of construction allows for high performance compared to other vacuum collectors without a reflective surface and lower energy losses even at low temperatures. The metal frame is made of electro-coloured aluminum profile resistant to salt spray corrosion

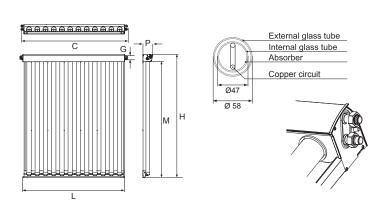
The underlying layer of the tubes is made of low iridescence reflective laminated aluminum (EN 573/3 - EN 485/2 - EN 485/4 regulations and standard test for anodic oxidation DIN 50943) specially designed to reflect more than 90% of the light total, achieved using the CPC system.

Model	Code	€
HV12 12-tube vacuum manifold	55101020	1.430,00
TR12 replacement vacuum tube for HV12 manifold	55101121	76,00

CERTIFICATION

SOLARKEYMARK

#### Solar collector dimensions and dimensions HV12



	HV12
L	1280
С	1353
Н	1605
М	1505
G	22
Р	126

Values in mm

#### Solar collector technical data table HV12

DESCRIPTION	U.M.	HV12
Net absorbent surface	m <sup>2</sup>	2,02
Opening surface	m <sup>2</sup>	1,89
Gross collector surface	m <sup>2</sup>	2,17
Minimum flow rate	l/h	6
Nominal flow rate	l/h	72
Max. capacity	l/h	720
Collector water capacity	I	2,3
Maximum operating pressure	bar	6
Stagnation temperature	°C	163
Efficiency η <sub>0</sub>		0,541
Overall loss coefficient $\alpha_1$		0,93
Connection pipe diameter	mm	22
Empty weight	Kg	37



Direct storage solar system with natural circulation for the production of domestic hot water KOMPATTO











#### **Technical and construction characteristics**

KOMPATTO it is a new direct storage solar system. The collection collectors form a single storage unit, allowing maximum efficiency to be achieved on small dimensions. There is no absorbent plate and the water tank, made up of individual AISI 316L stainless steel tubes, is directly exposed to solar radiation.

KOMPATTO works without a circulation pump, therefore there are neither heat exchangers nor connection pipes between collectors and storage.

This solution allows direct heat transmission to the accumulation pipes with consequent rapid and uniform distribution of heat. Commissioning times are very short.

The domestic water is inserted into the system from the cold water inlet (input) and is heated directly in the collector-tank, ready to be directly distributed (output) to the users. KOMPATTO is supplied as standard complete with a 1500 W anti-freeze electric heater and an anchoring frame for flat surfaces.

Model	Code	€
KOMPATTO 150 (flat roof frame included)	55000230	2.860,00
KOMPATTO 200 (flat roof frame included)	55000231	3.110,00

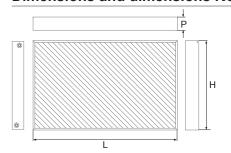
#### Integrative electrical resistance for collectors KOMPATTO

230 V single-phase electrical resistance, IP 65 protection rating.

Model Code €

HERE15 electrical resistance 1500 W	55000234	76,00
HERE20 electrical resistance 2000 W	55000235	76,00

#### **Dimensions and dimensions KOMPATTO 150 - 200**





Model	L	Н	Р
KOMPATTO 150	1990	990	220
KOMPATTO 200	1980	1180	220

Values in mm

#### Technical data table KOMPATTO 150 - 200

DESCRIPTION	U.M.	KOMPATTO 150	KOMPATTO 200
Total collector area	m <sup>2</sup>	1,96	2,38
Opening area	m <sup>2</sup>	1,78	2,13
Domestic hot water content	I	142	209
Thickness of boiler pipes	mm	1,5	1,5
Antifreeze electric heater as standard	W	200	200
Optional additional electric resistance	W	2000	2000
Water inlet and outlet connections		3/4" M	3/4" M
Max working pressure	bar	10	10
Ttl weight	Kg	98	118



Accessories for forced and natural circulation solar thermal systems

#### 1-way solar station UNIT 1



Single-way circulation group complete with flow regulator meter with system loading and unloading valves, DN20 3-way flanged ball valve with 10 mbar non-return valve equipped with thermometer holder handle, 6 bar safety group with Ø 50 mm pressure gauge 0 ÷10 bar with 3/4" M connection for expansion tank.

EPP insulation box with preformed shell 155×425×150 and wall fixing bracket.

Nominal flow rate 2÷12 I/min with 3/4" M connections and Gundfos brand electronic circulator, model UPM3 SOLAR 15-75 with maximum absorbed electrical power of 43W.

Model	Code	€
UNIT 1 with electronic circulator	55010611	800,00

#### **UNIT 2 PLUS 2-way solar station**



Two-way circulation group with nominal flow rate 2÷12 l/min equipped with 3/4" M delivery and return connections and Gundfos brand electronic circulator, model UPM3 SOLAR 15-75 with maximum absorbed electrical power of 43W.

UNIT 2 PLUS is equipped with a flow regulator meter with system loading and unloading valves, DN20 3-way flanged ball valve with 10 mbar non-return valve equipped with thermometer holder handle, 6 bar safety group with Ø 50 mm pressure gauge 0 ÷10 bar with 3/4" M connection for expansion tank. DN20 flanged ball valve with 10 mbar non-return valve equipped with thermometer holder handle, deaerator with manual vent valve, connection pipe and connection.

EPP insulation box with preformed shell 277×425×150 and wall fixing bracket.

Model	Code	€
UNIT 2 PLUS with electronic circulator	55000611	890,00

#### 2-way solar station UNIT 2 XL PLUS



Circulation group  $20 \div 70$  l/min with 1" 1/4 M delivery and return connections, complete with Wilo Stratos Para ST 25/1-8 circulator with cable gland, flow regulator meter, DN25 ball valve with relief valve non-return 18 mbar equipped with thermometer holder handle, "T" fitting for safety group, 6 bar safety group with pressure gauge Ø 50 mm  $0 \div 10$  bar with 3/4" M connection for expansion tank, "T" fitting " with probe holder Ø 6 mm, DN25 ball valve with 10 mbar non-return valve equipped with thermometer holder handle, connection and connection pipe, EPP insulation box with preformed shell  $285 \times 500 \times 170$  and fixing bracket to wall.

UNIT 2 XL PLUS with electronic circulator	55000612	1.960,00
Model	Code	€

#### Technical data table UNIT 1 - UNIT 2 PLUS - UNIT 2 XL PLUS

DESCRIPTION	U.M.	UNIT 1 - UNIT 2 PLUS	UNIT 2 XL PLUS	
Maximum operating temperature				
short period 20 s	°C	16	60	
continuous temperature	°C	12	20	
Max working pressure	bar	1	0	
Safety valve calibration	bar	6	3	
Flow rate adjustment range	l/m	2÷12	20÷70	
Pressure gauge scale	bar	0÷	10	
Thermometer scale	°C	0÷1	120	
External connections		3/4" M	1" 1/4 M	
Circulator model		Grundfos UPM3 SOLAR 15-75	Wilo Stratos Para 25/1-8	
Body		Gh	isa	
Power supply		230V/	1/50Hz	
Power max	W	43	130	
Max. temperature	°C	110		
Degree of protection		IP )	(4D	



Accessories for forced and natural circulation solar thermal systems

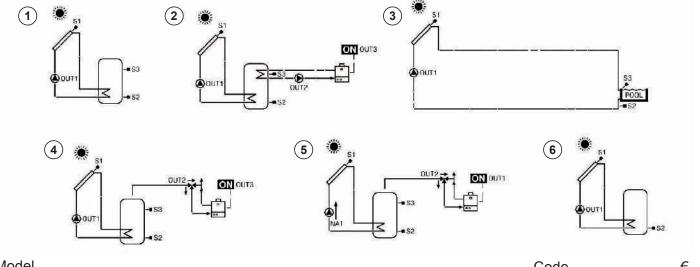
#### Solar control unit CONTROL MULTI 06 S



CONTROL MULTI 06 S digital solar control unit equipped with 3 DT-PLUS probes for the control of systems with forced circulation solar thermal collectors.

- n. 3 relay outputs
- n. 1 PWM output
- n. 1 0-10V output
- n. 6 pre-set functional schemes

Dimensions L x P x H	mm	156 x 47 x 108
Protection degree		IP 40
Power supply		230V/1/50Hz
Electrical absorption	W	4
Operating humidity	%	20 / 80
Operating temperature	°C	0 / +40
Number of probes		3
Probe type		Pt 1000



Model	Code	€
CONTROL MULTI 06 S	55000501	350,00

#### Solar control unit CONTROL MULTI 09 S



CONTROL MULTI 09 S digital solar control unit equipped with 3 DT-PLUS probes for the control of systems with forced circulation solar thermal collectors.

- n. 1 relay output
- n. 1 PWM / 0-10V output
- n. 9 pre-set functional schemes
- Estimated energy produced
- Antifreeze protection

Dimensions L x P x H	mm	86 x 45 x 115
Protection degree		IP 40
Power supply		230V/1/50Hz
Electrical absorption	W	2
Operating humidity	%	20 - 80
Operating temperature	°C	0 + 40
Numero sonde		3
Tipologia sonde		Pt 1000

Model	Code	€
CONTROL MULTI 09	55002501	440,00

#### Solar control unit CONTROL MULTI 25 S



CONTROL MULTI 25 S digital solar control unit equipped with 3 DT-PLUS probes for the control of systems with forced circulation solar thermal collectors.

- n. 2 relay output
- n. 1 PWM / 0-10V output
- n. 25 pre-set functional schemes Estimate of energy produced
- Antifreeze protection

Dimensions L x P x H	mm	163 x 51 x 110
Protection degree		IP 40
Power supply		230V/1/50Hz
Electrical absorption	W	2,5
Operating humidity	%	20 - 80
Operating temperature	°C	0 + 40
Number of probe		3
Type of probe		Pt 1000

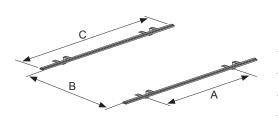
Model	Code	€
CONTROL MULTI 25 S	55003501	514,00



Accessories for forced and natural circulation solar thermal systems

#### Pitched roof fixing systems for collectors BLUH+ e BLUHX+

Frames for pitched roofs complete with stainless steel fixing strips under the tile and junction between one frame and another. Multiple frames must be composed based on the number of panels.



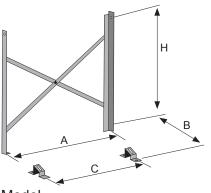
	TEL1+	TEL2+	TEL1X+	TEL2X+
	n. 1 BLUH+	n. 2 BLUH+	n. 1 BLUHX+	n. 2 BLUHX+
Α	84	190	113	245
В	180	180	180	180
С	112	220	144	290

Values in mm

Model	Code	€
TEL1+ Vertical arrangement for 1 collector BLUH+	55000120	166,00
TEL2+ Vertical arrangement for 2 collectors BLUH+	55000220	200,00
TEL1X+ Vertical arrangement for 1 collector BLUHX+	55000125	166,00
TEL2X+ Vertical arrangement for 2 collectors BLUHX+	55000225	236,00

#### Flat roof fixing systems for collectors BLUH+ e BLUHX+

Anchoring frame on flat surfaces for BLUH+ model forced circulation solar collectors, complete with bracing to ensure adequate stability.



	TELR		TEI	_RX
Α	100		12	28
	170	30°	170	30°
B	103	45°	103	45°
С	60÷	-80	60-	÷80
Н	10	)3	10	03

Values in mm

Model	Code	€
TELR Vertical arrangement for 1 collector BLUH+	55020020	154,00
TELRX Vertical arrangement for 1 collector BLUHX+	55020025	166,00

#### Fixing systems for evacuated tube collectors HV 12

Pitched roof frame THV12

Structure suitable for the installation of a single HV 12 collector on a pitched roof, equipped with a 1.2 mm thick stainless steel strip, which can be shaped according to the type of roofing brick.

#### THV12R flat surface chassis

Structure suitable for the installation of a single HV 12 collector on a flat roof, equipped with a stainless steel load-bearing structure, to be firmly anchored to the ground to avoid problems caused by the wind.

Model	Code	€
THV12 Pitched roof frame for a collector HV 12	55000614	176,00
THV12R Flat roof frame for one collector HV 12	55000224	254,00
		A ACCORDONI

Accessories for forced and natural circulation solar thermal systems

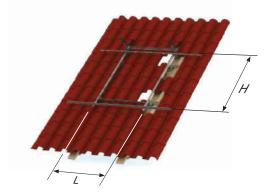
#### Universal fixing systems for collectors SKY

Structure suitable for the installation of one or two SKY collectors on both a pitched roof and a flat roof, available in the single collector kit or double collector.

Model	Code	€
TEL1SKY Frame for 1 collector SKY 20 / 25	55000222	296,00
TEL2SKY Frame for 2 collector SKY 20 / 25	55000223	376,00
TEL1SKY27 Frame for 1 collector SKY 27	55000246	296,00
TEL1SKY-O Frame for 1 collector SKY 20-O / 25-O	55000247	296,00

### Pitched roof fixing systems for model natural circulation collectors KOMPATTO

Sloped surface frame with tiles suitable for both models and equipped with width-adjustable brackets.



Model	Н	L
KOMPATTO 150	1985	985
KOMPATTO 200	1985	1118

Values in mm

Model	Code	€
TV KOMPATTO 150 - 200	55000233	210,00

#### Insulated stainless steel pipe for solar thermal systems

Roll of pre-insulated stainless steel pipe covered with anti-UV film. and containing the bipolar cable for the solar collector probe.



Mod.	Diameter (Ø)	Connection	Insulating
TS15	12 mm	1/2"	80 x 50 mm
TS20	16 mm	3/4"	90 x 50 mm
TS25	20 mm	1"	100 x 55 mm

Model	Code	€
Pre-insulated stainless steel tube TS15 roll from 10 m	55001610	550,00
Pre-insulated stainless steel tube TS15 roll from 15 m	55001615	820,00
Pre-insulated stainless steel tube TS15 roll from 20 m	55001620	1.100,00
Pre-insulated stainless steel tube TS15 roll from 25 m	55001625	1.370,00
Pre-insulated stainless steel tube TS20 roll from 10 m	55002010	620,00
Pre-insulated stainless steel tube TS20 roll from 15 m	55002015	930,00
Pre-insulated stainless steel tube TS20 roll from 20 m	55002020	1.240,00
Pre-insulated stainless steel tube TS20 roll from 25 m	55002025	1.550,00
Pre-insulated stainless steel tube TS25 roll from 10 m	55002510	760,00
Pre-insulated stainless steel tube TS25 roll from 15 m	55002515	1.140,00
Pre-insulated stainless steel tube TS25 roll from 20 m	55002520	1.520,00
Pre-insulated stainless steel tube TS25 roll from 25 m	55002525	1.900,00



Accessories for forced and natural circulation solar thermal systems

#### Solar expansion tank for wall installation

Expansion vessels with fixed membrane in EPDM rubber resistant to peaks of 130 °C for short periods with disconnection fitting and crimped galvanized carbon steel flange. Preload 2.5 bar.



Mod.	Capacity (I)	Pression max (bar)	Temp. of Exercise (°C)	Connection	Dimensions Ø x L (mm)	Weight (kg)
LT12	12	6	-10 / +99	3/4"	272 x 312	2,9
LT18	18	6	-10 / +99	3/4"	274 x 410	3,8
LT25	25	6	-10 / +99	3/4"	292 x 454	5,6
LT50	50	10	-10 / +99	3/4"	322 x 592	7,8

Model	Code	€
Expansion vessel LT12	55000701	92,00
Expansion vessel LT18	55000702	100,00
Expansion vessel LT25	55000703	120,00
Expansion vessel LT50	55000704	214,00

### Accessories for wall-mounted expansion tanks from 12 to 50 litres

Support bracket and connection hose for expansion tanks with connection fitting 3/4".



Expansion tank bracket LT12 - 50	55000244	66,00
Model	Code	€



€

Flexible expansion vessel piping LT12 - 50	55000245	26,00

#### Solar expansion tank for ground installation

Expansion tanks with interchangeable membrane in EPDM rubber resistant to peaks of 130 °C for short periods. Screwed stainless steel flange. Preload 2.5 bar



Mod.	Capacity (I)	Pression max (bar)	Temp. of Exercise (°C)	Connection	nDimensions Ø x L (mm)	Weight (kg)
LT60	60	10	-10 / +99	3/4"	380 x 674	12,9
LT100	100	10	-10 / +99	1"	451 x 726	17,7
LT200	200	10	-10 / +99	1" 1/2	554 x 988	36,7

Model	Code	€
Expansion vessel LT60	55000705	236,00
Expansion vessel LT100	55000706	410,00
Expansion vessel LT200	55000708	690,00

Accessories for forced and natural circulation solar thermal systems

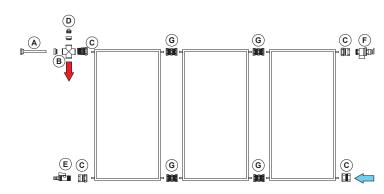
#### Manifold fitting kit BLUH+, BLUHX+ e SKY



Model	
RAC	fitting kit for a battery of BLUH+ / BLUHX+ / SKY solar collectors complete with end joints, safety
	valve, drain cock, cross fitting, probe well and manual vent

fitting kit for each additional manifold which includes 2 double 22 mm straight fittings

Model		Quantity	Description
RAC*	Α	1	Cockpit
	В	1	Cross fitting
	С	4	Terminal joint
	D	1	Manual venting
	Е	1	Drain cock
	F	1	Safety valve
RAC+1**	G	2	Double fitting



<sup>\*\*</sup> Purchase a RAC+1 for each collector added to the main collector (for a string of 4 collectors choose n. 1 RAC e n.3 RAC+1)

Model	Code	€
RAC string fitting kit	50001016	118,00
RAC+1 manifold fitting kit	50002012	24,00

#### Fitting kit for vacuum collectors HV 12

### Model

# **RAC HV**



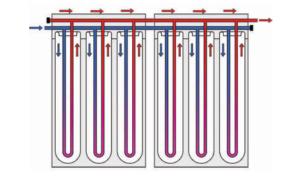




RAC HV 12 battery fitting kit

Brass fittings for the connection between the panel and the delivery and return lines to the solar station composed

- n° 2 threaded brass 90° valves with manual vent
- n° 2 reinforcement bushings for 18 mm diameter pipe
- n° 2 sealing rings for 18 mm diameter pipe
- n° 2 nuts for fitting to tighten 3/4"



#### Circuitry

The HV 12 collectors have n. 2 connections for each side of the header.

The installation can be carried out ambidextrous given the symmetry.

Model	Code	€
RAC HV fitting kit for each battery	55000215	118,00

#### 3-way diverter valve kit with thermostatic mixer for natural circulation collectors



Model	
SFMIX3/4 BREG	Solar Thermostatic-Boiler Kit; External Connections 3/4"; max 49 l/min (3 Bar) Inlet: 1" male diverter valve with adjustable divert temperature: 38÷54 °C
	Outlet: 1" male mixer with adjustment 38÷54 °C ±1 °C

Solar Thermostatic-Boiler Kit; External Connections 3/4"; max 35 l/min (3 Bar) SFMIX3/4 B Inlet: 1" male diverter valve with fixed setting at 48 °C Outlet: 1" male mixer with adjustment 30÷65 °C ±2 °C

Model	Code	€
SFMIX3/4 BREG Solar Thermostatic-Boiler Kit	55000242	524,00
SFMIX3/4 B Kit Solar Thermostatic-Boiler	55000243	478,00



<sup>\*</sup> Purchase one RAC for each collector string

#### Accessories for forced and natural circulation solar thermal systems

DHW thermostatic mixer for anti-scald solar thermal systems

Manually adjustable thermostatic mixer with body and fittings made of chromed alloy, complete with PSU shutter, stainless steel springs and regulation element that allows you to set a variable temperature from 30 to 65 °C with an accuracy of ± 2 °C.



		i	İ	
Mod.	Connections	Max static pressure (bar)	Max dynamic pressure (bar)	Temp. max (°C)
MIX S	3/4"	10	5	100
MIX M	1"	10	5	100
MIX L	1" 1/4	14	5	110
MIX XL	1" 1/2	14	5	110
MIX XXL	2"	14	5	110

Model	Code	€
Thermostatic mixer MIX S	50003014	180,00
Thermostatic mixer MIX M	50003015	270,00
Thermostatic mixer MIX L	50103015	470,00
Thermostatic mixer MIX XL	50203015	490,00
Thermostatic mixer MIX XXL	50303015	1.370,00

#### Non-harmful heat transfer fluid for solar panels

Jobs

The inhibited propylene glycol-based liquid is specifically formulated for the preparation of aqueous mixtures to be used in solar heating systems and in any case using heat exchangers. It guarantees the highest levels of anti-freeze and anti-corrosion protection for the entire circuit affected by the heat transfer fluid, protecting in the most complete way the ecological aspect typical of these systems (eliminates the possibility of accidentally polluting the water network).

Properties and specifications

Safe protection against frost: the aqueous solution can reach very low freezing temperatures depending on the percentage of product added to the water.

No aggressiveness: this fluid does not show any corrosive tendency towards the metals commonly used in cooling systems (copper, cast iron, aluminium, brass, welding alloys) and is particularly inert, in the concentrations of use, with sleeves and other details in rubber present in the circuits.

Non-toxicity of propylene glycol. The minimum recommended percentage is 25% in order to guarantee optimal corrosion inhibition, the maximum is 60%. We recommend consulting the SAFETY DATA SHEET Regulation (EC) No. 1907/2006.



% in volume	Freezing °C
25	- 10,1
32	- 14,8
38	- 20,0
43	- 28,1
47	- 32,0
56	- 44,9
60	- 50,1

Average characteristics	
Density at 20 °C	1055 kg/mc
55% freezing in water	- 40°C
Boiling t.q.	>170 °C
Boil at 50% in water	105 °C
pH 50% solution	8.3
Visual color	Red

Model	Code	€
LIQ 3 + 3 liter canister	55000236	80,00
LIQ 4 + 4 liter canister	55000237	100,00
LIQ 5 + 5 liter canister	55000238	120,00
LIQ 7 + 7 liter canister	55000239	160,00
LIQ 8 + 8 liter canister	55000240	190,00
LIQ 10 + 10 liter canister	55000241	232,00



Accessories for forced and natural circulation solar thermal systems

#### Solar thermal kits to be combined with existing storag



Solar collector **BLUH+ BLUHX+** 





Anchoring kit **BLUH+ BLUHX+** 





Solar station **UNIT 2 PLUS** 



Solar control unit CONTROL MULTI 06 S



fittina kit



antifreeze

solar thermal kit 1 x 2.0 m2
- N. 1 BLUH+ 2.0 m2 flat sheet panel
- Anchoring kit for 1 BLUH+ 2.0 m2 collector
a i LIBUTABLUA

!-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 12 liter expansion vessel

- String fittings kit (1 string - 1 manifold) - Concentrated glycol 1 3 liter tank

solar thermal kit 1 x 2.5 m2

- N. 1 BLUHX+ 2.5 m2 flat sheet panel - Anchoring kit for 1 BLUHX+ 2.5 m2 collector

2-way solar station mod. UNIT 2 PLUS
CONTROL MULTI 06 S solar control unit - 18 liter expansion tank

- String fittings kit (1 string - 1 manifold) - Concentrated glycol 1 4 liter tank

solar thermal kit 2 x 2.0 m2 - N. 2 BLUH+ 2.0 m2 flat sheet panels

- Anchoring kit for 2 BLUH+ 2.0 m2 collectors - 2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit - 25 liter expansion vessel

- String fittings kit (1 string - 2 collectors) - Concentrated glycol 1 7 liter tank

solar thermal kit 2 x 2.5 m2

- N. 2 BLUHX+ 2.5 m2 flat sheet panels - Anchoring kit for 2 BLUHX+ 2.5 m2 collectors - 2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit - 25 liter solar expansion vessel

- String fittings kit (1 string - 2 collectors) - Concentrated glycol 1 8 liter tank

solar thermal kit 3 x 2.0 m2

- N. 3 BLUH+ 2.0 m2 flat sheet panels - Anchoring kit for 3 BLUH+ 2.0 m2 collectors

- 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit

- 25 liter solar expansion vessel - String fittings kit (1 string - 3 collectors)

- Concentrated glycol 1 10 liter tank

solar thermal kit 3 x 2.5 m2 - N. 3 BLUHX+ 2.5 m2 flat sheet panels - Anchoring kit for 3 BLUHX+ 2.5 m2 collectors - 2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit

- 25 liter solar expansion vessel String fittings kit (1 string - 3 collectors)Concentrated glycol 2 7 liter cans

solar thermal kit 5 x 2.5 m2

- N. 5 BLUHX+ 2.5 m2 flat sheet panels - Anchoring kit for 5 BLUHX+ 2.5 m2 collectors - 2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit - 50 liter expansion vessel

- String fittings kit (1 string - 5 collectors)

- Concentrated glycol 2 10 liter cans

solar thermal kit 6 x 2.5 m2 - N. 6 BLUHX+ 2.5 m2 flat sheet panels

- Anchoring kit for 6 BLUHX+ 2.5 m2 collectors - 2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit

- 60 liter expansion tank - String fittings kit (1 string - 6 collectors)

- Concentrated glycol 3 10 liter cans

solar thermal kit 10 x 2.5 m2

- N. 10 BLUHX+ 2.5 m2 flat sheet panels - Anchoring kit for 10 BLUHX+ 2.5 m2 collectors

- 2-way solar station mod. UNIT 2 XL PLUS - CONTROL MULTI 06 S solar control unit

- 100 liter expansion vessel

- String fittings kit (2 strings - 10 collectors) - Concentrated glycol 4 10 liter cans

solar thermal kit 12 x 2.5 m2

- N. 12 BLUHX+ 2.5 m2 flat sheet panels

Anchoring kit for 12 BLUHX+ 2.5 m2 collectors)
 2-way solar station mod. UNIT 2 XL PLUS
 CONTROL MULTI 06 S solar control unit

- 100 liter expansion vessel

- String fittings kit (2 strings - 12 collectors)

- Concentrated glycol 5 10 liter cans

37318030 37308030 Code 37318031 37308031 Code 37318032 37308032	2.836,000 € 3.602,000
Code 37318031 37308031 Code 37318032	€ 2.824,00 2.836,00 € 3.602,00
37318031 37308031 Code 37318032	2.824,00 2.836,00 € 3.602,00
37308031 Code 37318032	2.824,00 2.836,00 € 3.602,00 3.710,00
Code 37318032	€ 3.602,00
37318032	3.602,00
37308032	3.710,00
Code	€
37318033	3.968,00
37308033	4.064,00
Code	€
37318034	4.734,00
37308034	4.830,00
	Code 37318034

Kit Solar HR 3 x 2.5	Code	€
Flat roof / 3 x 2.5	37318035	5.308,00
Pitched roof / 3 x 2.5	37308035	5.404,00

KIT SOIAT HK 5 X 2.5	Code	₹
Flat roof / 5 x 2.5	37318036	8.038,00
Pitched roof / 5 x 2.5	37308036	7.846,00
		,-

Kit Solar HR 6 x 2.5	Code	€
Flat roof / 6 x 2.5	37318037	9.502,00
Pitched roof / 6 x 2.5	37308037	9.214,00

Kit Solar HR 10 x 2.5	Code	€
Flat roof / 10 x 2.5	37318038	13.976,00
Pitched roof / 10 x 2.5	37308038	13.496,00

Kit Solar HR 12 x 2.5	Code	€
Flat roof / 12 x 2.5	37318039	18.588,00
Pitched roof / 12 x 2.5	37308039	18.012,00



#### Accessories for forced and natural circulation solar thermal systems

#### Kit solari termici con bollitore sanitario a doppio serpentino fisso



Sanitary tank DSF V

solar thermal kit 200 liters - 1 x 2.5 m2 - N. 1 DSF V 200 liter domestic hot water tank

- N. 1 BLUHX+ 2.5 m2 flat sheet panel

- Anchoring kit for 1 BLUHX+ 2.5 m2 collector - 2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit

- 18 liter expansion tank

- String fittings kit (1 string - 1 manifold)

- 3/4" DHW mix valve kit

- Concentrated glycol 1 4 liter can

Kit Solar 200 - 1 x 2.5	Code	€
Flat roof / 1 x 2.5	37318131	4.446,00
Pitched roof / 1 x 2.5	37308130	4.446,00



Solar collector BLUH+

solar thermal kit 300 liters - 2 x 2.5 m2

- N. 1 ADSF V 300 liter domestic hot water tank

- N. 2 BLUHX+ 2.5 m2 flat sheet panels

- Anchoring kit for 2 BLUHX+ 2.5 m2 collectors - 2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit

- 25 liter solar expansion vessel - String fittings kit (1 string - 2 manifolds)

- 3/4" DHW mix valve kit

- Concentrated glycol 2 cans of 4 liters

solar thermal kit 500 liters - 3 x 2.5 m2 - N. 1 ADSF V 500 liter domestic hot water tank N. 3 BLUHX+ 2.5 m2 flat sheet panels
Anchoring kit for 3 BLUHX+ 2.5 m2 collectors
2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit

- 25 liter solar expansion vessel - String fittings kit (1 string - 3 manifolds)

- Concentrated glycol 3 4 liter cans

- 1" DHW mix valve kit

Kit Solar 300 - 2 x 2.5	Code	€
Flat roof / 2 x 2.5	37318133	6.080,00
Pitched roof / 2 x 2.5	37308133	5.984,00



Anchoring kit **BLUH+ BLUHX+** 



Solar station **UNIT 2 PLUS** 



Solar control unit CONTROL MULTI 06 S



solar thermal kit 800 liters - 5 x 2.5 m2

- N. 1 ADSF V 800 liter domestic hot water tank
- N. 5 BLUHX+ 2.5 m2 flat sheet panels
- Anchoring kit for 5 BLUHX+ 2.5 m2 collectors
- 2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit

- 40 liter expansion vessel

- String fittings kit (1 string - 5 manifolds)

1" DHW mix valve kit

- Concentrated glycol 2 10 liter cans

Kit Solar 500 - 3 x 2.5	Code	€
Flat roof / 3 x 2.5	37318135	7.982,00
Pitched roof / 3 x 2.5	37308135	7.886,00

Kit Solar 800 - 5 x 2.5	Code	€
Flat roof / 5 x 2.5	37318136	11.862,00
Pitched roof / 5 x 2.5	37308136	11.670,00



Expansion tank

solar thermal kit 1000 liters - 6 x 2.5 m2

N. 1 ADSF V 1000 liter domestic hot water tank
N. 6 BLUHX+ 2.5 m2 flat sheet panels

- Anchoring kit for 6 BLUHX+ 2.5 m2 collectors - 2-way solar station mod. UNIT 2 PLUS

- CONTROL MULTI 06 S solar control unit

- 60 liter expansion tank

- String fittings kit (1 string - 6 manifolds)

- 1" DHW mix valve kit

- Concentrated glycol 5 5 liter cans

Kit Solar 1000 - 6 x 2.5	Code	€
Flat roof / 6 x 2.5	37318137	13.940,00
Pitched roof / 6 x 2.5	37308137	13.652,00



DHW valve

solar thermal kit 1500 liters - 10 x 2.5 m2 - N. 1 ADSF V 1500 liter domestic hot water tank - N. 10 BLUHX+ 2.5 m2 flat sheet panels

- Anchoring kit for 10 BLUHX+ 2.5 m2 collectors - 2-way solar station mod. UNIT 2 XL PLUS

- CONTROL MULTI 06 S solar control unit

- 100 liter expansion vessel

- String fittings kit (2 strings - 10 manifolds)

1" 1/4 DHW mix valve kit

- Concentrated glycol 4 cans of 10 liters

Kit Solar 1500 - 10 x 2.5	Code	€
Flat roof / 10 x 2.5	37318138	21.548,00
Pitched roof / 10 x 2.5	37308138	21.068,00



Kit glycol antifreeze

solar thermal kit 2000 liters - 12 x 2.5 m2 - N. 1 ADSF V 2000 liter domestic hot water tank - N. 12 BLUHX+ 2.5 m2 flat sheet panels

- Anchoring kit for 12 BLUHX+ 2.5 m2 collectors)
- 2-way solar station mod. UNIT 2 XL PLUS

- CONTROL MULTI 06 S solar control unit

- 100 liter expansion vessel

String fittings kit (2 strings - 12 manifolds)
1" 1/2 DHW mix valve kit
Concentrated glycol 5 10 liter cans

Kit Solar 2000 - 12 x 2.5	Code	€
Flat roof / 12 x 2.5	37318139	28.896,00
Pitched roof / 12 x 2.5	37308139	28.320,00

