

GREEN SOLAR

Monobloc heat pump water heater with integration solar thermal



Technical and construction features

GREEN SOLAR is a renewable energy system for the production of domestic hot water, which uses the thermal energy produced by the air / water heat pump in combination with a latest generation solar thermal system. This system is managed by an electronic control unit thanks to which it is always possible to give priority to the most renewable energy source, i.e. in the presence of a certain irradiation threshold the heat pump is replaced by the solar thermal collector. The GREEN SOLAR water heater contains all the components for the construction of the solar thermal system as standard (see table below) which allow the thermo-vector fluid (glycol water) to circulate from the solar thermal collector to the spiral exchanger immersed inside the 'sanitary accumulation.



RENEWABLE
ENERGY



SOLAR THERMAL
ENERGY



ECOLOGIC
GAS



HIGH
EFFICIENCY



ENERGY
SAVING



PHOTOVOLTAIC
COMBINATION



SIMPLE INTEGRATED
PROGRAMMING



DHW

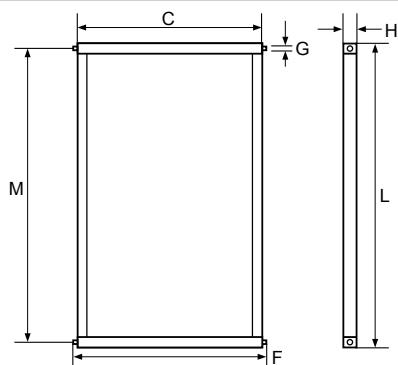
KIT GREEN SOLAR		2.0 x 1 Pitch.roof	2.0 x 1 Flat roof	2.5 x 1 Pitch.roof	2.5 x 1 Flat roof	2.0 x 2 Pitch.roof	2.0 x 2 Flat roof	2.5 x 2 Pitch.roof	2.5 x 2 Flat roof	2.5 x 3 Pitch.roof	2.5 x 3 Flat roof
	Solar collector SELECTIVE H+	X	X			XX	XX				
	Solar collector SELECTIVE HX+			X	X			XX	XX	XXX	XXX
	Solar station UNIT-2 PLUS	X	X	X	X	X	X	X	X	X	X
	Unit CONTROL MULTI 06 S	X	X	X	X	X	X	X	X	X	X
	Anchoring kit Flat roof TPV H+ / HX+		X		X		XX		XX		XXX
	Anchoring kit Pitch roof TV1 H+ / HX+	X		X							
	Anchoring kit Pitch roof TV2 H+ / HX+					X		X			
	Anchoring kit Pitch roof TV3 HX+									X	
	Expansion vessel 12 l	X	X	X	X						
	Expansion vessel 18 l					X	X	X	X		
	Expansion vessel 25 l									X	X
	String fittings kit KRS	X	X	X	X	X	X	X	X	X	X
	Collector fittings kit KRS + 1					X	X	X	X	XX	XX
	Glycol tank 3 l	X	X			XX	XX				
	Glycol tank 4 l			X	X			XX	XX	XXX	XXX

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Models to be assembled with solar thermal kit	Code	€
GREEN 220 S	63000075	2.934,00
GREEN 220 2S	63000076	3.178,00
GREEN 300 S	37010200	3.240,00
GREEN 300 2S	37010300	3.410,00
GREEN 500 S NEW	37030501	6.320,00
KIT SOLAR HR 1 x 2.0 pitched roof	37308030	1.994,00
KIT SOLAR HR 1 x 2.0 flat roof	37318030	2.000,00
KIT SOLAR HR 1 x 2.5 pitched roof	37308031	2.122,00
KIT SOLAR HR 1 x 2.5 flat roof	37318031	2.136,00
KIT SOLAR HR 2 x 2.0 pitched roof	37308032	2.782,00
KIT SOLAR HR 2 x 2.0 flat roof	37318032	2.888,00
KIT SOLAR HR 2 x 2.5 pitched roof	37308033	3.066,00
KIT SOLAR HR 2 x 2.5 flat roof	37318033	3.158,00
KIT SOLAR HR 3 x 2.5 pitched roof	37308035	4.016,00
KIT SOLAR HR 3 x 2.5 flat roof	37318035	4.188,00

Technical characteristics of the solar collector SELECTIVE



	SELECTIVE H+	SELECTIVE HX+
L	1987	1987
C	984	1270
H	100	100
M	1876	1876
G	22	22
F	1050	1340

Values in mm

Technical data table for flat solar collector SELECTIVE

DESCRIPTION	U.M.	SELECTIVE H+	SELECTIVE HX+
Weight	kg	32,0	42,0
Case color		Grey	
Case material		Aluminum	
Insulation thickness	mm	45	
Glass type		Extra clear, AR, Hardened 3,2 mm anti-reflective	
Net absorbent surface	m ²	1,82	2,40
Coefficient of loss	W/m ² k	3,53	3,18
Total collector area	m ²	1,95	2,52
Absorbent plate material		Aluminium	
Surface treatment		Selective TITAN (titanium oxide)	
Efficiency (opening) η_0		0,759	0,797
Glass transparency	%	93,8	
Glass thickness	mm	3,2	
Recommended load / panel	l/h	100	130
Collector water capacity	l	1,42	1,70
Maximum working pressure	bar	6	
Stagnation temperature	°C	204	

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Technical features 2-way solar station UNIT 2 PLUS

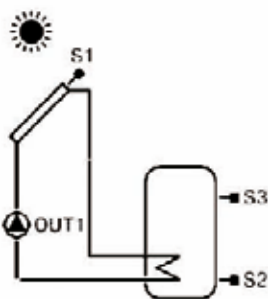


Circulation unit 2 ÷ 12 l / min with 3/4 "M flow and return connections. 3-way DN20 with 10 mbar non-return valve equipped with thermometer holder handle, 6 bar safety group with Ø 50 mm pressure gauge

0 ÷ 10 bar with 3/4 "M connection for expansion vessel. DN20 flanged ball valve with 10 mbar non-return valve equipped with thermometer holder handle, deaerator with manual vent valve, connecting pipe and connection.
Insulation box in EPP with preformed shell 277 × 425 × 150 and wall fixing bracket.

DESCRIPTION	U.M.	UNIT 2 PLUS
Max operating temperature short period 20 s	°C	160
continuous temperature	°C	120
Max working pressure	bar	10
Safety valve calibration	bar	6
Flow rate adjustment range	l/m	2÷12
Pressure gauge scale	bar	0÷10
Thermometer scale	°C	0÷120
External connections		3/4" M
Circulator model		Wilo Yonos Para 25/7
Body		Ghisa
Power supply		230V/1/50Hz
Power max	W	45
Temperature max	°C	110
Degree of protection		IP X4D

Technical characteristics of the solar control unit CONTROL MULTI 06 S

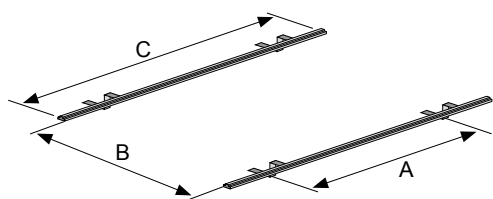


Dimensions L x P x H	mm	156 x 47 x 108
Degree of protection		IP 40
Power supply		230V/1/50Hz
Electric absorption	W	4
Operating humidity	%	20 - 80
Operating temperature	°C	0 + 40
Number of probes		3
Type of probes		Pt 1000

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.
Number 3 relay outputs, number 1 PWM output, number 1 0-10V output and number 6 preset functional schemes.

Technical features of fixing systems on pitched roof for SELECTIVE H + and SELECTIVE HX + collectors

Frames for pitched roofs complete with stainless steel strips for under-roof fixing and junction between one frame and another.
You have to compose more frames based on the number of panels.

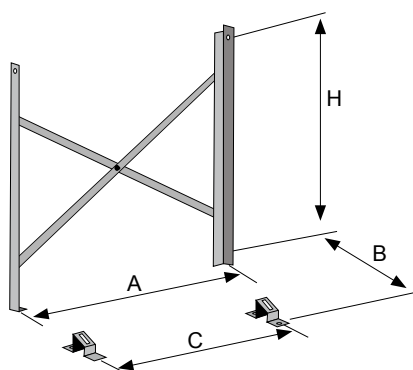


	TV1 H+	TV2 H+	TV3 H+	TV1 HX+	TV2 HX+	TV3 HX+
A	84	190	295	113	245	380
B	180	180	180	180	180	180
C	112	220	324	144	290	420

Values in mm

Technical features of fixing systems on flat roof for SELECTIVE H + and SELECTIVE HX + collectors

Telaio di ancoraggio on flat surfaces for SELECTIVE model forced circulation solar collectors, complete with bracing to ensure adequate stability.



	TPV H+		TPV HX+	
A	100		128	
B	170	30°	170	30°
	103	45°	103	45°
C	60÷80		60÷80	
H	103		103	

Values in mm