GREEN 400 - GREEN 400 S

Monobloc heat pump water heater with domestic hot water storage and additional exchanger



Technical and construction characteristics

Following important investments in the development of new technologies aimed at the use of renewable energy and energy saving, A2B Accorroni E.G. has created a new range of high efficiency monobloc heat pump water heaters with a high content of domestic water GREEN GREEN 400 - GREEN 400 S series with integrated solar thermal exchanger.

The GREEN 400 - GREEN 400 S heat pump water heater represents the ecological evolution of the traditional water heater, which uses a renewable energy thermodynamic system to absorb heat directly from the external air heated free of charge by the sun. GREEN 400 - GREEN 400 S can access the Conto Termico 2.0 incentive issued to encourage all those interventions aimed at increasing the energy efficiency of existing buildings. The GREEN 400 - GREEN 400 S heat pump water heater is characterized in particular by its ease of installation, silent operation and great reliability.

GREEN 400 - GREEN 400 S has the following technical characteristics:

- Time programming, to take advantage of any time slots

advantageous on the electricity tariff;

- Different operating modes: maximum savings with use of compressor only or maximum speed to produce large quantities of DHW in a short time, using a heat pump and integrative electric resistance at the same time;
- There is no possibility of contamination between water and fluid refrigerant, the heat exchanger is external to the tank;
- Sanitary water sterilization programs (the danger of legionella bacterium is averted thanks to periodic cycles that raise the temperature of the storage water above 65 °C);
- Standard magnesium anode that protects the tank from action corrosive. Compared to the magnesium anode solution, greater reliability is guaranteed, with lower maintenance costs.

Model	Code	€
GREEN 400	37030503	5.340,00
GREEN 400 S	37030504	5.680,00

Installation methods GREEN 400 - GREEN 400 S



GREEN 400 - GREEN 400 S Monobloc heat pump water heater with domestic hot water storage and additional exchanger

Dimensions and hydraulic connections GREEN 400 - GREEN 400 S





- 1 Domestic hot water users
- 2 Condensate drain
- 3 Magnesium anode
- 4 Hot water outlet
- 5 Electrical resistance
- 6 T sensor well
- 7 Integrated exchanger inlet
- 8 Integrated exchanger outlet 9 Cold water inlet
- 10 Tank drain
- 11 Expansion vessel (optional)
- 12 Non-return valve
- 13 "Y" mechanical filter
- 14 Recirculation pump (optional)
- 15 Mixer (optional) 16 Solar thermal collector

Technical data table for heat pump water heaters GREEN 400 - GREEN 400 S

Tank volume I 400 Solar integration coil (INOX) m² - 1,0 Nominal heat output (1) W 2020 2060 Nominal electrical absorption (1) W 486 477 Nominal electrical absorption (1) W 486 477 Nominal (1) W/W 4,16 4,32 COP Dottinial (1) W/W 2,81 2,61 COP torninal (1) W/W 2,81 2,61 Test cycle profile (2) I 439 434 Energy efficiency class (3) A Degree of protection IPX1 Hot water volume at 40 °C (2) I 439 434 Energy efficiency class (3) C 60 A Degree of protection IPX1 Hot water compressor only °C 60 Maximum AT hot water compressor only °C 60 A 10 Refrigeratiot ⁽¹⁾ Kg 0,80 1,0 1 refrigerator Tons of CO2 equivalent t 1,144 <t< th=""><th>Model</th><th></th><th>U.M.</th><th>GREEN 400</th><th>GREEN 400 S</th></t<>	Model		U.M.	GREEN 400	GREEN 400 S
Solar integration coil (INOX) m² - 1,0 Nominal heat output (1) W 2020 2060 Nominal electrical absorption (1) W 486 477 Nominal electrical absorption (1) W 486 477 Nominal electrical absorption (1) W/W 4,16 4,32 COP DHW (2) W/W 2,81 2,61 Test cycle profile (2) I 439 434 Hot water volume at 40 °C (2) I 439 434 Energy efficiency class (3) A Degree of protection IPX1 Hot water ΔT adjustment range °C 10+70 (50 default) Maximum AT hot water compressor only °C 60 Maximum AT hot water compressor only °C 60 10 10 Refrigerant (4) (GWP) R134A (1430) 1.0 refrigerant (4) 1.0 Circuit data Quantity Kg 0,80 1.0 115 Friggerant (4) GWP) R134A (1430) 1.0 115 Compressor	Tank volume		I	400	
Nominal heat output ⁽¹⁾ W 2020 2060 Nominal electrical absorption ⁽¹⁾ W 486 477 Nominal DHW production capacity ⁽¹⁾ I/h 45.0 477 COP nominal (1) W/W 4.16 4.32 COP DHW (2) W/W 2.81 2.61 Test cycle profile ⁽²⁾ I 439 434 Energy efficiency class ⁽³⁾ A 2.61 Degree of protection IPX1 434 Hot water Δ1 adjustment range °C 10+70 (50 default) Maximum Δ1 hot water compressor only °C 60 Power supply 230V/1/50Hz Elect. data Integrative electrical resistance W 1500 Max current (PdC + resistance) A 10 Refrigerant ⁽⁴⁾ (GWP) R134A (1430) Circuit data Quantity Kg 0.80 Tons of CO2 equivalent t 1,144 1,430 Compressor mm 700 x 1880 115 Sound power level dB(A)	Solar integra	tion coil (INOX)	m ²	-	1,0
Nominal electrical absorption (1)W486477Nominal DHW production capacity (1)I/h45,0COP nominal (1)W/W4,164,32COP DHW (2)W/W2,812,61Test cycle profile (2)I439434Energy efficiency class (3)IADegree of protectionIPX1Hot water volume at 40 °C (2)I439Hot water other adjustment range°C10+70 (50 default)Maximum Δ T hot water compressor only°C60Power supply230V/1/50HzElect. dataIntegrative electrical resistanceWMax current (PdC + resistance)A10Refrigerant (4)(GWP)R134A (1430)CompressorRotative ON - OFFDimensions Ø xmm700 x 1880H Specific.Net weightKgNet weightKg110Sound pressure level at 2 mdB(A)Solar power level at 2 mdB(A)Solar coll connectionsG 3/4* (DN20)TankSolar coll connectionsAnode typeTatk materialAnode typeTatk materialAnode typeTatk materialAnode type10Anode type10Anode typeGlavenAnode typeGlavenAnode typeTatk materialAnode typeGlavenAnode typeTatk materialAnode typeGlavenAnode typeGlavenAnode typeGlaven<	Nominal hea	t output (1)	W	2020	2060
Nominal DHW production capacity (1)I/h445,0COP nominal (1)W/W4,164,32COP DHW (2)W/W2,812,61Test cycle profile (2)XLHot water volume at 40 °C (2)I439Bergy efficiency class (3)ADegree of protectionIPX1Hot water ΔT adjustment range°CPower supplyCBergy efficiency class (3)Power supplyMaximum ΔT hot water compressor only°CPower supply230V/1/50HzElect. dataIntegrative electrical resistanceMax current (PdC + resistance)ARefrigeratorTons of CO2 equivalentt 1,1441,430CompressorRotative ON - OFFDimensions Ø xmmAnd the weightKgSound pressure leveldB(A)Sound pressure level at 2 mdB(A)Solar coil connectionsG 3/4" (DN20)TankTark materialDiff ownk°CAnde typeTitanium electrode with alarm LEDMax working pressurebarMax working pressurebarAnde typeTitanium electrode with alarm LEDMax working pressurebarMax working pressurebarAir duct diametermmAir duct length maxmAir duct length maxmAir duct length maxmAir duct length maxm	Nominal elec	ctrical absorption ⁽¹⁾	W	486	477
COP nominal (1) W/W 4,16 4,32 COP DHW (2) W/W 2,81 2,61 Test cycle profile (2) I 439 434 Hot water volume at 40 °C (2) I 439 434 Energy efficiency class (3) A Degree of protection IPX1 Hot water AT adjustment range °C 10+70 (50 default) Maximum AT hot water compressor only °C 60 Maximum AT hot water compressor only °C 60 Maximum AT hot water compressor only °C 60 A A	Nominal DH	W production capacity ⁽¹⁾	l/h	45,0	
COP DHW ⁽²⁾ W/W 2,81 2,61 Test cycle profile ⁽²⁾ I 439 XL Hot water volume at 40 °C ⁽²⁾ I 439 434 Energy efficiency class ⁽³⁾ A A Degree of protection IPX1 A Hot water Δ1 adjustment range °C 10+70 (50 default) Maximum ΔT hot water compressor only °C 60 Max current (PdC + resistance) A 10 Max current (PdC + resistance) A 10 Refrigerant ⁽⁴⁾ (GWP) R134A (1430) Circuit data Quantity Kg 0,80 refrigerator Tons of CO2 equivalent t 1,144 Compressor Rotative ON - OFF Dimensions Ø x mm Dimensions Ø x mm 700 x 1880 115 Sound power level dB(A) 38	COP nomina	I (1)	W/W	4,16	4,32
Test cycle profile (2) XLHot water volume at 40 °C (2) I439434Energy efficiency class (3) ADegree of protectionIPX1Hot water ΔT adjustment range°C10+70 (50 default)Maximum ΔT hot water compressor only°C60Power supply230V/1/50HzElect. dataIntegrative electrical resistanceWMax current (PdC + resistance)AMax current (PdC + resistance)ARefrigerant (4)(GWP)R134A (1430)Circuit dataQuantityKg0,80Tons of CO2 equivalentt1,1441,430CompressorRotative ON - OFFDimensions Ø xmm700 x 1880H Specific.Net weightKg110Sound power leveldB(A)5658Sound power level at 2 mdB(A)38Tank materialSteel INOX 304DHW connectionsG 1" (DN25)TankSolar coil connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctoned air Fan headPa60Air duct length maxm6	COP DHW ⁽²⁾		W/W	2,81	2,61
Hot water volume at 40 °C (2)I439434Energy efficiency class (3)ADegree of protectionIPX1Hot water Λ adjustment range°CMaximum Δ T hot water compressor only°CMaximum Δ T hot water compressor only°CPower supply230V/1/50HzElect. dataIntegrative electrical resistanceMax current (PdC + resistance)AMax current (PdC + resistance)ARefrigerant (4)(GWP)Refrigerant (4)(GWP)Compressor1.0refrigeratorTons of CO2 equivalentt1,1441,430CompressorRotative ON - OFFDimensions Ø xmmNet weightKgSound pressure leveldB(A)Sound pressure level at 2 mdB(A)Solar coil connectionsG 3/4" (DN20)TankSolar coil connectionsMax working pressurebarMax working pressurebarMax working pressurebarMax working pressurebarMax working pressurebarMax working mersurebarAir flow (with ducting)m³/hAir flow (with ducting)m³/hAir flow (with ducting)m³/hAir duct length maxmAir duct length maxAir duct length maxMaxAir duct	Test cycle profile ⁽²⁾			X	L
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Hot water vo	lume at 40 °C ⁽²⁾	I	439	434
Degree of protectionIPX1Hot water ΔT adjustment range°C10+70 (50 default)Maximum ΔT hot water compressor only°C60Power supply230V/1/50HzElect. dataIntegrative electrical resistanceWMax current (PdC + resistance)A10Refrigerant (4)(GWP)R134A (1430)Circuit dataQuantityKg0,80Tons of CO2 equivalentt1,1441,430CompressorRotative ON - OFF0115Dimensions Ø xmm700 x 1880H Specific.Net weightKg10Net weightKg10115Sound pressure level at 2 mdB(A)38TankTank materialSteel INOX 304DHW connectionsG 3'4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Max working ressurebar10Ari flow (with ducting)m³/h450Succioned air Fan headPa60Air duct length maxm6	Energy efficie	ency class ⁽³⁾		Å	
Hot water ΔT adjustment range°C10+70 (50 default)Maximum ΔT hot water compressor only°C60Maximum ΔT hot water compressor only°C60Power supply230V/1/50HzElect. dataIntegrative electrical resistanceWMax current (PdC + resistance)A10Max current (PdC + resistance)A10Circuit dataQuantityKg0,80QuantityKg0,801,0refrigeratorTons of CO2 equivalentt1,144CompressorRotative ON - OFFDimensions Ø xmm700 x 1880H Specific.Net weightKg110Net weightKg110115Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38TankTank materialSteel INOX 304DHW connectionsG 1" (DN25)TankSolar coil connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct length maxm6	Degree of protection			IPX1	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Hot water ΔT adjustment range		°C	10÷70 (50 default)	
Elect. dataPower supply230V/1/50HzElect. dataIntegrative electrical resistanceW1500Max current (PdC + resistance)A10Refrigerant (⁴)(GWP)R134A (1430)Circuit dataQuantityKg0,80QuantityKg0,801,0refrigeratorTons of CO2 equivalentt1,144CompressorRotative ON - OFFDimensions Ø xmm700 x 1880H Specific.Net weightKg110Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38TankTank materialSteel INOX 304DHW connectionsG 3'4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-55 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct length maxm6	Maximum ∆T hot water compressor only		°C	60	
Elect. data Integrative electrical resistance W 1500 Max current (PdC + resistance) A 10 Refrigerant (4) (GWP) R134A (1430) Circuit data Quantity Kg 0,80 1,0 refrigerator Tons of CO2 equivalent t 1,144 1,430 Compressor Rotative ON - OFF 0 0x 1880 H Specific. Net weight Kg 110 115 Sound power level dB(A) 56 58 Sound pressure level at 2 m dB(A) 38 38 Tank material Steel INOX 304 DHW connections G 1" (DN25) Tank Solar coil connections G 3/4" (DN20) Anode type Max working pressure bar 10 10 Field of work °C -5 / +43 450 Suctioned air Fan head Pa 60 60 Air duct diameter mm 1777 Air duct length max m	Elect. data	Power supply		230V/1/50Hz	
Max current (PdC + resistance)A10Refrigerant (4)(GWP)R134A (1430)Circuit dataQuantityKg0,80refrigeratorTons of CO2 equivalentt1,144CompressorRotative ON - OFFDimensions Ø xmm700 x 1880H Specific.Net weightKg110Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38Tank materialSteel INOX 304DHW connectionsG 1" (DN25)TankSolar coil connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct length maxm6		Integrative electrical resistance	W	1500	
Refrigerant (4)(GWP)R134A (1430)Circuit dataQuantityKg0,801,0refrigeratorTons of CO2 equivalentt1,1441,430CompressorRotative ON - OFFDimensions Ø xmm700 x 1880H Specific.Net weightKg110Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38Tank materialSteel INOX 304DHW connectionsG 1" (DN25)TankSolar coil connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct length maxm6		Max current (PdC + resistance)	A	10	
Circuit data refrigeratorQuantityKg0,801,0refrigeratorTons of CO2 equivalentt1,1441,430CompressorRotative ON - OFFDimensions Ø xmm700 x 1880H Specific.Net weightKg110115Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38Tank materialSteel INOX 304DHW connectionsG 1" (DN25)TankSolar coil connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct length maxm6		Refrigerant (4)	(GWP)	R134A (1430)	
refrigeratorTons of CO2 equivalentt1,1441,430CompressorRotative ON - OFFDimensions Ø xmm700 x 1880H Specific.Net weightKg110Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38Tank materialSteel INOX 304DHW connectionsG 1" (DN25)Solar coil connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct length maxm6	Circuit data	Quantity	Kg	0,80	1,0
CompressorRotative ON - OFFDimensions Ø xmm700 x 1880H Specific.Net weightKg110115Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38Tank materialMet weightG 1" (DN25)DHW connectionsG 1" (DN25)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-55 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct length maxm6	refrigerator	Tons of CO2 equivalent	t	1,144	1,430
Dimensions Ø xmm700 x 1880H Specific.Net weightKg110115Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38Tank materialMB(A)38DHW connectionsG 1" (DN25)DHW connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct diametermm177Air duct length maxm6		Compressor		Rotative ON - OFF	
H Specific.Net weightKg110115Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38Tank materialSteel INOX 304DHW connectionsG 1" (DN25)TankSolar coil connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct length maxm177		Dimensions Ø x	mm	700 x 1880	
Sound power leveldB(A)5658Sound pressure level at 2 mdB(A)38Tank materialSteel INOX 304DHW connectionsG 1" (DN25)Anode typeG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebarField of work°CAir flow (with ducting)m³/hSuctioned air Fan headPaAir duct diametermmAir duct length maxm	H Specific.	Net weight	Kg	110	115
Sound pressure level at 2 mdB(A)38Tank materialSteel INOX 304DHW connectionsG 1" (DN25)TankSolar coil connectionsAnode typeTitanium electrode with alarm LEDMax working pressurebarMax working pressurebarField of work°CAir flow (with ducting)m³/hSuctioned air Fan headPaAir duct diametermmAir duct length maxm6		Sound power level	dB(A)	56	58
Tank materialSteel INOX 304DHW connectionsG 1" (DN25)TankSolar coil connectionsAnode typeTitanium electrode with alarm LEDMax working pressurebarField of work°CField of work°CAir flow (with ducting)m³/hSuctioned air Fan headPaAir duct diametermmAir duct length maxm6		Sound pressure level at 2 m	dB(A)	38	
DHW connectionsG 1" (DN25)Solar coil connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebarField of work°CField of work°CAir flow (with ducting)m³/hSuctioned air Fan headPaAir duct diametermmAir duct length maxm		Tank material		Steel INOX 304	
TankSolar coil connectionsG 3/4" (DN20)Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct diametermm177Air duct length maxm6		DHW connections		G 1" (DN25)	
Anode typeTitanium electrode with alarm LEDMax working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct diametermm177Air duct length maxm6	Tank	Solar coil connections		G 3/4" (DN20)	
Max working pressurebar10Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct diametermm177Air duct length maxm6		Anode type		Titanium electrode with alarm LED	
Field of work°C-5 / +43Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct diametermm177Air duct length maxm6		Max working pressure	bar	10	
Air flow (with ducting)m³/h450Suctioned air Fan headPa60Air duct diametermm177Air duct length maxm6		Field of work	O°C	-5 / +43	
Suctioned air Fan headPa60Air duct diametermm177Air duct length maxm6		Air flow (with ducting)	m³/h	450	
Air duct diametermm177Air duct length maxm6	Suctioned air Fan head Air duct diameter		Pa	60	
Air duct length max m 6			mm	177	
		Air duct length max	m	6	

Conditions: intake air 20°C DB (15°C WB), inlet water 15°C / outlet 55°C
Test according to EN16147; air 7°C
Directive 2009/125/EC - ERP EU n. 814/2013 (TUV Sud certification for all models)
Refrigerant loss contributes to climate change. If released into the atmosphere, refrigerants with a higher global warming potential (GWP). Iow contribute less to global warming than those with a higher GWP. This appliance contains a refrigerant fluid with a GWP of 1430. If 1 kg of this refrigerant fluid were released into the atmosphere, therefore, the impact on global warming would be 1430 times higher than 1 kg of CO2, over a period of 100 years. Under no circumstances should the user try to intervene on the refrigerant circuit or to disassemble the product. If necessary, always contact qualified personnel.

