GREEN 300 R290 - GREEN 300 S R290

Monoblock heat pump water heater with domestic hot water storage tank with or without solar exchanger

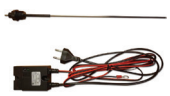
Technical and construction features

Following significant investments in the development of new technologies aimed at using renewable energy and energy saving, A2B Accorroni E.G. has created a new range of high-efficiency monoblock heat pump water heaters: the GREEN 300 R290 and GREEN 300 S R290 series.
The GREEN heat pump water heater represents the ecological evolution of the traditional water heater, using a renewable energy system that absorbs heat directly from the outside air heated free of charge by the sun.
This innovative system produces domestic hot water at 60°C with average coefficients of performance (COP) > 3.
Thanks to these high efficiency levels, all models in the GREEN series qualify for the 65% tax deduction introduced by Directive 2010/31/EC, which was enacted to promote all interventions aimed at increasing the energy efficiency of existing buildings.
The GREEN heat pump water heater is characterized by ease of installation, quiet operation, and high reliability.
GREEN has the following technical characteristics:

- Condenser wrapped around the outside of the boiler, protected from any fouling and preventing contamination of the refrigerant gas and domestic water;
- Additional heat exchanger for possible integration with a solar thermal system or boiler (GREEN 300 S NEW version);
- Steel tank with an internal double-layer vitrification treatment;
- Impressed current sacrificial anode (optional);
- External casing made of polyurethane foam with a high thermal insulation coefficient;
- High-efficiency rotary compressor using environmentally friendly R290 gas;
- Automatic activation of the electric resistance thanks to a special external temperature probe;
- Inverter-driven radial fans positioned directly on the top of the tank, along with the other components of the heat pump thermodynamic circuit, which communicate with the outside via special PVC-insulated pipes.

Model	Code	€
GREEN 300 R290	**37110100**	**3.400,00**
GREEN 300 S R290	**37110200**	**3.600,00**

Accessories GREEN 300 R290 - GREEN 300 S R290

	Impressed current electronic anode	**37010401**	**198,00**
	Ultra-flexible polyethylene duct pipe double wall thermal - sound insulation, internal diameter 160 mm, length 10 meters	**37900196**	**180,00**
	Square grille with wind protection recessed in white ABS plastic, model 152 with 150 mm diameter connection collar	**37900260**	**30,00**

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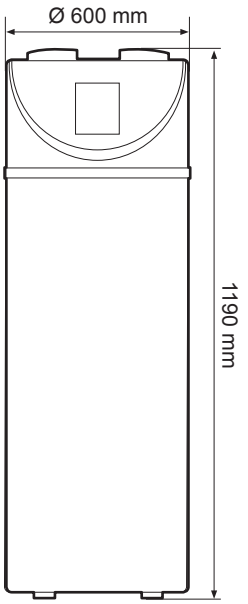
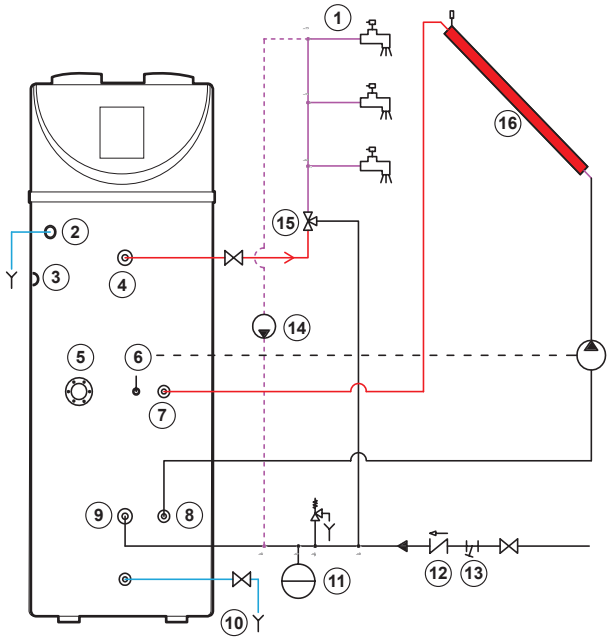
Net dimensions and hydraulic connections GREEN 300 S R290





1 Domestic Hot Water Utilities
2 Condensate Drain
3 Magnesium Anode
4 Hot Water Outlet
5 Electric Heating Element
6 T-Sensor Well
7 Solar Exchanger Inlet
8 Solar Exchanger Outlet
9 Cold Water Inlet
10 Tank Drain
11 Expansion Vessel (Optional)
12 Non-Return Valve
13 Mechanical "Y" Filter
14 Recirculation Pump (Optional)
15 Mixer (Optional)
16 Solar Thermal Collector

Technical data table for GREEN 300 R290 - 300 S R290 heat pump water heaters

Models		U.M.	GREEN 300 R290	GREEN 300 S R290
Withdrawal profile			XL	XL
Tank storage capacity		l	300	300
Heating (1)	Capacity	kW	1,29 (+1,5*)	1,29 (+1,5*)
	Average power input	kW	0,365	0,365
	Total heating time	h	11,83	11,83
	Energy consumption	kW/h	4,318	4,318
	COP at 7°C (ENI16147)	kW/h / kW/h	3,24	3,24
Heating (2)	Capacity	kW	1,67 (+1,5*)	1,67 (+1,5*)
	Average power input	kW	0,382	0,382
	Total heating time	h	9,00	9,00
	Energy consumption	kW/h	3,438	3,438
	COP	W/W	4,37	4,37
Average annual consumption (3)		kW/h / anno	1272	1272
Rated current		A	3,0 (+6,5)	3,0 (+6,5)
Maximum power consumption		kW	2,05	2,05
Energy efficiency (heating)		%	131,70	131,70
Power supply			230V/1/50Hz	230V/1/50Hz
Maximum outlet water temperature (without electric heating element)		°C	65	65
Sound power level		dB(A)	51	51
Net dimensions (ØxH)		mm	Ø 600 x 1990	Ø 600 x 1990
Packaging dimensions (LxPxH)		mm	650 x 650 x 2100	650 x 650 x 2100
Water tank capacity		l	300	290
Nominal water yield		l/h	32	32
Tank material			GX2CrNiMoN22-5-3	GX2CrNiMoN22-5-3
Maximum operating water pressure		Mpa	1,0	1,0
Nominal water pressure		Mpa	0,6	0,6
Compressor			Rotary	Rotary
Refrigerant (Type / Volume Charged)		Kg	R290 / 0,15	R290 / 0,15
Set point relief valve		Mpa	0,7	0,7
Fan			Centrifugo	Centrifugal
Fan air flow		m^3/h	290	290
Temperature range (operation only in heat pump)		°C	-5 / +43	-5 / +43
LWT range		°C	+35 / +70	+35 / +70
Solar exchanger surface		m^2	-	0,7
Net weight		Kg	70	72

1 Capacity and power consumption based on the following conditions: ambient temperature 7 °C DB / 6 °C WB, water temperature 10°C to 55°C.
2 Capacity and power consumption based on the following conditions: ambient temperature 20 °C DB, water temperature 15 °C to 55 °C.
3 Heating energy efficiency based on ERP standards under average conditions.
** 1.5 kW auxiliary heat exchanger*