X3 HEAT PUMPS FOR DOMESTIC HOT WATER

X3 DHW HEAT PUMPS

MAIN FEATURES

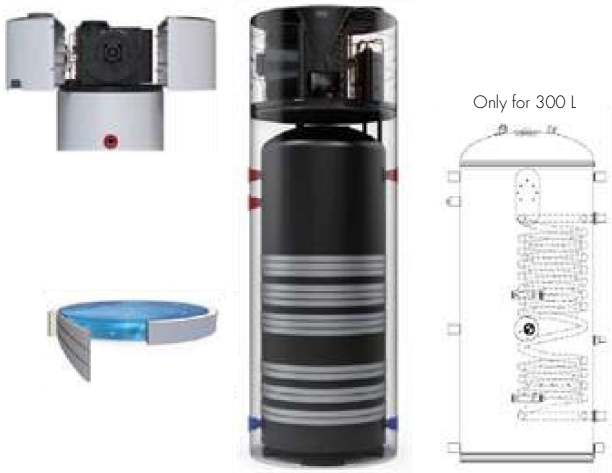
Code	Model	Description
398600080	APHPDHW200	DHW Heat pump - 200 L
398600081	APHPDHW300S	DHW Heat pump with solar coil - 300 L

ARGO introduces the latest generation of heat pump water heater, using ecologic R290 refrigerant. A performing solution, in A+ class, with a modern and pleasant appearance, distinguished for its low noise operation, the noise pressure at 1 m distance is 43 dB(A). The handy touch display easily allows controlling all operating conditions and optimizing the parameters for the best comfort and saving. Two models are available, the size 200 liters is equipped with an integrative electrical resistance, while the size 300 liters has also in addition an internal heat exchanger for solar integration. Thanks to the use of R290 refrigerant and of inverter motor these products stand out for their high performances. With a high COP, above 3, heating time and relevant consumption are greatly reduced.

Material: carbon steel. Internal protective treatment: Food-grade inorganic glass-coating complying with DIN 4753-3.

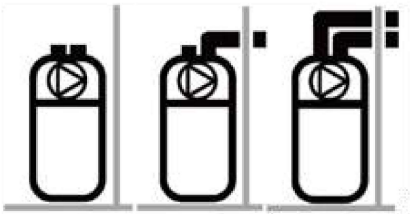
OTHER FEATURES

- Micro-channel heat exchanger (heat pump)
- Spiroidal internal heat exchanger (solar, only for model APHPDHW300S)
- Simplified accessibility
- Installation flexibility
- PV contact



INSTALLATION

The unit must be installed indoors, preferably in spaces where the temperature is always > 5 °C (e.g. laundry, garage, technical room,...). Both the air intake and exhaust, or none, may be ducted to the outside. A 600 mm clearance must be left all around the unit for maintenance. The room must have a minimum surface of 7 m^2.



TECHNICAL DATA

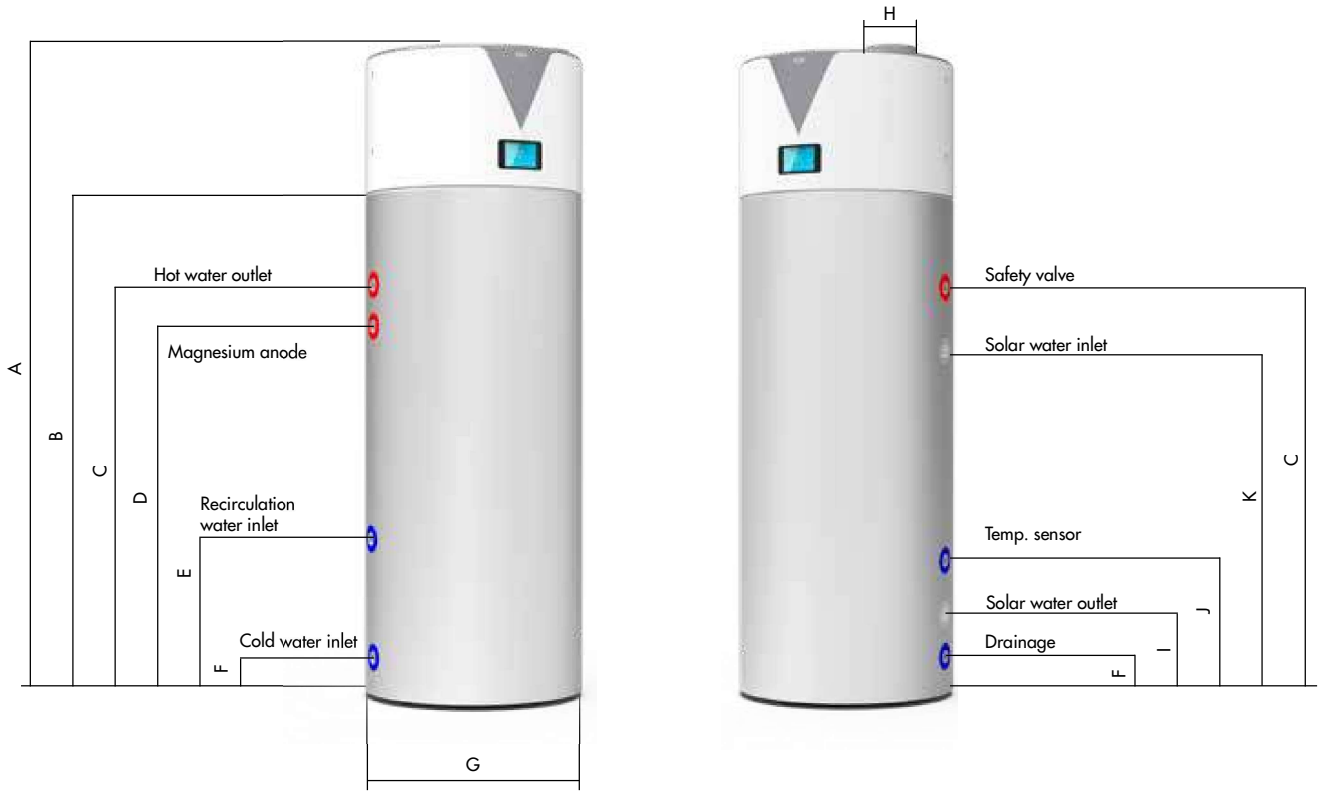
Model		APHPDHW300S	APHPDHW200
Power supply	/	230 V~/50 Hz	230 V~/50 Hz
Water-Dust Resistance	IPX	IPX1	IPX1
Electrical Shockproof	I	I	I
Heating capacity	kW	1.5	1.5
Heating Power Input	kW	0.41	0.41
Heating Current Input	A	1.8	1.8
COP*		3.51	3.53
COP**		3.02	3.08
Heating time (Heat pump only)***	h	8.25	5.45
Auxiliary E-heater	kW	1.5	1.5
Max. Power Input	kW	2.2	2.2
Max. Current Input	A	9.3	9.3
Refrigerant/Quantity	g	R290/150 g	R290/150 g
Unit dimensions (H./L./W.)	mm	Ø 640x1905	Ø 640x1600
Net weight	kg	112	96
Rated Outlet Water Temperature	°C	55	55
Air Volume	m^3/h	350	350
Air Pressure	Pa	40	40
Air Duct Diameter	mm	150	150
Water Inlet-Outlet Size	inch	3/4"	3/4"
Compressor		Rotary	Rotary
Solar coil heat exchange surface	m^2	1.1	/
Solar coil pressure drop	mbar	see chart	/
Solar coil max. pressure	MPa	1.6	/
Solar coil max. temperature	°C	90	/

Measurement conditions:
*Ambient temperature 14 °C/13 °C, water inlet 15 °C, water outlet 55 °C (EN16147).
**Ambient temperature 7 °C/6 °C, water inlet 15 °C, water outlet 55 °C (EN16147).
***Ambient temperature 15 °C, water inlet 15 °C, water outlet 55 °C.

Work range:
(1) Ambient temperature is -5 °C~43 °C (Heat Pump).
(2) The max temperature of water tank is 60 °C.

Operating parameters:
The range of the operating water temperatures: 10~60 °C.
The range of the operating water pressures: 0.15~0.7 MPa.

DIMENSIONS AND FITTINGS



		A	B	C	D	E	F	G	H	I	J	K
APHPDHW300S	[mm]	1905	1467	1208	1088	576	128	Ø 640	Ø 150	226	531	1026
APHPDHW200	[mm]	1600	1162	903	783	-	128	Ø 640	Ø 150	-	-	-
CONNECTIONS	[inch]	-	-	G3/4"	G3/4"	G3/4"	G3/4"	-	-	G3/4"	G3/4"	G3/4"

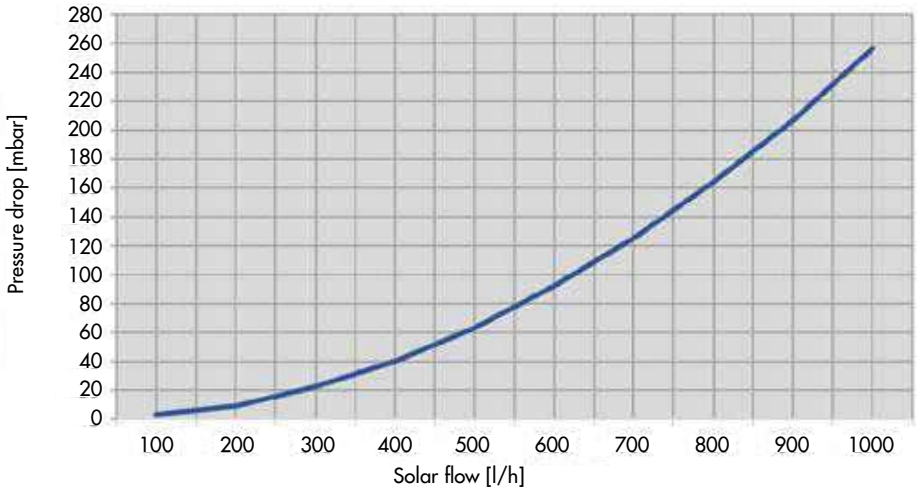
OPERATION MODES

Five different operating modes can be selected. In Standard mode the heat pump starts according to the actual temperature and target temperature. The electric heater will not start immediately, but only after a set time, if the target temperature has not been reached. In Eco mode only the heat pump is activated, the electric heater is always off. In High Requirement mode, besides the heat pump also the electric heater is turned on immediately.

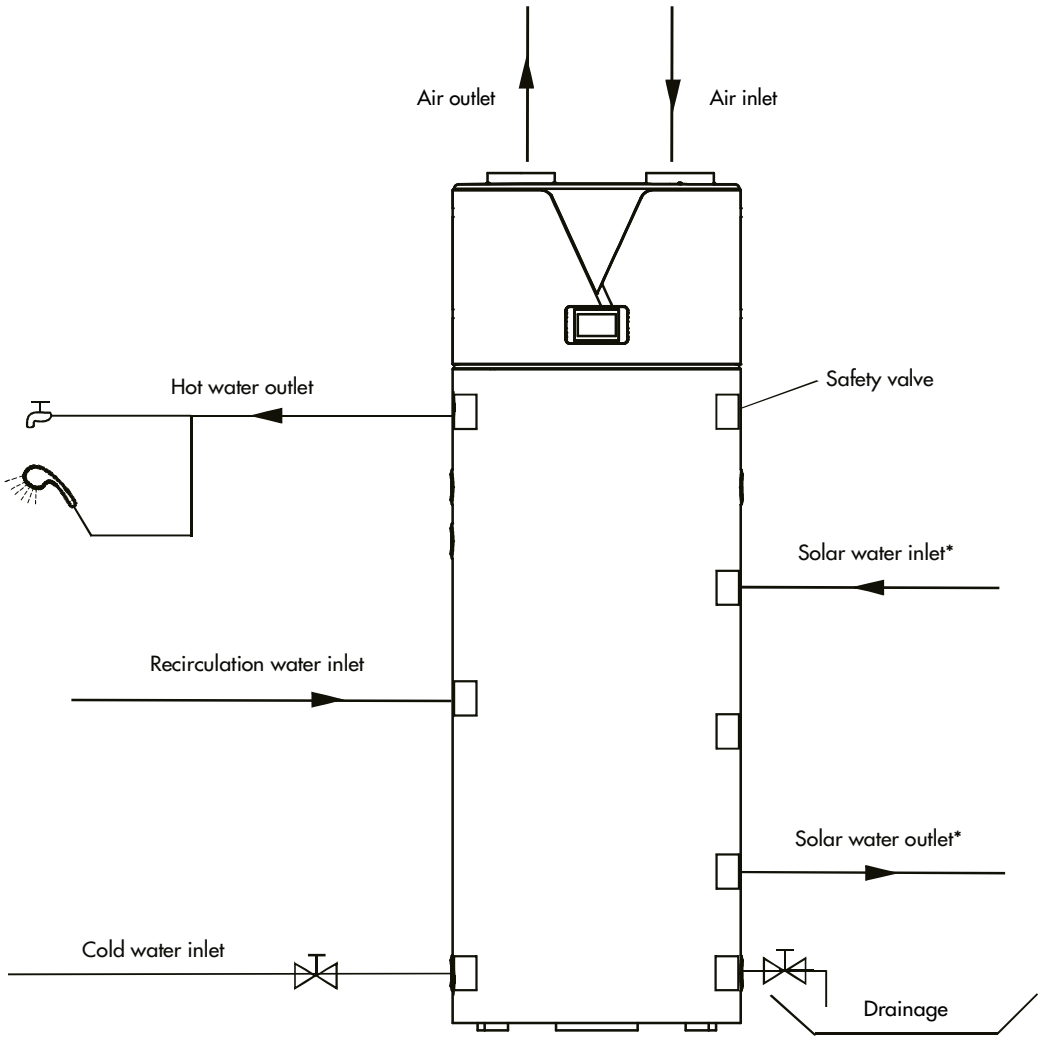
In Intelligent mode, the operation changes automatically depending on the ambient temperature. Above a 'high' threshold the unit operates in Eco mode, below a 'low' threshold the unit operates in High Requirement mode, while in the intermediate condition the Standard mode is adopted.

It is also available a Vacation mode, for which a vacation 'end' can be set so that the unit re-starts automatically on the desired date. The disinfection cycle can be activated, so that the unit automatically carries out the periodic high temperature process.

SOLAR HEAT EXCHANGER PRESSURE DROPS



EXAMPLE SCHEME



*Only APHPDHW300S