



NEW

RAPAX V4

Heat pump water heaters

Domestic hot water
production with renewable
energy



RAPAX V4

Heat pump water heaters

Thanks to heat pump technology and the use of the **low-environmental-impact natural refrigerant R290**, the new RAPAX V4 range completely eliminates the use of fossil fuels for domestic hot water production and harnesses the thermal energy naturally present in the air. A sustainable and efficient solution.

Floor-standing versions are available with a 270-litre enamelled steel tank (RAPAX 300 V4), a 200-litre (RAPAX 200 V4) tank and **wall-hung version** with a 100-litre tank (RAPAX 100 V4). The **"SOL" versions** can be integrated with solar thermal systems.

These water heaters are ideal **for renovations or new installations in houses and detached homes**. They guarantee high efficiency in the production of domestic hot water from renewable sources and reduce energy consumption: for this reason, they are also perfect **for new apartments or for replacing old electric or gas water heaters**. The whole range, combined with heat pumps for air conditioning, is suitable for designing fully electric homes.

All RAPAX V4 models **can be managed simply and smartly, even remotely**. Furthermore, thanks to a specific electrical configuration, it maximizes self-consumption when the water heater is **combined with a photovoltaic system**.



R290 

**High efficiency
and eco friendly**

Remote control by app

New design



ENERGY EFFICIENT AND ECO FRIENDLY

The RAPAX V4 range **significantly reduces polluting emissions** compared to a traditional gas water heater. Thanks to the heat pump (now using the natural refrigerant R290), it exploits heat from the air as a free and renewable energy source to heat water with an **excellent Coefficient of Performance (COP)**. The specific electrical set-up also allows excess energy produced by the photovoltaic system to be stored in the storage tank. The RAPAX 200 and 300 SOL V4 versions can be combined with a forced circulation solar thermal system to further reduce power consumption.

MODERN DESIGN AND QUIET OPERATION

The **new modern, functional design** is developed to ensure seamless integration into diverse residential settings. Thanks to its **low noise level and gas content of just 150 g.**, the RAPAX V4 range is particularly suitable for indoor installations.

EASY INSTALLATION

RAPAX V4 water heaters are **hermetically sealed** and require no significant buildings works during installation, apart from the holes for air ducting. As option it is supplied a kit with expansion vessel and safety valve.



GENERAL CHARACTERISTICS



EASY TO USE

The digital display interface is designed to ensure ease of use. The **multifunction display** offers a clear and immediate overview of all the main operating parameters and provides the user with convenient and immediate access **to set and view the main parameters**. The anti-legionella function can also be set.

Operation modes	Description
HYBRID	<p>Medium efficiency mode</p> <p>The heat pump switches-on with priority, but electric heater and heat pump operate simultaneously in two specific circumstances:</p> <ul style="list-style-type: none"> - very cold outside air conditions - when heat pump has been running for a long time and is unable to reach the set temperature on its own.
E-HEATER	<p>Maximum consumption mode</p> <p>Manually activable when you want to speed-up the heating process to the set domestic hot water temperature; in this mode, the heat pump and electric heater will always work simultaneously.</p>
ECONOMY	<p>Maximum efficiency mode, default</p> <p>Within the heat pump's operating range, only the heat pump is activated; outside of this range, the heat pump is turned off and the electric heater is activated.</p>
SMART	<p>Smart mode records the user's hot water consumption habits (based on the last 7 days) and accordingly heats the water making it available only when needed to maximize domestic hot water comfort. It is not recommended for use when requests are few and irregular.</p>



SOLAR THERMAL COMBINATION

The RAPAX 200/300 SOL V4 versions are designed to supplement domestic hot water production with a forced-circulation solar thermal system* connected to the specific coil**.

The solar thermal system is completed by adding:

- Flat Plate Collector CP4 M or CP4 XL
- Connection kit for Flat Plate Collector (including vent kit and fittings)
- Frame and brackets for Flat Plate Collector
- Glycol and connections pipes storage tank and Flat Plate Collector
- Central solar unit and Solar pump station
- Solar expansion vessel

* Specific documentation is available for the solar thermal solutions.

** As alternative a boiler can be connected.

For more information, please contact Customer Service.

Remote control with the CLIMASmart app

The app allows you to control the RAPAX V4 remotely, managing its main functions. Thanks to the Wi-Fi connection, you can:

- select operating modes
- set the time schedule and the domestic hot water temperature,
- program the disinfection function (anti-legionella)



CLIMASmart



Compatible with Alexa and Google Home

A wireless modem/router is required (not supplied by Immergas).



TECHNICAL DATA

Technical characteristics	Unit of measurement	RAPAX 100 V4	RAPAX 200 V4	RAPAX 300 V4
Art. no.		3.036851	3.036852	3.036854
Water heating energy efficiency class		A+ (A+ ← F)	A+ (A+ ← F)	A+ (A+ ← F)
Load profile		M	L	XL
Enamelled steel storage tank capacity	l	98	185	275
Polyurethan insulation tickness	mm	50	42	46
COP air temperature 7 °C *		3,35	3,58	2,61
COP air temperature 15 °C *		4,19	4,35	3,82
COP air temperature 20 °C *		4,30	4,87	4,12
COP air temperature 35 °C *		5,79	6,57	5,42
V40 (water mixed at 40 °C) **	l	110	245	350
Storage tank heating time **		6h04'	7h32'	8h58'
Anticorrosion protection		Magnesium anode, Steel coated with vitrified enamel	Magnesium anode, Steel coated with vitrified enamel	Magnesium anode, Steel coated with vitrified enamel
Maximum operating pressure	bar	8	8,5	8,5
Electrical connection (voltage/frequency)	v/Hz	230/50	230/50	230/50
Maximum total power absorbed	W	1950	2240	2350
Maximum power absorbed by heat pump	W	450	600	710
Power absorbed by electric heater	W	1500	1640	1640
Heating pump nominal power output ***	W	980	1430	1500
Domestic hot water temperature range	°C	from 38 to 70	from 38 to 70	from 38 to 70
Air temperature working range	°C	from - 7 to + 43	from - 7 to + 43	from - 7 to + 43
Air flow	m ³ /h	200	350	450
Allowable air pressure drop	Pa	60	80	80
Type of refrigerant gas		R290	R290	R290
Refrigerant load	g	150	150	150
Electric protection index	IP	21	21	21
Empty appliance weight	kg	66	91	123

(*) Inlet water temperature 15°C, outlet water temperature 45°C

(**) Air temperature 7/6°C (DB/WB), inlet water temperature 10°C, outlet water temperature 54°C

(***) Air temperature 15/12°C (DB/WB), inlet water temperature 15°C, outlet water temperature 45°C



Technical characteristics	Unit of measurement	RAPAX 200 SOL V4	RAPAX 300 SOL V4
Art. no.		3.036853	3.036855
Water heating energy efficiency class		A+ (A+ ← F)	A+ (A+ ← F)
Load profile		L	XL
Enamelled steel storage tank capacity	l	181	270
Polyurethan insulation tickness	mm	42	46
Solar coil's surface	m ²	0,6	1,1
COP air temperature 7 °C *		3,58	2,61
COP air temperature 15 °C *		4,35	3,82
COP air temperature 20 °C *		4,87	4,12
COP air temperature 35 °C *		6,57	5,42
V40 (water mixed at 40 °C) **	l	245	345
Storage tank heating time **		7h47'	9h02'
Anticorrosion protection		Magnesium anode, Steel coated with vitrified enamel	Magnesium anode, Steel coated with vitrified enamel
Maximum operating pressure	bar	8,5	8,5
Maximum solat thermal circuit pressure	bar	10	10
Electrical connection (voltage/frequency)	v/Hz	230/50	230/50
Maximum total power absorbed	W	2240	2350
Maximum power absorbed by heat pump	W	600	710
Power absorbed by electric heater	W	1640	1640
Heating pump nominal power output ***	W	1430	1500
Domestic hot water temperature range	°C	from 38 to 70	from 38 to 70
Air temperature working range	°C	from - 7 to + 43	from - 7 to + 43
Air flow	m ³ /h	350	450
Allowable air pressure drop	Pa	80	80
Type of refrigerant gas		R290	R290
Refrigerant load	g	150	150
Electric protection index	IP	21	21
Empty appliance weight	kg	94	132

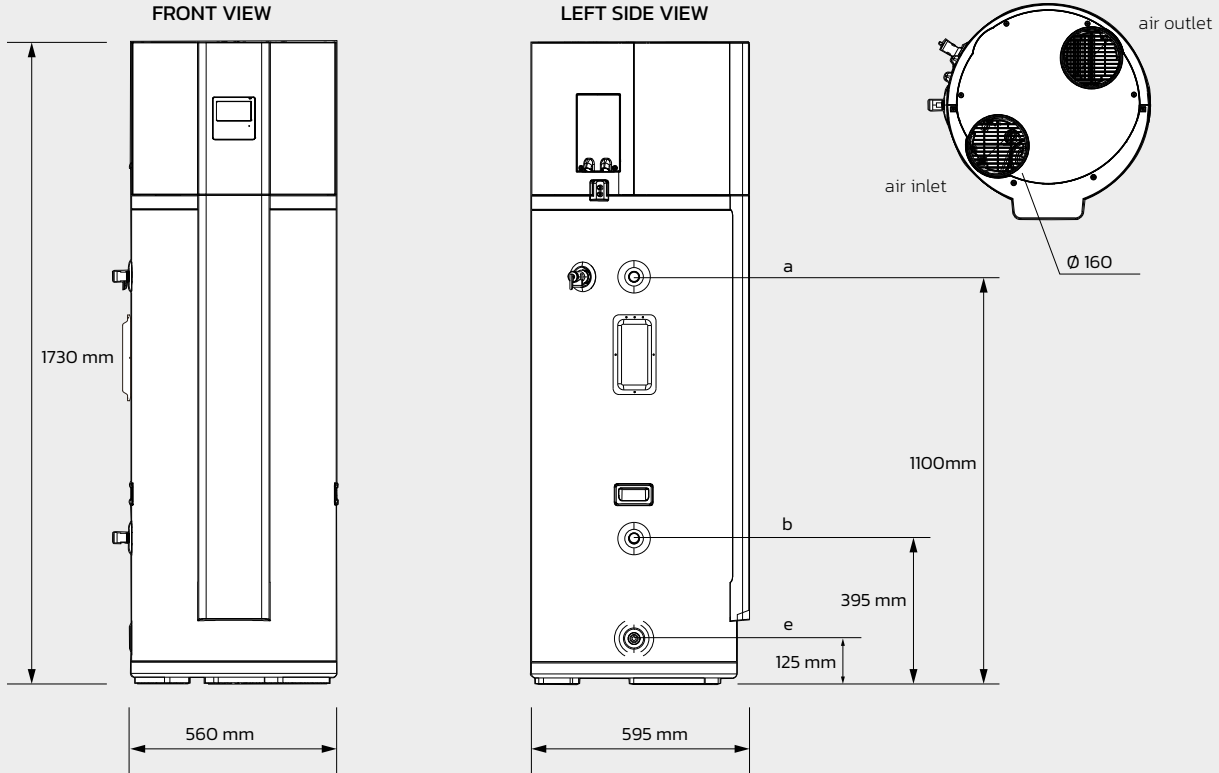
(*) Inlet water temperature 15°C, outlet water temperature 45°C

(**) Air temperature 7/6°C (DB/WB), inlet water temperature 10°C, outlet water temperature 54°C

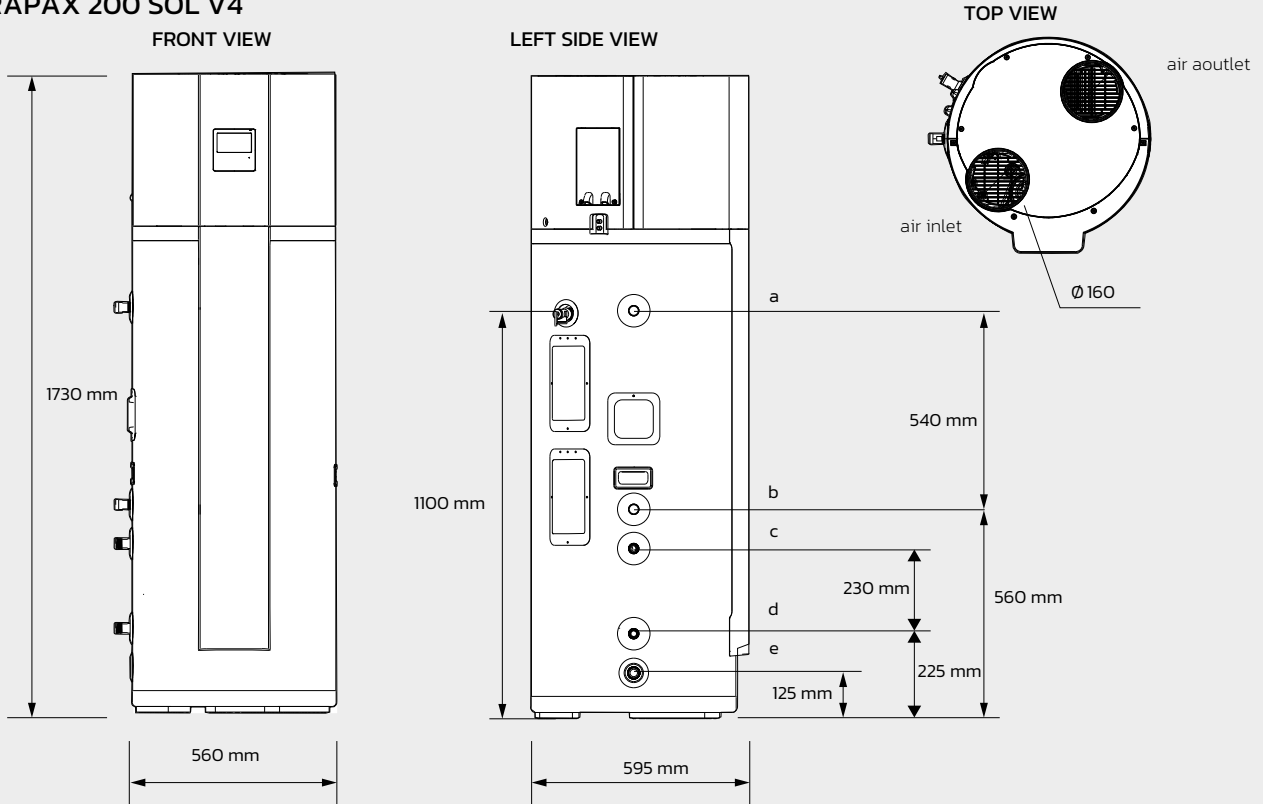
(***) Air temperature 15/12°C (DB/WB), inlet water temperature 15°C, outlet water temperature 45°C



RAPAX 200 V4



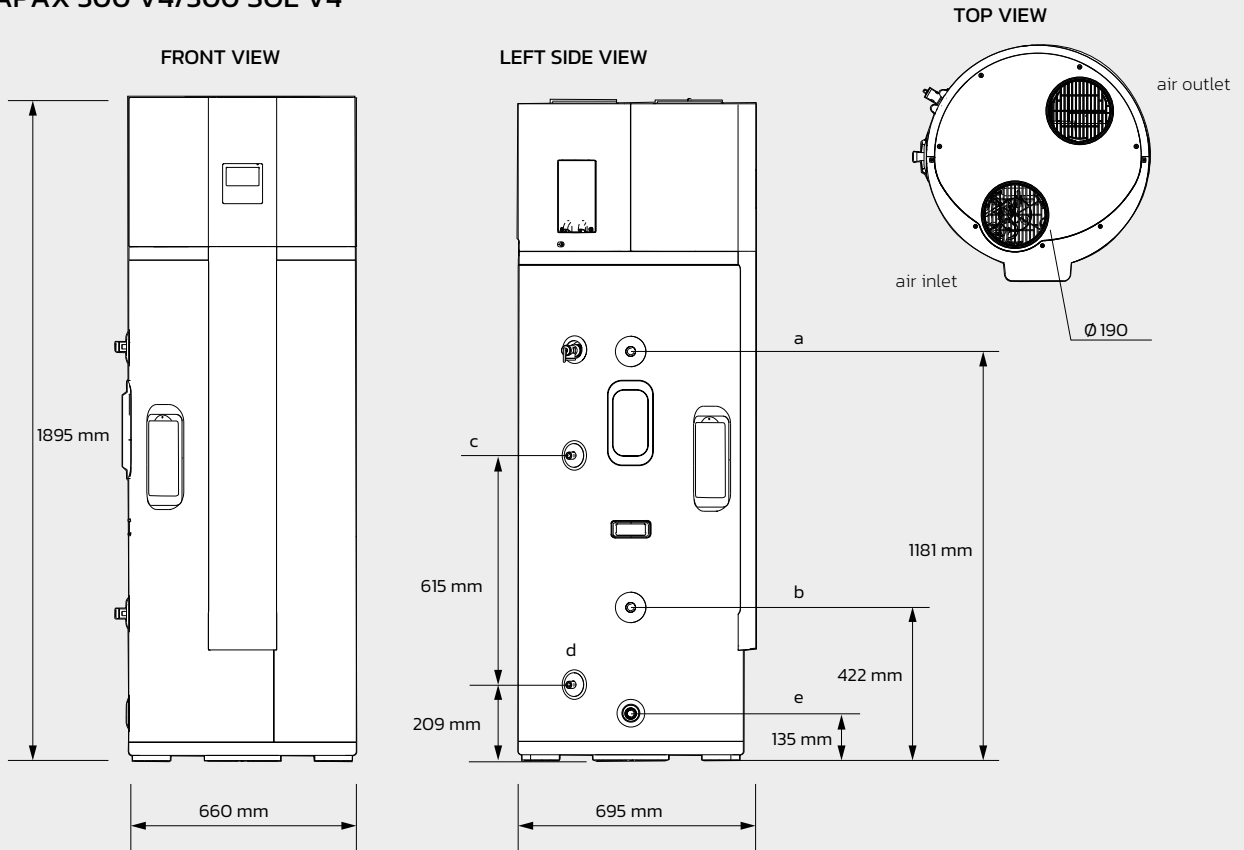
RAPAX 200 SOL V4



Key

- a Domestic hot water outlet (3/4")
- b Domestic cold water inlet (3/4")
- c Solar outlet (3/4") only for SOL versions
- d Solar inlet (3/4") only for SOL versions
- e Drain pipe (3/4")

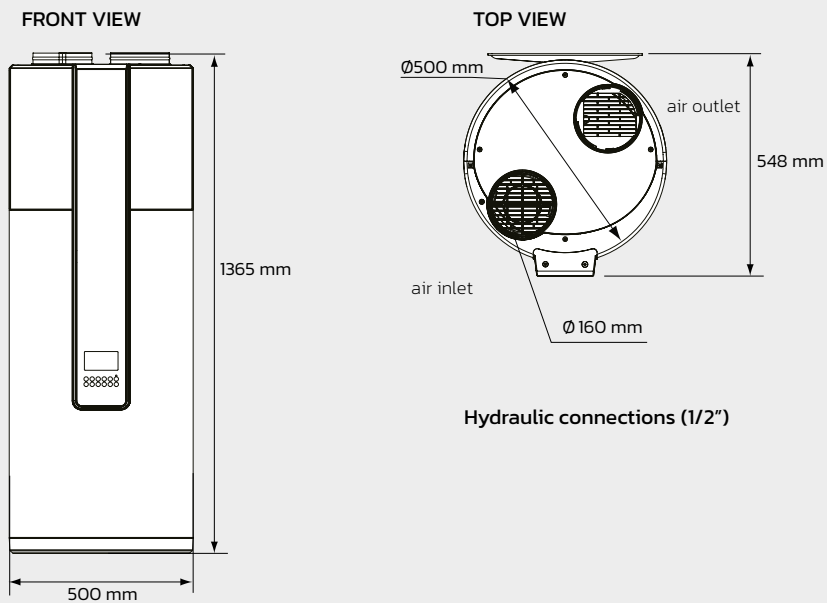
RAPAX 300 V4/300 SOL V4



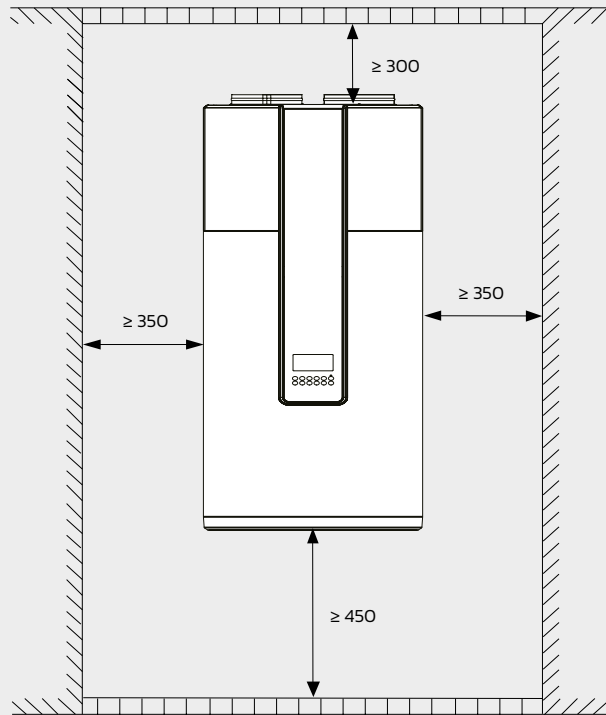
Key

a	Domestic hot water outlet (3/4")
b	Domestic cold water inlet (3/4")
c	Solar outlet (3/4") only for SOL versions
d	Solar inlet (3/4") only for SOL versions
e	Drain pipe (3/4")

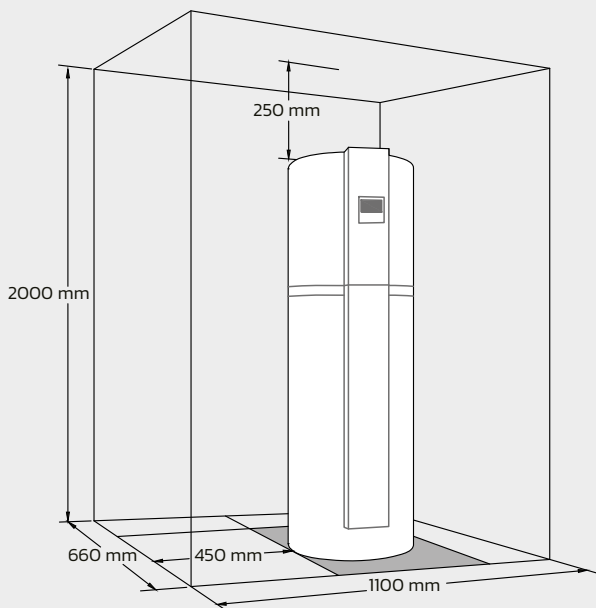
RAPAX 100 V4



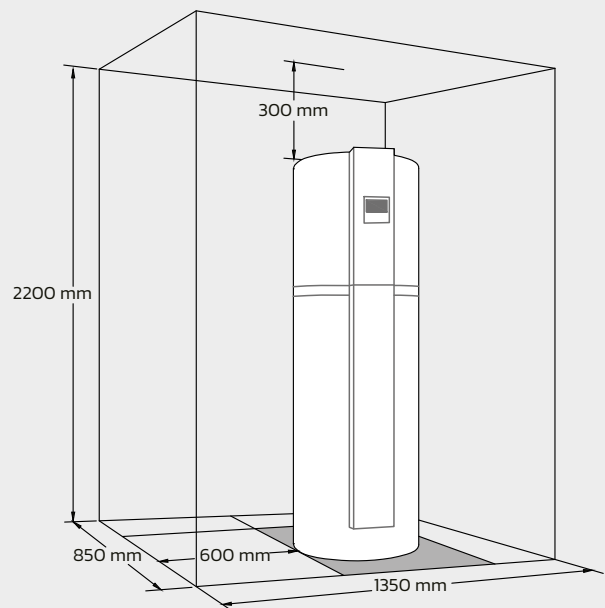
Minimum installation distances
RAPAX 100 V4



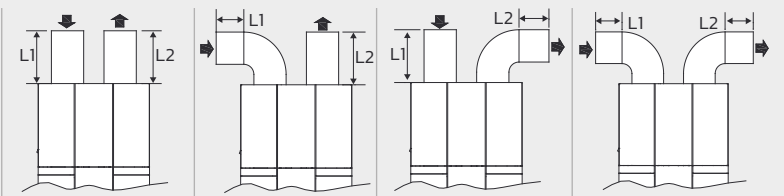
Minimum installation distances
RAPAX 200 V4/200 SOL V4



Minimum installation distances
RAPAX 300 V4/300 SOL V4



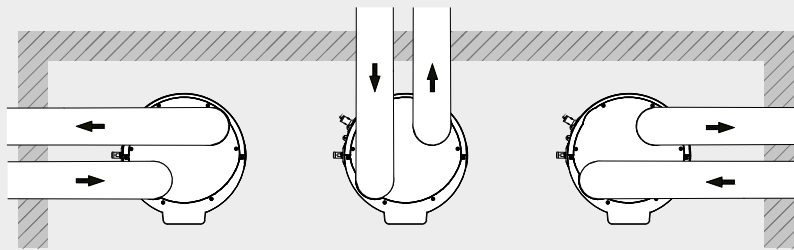
Air duct connection procedure



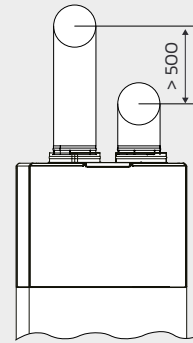
RAPAX 100 V4	Maximum pipe length L1+L2 (without filter)	60 m	56 m	56 m	53 m
RAPAX 200/200 SOL V4		32 m	28 m	28 m	24 m
RAPAX 300/300 SOL V4		40 m	36 m	36 m	32 m

For other options of air ducts connection and using filters, refer to the appliance's instruction manual.

Air duct connection directions



Minimum distance between air inlet/outlet ducts



Accessories RAPAX V4

Type	Art. no.
Safety valve 7 bar and 5 litres expansion vessel kit for RAPAX 100 V4	3.028368
Safety valve 7 bar and 12 litres expansion vessel kit for RAPAX 200/300 V4 and 200/300 SOL V4	3.025231
2 m extension pipe Ø 160 kit for RAPAX 100 V4 and RAPAX 200 V4/200 SOL V4*	3.037559
1 m extension pipe Ø 160 kit for RAPAX 100 V4 and RAPAX 200 V4/200 SOL V4*	3.037558
87° bend Ø 160 kit for RAPAX 100 V4 and RAPAX 200 V4/200 SOL V4*	3.037560
2 x 45° bends Ø 160 kit for RAPAX 100 V4 and RAPAX 200 V4/200 SOL V4*	3.037561
2 m extension pipe Ø 200 kit for RAPAX 300 V4/300 SOL V4*	3.037565
1 m extension pipe Ø 200 kit for RAPAX 300 V4/300 SOL V4*	3.037564
87° bend Ø 200 kit for RAPAX 300 V4/300 SOL V4*	3.037566
2 x 45° bends Ø 200 kit for RAPAX 300 V4/300 SOL V4*	3.037567

(* Use the adapters supplied with RAPAX V4.





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