HEAT PUMP

IMMERGAS

RAPAX V2

Heat pump water heater

NEW NEW NEW NEW NEW

RAPAX V2

Heat pump water heaters

The RAPAX V2 heat pump water heaters can completely eliminate the use of gas for domestic hot water because they apply the same principle as heat pumps. This is one of the new, **effective solutions designed by Immergas to make the best use of renewable energy sources**.

RAPAX V2 heat pump water heaters have a **270 litre insulated enamelled steel storage tank** and can be installed even in a garage, laundry or storeroom.

The RAPAX V2 range is ideal when renovating and creating heating systems in detached houses to produce domestic hot water with renewable energy sources.

It is an **excellent alternative to solar energy** and can be used in systems designed for operation without gas for the production of domestic hot water and, combined with a heat pump, to provide air conditioning.

All RAPAX V2 are equipped with specific features to enhance performance of the photovoltaic system and, in the RAPAX 300 SOL V2 version, the combination with solar heating systems.

REDUCED CONSUMPTION AND RESPECT FOR THE ENVIRONMENT

RAPAX V2 range water heaters significantly reduce polluting emissions compared to traditional gas water heaters. Thanks to a heat pump, they use the heat in the air as a source of free, renewable energy for heating water. Through an electrical contact, they can also store the heat produced with the photovoltaic system in the boiler. The RAPAX 300 SOL V2 version can be combined with a forced-circulation solar heating system to further reduce power consumption.

SILENT OPERATION

RAPAX V2 have the lowest sound impact in the field so they are suitable for installation in living areas.

EASE OF INSTALLATION

These water heaters can also be installed in non-heated areas such as a garage, laundry or storeroom; they do not require extensive work apart from holes for air discharge in solutions that call for suction and external exhaustion of air.

SIMPLICITY AND EASE OF USE

COMFORT

Ideal for families with 2 to 6 people, thanks to the 270 litre hot water tank and to the possibility of setting water temperature up to 62 °C.

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.01 USER INTERFACE AND FUNCTIONS

New integrated interface allows an easier use. The control lets you view measured temperature, operation times of heat pump or electrical supplement energy consumption in kWh, activation of the solar heating circuit (only in the RAPAX 300 SOL V2 version) as well as setting of **anti-legionella function**. The operation modes as AUTO, ECO and BOOST are always present, but there are two new functions (see below).

Operation modes	Description
MANUAL	Heat pump operation has priority; in case of problems/error signal or temperature outside the normal range (- 5 + 43 °C), the electrical resistance is switched on (manual adjustment range 50 - 62 °C)
ABSENCE	It allows you to indicate a permanent absence or a scheduled absence (set the start and the end date). In this period, the water temperature is kept above 15°C.

.02 SOLAR HEATING COMBINATION

The RAPAX 300 SOL V2 version has been designed to supplement DHW production with a forced-circulation solar heating system* connected to the special fittings of the bottom coil**. The solar heating system is completed by addition of:

- 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

** It is available a specific documentation for solar thermal solutions.*

*** Alternative at the solar heating system, it is possible to connect a boiler. For more information contact the presales-dept.*

.03

INSTALLATION WITHOUT DUCTS IN UNHEATED SPACES (volume > 20 m³)

Very useful in a laundry, garage or utility room. In the laundry the advantage is the room dehumidification and the recovery of the wasted heat from washing machines and dryers.

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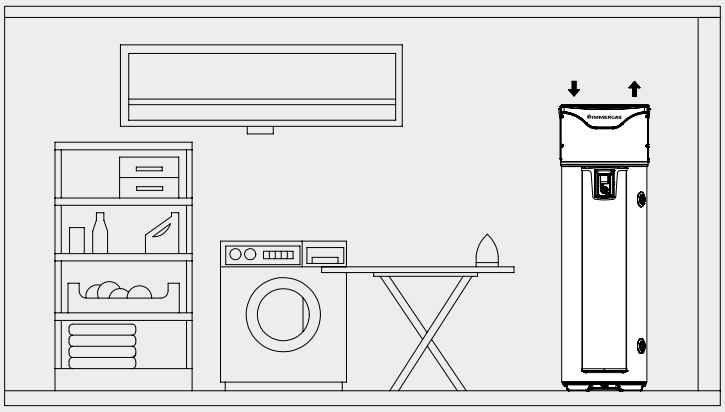

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INSTALLATION IN UNHEATED SPACES (volume > 20 m³), WITH 1 EXPULSION DUCT

In this case, a ventilation opening must be done.

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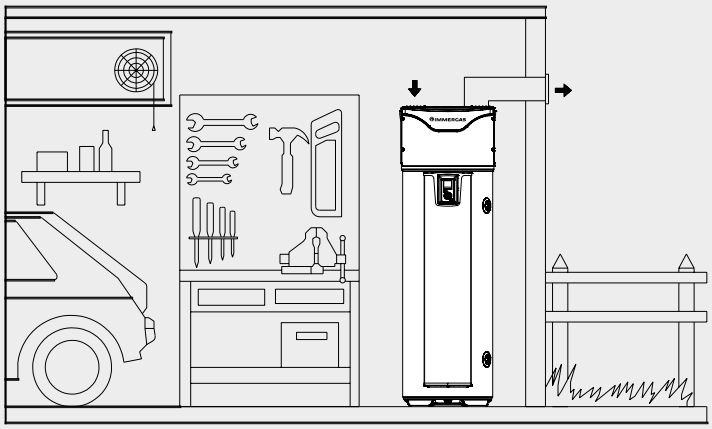

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INSTALLATION IN HEATED OR UNHEATED ROOMS, WITH 2 DUCTS FOR THE AIR (INTAKE AND EXPULSION)

Comply the maximum ducts lengths (rif. Instruction manual). It's important to use insulated ducts, Ø 160 mm to avoid condense in a wet room and use grilles on air-intake and expulsion in order to avoid the entry of foreign bodies.

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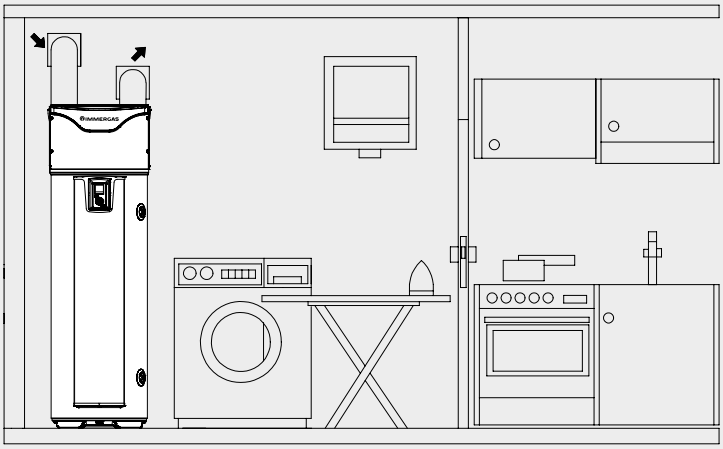


The installation of the heat pump water heater requires a omni-polar circuit-breaker of 16 A and a earth leakage trip of 30 mA not given as standard with RAPAX V2.

Technical characteristics	Unit of measurment	RAPAX 300 V2	RAPAX 300 SOL V2
Code		**3.027346**	**3.027347**
Empty weight (model without coil)	kg	93,0	108,0
Enamelled steel storage tank capacity	l	270	270
Polyurethan insulation tickness	mm	40	40
Heat loss	kW	0,039	0,039
Domestic hot and cold water hydraulic connections		¾" M	¾" M
Coil's heating surface	m^2		1,2
COP (air temperature 15 °C)*		3,41	3,41
COP (air temperature 7 °C)*		2,84	2,84
Mixing water maximum quantity (delivery 54 °C)	l	357	336
Anticorrosion protection		Magnesium anode	Magnesium anode
Water maximum operating pressure	bar	8	8
Electrical connection (voltage/frequency)	V/Hz	230/50	230/50
Maximum total power absorbed by the device	W	2465	2465
Average power absorbed by heat pump	W	525	525
Maximum power absorbed by heat pump	W	665	665
Power absorbed by auxiliary electrical unit	W	1800	1800
Domestic hot water range by heating pump (52 °C default value)	°C	from 40 to 62	from 40 to 62
Heating pump air temperature working range	°C	from - 5 to + 43	froom - 5 to + 43
Heating pump nominal power output (nominal condition 15 °C)	W	1650	1650
Air flow (no air ducting) Speed 1 Speed 2	 m^3/h m^3/h	 300 390	 300 390
Load losses acceptable on ventilation circuit, without decrease performance	Pa	25	25
Refrigerant gas		R134A	R134A
Gas refrigerant capacity	kg	1,35	1,35
Sound pressure at 2 m (no air ducting)	dB(A)	37	37
Heating time with heat pump (from 15°C to 51°C - air temperature 15°C)		7h 32'	7h 32'

RAPAX V2 is keeping with 2014/30/UE electromagnetic compatibility directive , 2014/35/UE low tension directive and 2011/65/UE ROHS directive.

** According to EN 16147, water from 10 to 52,5 °C*

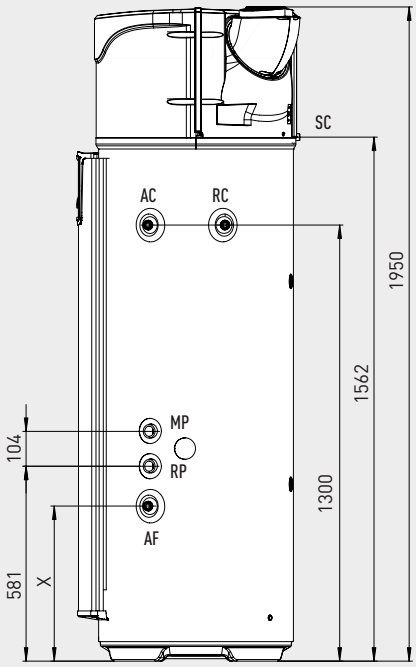
OPTION KITS

Type	Code
Safety valve 7 bar and 12 litres expansion vessel kit	3.025231
Duct adapter* Ø 160	3.025232
Extension pipe kit Ø 160 0,5 m long *	3.024659
Extension pipe kit Ø 160 1 m long*	3.024516
87° bend kit Ø 160*	3.024517
2 x 45° bend kit Ø 160*	3.024518
Inlet/exhaust pipes insulation kit for RAPAX V2 NEW	3.027545

** The ducts are required to intake and espulxion air on external. Its are not insulated.*

Dimensions and connections

LEFT LATERAL VIEW

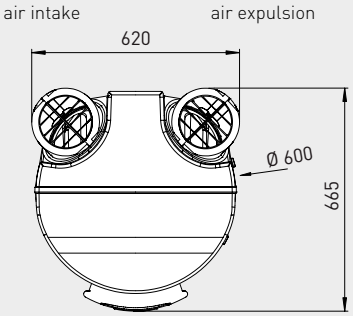


Key

AC	Domestic hot water outlet ¾" M
AF	Domestic cold water inlet ¾" M
MP	Delivery solar collector (only RAPAX 300 SOL V2) 1" F
RP	Return solar collector (only RAPAX 300 SOL V2) 1" F
SC	Condensate drain Ø 20
RC	Recirculation ¾" M (only RAPAX 300 SOL V2)
X	304 mm RAPAX 300 V2; 462 mm RAPAX 300 SOL V2

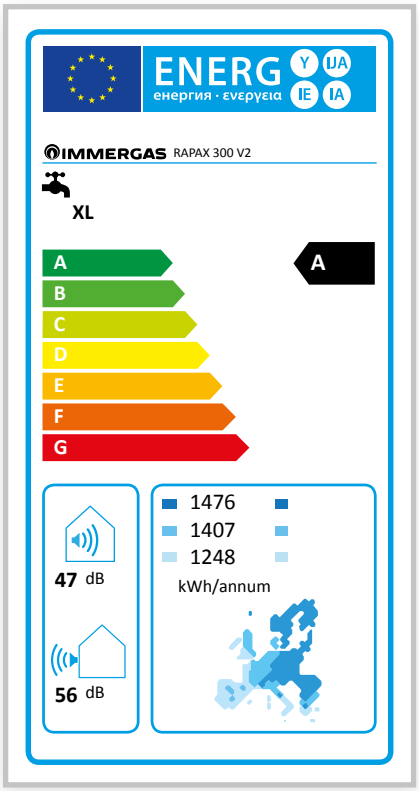
The use of RAPAX V2 involves the installation of an appropriately sized DHW expansion vessel and safety valve, not included in the supply (Immergas supplies a specific option kit, see on page 6).

TOP VIEW

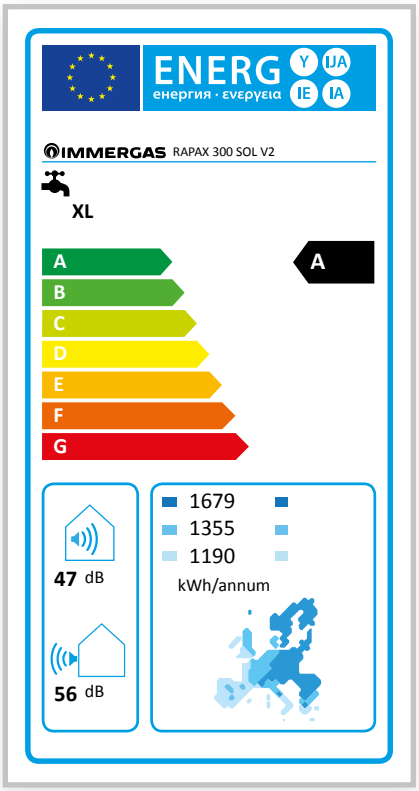


In accordance with the ELD directive (in conformity with regulation 811/2013), we include the label of each water heater to enable customers to evaluate the products.The labels are shown in the documentation accompanying the units as well as on the immergas.com website in each product's page.

RAPAX 300 V2



RAPAX 300 SOL V2



App Immergas TOOLBOX

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IMMERGAS SPA - ITALY
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Design, manufacture and post-sale assistance of gas boilers, gas water heaters and related accessories