

## Vaillant: aroSTOR

For all those who are looking to contribute to a greener future.



■ aroSTOR floor standing domestic hot water heat pump



**Vaillant** Comfort for your home



Vaillant is the leading premium brand for sustainable and responsible system solutions, ensuring you experience comfort for your home. Our products have high energy efficiency ratings and low emissions, with an enviable reputation for performance, quality and reliability.

## Introducing the domestic hot water heat pump with natural refrigerant: **The aroSTOR**

The new aroSTOR domestic hot water heat pump. It is perfect for hot water requirements in larger homes or small businesses where there is high hot water demand.

This new Vaillant heat pump is incredibly efficient and sustainable, using thermal energy which can be collected via an external air duct. It can also recycle hot air from within the room where it's installed, provided there is sufficient ventilation. The only other energy needed is the electricity to run the appliance.



### Benefits at a glance

- Domestic hot water comfort for up to 6 people
- Highly energy efficient and reliable  
COP of >4.0, ErP label of A+
- Extremely quiet operation  
Advanced insulation and use of rubber on compressor  
Volume: 48 dB, Sound pressure level (1m): 36 dB
- 1.2kW titanium electrical back-up heater
- Outdoor and Indoor Installation with ductable pipes which enable heat /air transfer to minimise energy loss
- High Quality Material components / low maintenance  
Warranty: Stainless steel tank - 5 years  
Other components - 2 years

### Controls

The aroSTOR comes with its own sleek control unit which has a simple dial and push button control. The control allows for various pre-set auto and manual modes. The control also shows the operation mode and the actual water temperature inside the tank.



## Eco-friendly DHW solution

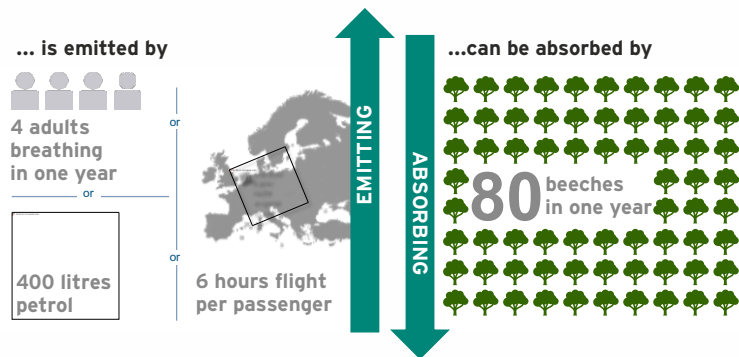
As a DHW HP the aroSTOR wins energy for efficient hot water generation from ambient or outside air. With R 290 Refrigerant the aroSTOR today fulfils already the upcoming flu-gas regulations and contributes to the worldwide environmental goals.

## Natural refrigerant

Vaillant's aroSTOR heat pumps use only R290 natural refrigerant. This is the refrigerant used in everyday household appliances such as domestic fridge freezers. The use of this refrigerant means that the aroSTOR is future-proof, being already compliant with the Montreal and Kyoto protocols.

The use of R290 means the aroSTOR has an incredibly low Global warming Potential (GWP) of just 3 and an Ozone Depletion Potential (ODP) of zero. R290 gives excellent performance for water heating.

## One ton of CO<sub>2</sub>



## Alternative refrigerants (overview):

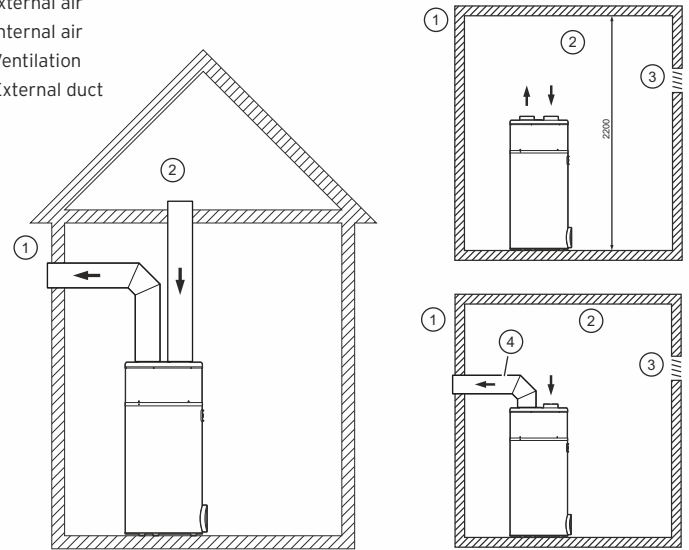
Hypothetical CO<sub>2</sub>-equivalent of MagnaAqua 270l with alternative refrigerants

| Refrigerant | GWP   | CO <sub>2</sub> equivalent aroSTOR VWL |
|-------------|-------|--|
| R290        | 3     | 0.00045 t CO <sub>2</sub>              |
| R32         | 675   | 0.10125 t CO <sub>2</sub>              |
| R134a       | 1,430 | 0.21450 t CO <sub>2</sub>              |
| R407c       | 1,774 | 0.26610 t CO <sub>2</sub>              |
| R410a       | 2,088 | 0.31320 t CO <sub>2</sub>              |

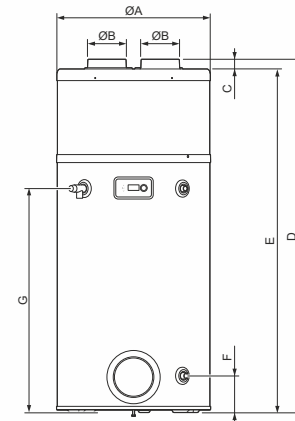
## Dimension and connections

### aroSTOR heat pump 270 litres

1. External air
2. Internal air
3. Ventilation
4. External duct



### Product dimensions and connection dimensions



### Unit dimensions and connection dimensions

|   | aroSTOR 270 |
|---|-------------|
| A | 634mm       |
| B | 158mm       |
| C | 40mm        |
| D | 1,783mm     |
| E | 1,743 mm    |
| F | 151 mm      |
| G | 1,249       |

## Technical Data

### General

|  |                         |
|--|-------------------------|
| Nominal capacity                                 | 270 Litre               |
| Outer diameter                                   | 634 mm                  |
| Weight (when empty)                              | 68 kg                   |
| Weight (filled)                                  | 338 kg                  |
| Cylinder material                                | Stainless steel         |
| Heat insulation/External Cover                   | Polyurethane foam 50 mm |
| Thermal losses 55°                               | 1.77 kW/ 24h            |
| DHW temperature range (HP Mode)                  | 30°C to 60°C            |
| Maximum pressure                                 | 6 bar                   |
| Max. Hot water temperature (hp + back up heater) | 65° C                   |

### Electrical Specifications

|   |              |
|---|--------------|
| Rated Input - hp mode                           | 0.7kw        |
| Heating Output - hp mode                        | 2.8kw        |
| Electrical back up                              | 1.2kw        |
| Rated Input - hp + back up                      | 1.9kw        |
| Heating Output hp + back up                     | 4.0 kw       |
| Re-Heating Time hp mode (35 degrees Delta)      | 5 hours      |
| Re-Heating Time hp + back up (35 degrees Delta) | 3 hours      |
| Wire size                                       | 4 sqmm (PNE) |
| MCB/Socket                                      | 20 Amps      |
| Voltage and Frequency                           | 230V - 50Hz  |

### Others

|                                      |             |
|--------------------------------------|-------------|
| Refrigerant type                     | R 290       |
| Minimum and maximum air temperatures | -7 to 45° C |
| Sound power level                    | 52dB        |
| Coefficient of performance           | 4.0         |
| ErP rating ( A+ -F)                  | A+          |

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