



AIR/WATER HEAT PUMP COMPACT UNIT

Utilises the environmentally-friendly and cost-effective heat from outside air

**VITOCAL 222-A** Monobloc Design



Available with an output range of 2.4 to 14.3 kW and featuring a monobloc design, the Vitocal 222-A provides effective and efficient heating and cooling

The compact air/water heat pump unit in monobloc uses the environmentally friendly and cost-effective heat from the outside air



The Vitocal 222-A heat pump in monobloc design uses the heat contained in the outside air in an environmentally friendly and cost-effective way. It can heat and cool. The compact unit has an integrated 220 litre DHW cylinder.

#### **Innovative Advanced Acoustic Design**

The outdoor unit for the Vitocal 222-A follows the Advanced Acoustic Design (AAD), taking into account structural acoustic specifications. The result is barely audible. The high-quality and sound-optimised fan in combination with an intelligent speed control contributes significantly to the reduction of airborne

noise at full and partial load operation. Low frequencies, which are the most noticeable and problematic auditory sounds with conventional heat pumps, are largely avoided.

#### **Compact Monobloc Outdoor Units**

The new outdoor units are designed to blend appreciatively with all homes, with timeless styling. The single- or double-fan units are developed and manufactured in-house. In addition to excellent performance levels, they have exceptional workmanship and product quality.

#### **Particularly Quiet**

With a sound pressure level of only 35 dB(A) at a distance of three metres (night mode), the outdoor unit (single fan) of the new Vitocal 222-A air/water compact heat pumps is one of the quietest units of its type. Installation close to the neighbouring property or in densely built-up areas, such as terraced housing estates, is therefore no problem.



**COOLING  
FUNCTION**

Vitocal 222-A is certified according to the EHPA heat pump seal of approval.

**VITOCAL 222-A**  
2.4 to 14.7 kW

Vitocell 100-E heating water buffer cylinder with 42 litre capacity attached to the rear for systems with very low heat draw-off in summer and in the transitional period



**Fast Installation Time**

The compact indoor unit with hydraulics and controller is low-noise and can be installed close to the living space. The pipes connecting to the outdoor unit are filled with water, therefore, installation does not require the installer to hold F-gas refrigeration certification as it is a non-refrigerant circuit. Due to the high level of pre-installed components and matching accessories the Vitocal 222-A can be installed in a very short time.

**High level of DHW convenience**

The Vitocal 222-A is equipped with a large integrated 220-litre DHW cylinder and the newly developed inflow device ensures very good layering, allowing a high tap volume of up to 290 litres (at 40°C).

**Vitotronic 200 with WiFi option**

The heat pumps can even be controlled from anywhere using the Vitotronic 200 control unit via the Vitoconnect web interface (accessory) and the free ViCare app.

**VITOCAL 222-A BENEFITS**

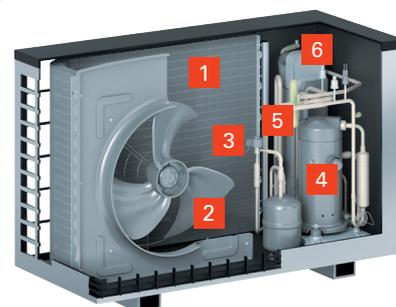
- + Heating and cooling in one unit thanks to reversible switching
- + Convenient cooling function thanks to three cooling circuits
- + High DHW convenience thanks to 220-litre DHW cylinder
- + Particularly quiet thanks to Advanced Acoustic Design (AAD), ideal for use even in terraced housing estates
- + High product quality and modern, timeless design
- + Monobloc indoor unit with high-efficiency circulation pump
- + 3-way changeover valve, safety group, control unit and integrated instantaneous water heater
- + Easy-to-operate Vitotronic control unit with plain text and graphic display
- + No refrigeration leakage test due to hermetically sealed refrigerant circuit
- + No minimum distances between indoor and outdoor unit
- + Optimised use of self-generated electricity from photovoltaic systems
- + Internet capability through Vitoconnect (accessory) and free ViCare app



**VITOCAL 222-A**

**Indoor Unit**

- 1 Instantaneous heating water heater
- 2 3-way diverter valve
- 3 Flow Monitor
- 4 Secondary pump (high-efficiency circulation pump)
- 5 Vitotronic 200 control unit
- 6 Enamelled DHW cylinder (220 litre capacity)



**Outdoor unit**

- 1 Coated evaporator with corrugated fins for increased efficiency
- 2 Power-saving, speed-controlled DC fan
- 3 Electronic expansion valve (EEV)
- 4 Speed-controlled scroll compressor
- 5 4-way reversing valve
- 6 Condenser

## Compact air/water heat pump unit: **VITOCAL 222-A** Monobloc Design

Vitocal 222-A	Typ	AWOT-M-E / AWOT-M-E-AC					
		221.A04	221.A06	221.A08	221.A010	221.A13	221.A16
<b>Voltage</b>	V	230	230	230	230	230	230
<b>Heat performance</b> data after EN 14511, A2/W35							
Coefficient of performance (COP)	kW	2.61	3.11	4.04	5.01	5.92	6.47
Output	kW	2.0 – 4.1	2.4 – 5.5	2.8 – 7.0	4.4 – 9.6	4.8 – 10.2	5.2 – 10.7
<b>Heat performance</b> data after EN 14511 A7/W35, Spread 5 K							
Coefficient of performance (COP)	kW	3.96	4.83	5.62	7.01	7.85	8.64
Output	kW	2.4 – 4.2	3.0 – 6.0	3.5 – 7.5	5.5 – 12.6	6.0 – 13.7	6.4 – 14.3
<b>Heating performance</b> data after EN 14511 A-7/W35,							
Coefficient of performance (COP)	kW	3.81	5.7	6.67	8.69	9.5	11.03
		2.91	2.91	2.89	3.14	3.07	2.83
<b>Cooling performance</b> data after EN 14511 A35/W18							
<b>Rated cooling capacity</b>	kW	4.0	5.0	6.0	7.0	8.2	9.2
Energy efficient ratio (EER)		4.2	4.2	4.3	4.1	3.95	3.8
<b>Refrigeration circuit</b>							
Refrigerant		R410A	R410A	R410A	R410A	R410A	R410A
- Filling quantity	kg	1.4	1.4	1.4	2.4	2.4	2.4
- Global Warming Potential (GWP) 1)		1924	1924	1924	1924	1924	1924
- CO2 equivalent	t	2.7	2.7	2.7	4.6	4.6	4.6
<b>Storage capacity</b>	Litre	220	220	220	220	220	220
<b>Dimensions indoor unit</b>							
Length (depth) x width x height	mm	681 x 600 x 1874					
<b>Outdoor unit dimensions</b>							
Length (depth)	mm	546	546	546	546	546	546
Width	mm	1109	1109	1109	1109	1109	1109
Height	mm	753	753	753	1377	1377	1377
<b>Weight</b>							
Indoor unit	kg	164	164	164	164	164	164
Outdoor unit	kg	102	102	103	145	145	145
<b>Energy efficiency class</b> according to EU Regulation No. 813/2013 (average climate conditions)							
- Low temperature application (W35)		A++	A++	A+++	A+++	A+++	A+++
- Medium temperature application (W55)		A+	A++	A++	A++	A++	A++
DHW heating, tapping profile (L)		A	A	A	A	A	A

<sup>1)</sup> Based on the 5th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

### PRODUCT FEATURES

- + Air/water heat pump compact unit (monobloc version): 2.4 to 14.3 kW (A7/W35)
- + Cooling function for a pleasant indoor climate in summer
- + Low operating costs due to high COP value (COP = Coefficient of Performance) according to EN 14511: up to 4.72 (A7/W35)
- + Power control and DC inverter for high efficiency in partial load operation
- + Maximum flow temperature: up to 60 °C at -10 °C outside temperature

**Your specialist partner**