



COMPACT DESIGN OF THE DATA LITICAL CO-STRUCTURE OF THE GAIS / UNDERSTRUCTURE

Split design heat pump  
with integrated hot water tank:  
**VITOCAL 222-S**



## Compact split air/water heat pump for new build or retrofit with integrated hot water tank for high hot water comfort



The Vitocal 222-S heat pump uses the heat in the outside air in an environmentally friendly and cost-effective way. It is available as a heating only unit or as a heating and cooling unit at the customer's choice.

### High level of hot water comfort 220

litre enamelled tank-type hot water heater, heated by an internal coil, compact

The Vitocal 222-S heat pump provides a high level of hot water comfort.



KEYMARK-certified heat pumps.



"Vitocal 222-S is certified according to the EHPA heat pump quality label.

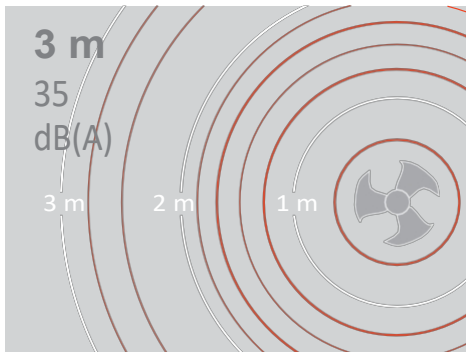
The indoor units, with their always-on design and width of just 60 centimetres, can be installed close to the living room (e.g. in the utility room). They include a hydraulic system, heat exchanger (condenser), hot water tank, high-efficiency pump, electric heating element for water heating, three-way diverter valve and Vitotronic 200 control unit.

### High energy efficiency - low running costs

The new heat pumps' outdoor units feature a scroll-type compressor and an asymmetrically dimensioned heat exchanger for high operating efficiency. The main feature of these heat exchangers is the significantly larger channel cross-sections on the water side than on the cooler side. This increases the heat transfer and reduces the energy consumption of the recirculation pump.

## VITOCAL 222-S

2,4 to 14,7 kW



Thanks to its extremely quiet operation, Vitocal 222-S is perfectly suited for use in terraced housing estates - only 35 dB(A) to the nearest neighbours.

### Increased efficiency - COP: up to 5.2 at A7/W35

Key components of the machine contribute to efficiency gains. These include a scroll-type compressor with controlled rotation speed, an asymmetric plate heat exchanger and an outdoor air evaporator with wave-shaped fins.

### "Vitotronic 200 with WLAN option

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

It can also be combined with Vitovent central ventilation units.

### "VITOCAL 222-S" PREVENTION

- + Reversible design provides a convenient heating solution and for cooling
- + Power regulation and DC inverter for high efficiency at part load
- + Compact indoor unit with 220 litre hot water tank, high efficiency circulation pump, condenser, 3-way diverter valve, electrical components, safety gear group and control unit
- + Easy-to-operate Vitotronic control unit with simple text and graphic display.
- + Optimised use of electricity generated by household photovoltaics
- + Advanced Acoustic Design (AAD) for extremely quiet operation
- + The appliance can be connected to the internet via the "Vitoconnect" interface (accessory) for control and maintenance operations in the Viessmann apps

### The quietest outdoor unit of this design

In line with acoustic specifications, Vitocal outdoor heat pump units comply with the principles of Advanced Acoustic Design (AAD).

The frequency range is optimised to shift low-frequency sounds to higher. There, these noises are perceived as less intrusive and better attenuated by the building structure.

Vitocal 222-S is therefore particularly suitable for use in densely built-up areas, such as terraced housing estates.



### VITOCAL 222-S

#### Indoor unit

- 1 Heating water instantaneous heater
- 2 Capacitor
- 3 3-way diverter valve  
"Heating/heating of drinking water"
- 4 Flow sensor
- 5 Secondary pump (high efficiency recirculation pump)
- 6 Control unit "Vitotronic 200"
- 7 Enamelled hot water tank (capacity: 220 litres)



### VITOCAL 222-S



#### External unit

- 1 Covered evaporator with wave-shaped slats for higher efficiency
- 2 Energy-saving, variable-speed DC fan
- 3 Inverter scroll type compressor
- 4 4-way diverter valve
- 5 Electronic expansion valve (EIV)

Viessmann SIA  
 Āraišu iela 37  
 Rīga, LV-1039  
 Phone 67 545292  
 E-mail: info@viessmann.lv  
[www.viessmann.lv](http://www.viessmann.lv)

## VITOCAL 222-S compact

air/water heat pump with  
split design

Vitocal 222-S	Tips	AWBT-M-E / AWT-M-E-AC			AWBT-E / AWBT-E-AC				
		221.C04	221.		221.C8 221.C010	221.C09	221.C10	221.C13	221.C16
<b>Voltage</b>	V								400
<b>Power parameters, heating</b> (according to EN 14511, A2/W35)									
Energy conversion coefficient $\epsilon$ (COP)	kW	2,6	3,1	4,0	5,0	7,3	5,9	6,3	7,0
Power adjustment	kW	3,6	3,7	4,0	4,0	4,3	4,1	4,0	3,9
<b>Power parameters, heating</b> (according to EN 14511, A7/W35)									
Energy conversion factor $\epsilon$ (COP)	kW	2,0 - 4,1	2,4 - 5,5	2,8 - 7,0	4,4 - 9,6	4,4 - 9,5	4,4 - 10,1	4,8 - 10,6	5,2 - 11,2
Power adjustment	kW	4,0	4,8	5,6	7,0	8,1	7,6	8,6	10,1
<b>Power parameters, heating</b> (according to EN 14511, A-7/ W35) Energy conversion coefficient $\epsilon$ (COP)	kW	4,6	4,6	4,7	4,7	5,2	5,0	4,9	5,0
Power adjustment	kW	2,4 - 4,2	3,0 - 6,3	3,5 - 7,5	5,5 - 12,6	5,0 - 11,6	5,5 - 12,6	5,9 - 13,7	6,4 - 14,7
<b>Power parameters, heating</b> (according to EN 14511, A-7/ W35) Energy conversion coefficient $\epsilon$ (COP)	kW	3,8	5,5	6,7	8,7	8,4	10,1	10,7	11,6
Power adjustment	kW	2,9	2,8	2,9	3,1	3,2	3,2	3,0	3,0
<b>Power parameters, cooling</b> (according to EN 14511, A35/ W18) <b>Rated cooling power Energy efficiency ratio (EER) in cooling mode</b>	kW	4,0	5,0	6,0	7,0	6,5	7,0	8,2	9,2
<b>Cooling circuit</b>		4,2	4,2	4,1	4,2	4,1	4,0	3,9	3,8
Refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
– Filling volume	kg	1,8	1,8	2,39	3,6	3,6	3,6	3,6	3,6
– Global warming potential (GWP) <sup>1)</sup>	t	1924	1924	1924	1924	1924	1924	1924	1924
– CO <sub>2</sub> -equivalent	t	3,5	3,5	4,6	6,9	6,9	6,9	6,9	6,9
<b>Reservoir capacity</b>	litres	220	220	220	220	220	220	220	220
<b>Indoor unit dimensions</b>									
Length (depth) x width x height	mm				681 x 600 x 1874				
<b>External unit dimensions</b>									
Length (depth)	mm	546	546	546	546	546	546	546	546
Width	mm	1109	1109	1109	1109	1109	1109	1109	1109
Height	mm	753	753	753	1377	1377	1377	1377	1377
<b>Weight, indoor unit</b>	kg	169	169	169	170	170	170	170	170
<b>Weight, outdoor unit</b>	kg	94	94	99	137	148	148	148	148
<b>Energy efficiency class</b> <sup>2)</sup>		A++ / A+	A++ / A++	A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++
<b>Domestic hot water profile</b>		L	L	L	L	L	L	L	L
<b>Energy efficiency class</b>		A	A	A	A	A	A	A	A

<sup>1)</sup> With reference to the IPCC AR5

<sup>2)</sup> Energy efficiency class according to EU Regulation No 813/2013 "Heating, average climatic conditions - low temperature operation (W35) / medium temperature operation (W55)"

### PRODUCTION

- + Split design air/water heat pump at a competitive price
- + High COP value ensures low operating costs  
(COP= Coefficient of Performance) according to EN 14511: up to 5,2 (A7/ W35)
- + The integrated 220 litre hot water tank ensures a high level of hot water comfort
- + Maximum flow temperature: up to 60 °C

Your trading partner