

Datasheet

Part no. and prices: see pricelist



**VITORONDENS 200-T** Type BR2A

20.2 to 53.7 kW  
**Cast iron low temperature oil boiler with condensing heat exchanger**  
 With Vitoflame 300 blue flame oil burner (20.2 to 53.7 kW). Suitable for **open** and **balanced** flue operation with fuel oil DIN 51603-1 EL standard, **low sulphur** fuel oil DIN 51603-1 EL and fuel oil DIN 51603-6 EL A Bio 10: Suitable for **low sulphur** fuel oil EL with up to **10 %** biocomponents (FAME).

**VITORONDENS 200-T** Type J2RA

67.6 to 107.3 kW  
**Cast iron low temperature oil boiler with condensing heat exchanger**  
 With Vitoflame 300 blue flame oil burner (67.6 to 107.3 kW). Suitable for **open** flue operation with fuel oil DIN 51603-1 EL standard, **low sulphur** fuel oil DIN 51603-1 EL and fuel oil DIN 51603-6 EL A Bio 10: Suitable for **low sulphur** fuel oil EL with up to **10 %** biocomponents (FAME).

## Vitorondens 200-T, type BR2A

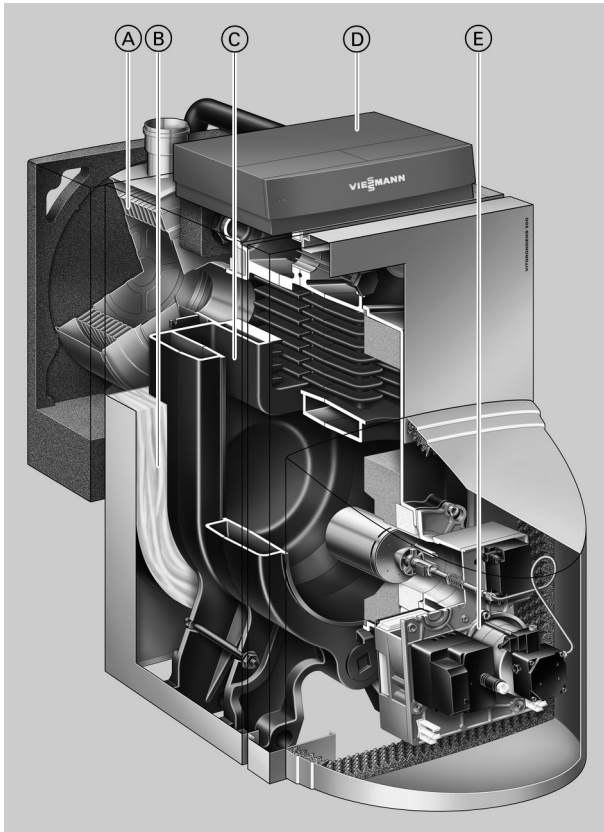
The Vitorondens 200-T is an advanced cast iron oil condensing boiler at an attractive price.

The sectional cast iron Eutectoplex heating surface guarantees high operational reliability. By ensuring an even heat flux, stress fractures are virtually eliminated. The wide water galleries prevent sedimentation and boiling noises.

Flexible gaskets permanently seal the individual sections on the hot gas side. The horizontal layout of the hot gas flues also permits thorough and easy cleaning of the boiler.

The corrosion-resistant stainless steel Inox-Radial heat exchanger downstream ensures an efficient heat recovery, with residue-free condensation of the flue gases.

The Unit blue flame oil burner stands for particularly clean, environmentally responsible and efficient combustion.



- Ⓐ Inox-Radial heat exchanger
- Ⓑ Highly effective thermal insulation
- Ⓒ Eutectoplex heating surface made from homogeneous special cast iron
- Ⓓ Digital Vitotronic boiler control unit
- Ⓔ Vitoflame 300 Unit oil burner

- Standard seasonal efficiency [to DIN] up to 97 % ( $H_s$ ) [gross cv] / 103 % ( $H_i$ ) [net cv].
- Eutectoplex heating surface for high operational reliability and a long service life.
- Cast sections with flexible gaskets for permanent hot gas tightness.
- Corrosion-resistant stainless steel Inox-Radial heat exchanger.
- JetFlow system for optimum heating water distribution.

- Easy to use Vitotronic control unit with plain text and graphic display.
- All commercially available EL-type fuel oils can be used. Also for fuel oil DIN 51603-6-EL A Bio 10: Low sulphur fuel oil EL with up to 10 % biocomponents (FAME).
- Quiet operation thanks to external silencer.
- Horizontal hot gas flue layout enables straightforward and affordable maintenance.

## Specification, type BR2A, 20.2 to 53.7 kW

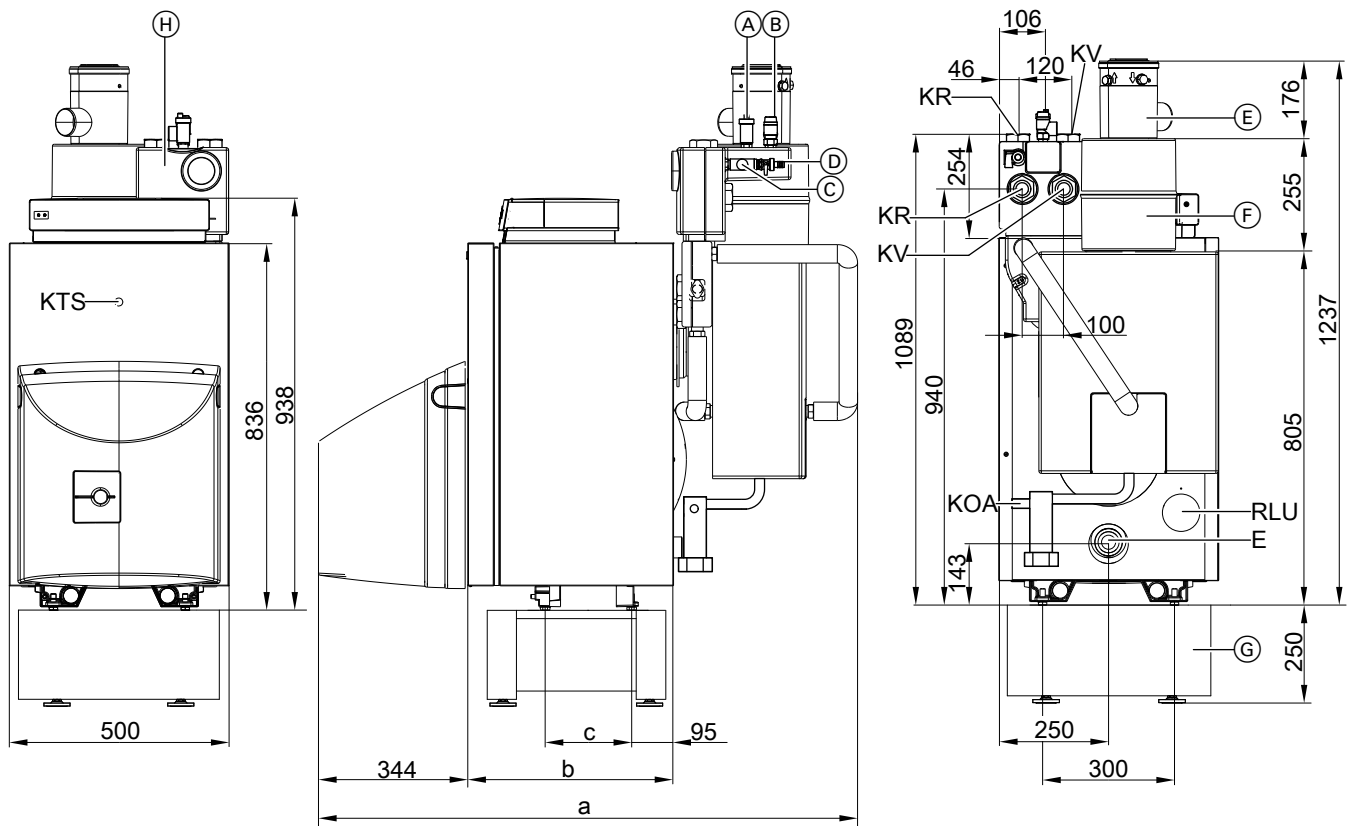
Rated heating output							
$T_F/T_R = 50/30\text{ °C}$	kW	20.2	24.6	28.9	35.4	42.8	53.7
$T_F/T_R = 80/60\text{ °C}$	kW	18.8	22.9	27	33	40	50
<b>Rated heat input</b>	kW	19.6	23.9	28.1	34.4	41.6	52.1
<b>Product ID</b>		CE-0035CL102					
<b>Transport dimensions</b> (incl. thermal insulation)							
Length	mm	508	508	645	645	782	782
Width	mm	360	360	360	360	360	360
Height	mm	766	766	766	766	766	766
<b>Overall dimensions</b>							
Total length (incl. heat exchanger and thermal insulation)	mm	1226	1226	1362	1362	1662	1662
Total width	mm	500	500	500	500	500	500
Total height	mm	940	940	940	940	940	940
Plinth height	mm	250	250	250	250	250	250
Height (installed below the boiler)							
DHW cylinder							
– Capacity 130 to 200 l	mm	654	654	654	654	654	654
– Capacity 350 l	mm	–	–	786	786	786	786
<b>Weight, boiler body</b>	kg	89	89	120	120	152	152
<b>Total weight</b>	kg	147	147	184	184	224	224
Boiler with thermal insulation, heat exchanger, burner and boiler control unit							
<b>Content boiler</b>	l	27	27	35	35	44	44
<b>Content boiler water</b>	l	32	32	40	40	52	52
<b>Permiss. operating pressure</b>	bar	3	3	3	3	3	3
	MPa	0.3	0.3	0.3	0.3	0.3	0.3
<b>Boiler connections</b>							
Boiler flow and return	G	1½	1½	1½	1½	1½	1½
Safety connection (Safety valve at the safety equipment block)	G	1½	1½	1½	1½	1½	1½
Drain outlet	G	1½	1½	1½	1½	1½	1½
Condensate drain	∅ mm	20	20	20	20	20	20
<b>Flue gas parameters*3</b>							
Temperature at							
– 30 °C return temperature	°C	32	34	37	39	36	40
– 60 °C return temperature	°C	62	63	65	67	64	67
Mass flow rate for fuel oil EL	kg/h	31	38	46	56	68	85
<b>Standard seasonal efficiency [to DIN]</b> at heating system temp. 50/30 °C	%	97 (H <sub>s</sub> ) [gross cv] / 103 (H <sub>i</sub> ) [net cv]					
<b>Flue outlet</b>	∅ mm	80	80	80	80	100	100
<b>Ventilation air connection</b>	∅ mm	80	80	80	80	80	80
<b>Boiler gas content</b>	l	27	27	39	39	51	51
<b>Available draught*4</b>	Pa	100	100	100	100	100	100
	mbar	1.0	1.0	1.0	1.0	1.0	1.0
<b>Sound power level</b> (to EN ISO 9614-2)							
– in balanced flue operation	dB(A)	60					
– in open flue operation	dB(A)	63					

\*3 Values for calculating the size of the flue system to EN 13384 relative to 13 % CO<sub>2</sub> for fuel oil EL.

Flue gas temperatures as an average gross value to EN 304 at 20 °C combustion air temperature.

\*4 Observe when sizing the chimney.

**Specification, type BR2A, 20.2 to 53.7 kW (cont.)**

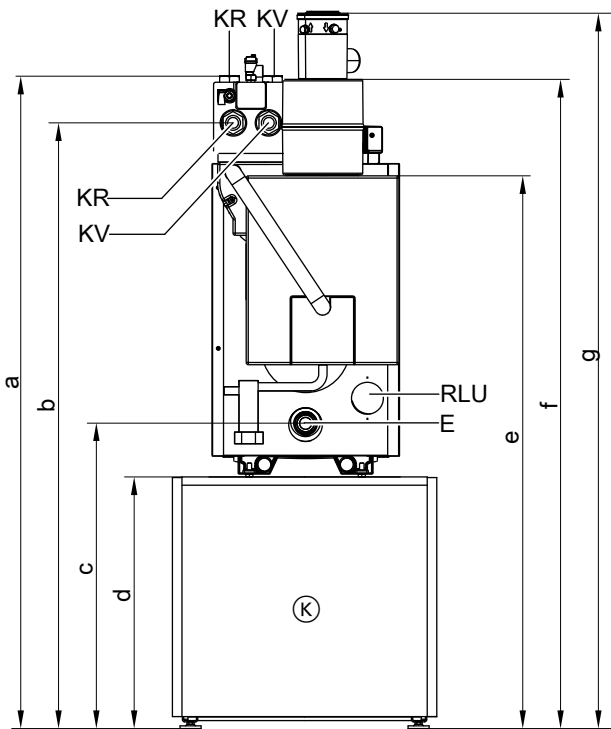


- (A) Air vent valve
- (B) Safety valve
- (C) Diaphragm expansion vessel connection
- (D) Fill valve
- (E) Boiler flue connection
- (F) Silencer
- (G) Plinth
- (H) Safety equipment block (accessory)
- E Drain outlet
- KTS Boiler water temperature sensor
- KV Boiler flow
- KR Boiler return
- RLU Ventilation air connection for balanced flue operation
- KOA Condensate drain

**Dimensions**

Rated heating output	kW	20.2	24.6	28.9	35.4	42.8	53.7
a	mm	1226	1226	1362	1362	1663	1663
b	mm	469	469	606	606	778	778
c	mm	200	200	334	334	468	468

## Specification, type BR2A, 20.2 to 53.7 kW (cont.)



- (K) Vitocell 100-H or 300-H  
(For specification see chapter "DHW cylinder")  
E Drain outlet and diaphragm expansion vessel

- KR Boiler return  
KV Boiler flow  
RLU Ventilation air connection for balanced flue operation

### Dimensions

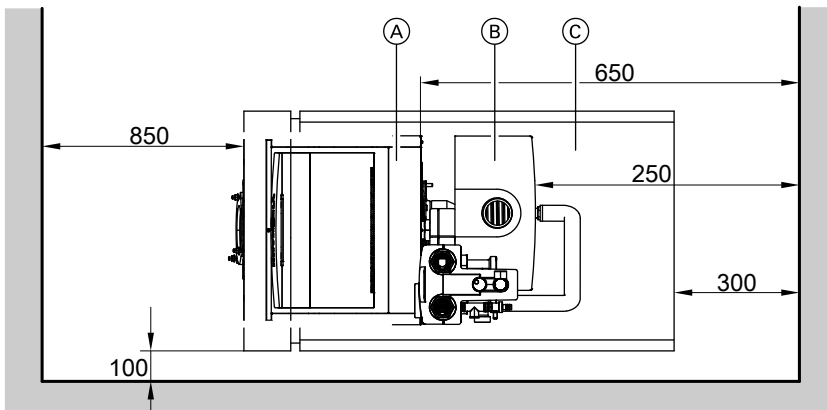
Rated heating output	kW	20.2	24.6	28.9 and 35.4		42.8 and 53.7	
With DHW cylinder below the boiler	l	130 to 200	130 to 200	130 to 200	350	160 and 200	350
a	mm	1743	1743	1743	1875	1743	1875
b	mm	1594	1594	1594	1726	1594	1726
c	mm	797	797	797	929	797	929
d	mm	654	654	654	786	654	786
e	mm	1459	1459	1459	1591	1459	1591
f	mm	1714	1714	1714	1846	1714	1846
g	mm	1891	1891	1891	2023	1891	2023

### Information on the Vitorondens 200-T up to 35.4 kW when using a DHW cylinder installed below the boiler:

To reduce the installed height, the boiler can be provided with accessories for horizontal balanced flue operation (the accessories comprise an 87° flue bend and a suitable boiler flue connection).

## Specification, type BR2A, 20.2 to 53.7 kW (cont.)

### Minimum clearances



- Ⓐ Boiler
- Ⓑ Heat exchanger
- Ⓒ DHW cylinder

## Specification, type J2RA, 67.6 to 107.3 kW

<b>Rated heating output</b>				
$T_F/T_R = 50/30\text{ °C}$	kW	67.6	85.8	107.3
$T_F/T_R = 80/60\text{ °C}$	kW	63	80	100
<b>Rated heat input</b>	kW	65.6	83.3	104.2
<b>Product ID</b>		CE-0035CL102		
<b>Transport dimensions</b>				
Length	mm	694	694	694
Width	mm	480	480	480
Height	mm	935	935	935
<b>Overall dimensions</b>				
Total length (incl. heat exchanger and thermal insulation)	mm	1704	1704	1704
Total width	mm	600	600	600
Total height	mm	1149	1149	1149
Plinth height	mm	250	250	250
<b>Weight, boiler body</b>	kg	237	237	237
<b>Total weight</b>	kg	348	348	348
Boiler with thermal insulation, heat exchanger, burner and boiler control unit				
<b>Content boiler</b>	l	63	63	63
<b>Content boiler water</b>	l	76	76	76
<b>Permiss. operating pressure</b>	bar	3	3	3
	MPa	0.3	0.3	0.3
<b>Boiler connections</b>				
Boiler flow and return	G	2	2	2
Safety connection (Safety valve at the safety equipment block)	G	1½	1½	1½
Drain outlet	G	1½	1½	1½
Condensate drain	∅ mm	20	20	20
<b>Flue gas parameters<sup>*3</sup></b>				
Temperature at				
– 30 °C return temperature	°C	38	38	38
– 60 °C return temperature	°C	59	58	61
Mass flow rate for fuel oil EL	kg/h	107	136	170
<b>Standard seasonal efficiency [to DIN]</b> at heating system temp. 50/30 °C	%	97 (H <sub>s</sub> ) [gross cv] / 103 (H <sub>i</sub> ) [net cv]		
<b>Flue outlet</b>	∅ mm	100	100	100
<b>Boiler gas content</b>	l	82	82	82
<b>Available draught<sup>*4</sup></b>	Pa	100	100	100
	mbar	1.0	1.0	1.0

### Note

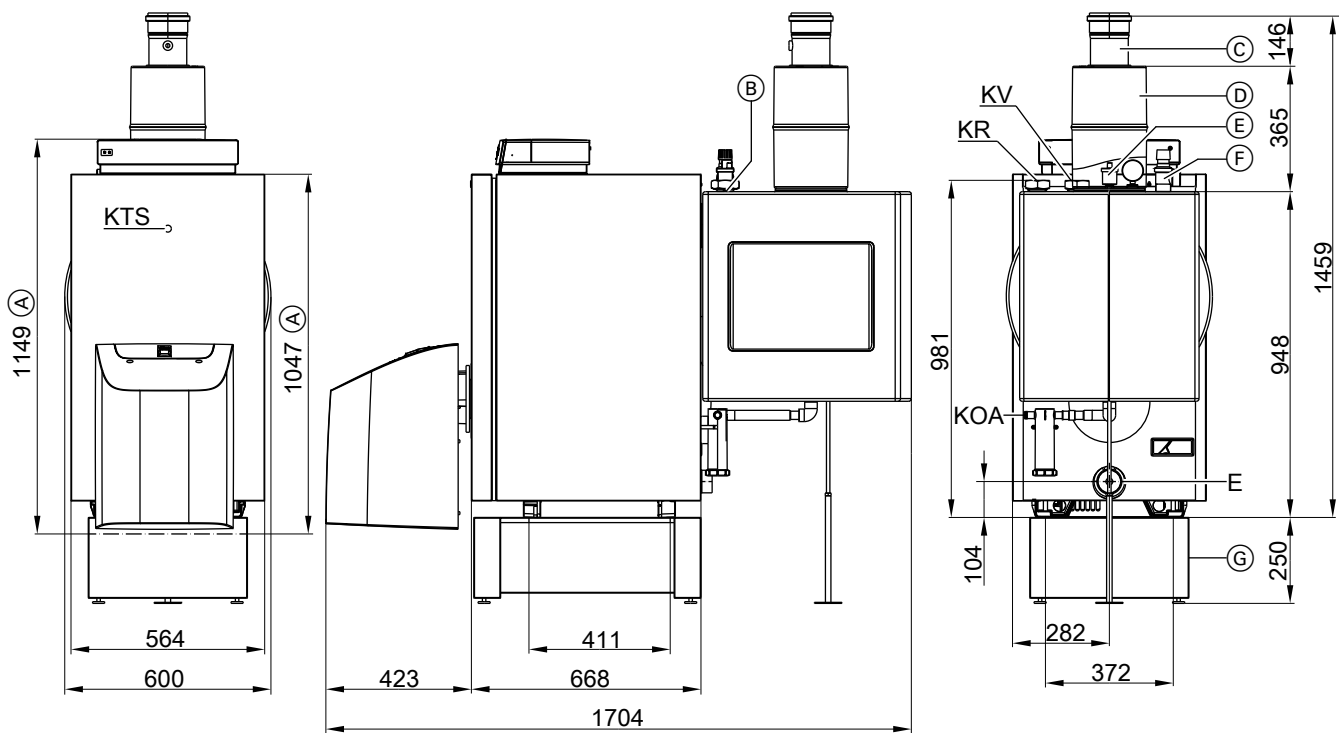
Vitorondens 200-T, type J2RA, should be provided with sound attenuation if sited near rooms that are sensitive to noise. A connection set for balanced flue operation will be available from late 2013. This will significantly reduce noise emissions.

<sup>\*3</sup> Values for calculating the size of the flue system to EN 13384 relative to 13 % CO<sub>2</sub> for fuel oil EL.

Flue gas temperatures as an average gross value to EN 304 at 20 °C combustion air temperature.

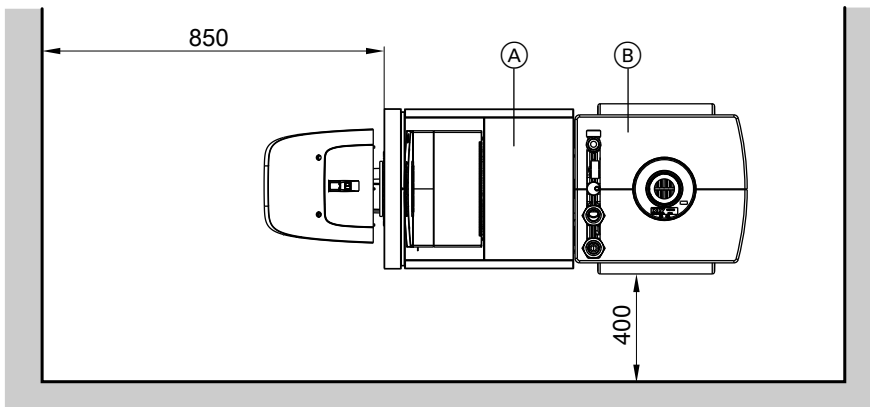
<sup>\*4</sup> Observe when sizing the chimney.

## Specification, type J2RA, 67.6 to 107.3 kW (cont.)



- |   |                                     |
|---|-------------------------------------|
| (A) Dimension incl. adjustable feet (when installing without plinth)    | (G) Plinth                          |
| (B) Boiler flow/return distributor with integral safety equipment block | E Drain outlet                      |
| (C) Boiler flue connection  | KTS Boiler water temperature sensor |
| (D) Silencer  | KV Boiler flow                      |
| (E) Air vent valve  | KR Boiler return                    |
| (F) Safety valve  | KOA Condensate drain                |

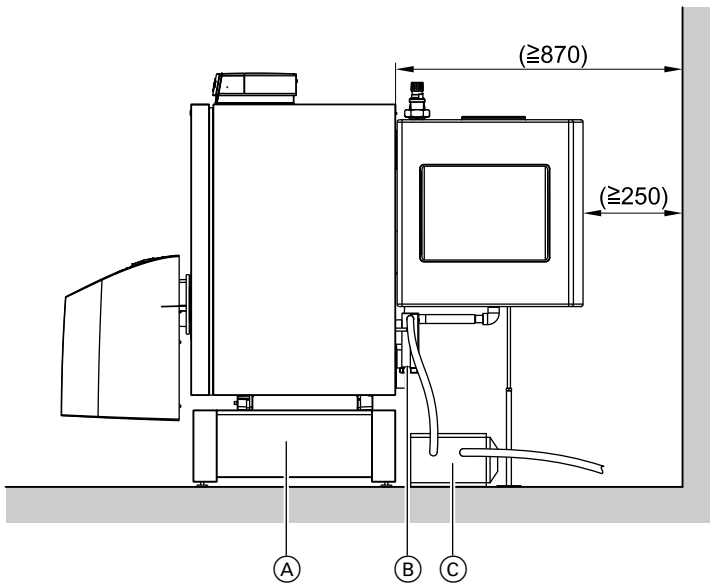
### Minimum clearances



- |                    |
|--------------------|
| (A) Boiler         |
| (B) Heat exchanger |



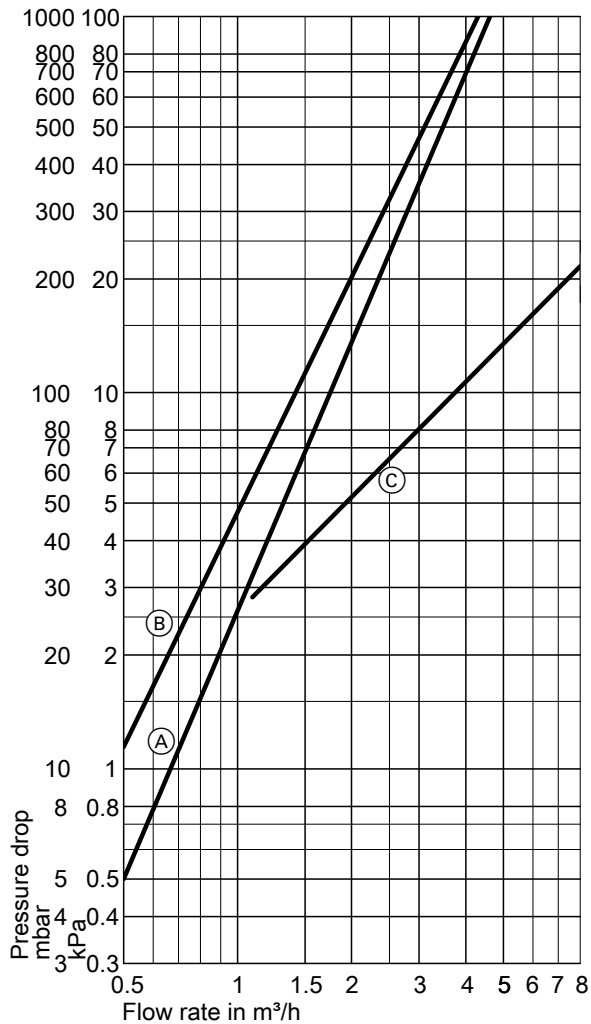
Specification, type J2RA, 67.6 to 107.3 kW (cont.)



- (A) Plinth (accessory)
- (B) Siphon
- (C) Neutralising system (accessory)

## Specification

### Pressure drop on the heating water side



- Ⓐ For 20.2 to 35.4 kW
- Ⓑ For 42.8 and 53.7 kW
- Ⓒ For 63.7 to 107.3 kW

The Vitorondens 200-T is only suitable for fully pumped hot water heating systems.

Subject to technical modifications.

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